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Preserving Marvels of Fandom: Constructing the Context of Marvel Cinematic Universe Fandom on Reddit and Tumblr

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Preserving Marvels of Fandom

CONSTRUCTING THE CONTEXT OF MARVEL CINEMATIC UNIVERSE FANDOM ON REDDIT AND TUMBLR

Fan engagement on social media platforms presents significant challenges for digital preservation due to its dynamic character, spurred by the platforms' data-generative and algorithmic features and commercial logic. These characteristics pose problems when capturing information about the context of fan engagement. If included in preservation, information about context could help shed light on fans' creations and is crucial for future access, use and interpretation of the preserved material. Against this backdrop, this thesis provides a deepened understanding of preserving digital fan culture, specifically fan engagement on platforms, by focusing on how to construct context. The thesis develops two key archival concepts of provenance (e.g., the contextual origins) and appraisal (e.g., what is valuable to preserve), starting with how fans make meaning through their creation and use of information in the MCU fan communities on Reddit and Tumblr.

From a sociomaterial outlook and through ethnographic methods, the thesis explores the entanglement of fans and platforms expressed in various information activities among fans and their implications for constructing context. The thesis illustrates the multifaceted and evolving character of how fans make meaning in their activities, which is entangled with the platforms' technological capabilities and commercial logic. The thesis's contributions rest in proposing the concepts of cutting and binding context, which reconceptualize the notion of context for the archival concepts of provenance and appraisal, by accounting for the inseparability of the social and technological in fan engagement as it evolves over time.

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PRESERVING MARVELS OF FANDOM

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Constructing the Context of Marvel Cinematic Universe Fandom on Reddit and Tumblr

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1. Introduction

One of my earliest memories of having a computer and internet connection was spending time at Hogwarts.nu, a Swedish discussion board for Harry Potter fans. Aside from playing various mini-games (such as searching for coins or clearing away garden gnomes), I spent a lot of time designing my profile using basic HTML, discussing various topics in the so-called "common ground" (the website's forum), and reading fan fiction (even trying to write my own). These interactions between my peers and me at Hogwarts. nu left traces in the form of posts and comments, which, in preserved form, could shed light on what it was like being a Harry Potter fan at Hogwarts. nu. However, not everything that fans do, say or leave behind must be preserved. To understand what should be preserved, information about *context* is crucial. Context sheds light on the environment, setting or circumstances in which a phenomenon occurs, such as the fan community of Hogwarts.nu. Here, context could help clarify the meaning of the traces according to the fans who created them. Although the context may be clear to those involved at the time, it becomes much harder for outsiders to understand once time has passed, and only traces remain. Thus, I emphasize the importance of developing ways to identify information about context that can enrich future understandings of fans through preserved materials. Because many fans spend their time on social media platforms, these modes of participation in fan culture become crucial to examine in relation to preservation. Against this backdrop, this study examines the preservation of digital fan culture on social media platforms. I focus on defining and delineating what information about context is necessary to include in preservation. To understand which information is necessary, I argue that emphasis must be placed on fan culture in the making, namely, focusing on what fans do, how they do it, and by what technological means.

Being a fan takes a lot of time and effort. What makes these investments of time and effort meaningful is fan engagement. By fan engagement, I am referring to the fans' interactions with one another, as well as with media products. This engagement in its collective form becomes the core component in establishing fan communities, and, in large part, the making of fan culture, specifically, fandom: the collective ideas, customs and social behaviour of fans tied to a specific media property (Duffett, 2015; Jenkins, 2013 [1992]). What Harry Potter was for me and many peers in my generation can be likened to the fandom of the ongoing superhero franchise, Marvel Cinematic Universe (MCU), during the past two decades. MCU fandom stands out among other large because it continues to evolve alongside the changing franchise. The fandom can change from year to year, depending on which movies and TV shows are being released. The fandom is multifaceted and dynamic, similar to the Marvel Universe itself, where fans are entertained and find solace and meaning in the superheroes' efforts to save the world (while also trying to handle societal conflicts and their personal issues).

In this thesis, I study the preservation of digital fan culture as expressed through MCU fan engagement on social media platforms. The preservation of MCU fandom is crucial, as it represents one of the most prominent fandoms of the present, but also because MCU fandom reflects broader societal trends expressed through digital technologies. Online fan engagement reveals how fan culture is expressed through digital technologies. This engagement also highlights innovative ways of using, interpreting, and negotiating media properties that have become widely adopted in digital culture as a whole. As Line Nybro Petersen (2022, p. 1) points out, digital and fan cultures are better understood "as a complex web of mutual influences and modes of participation". In this regard, examining preservation issues tied to digital fan culture also provides insights into preserving digital cultural participation.

Through fan engagement on social media platforms, we can gain insight into how people individually and collectively perceive, navigate, and interpret the world through media and digital technologies. Thus, as much as my study focuses on preserving digital fan culture, it is also an investigation into preserving modes of participation that emerge through digital

technologies. Alongside fans, social media platforms are also part of my study's focus, as much of fan engagement and everyday engagement with information emerge on platforms. In particular, I examine fan engagement in two MCU fan communities on Reddit, a bulletin board forum, and Tumblr, a microblogging platform. Reddit and Tumblr are platforms where fan culture is sprawling, but they are also important players in shaping digital culture.

Although fans existed before the internet and digital technologies, like social media platforms, these technological means have lowered the threshold for fans to access information, find like-minded people, and form fan communities. For me, getting in touch with other fans through Hogwarts.nu opened new ways to understand the Harry Potter books and movies and acted as a creative outlet. Hogwarts.nu was quite rudimentary compared to what is now available for fans via social media platforms. Today's cultural expressions are often substantially datafied and intimately interwoven with digital technologies, as they are mostly networked and involve configurations of different media, formats, platforms, software and people. With just a few clicks, people can access a plethora of information and establish connections with people across the globe. People can engage in activities such as watching a vlog on YouTube, reading others' opinions about the latest episode of a TV show, or watching an old, newly digitized film. People can also upload content for others to view, comment on, or share.

Whilst social media platforms present several possibilities, platform users must also make concessions, as the platforms collect, accumulate, algorithmically process and monetize data based on user engagement (Poell et al., 2019, p. 3). The platforms impose several conditions for fans' engagement, impacting how fans create, use, share and access information, shaped by the platforms' technological capabilities and commercial interests. Access is not only made by fans and other users, but the platforms also provide data access to a myriad of third-party actors, including advertisers, developers and data brokers, as well as journalists, researchers and preservation initiatives (Kriesberg & Acker, 2022). These aspects of the platforms are also crucial to account for when preserving digital fan culture, as they discern the conditions shaping how fan engagement takes form, which I address in my study.

Among fans, there is a tradition of preserving the creative outputs from fan engagement: fan drawings, fan fiction and other works (e.g., De Kosnik, 2016; De Kosnik et al., 2015; Neece, 2022; Price, 2019), but less attention has been paid to fan engagement itself (e.g., Drouin, 2021; Lothian, 2011). Very little is currently known about preserving aspects of fan culture related to fan engagement. Aside from their creations, fans leave traces in the form of posts, comments, and data that can be preserved. However, information about the traces' context, specifically how fans undertake their daily engagements on social media platforms, is equally important. Information about these fan engagements can contribute to a richer contextual understanding of the fans' creative outputs and fan culture in general. In this thesis, I address the lack of knowledge about preserving fan culture, specifically fan engagement. Starting from notions of context in archival research, I examine what information about context is required to facilitate representations of fan engagement on social media platforms that can enrich the archives and collections dedicated to their preservation.

I understand preservation as selecting, keeping and facilitating long-term access to what Marcia Bates (2006) refers to as *recorded information*, enabling future use and interpretation. With recorded information, I am referring to information recorded in various media. Successful preservation makes recorded information retrievable and understandable in meaningful ways. A long line of studies has shown that this, crucially, requires—beyond the object or document or image to be preserved in itself—capturing *context information*. I understand context information as information about the conditions of the recorded information's creation and use, which is constructed and operationalized theoretically through two key archival concepts: *provenance* and *appraisal*. Provenance refers to the original context in which the recorded information was created (e.g., Faniel et al., 2019; Huvila, Greenberg, et al., 2021; Theimer, 2012), and appraisal entails identifying what recorded information is valuable to preserve for the future (Cook, 2011). By selecting what to preserve and leave behind, context becomes defined and delineated in terms of the preserved material's scope and content, shaping what becomes part of the archives.

What remains unclear is which information adequately describes context in different domains and how this information can be identified. It

can vary from setting to setting and from one preservational objective to another. Context information can be extracted from documented routines, tasks and roles in more nominally structured and prescriptive environments such as businesses, organizations and institutions (Huvila, 2022; Sköld et al., 2022). In comparison, there are fewer documented prescriptions for extracting context information from social and "leisure" domains of life and settings enabled by digital technologies. In my study, I focus on what fans do on the platforms to provide insights into identifying context information in the less formal domains of life. Insights into fan engagement on platforms help to reveal what is considered meaningful context information to account for when preserving fan culture. To take on this task, I start from how fans make meaning on social media platforms. I define fans' meaning-making as a shared cultural understanding of the MCU franchise among the fans, as expressed in and through fan communities on social media platforms. This meaning-making shapes how fans perceive themselves, both as individuals and as participants in fan communities, while also highlighting the influence of social media platforms on these experiences. Understanding fans' meaning-making is key to conveying crucial context information when preserving fan culture.

Information on social media platforms is notably challenging to preserve. The digital technologies present in everyday engagements with information, not least among fans, make the questions concerning context more difficult as these environments are dynamic and ever-changing (see also Acker & Kriesberg, 2020; Thomson & Kilbride, 2015). Pinpointing how fans engage and what makes their engagement meaningful is challenging, as there are differences in fan culture, across fan communities, fandoms and platforms. Throughout this thesis, I emphasise the importance of examining the roles of digital technologies, such as social media platforms, in preserving digital fan culture and identifying the necessary context information to include. To do this, I focus on fans' *information activities* on social media platforms, specifically how fans create, use, access and share information, which is recorded in various forms such as engagement data, posts and comments.

My study has two focal points: preserving fan culture *and* fans' meaning-making as expressed in their information activities on the platforms.

The empirical insights I gain from examining fans' information activities help me conceptually address the preservation of fan culture by defining what context information is necessary to include. These insights highlight the need to develop the notion of context in preservation, particularly in relation to digital technologies. This understanding is crucial to ensure that the recorded information and the modes of participation it represents in fan- and digital cultures remain comprehensible in the future.

In search of context

A few years into my adventures at Hogwarts.nu, I increasingly lost interest in Harry Potter and forgot about logging into the discussion board. Hogwarts.nu was closed in 2006. In the form of snapshots, Hogwarts.nu is preserved and can be accessed through the Internet Archive's Wayback Machine. However, the preserved version of Hogwarts.nu comprises fragments, which are predominantly scraped from the website's start page and include broken links.

Aside from traces of fan websites spread across the Wayback Machine, preservation efforts are also made by actors, like the Archive Team, a digital preservation and web archiving group that has set forth to preserve web-based information at risk of being removed or taken offline (Ogden, 2022). Several dedicated efforts have also been made to preserve fan culture, including Archive of Our Own (Ao3): one of the largest fan-fiction repositories in the present, created by the fan-driven Organization of Transformative Works (OTW) (De Kosnik, 2016; Fathallah, 2020; Price, 2019). A few institutionally based preservation efforts related to fans also exist, such as the "Fan Culture Preservation Project" at the University of Iowa, in collaboration with OTW, which focuses on collecting and digitizing non-digital fan memorabilia. Building on these efforts, I argue that the current focal points in fan culture preservation should also be broadened to address fan engagement on social media platforms.

In Chapter 2, I bring forward that there are preservation efforts made by smaller online fan archives that operate on platforms or as websites. These archives focus on preserving fan work and documenting specific events, discourses, and resources surrounding the product in which fans

are invested (Asokan, 2021; Einwächter, 2015; Neece, 2022; see also Fanlore, 2024). Many fan-driven preservation efforts are artefact-based, focusing predominantly on creations made by fans, such as fan fiction, fan art, and other creative outputs. In comparison, only a few studies have examined preservation tied to fan engagement per se. The studies on fan engagement have often focused on how particular aspects of fan culture (e.g., controversies and negative fan behaviour) must be preserved (Drouin, 2021; Lothian, 2011). While these studies' efforts are important steps in understanding the preservation of fan culture, I argue that this area remains under-explored. In particular, there is a lack of knowledge about preserving fan engagement, especially in relation to the social and technological conditions of contemporary fan culture.

In contrast, I also highlight in Chapter 2 the preservation of cultural participation in digital culture, as explored in greater detail in relation to videogame communities (e.g., Antonescu et al., 2009; Lowood, 2004; McDonough et al., 2010; Newman, 2012; Sköld, 2018a). For example, Olle Sköld's (2018a) doctoral thesis examines preservation from the perspective of videogame communities' documentary practices on platforms. His study explores how community participants actively collect experiences and stories related to videogames as part of their memory-making and knowledge production. However, these studies' insights leave the platforms' technological conditions and their effects on preservation unstated. Sköld highlights the importance of future research into similar efforts to account for temporal aspects of change and evolvement of the communities in preservation (Sköld, 2018a, p. 132; see also Pearce, 2010). The ways in which fans create, use, access and share information on platforms are dynamic and ever-changing, making it essential to consider temporal aspects when preserving digital fan culture. Building on Sköld's call, my thesis focuses on the temporal aspects of change and evolvement in online fan engagement as a crucial category of context information.

Researchers focused on archival concerns highlight that, due to platforms' dynamic and changing character, there are significant challenges in capturing information about the context for future use and understanding (e.g., Acker & Kriesberg, 2020; Glassman, 2020; Thomson, 2016; Thomson & Kilbride, 2015). As Amelia Acker and Adam Kriesberg (2017, p. 2) point

out: "understanding these data once they have been extracted is still a be-spoke process that requires the re-construction of context contained within the original platform". Preservation techniques like web archiving and data extraction via social media platforms' application programming interfaces (APIs) come with several challenges. These challenges include handling dynamic content, copyright-protected material, users' information privacy, and proprietary data formats due to the platforms' evolving designs and changing terms and conditions for data access (Acker & Kriesberg, 2017; Thomson, 2016). Overall, there is limited research to date on the preserva-tion challenges that specifically address capturing context and how to iden-tify information about it. In this thesis, I provide insights into these issues by exploring what context information is needed, with a focus on the dy-namic and evolving character of fan engagement on social media platforms.

Aside from its dynamic and evolving character, the challenges of pre-serving digital fan culture also stem from knowing which traces are mean-ingful to keep. The platforms' technological capabilities become meaning-ful in particular ways for the MCU fan communities in light of their fan engagement. These aspects of fans' meaning-making are not necessarily captured in the fan communities' posts, comments, and data. Information on how fan engagement takes form on the platforms is needed. Taking recorded information from these settings risks losing meaning as they are contextually dependent on the platform's features and design. Thus, I pay particular attention to understanding context by starting from what fans, as part of fan communities, do through technology and how technology is meaningful in fan community settings.

I take a practice-based approach to understand how MCU fan engage-ment becomes meaningful as expressed in fans' daily information activities on the platform. As I discuss in Chapter 3, where I present the thesis's theoretical framework, to approach the qualitative context of fans' mean-ing-making, I perceive fans' information activities on platforms as a con-stitutive part of *fan practices*. Through fan practices, fans' daily activities of creating, using, sharing and accessing information on the platforms be-come meaningful. These activities become part of how fans identify them-selves as part of the fandom and their perception of what they can do as platform users. In this regard, what fans do with recorded information on

social media platforms offers observable empirical entry points into their meaning-making processes, while also shedding light on broader modes of digital cultural participation. I understand fan practices as *sociomaterial* (e.g., Gherardi, 2016; Introna, 2013), such that fans' meaning-making is constituted in the entanglement of their social interactions and the platforms' technological capabilities.

As the platforms are constituted of technological capabilities and the presence of various third-party actors, I approach the sociomaterial conditions of fans' information activities as an *infrastructure* enacted in and through fan practices (e.g., Gherardi, 2019; Haider & Sundin, 2019, 2023). I denote the various actors (e.g., human actors like fans themselves, third-party developers and advertisers, as well as technological actors like algorithms and third-party applications), activities (e.g., what these actors do) and recorded information (e.g., content and data) that support fans' daily activities as an infrastructure to analytically specify how the platforms' technological and commercial aspects are involved in fans' meaning-making. By drawing on a sociomaterial understanding of practices and infrastructure, my study offers insights into how fan engagement on platforms plays into fans' meaning-making and shapes fan culture. The insights into fans' meaning-making further fuel the development of preserving fan culture beyond artefact-based understandings that focus predominantly on fans' creations. Instead, I advocate for attending to what fans do on the platforms, particularly *how* information is created and used on social media platforms.

Constructing context

As I discuss further in Chapter 2, archival researchers, archivists, and others engaged in the discipline of information studies have long grappled with the challenges of grasping the context of records and other preservational objects. I focus on notions of context, as discussed in archival research and that are operationalized in archival practice through the two key archival concepts: provenance and appraisal, as I mentioned previously. Notions of provenance in archival research and practice define the contextual origin of the recorded information, and how it was created and

organized according to its creator (Edquist, 2021, p. 103). This contextual knowledge guides archivists in describing and arranging their archival holdings to ensure the material's evidential value (Trace, 2020). The archival description and arrangement create representational points of access to the archive (Zhang, 2018). As understood by archival practitioners and researchers, the notion of appraisal entails identifying what recorded information has significant value and should be preserved for the future (Anderson et al., 2015). The notions of provenance and appraisal are closely intertwined, where appraisal contributes to defining the scope of relevant material to preserve. Simultaneously, appraisal also shapes where context begins and ends in terms of what material is actually preserved and can be used in the future. However, understanding the context of fans' meaning-making, including its sociomaterial conditions, can be difficult to productively operationalize through the notions of provenance and appraisal if focusing solely on the creator or the recorded information itself.

Archival theorists and researchers have gone from defining provenance as describing the immediate context of creation to emphasizing a broader contextual understanding of the recorded information, including the multiple social as well as technological factors involved in its creation and use (e.g., Acker, 2017; Cook, 2001; Millar, 2002; Sköld, 2018b; Trace, 2002; Upward, 1996). Similarly, understandings of appraisal have been developed along the same lines, where the responsibility for appraisal has transitioned from the creator to the archivist acting as an impartial actor in identifying evidential and informational value to, additionally, taking the broader social and cultural context of the recorded information into account (Cook, 2011). However, these understandings of provenance and appraisal have prioritized the social *or* technological aspects, where their relation remains implicit and under-theorized. Related to preservation strategies, like digitization, Nanna Bonde Thylstrup (2018, p. 18) emphasizes the need to interrogate how technology affects preservation in terms of "what kind of knowledge practices and values technology allows for and encourages". I argue that these technological implications must also be considered earlier. In particular, I stress the need to examine how information is created and used and its implications for preservation. By focusing on constructing context through provenance and appraisal. I tend to the concerns of con-

text related to social media platforms, where I explicitly address how the social and technological aspects of recorded information are entangled.

Identifying context information based on how recorded information is created and used has been further discussed by information researchers outside archival research and institutions. In information studies, researchers discuss this approach to context related to research data management as well as cultural heritage preservation and curation (e.g., Bettivia et al., 2023; Borgman, 2013; Dahlström & Hansson, 2019; Huvila, 2022; Huvila, Greenberg, et al., 2021). Building on these understandings of context, I move beyond notions of context that focus on the creator or the information created to examine how fans engage through their information activities on the platforms. I account for various technological and commercial aspects at play on the platforms. As I discuss further in Chapter 3 and the concluding discussions of Chapter 8, I approach the construction of context through the concepts of *cutting* and *binding*. These concepts are developed based on my empirical insights into MCU fandom on Reddit and Tumblr. My approach is based on sociomaterial understandings of practice developed by Karen Barad (2007), Silvia Gherardi (2016, 2019) and Pernille Bjorn (2012). My understanding of context as cut and bound defines where to draw the boundaries of the scope and what is necessary to include in the scope as context information about fans' meaning-making. Knowing where, when, and what to cut and bind, as the context of fans' meaning-making is informed by my empirical insights into the fans' information activities. Altogether, this theoretical and empirical knowledge helps me develop ways in which the notions of provenance and appraisal can be operationalized to support initiatives aimed at preserving fan culture and other modes of participation in digital culture.

Aim and research questions

With this thesis, I aim to advance knowledge of preserving digital fan culture, focusing on how to construct context. This knowledge addresses the preservation of fan culture online, but also contributes to shedding light on preservation related to other modes of participation in digital culture, particularly those emerging on social media platforms. Through-

out the thesis, I argue that identifying context information through archival concepts like *provenance* and *appraisal*, operationalized in archival research and practices, conflicts with the conditions of fan culture expressed on social media platforms. As archival researchers have highlighted, key preservation challenges include dealing with dynamic user engagement, platforms' commercial, proprietary and evolving character and third-party actors' involvement with the information (e.g., Acker & Kriesberg, 2017; Thomson, 2016). In this regard, information about the actors on the platforms, besides the users, and temporal aspects of change and evolvement are crucial to account for when preserving fan culture. I emphasize in this thesis that constructing the context of fan engagement for preservation must give equal attention to the social, technological and temporal aspects in play. Thus, my approach to identifying and defining context is to focus on digital fan culture in the making: what fans do, how and by what technological means. My entry point is how fans make meaning in their information activities through the empirical settings of two MCU fan communities on the social media platforms Reddit and Tumblr. Aside from gaining insight into fans' information activities, they also shed light on how people, in general, make media and technology meaningful through their digital cultural participation on social media platforms. To achieve this aim, the thesis is guided by the overarching research question:

How can understanding the context of fans' information activities on social media platforms assist in developing the archival concepts of provenance and appraisal?

By empirically focusing on fans' information activities—like creating, using, accessing and sharing information—I approach these activities as a constitutive part of their meaning-making as part of *fan practices.* From a sociomaterial perspective, I perceive fan practices as mutually shaped by fans and platforms. I seek to understand how fans' information activities are entangled with the platforms' technological and commercial aspects. These aspects include the involvement of third-party actors, recorded information, algorithmic and data-generative features and functionalities present on the platforms. By focusing on the sociomaterial entanglement

of fans and platforms, I examine how fans make their activities on the platforms meaningful. I address how fans consume, receive and interpret the MCU franchise through their information activities and how these activities contribute to shaping their identity as fans, as fan community participants and as members of the broader MCU fandom. By examining fans' meaning-making as it unfolds in their information activities on the platforms, I gain insights into which information about context is crucial to include for the purpose of preservation.

Therefore, the following sub-questions guide the thesis's empirical investigation into the context of fans' information activities, enabling me to answer the overarching research question:

How do fans' information activities become meaningful as part of their fan engagement?

In this research question, information activities refer to how fans create information through posts and comments about the MCU franchise. The term also refers to activities for organizing and moderating information, like voting, tagging, and labelling (e.g., posts with explicit content). Regarding fan engagement, I am referring to how fans interact in fan communities and with the MCU franchise on the platforms.

How do actors, aside from the fans, set conditions for fans' information activities, and how do these actors impact fan engagement?

Here, the term actors refer not only to fans, but also to technologies, companies, and other instances necessary for fan practices. These actors include advertisers, the MCU franchise and its producers, developers, applications, other platform companies, and legislation.

How do the conditions of fans' information activities change over time, and how do these changes affect their fan engagement?

This research question refers to the temporal aspects of fans' information activities, partly how changes are made daily and partly over longer peri-

ods. With conditions, I am referring to the conditions created by the actors examined when addressing the second research question.

By answering the three sub-questions, I gain an understanding of fans' meaning-making through their information activities and how actors and temporality shape these. Starting from these insights, I answer the overarching research question, which aims to identify crucial context information to include in preserving fan culture, specifically fan engagement. This approach fuels a further development of constructing context through the archival concepts of provenance and appraisal.

Research contributions

The thesis is written in the discipline of information studies, where it makes its primary contribution. Through the present study's focus on preserving digital fan culture, I especially contribute to the field of archival research, addressing digital preservation as well as archival theory and practices, which I elaborate further in Chapter 2. The thesis's contributions are conceptual and empirical. I address how fan culture can be preserved through the entry point of what fans do with information on social media platforms. In particular, understanding fans' information activities as part of fan practices assists in identifying what information about context is crucial to include when preserving fan culture, specifically fan engagement. My insights also contribute to developing the archival concepts of provenance and appraisal to account for fan engagement and other modes of participation on platforms. Subsequently, with the thesis's conceptual and empirical contributions, I offer suggestions on how to approach context information in these settings. These suggestions help in appraising and defining the provenance of phenomena in digital culture for preservation. The insights I gain from my study on identifying context information of fan engagement on social media platforms can hopefully be a step forward in developing new strategies for preserving in ways that account for the dynamism, interconnectivity and multiplicity of fan culture, but also other modes of participation in digital culture.

My study may also be of interest for research in information studies related to researchers' data management and curation (e.g., Faniel et al., 2019;

Huvila, 2022; Huvila, Greenberg, et al., 2021), as well as preservation efforts undertaken in cultural heritage institutions like libraries and museums (e.g., Balogun, 2018; Chowdhury, 2010; Dahlström & Hansson, 2019). Here, my thesis contributes to illuminating how digital technologies play a role in how and which information objects can be preserved. In particular, my thesis addresses what approaches to capturing context can be taken, starting from the domain of fan culture. Additionally, building on the idea of fans' information activities on social media platforms as a constitutive part of fan practices, I also provide insights that contribute to the field of information practice research within information studies (e.g., Cox, 2012; Haider & Sundin, 2019; Pilerot et al., 2017; Talja & Nyce, 2015).

Lastly, my thesis contributes to the large body of research concerning digital cultural participation on social media platforms (e.g., Bucher, 2017; Graham & Rodriguez, 2021; Massanari, 2015; Tiidenberg et al., 2021; van der Nagel, 2018). In particular, I make contributions to the field of fan studies, namely research concerning fan engagement on social media platforms (e.g., Nybro Petersen, 2022; Yin, 2020; Yin & Xie, 2024; Zhang & Negus, 2020) and fan-related preservation (e.g., Asokan, 2021; De Kosnik, 2016; Einwächter, 2015; Johnson & Fong, 2017; Neece, 2022). Through the empirical example of MCU fandom, I study challenges related to preserving digital fan culture, where I emphasize the need to broaden the focus to what fans do rather than solely the recorded information they create. My study provides insights into fan culture, but it also sheds light on digital culture in the present as expressed on platforms. My focus on fans' information activities and how recorded information is engaged within these activities, highlights the complexities of the entanglement of people, digital media and technology, as well as how these become meaningful in specific ways.

The empirical setting

The MCU franchise, its fandom and the social media platforms Reddit and Tumblr are integral to the thesis's focus. In my study, I address important events that have shaped the social media platforms and their community cultures, including the so-called *Tumblr porn ban* and the *Reddit API controversy*. In 2018, Tumblr introduced a ban to combat the growing issue

of illegal content with exploitative and pornographic themes. The ban affected Tumblr communities, as many of their creative works featuring nudity and sex became equated with illegal content, and thus, flagged and removed. In 2023, Reddit restricted its once-public access to its APIs. Previously, Reddit's public APIs allowed developers to create third-party applications and moderation tools, but recent restrictions forced many of these apps to shut down. This change caused much controversy and was criticized by Reddit communities and moderators. I discuss both the Tumblr porn ban and the Reddit API controversy further in the thesis' empirical chapters (Chapter 5 through 7).

In the following sections, I provide a backdrop of the study's empirical settings. I begin with the MCU franchise, its comic book origins and what the franchise entails thematically. I provide a rationale for selecting the MCU franchise and its fandom as part of the study's empirical setting. Subsequently, I provide a brief history of the social media platforms Tumblr and Reddit, highlighting each platform's characteristics.

The Marvel Cinematic Universe

In the MCU franchise, the world revolves around superheroes. What are superheroes? Peter Coogan and Dennis O'Neil (2006, p. 30) offer a definition:

> A heroic character with a selfless, pro-social mission; with superpowers- extraordinary abilities, advanced technology, or highly developed physical, mental, or mystical skills; who has a superhero identity embodied in a codename and iconic costume, which typically express his biography, character, powers, or origin (transformation from ordinary person to superhero).

The dual identities of superheroes, transforming from ordinary people to superpowered beings, have long been depicted in the genre of superhero comics. The first superhero ever created was The Phantom in 1936, a fictional costumed crime fighter from the made-up African country of Bangalla (Patrick, 2017). However, the superhero genre has been predominantly championed by the comic publishing companies Detective Comics

(DC) and Marvel since the late 1930s. These two publishing companies have jointly registered a trademark on the term "superhero" since 1979 (Gavaler, 2018, p. 2ff). Anchored in Coogan's broader definition of superheroes, they also have a symbolic value. Chris Gavaler, in his book "Superhero Comics" (2018), examines the history of how the superhero grew to become a widely recognized figure in Western popular culture. With examples from the Marvel Universe, Captain America symbolizes the American ideal of freedom and justice situated in the Second World War, fighting against Nazism and fascism. Subsequently, the Fantastic Four, a group of scientists gaining superpowers from exposure to cosmic rays, reflects the development of nuclear weapons during the Cold War. Recently, there has been a shift towards a more diverse arsenal of superheroes, like Ms. Marvel, who is of Pakistani descent. However, Gavaler (2018) points out how superheroes also portray problematic aspects of the past. These problematic aspects include, but are not limited to, vigilantism in fighting crime outside the legal system, as well as eugenics in their representation of superhumans. Despite being set in fictional worlds, or at least fictional versions of our world, superheroes encapsulate society's social, cultural and political relations and its tensions (Brown, 2021).

In the past two decades, superheroes have made an impact on the movie screen. While these film portrayals of superheroes are notably not the first (the movie of Whiz Comics' Captain Marvel was released in 1941), superhero movies became popular at the beginning of the early 2000s. These movies made it into the rankings of highest-grossing movies each year (Brown, 2017, p. 2). These movies marked the beginning of a longstanding trend of superhero portrayals in movies, also predominantly championed by DC and Marvel. Here is where the story of MCU begins. Marvel Comics, a major provider of superhero comics that successfully navigated market fluctuations in the latter half of the 1900s, ultimately filed for bankruptcy in 1996 after a market bubble during the preceding years (Gavaler, 2018, p. 11). Marvel began operating as a licensor, where film rights to the characters were sold to various movie production companies and studios. The licensing strategy was profitable, enabling the company to recover financially. As Derek Johnson (2012, p. 9) points out: "For a comics publisher emerging from bankruptcy without the wherewithal to support capital investment in

filmed entertainment, licensing multiplied revenue streams and provided mass-market cross-promotional visibility at no production cost".

The licensing strategy continued until 2004 when Marvel Studios, a division of Marvel Entertainment (including Marvel Comics), began to self-finance and produce its own movies (Leonard, 2007a, 2007b). Marvel Studios began buying back rights to characters, but with a few exceptions. Most notable is the Spider-Man franchise, which has been owned by Sony Pictures since 1999 (Abad-Santos, 2019). Later, Spider-Man's inclusion in the Marvel Universe would be part of a collaboration between Sony Pictures and Marvel Studios (Scipior, 2011). In 2007, Kevin Feige, a producer of Marvel movies in the past, became Marvel Studios' president and chief creative officer (Pallotta, 2019). Kevin Feige is known as one of the key figures to take the lead in forming the MCU franchise (Brown, 2017, p. 19). Marvel Studios, alongside its parent company Marvel Entertainment, was acquired by The Walt Disney Company in 2009 (Dindral, 2009).

The MCU franchise consists of the filmatized portrayals of the Marvel Universe spanning across movies and television series. Each movie or television show focuses on a particular superhero or superhero constellation. However, the innovative dimension of these portrayals lies in their interconnected character, where each plot ties into a bigger overarching story, split into several phases of a saga. Each phase represents a theme that the individual releases connect to. The phases often conclude in a movie where the characters introduced converge in the same plot. The first saga of the MCU franchise is known as the Infinity Saga. This saga comprised three phases centred around the intergalactic battles involving the Infinity Stones, a set of six powerful objects, each governing a different aspect of the universe. The first phase introduces superheroes like Iron Man, the Hulk, and Captain America and concludes with the movie The Avengers (2012). Phases two and three of the Marvel Universe share similar patterns in their releases, particularly in introducing new characters. Phase two concluded with Avengers: Age of Ultron in 2015, while phase three, which marks the end of the Infinity Saga, was split into two movies: Avengers: Infinity War (2018) and Avengers: Endgame (2019). The MCU franchise is currently unfolding in its new overarching plot of the "Multiverse Saga", building on the consequences of the battles over the Infinity Stones. Nar-

ratively, the Multiverse Saga expands the single Marvel universe into a multiverse comprising alternate universes and timelines, introducing a vast array of characters. Starting with the release of Iron Man (2008), the MCU franchise has released 34 movies and 13 television series as of 2024. According to Statista, a business data platform that aggregates and analyses data, as of 2023, the MCU franchise is the highest-grossing franchise globally, bringing in $29.55 billion in box office revenue worldwide (Carollo, 2024).

As a phenomenon of contemporary popular culture, the MCU franchise's success plays a part in the longstanding trend of superheroes in movies (Richter, 2016). Jeffrey Brown (2017) highlights that the superhero genre remains popular as blockbuster movies due to Hollywood's inventive repackaging of its comic origins, but also through its reflection of contemporary society. As Brown points out, superheroes are a cultural expression that "serves a collective purpose beyond merely the financial" (p.5). The familiar narrative formula and iconography of superheroes envision relatable themes and topics in people's everyday lives experienced through the superheroes' actions set in fictional worlds (Brown, 2017, p. 5). Compared to DC and other superhero universes, the Marvel Universe is set in a world similar to our own. As Nicholas Carnes and Lilly Goren (2022, p. 2) highlight, the Marvel universe "is itself a product of contemporary politics and society". Carnes and Goren point out how political disputes, injustice, and environmental issues are not only challenges the world is facing in the present but also "key thematic elements of recent MCU blockbusters" (p.2). These challenges are also reflected in a shift from the franchise's narrow focus on superpowered white-coded men to a broader inclusion of female superheroes and superheroes of colour (e.g., Peppard, 2017; Rank & Pool, 2022).

The MCU franchise has a heterogeneous fandom with fans who entered the fandom through different media: the Marvel Comics or the MCU movies/TV shows (Bryan, 2018; see also Beaty, 2016). As Rita Purwaningsih, Leili Gustini and Teti Sumarni (2024) point out, MCU fandom is active, expressed through the collective bonds formed between fans and their loyalty to the MCU franchise. The diversity efforts of the franchise also shape the fandom. Caleb Hubbard, Kyle Hammonds and Lindsey Meeks (2024) point out that the popularity and diversification of the MCU franchise have

led to a more diversified fanbase in terms of fans' age, ethnicity, sexual orientation and gender, which much of the recent research concerning the Marvel/MCU fandom has placed its focus (e.g., Cox, 2018; Freeman & Taylor-Ashfield, 2017). According to Hubbard and colleagues (2024), within MCU fandom, hierarchies are established between long-standing and newer fans, formed through the gatekeeping of information. At the same time, they note that there is a commonly accepted notion among MCU fans that the comic storylines hold an authoritative status compared to the MCU movies and TV series. Some fans refer back to comics to disavow the diversity perspectives raised by other fans and the MCU franchise itself. Other researchers have highlighted similar tendencies by pointing out how diversification is expressed in MCU fandom and how it jacks into contemporary discourses about diversity and representation in media. Matt Griffin (2023) notes how the changing form of the MCU franchise has been met with praise and criticism. Some critical fans, particularly those stemming from anti-consumeristic and misogynist perspectives, dismiss the franchise's attempt to showcase diversity. Chris DeFelice and Kyle Stanley (2024) also highlight how MCU fandom consists of different groups, such as fans who promote and praise the franchise's diversity and representation efforts and those opposed to them, viewing them as an attack on the franchise's original identity. However, as Hubbard and colleagues (2024) highlight, fans also decide what spheres of the fandom to actively engage with, while avoiding the toxic and hostile ones due to the fandom's large size. MCU fandom is also global in its character. With examples of MCU fan engagement in China, Xiwen Zhang (2022) shows how MCU fandom reaches beyond countries in the West.

The body of research on MCU fandom establishes that it is large and global in its scope, as well as heterogeneous, as it contains fans from diverse backgrounds, identities, and perspectives on the franchise. By focusing on MCU fandom, my study can provide insights into how individuals and communities reflect on, interpret, and understand their realities and the world through superhero narratives and digital technologies. Studying MCU fandom offers insights into how to approach the preservation of transmedial and global fandoms that are still evolving, and helps to identify what is essential to preserve. The insights gained from this study illuminate how to construct the context of changing and evolving phenome-

na in fan culture, marking an important step forward for preservation. In the following section, I present the study's other two empirical focal points: the social media platforms Tumblr and Reddit.

Reddit and Tumblr

Reddit's and Tumblr's distinct yet multifaceted community cultures offer insight into how digital culture can take on different modes of participation across social media platforms. At the same time, these engagements in digital culture are shaped by the platforms' push towards monetization through their technological capabilities, such as algorithms and data-generative features. Similarly, studying MCU fandom on Reddit and Tumblr provides insights into how fandoms span across different platforms. The study also reveals how fan community constellations tied to the same interest can be expressed in different ways, shaped by the distinct culture of each platform. Subsequently, the different ways MCU fandom is expressed on Reddit and Tumblr shed light on how to identify context information related to various information activities in different platform settings.

Throughout the thesis, I address the fans both as individuals (e.g., fans) and as part of fan communities (e.g., fan community participants). Subsequently, I also address them as *Tumblr participants* and *Redditors* to emphasize in what empirical fan community and platform setting the fans are situated. I employ the term *user* on occasions where I address social engagement on platforms that are more general in character.

Reddit and Tumblr are social media platforms with different architectures, features, and user cultures. Reddit is a platform structured as a bulletin board with a *voting* feature. Posts and comments can gain more or less visibility by giving them an upvote or downvote. Reddit's users, also called Redditors, populate *subreddits*: communities revolving around various topics, ranging from general ones (e.g., r/cuteanimals) to more niche ones (e.g., r/clockmaking). The subreddits have rules and moderators that ensure posts and comments adhere to the platform's policies while remaining relevant to each subreddit. Redditors choose to either enter the platform in its older interface (see Figure 1), which has the layout of a bulletin board or the newer interface in the format of a content feed (see Figure 2).

Figure 1. Reddit's old interface. Illustration: Ylva Oknelid.
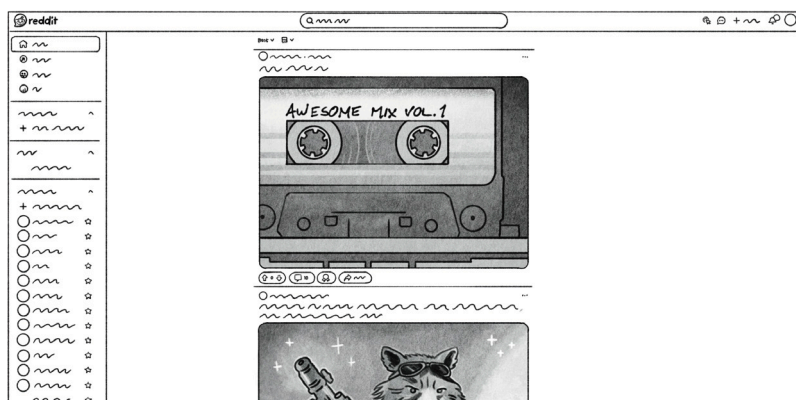
Figure 2. Reddit's new interface. Illustration: Ylva Oknelid.

Tumblr, on the other hand, is a microblogging platform. The users are not called anything particular in comparison to the Redditors. For clarity, I employ the term Tumblr participant hereafter when addressing MCU fans on Tumblr. Each Tumblr participant has at least one blog where they can upload posts. These posts can be *reblogged*, namely by adding others' posts to one's blog feed for followers to see, which includes a reference to the original post or the version that has been reblogged. When reblogging a post, one can add text or images to that version. If a post is reblogged multiple times, a reblog thread—accessed through the post's *notes*—displays the original post and comments from subsequent reblogs. *Tags* can
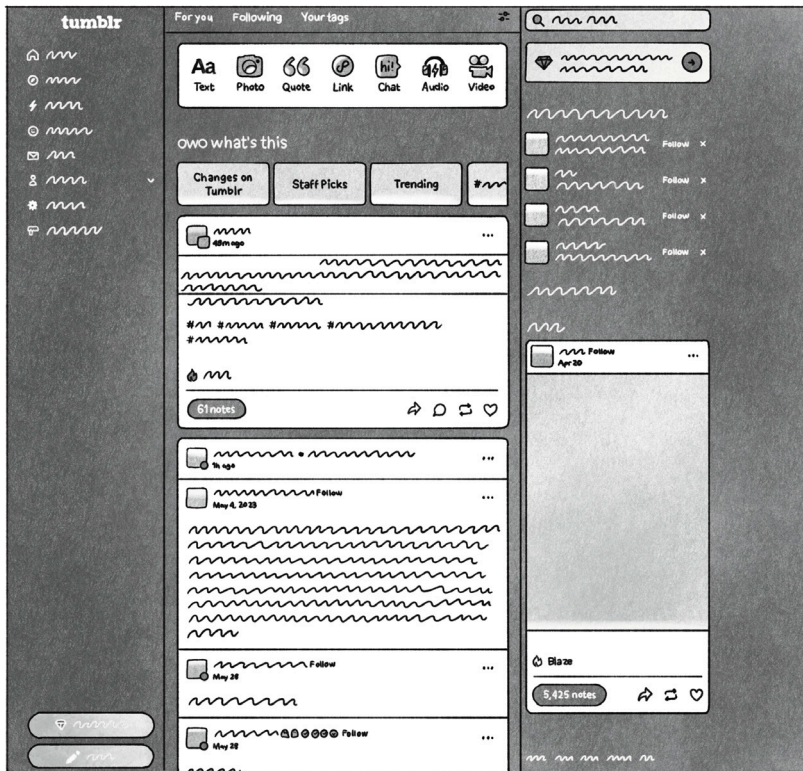
Figure 3. Tumblr's interface. Illustration: Ylva Oknelid.

be added to the post when posting. These tags assist in making posts findable. By searching specific tags, one can access posts across blogs that are tagged the same. Aside from their blogs, Tumblr participants also access and view content on the so-called *Dashboard*, which comprise all uploaded and reblogged posts from blogs and tags that they follow (see Figure 3).

Reddit was created in 2005 by Steve Huffman, Alexis Ohanian and Aaron Swartz. A year later, the platform was acquired for $10 million by the media company Condé Nast Publications (a subsidiary of Advance Publications owned by the media mogul family of Newhouse) (Grynbaum & Isaac, 2024). In recent years, other companies have acquired shares alongside Advance Publications, including Tencent, a multinational tech-

nology conglomerate based in China (Liao, 2019). Reddit Inc., the company behind Reddit and led by co-creator and CEO Steve Huffman, filed for an initial public offering (IPO) in December 2021 with a valuation of $15 billion (Roof & Tse, 2022). The company went public on the New York Stock Exchange in March 2024. The IPO has been speculated as one of the reasons for the API change that stirred the Reddit API controversy (e.g., Morrison, 2023; Paul, 2023).

In parallel, Tumblr had a knottier trajectory. The platform was created in 2007 by David Karp, with support from developer Marco Arment. It was independently run and gained popularity among users while attracting commercial interest from brands like Adidas, with whom Tumblr collaborated in 2012 (Delo, 2012). In 2013, Yahoo acquired Tumblr for $1.1 billion, with Karp remaining as CEO (Collins, 2022; Isidore, 2013). Karin Tiidenberg, Natalie Hendry and Crystal Abidin (2021, p. 5) point out how the corporate rhetoric, before and after the acquisition, shifted from: "simplicity, customizability, interest-driven community and creative self-expression to emphasising a more product-oriented approach, focusing on content creation rather than social interaction". During this period, Tumblr and Yahoo began struggling financially. Tumblr struggled to increase ad sales and keep pace with competing social media platforms like Twitter, Instagram, and Facebook (Collins, 2022). In 2017, Tumblr, along with Yahoo, was acquired by Verizon Communications for approximately $4.5 billion. This acquisition turned Yahoo into a subsidiary called Oath, which included Tumblr, and Jeff D'Onofrio replaced David Karp as Tumblr's CEO (The Guardian, 2017; Wagner, 2018). Under Verizon's ownership, Tumblr faced ongoing financial difficulties. The platform grappled with the growing issue of content involving child sexual exploitation, which ultimately led to the Tumblr app being banned from the Apple App Store for a period. In response to these challenges, Tumblr implemented stricter content policies, including a ban on so-called adult content. This shift culminated in the Tumblr porn ban in 2018. Subsequently, Verizon sold Tumblr to Automattic, the owner of WordPress, for under $3 million (Alexander, 2019; Hern, 2019). Tiidenberg, Hendry and Abidin (2021) describe Tumblr as one of the less commercialized spaces online; it has shown tendencies towards incorporating more commercial and monetizing ele-

ments. As Automattic's CEO Matt Mullenweg indicates in an interview with the journalist Nilay Patel (2019): "Advertising is definitely something we're going to explore. We do definitely want to grow Tumblr's revenue".

Tumblr and Reddit have become publicly known for their eclectic communities. Tumblr is known as one of the main hubs for fan engagements on the internet (e.g., Hillman et al., 2014; Stein, 2017). It is also known for the communities' progressive political leanings, including promotions of feminism (Mecklenburg, 2022), LGBTQIA+ (Fink & Miller, 2014), the voices of people of colour (Rauber Rodriguez, 2020) and with disabilities (Egner, 2019). There are also communities dealing with more controversial topics, including mental and physical illnesses (Griffith & Stein, 2021), alternative porn consumers (Mondin, 2017), suicide, self-harm and eating disorders (Mclaughlin et al., 2015) and toxic call-out culture (Tiidenberg et al., 2021, p. 144ff). Various marginalized communities see Tumblr as their home, but these perceptions changed with the Tumblr porn ban. As the journalist Dave Lee (2018) highlights: "That change [the porn ban] means marginalized people, those who are all-too-used to being ostracised in their offline lives, now face it in their online space too". In research, Tumblr has received attention (e.g., Attu & Terras, 2017; Tiidenberg et al., 2021; McCracken et al., 2020; Stein, 2017), but it remains one of the lesser-studied platforms. Tumblr is often not mentioned in media reports on social media platforms. Some even label Tumblr dead, like the journalist Jason Parham (2023). These perspectives stem from Tumblr's decreasing user base and a lack of commercial partnerships and advertisers. Tiidenberg, Henry and Abidin (2021) provide a thought-provoking argument for the opposite. Instead, they argue that Tumblr is "mutating" into something else, namely a more "relaxed social media experience" containing fewer commercial elements (p.213).

In contrast, Reddit has recently received more media coverage and attention among researchers. Compared to the Tumblr communities, Reddit is more heterogeneous, with communities across the political spectrum. For example, the so-called *Gamergate* in 2014 was an online harassment campaign targeted at more progressive and feminist perspectives in the videogame industry (Buyukozturk et al., 2018; Massanari, 2017). Subsequently, other controversial communities have also had their

presence on Reddit, including subreddits involved with the manosphere (Farrell et al., 2019), conspiracy theories (Engel et al., 2022), and the alt-right (Grover & Mark, 2019). One example of the broad spectrum of political inclinations among Reddit communities can be exemplified by the subreddits r/the_Donald for Trump supporters (Massachs et al., 2020) and r/ChapoTrapHouse. The subreddit r/ChapoTrapHouse is dedicated to the leftist podcast Chapo Trap House, linked to the "dirtbag left": a controversial style of left-wing discourse that favours blunt and vulgar expression over politeness (Shen & Rosé, 2022). Both subreddits were banned from Reddit in 2020 for propagating hate speech and antagonizing other subreddits (Newton, 2020). However, Reddit is more than just problematic behaviour and engagements on the political fringe. Reddit is also a platform where people can discuss wide-ranging topics related to their interests and everyday lives. These topics cover everything from general subjects, such as r/aww (a subreddit for cute pictures and videos of animals and babies) to more niche communities like r/turkish-coffee (dedicated to coffee enthusiasts). Additionally, various fandoms have a significant presence on the platform (e.g., Bergstrom & Poor, 2021; Zhang et al., 2018).

Apart from Reddit's and Tumblr's different platform architecture and features, researchers have highlighted that the two platforms encompass two distinct community cultures. For example, Adrienne Massanari (2015, p. 20) writes that Redditors "contribute to a chaotic space that is at times both compelling and repulsive". Meanwhile, Allison McCracken and colleagues (2020, p. 2) put forward Tumblr as "an alternative world, where disparate people come together over mutual passions and desires in a queer, carnival-like atmosphere that distinctly dispenses with normalcy". Despite their differences, Tumblr and Reddit also have many commonalities. Reddit and Tumblr are two social media platforms that differ from other competing platforms. Their use of pseudonyms makes them stand out in an era when digital cultural production on social media platforms is dominated by influencers and content creators, who often monetize, commodify and promote themselves through self-branding (Abidin, 2018). Instead, on Tumblr and Reddit, building one's reputation and becoming part of the community culture takes time (Massanari, 2015, p. 28). The

platforms do not only facilitate distinct community cultures. Tumblr participants and Redditors exhibit a strong sense of belonging to their respective platforms, fostering loyalty while often being cynical and scornful in their discussions (Kender, 2022). For example, Tumblr participants, in light of unwanted changes or feature implementations, often call Tumblr a "hellsite" (Glenhaber, 2021).

Thesis outline

Thus far, I have introduced the research problem that my study starts from, the aim, research questions, and empirical setting. In Chapter 2, *Mapping provenance and appraisal*, I map the current body of knowledge on digital preservation, archival theory and practices. The chapter provides an overview of how archival research centred on the archival concepts of provenance and appraisal has developed in line with emerging information technologies. I begin with discerning early research perspectives on how to situate or revise archival concepts in light of technological advancements. Thereafter, I focus on research regarding preservation matters related to fan culture and social media platforms. By mapping and assembling this knowledge foundation, I discuss how my study is positioned in relation to previous research while identifying the knowledge gaps my study aims to address. Thereafter, my navigations into the current body of knowledge move onto the research on fans, fan culture and platforms with their technological and commercial capabilities.

Chapter 3, *Enacting a sociomaterial outlook*, discerns the study's theoretical framework. I present the conceptual vocabulary that assists in grasping fans' meaning-making through fans' information activities on social media platforms. This framework consists of several concepts anchored in a sociomaterial outlook, through which I develop an understanding of the concept *fan practice*, assisting me in understanding how activities become meaningful in and through practice. Other key concepts—*infrastructure* and *infrastructural meaning-making*—are introduced to account for the sociomaterial conditions of fans' information activities and how these activities become meaningful on the platforms, as well as tentatively sketch out the notions of *cutting* and *binding* context that I develop from my

theoretical and empirical insights from Chapter 5 through 7. The conceptual framework guides my analytical focus in empirical settings, and informs how I identify context information of fans' meaning-making. The framework also fuels my suggestions for operationalizing cutting and binding through provenance and appraisal.

Chapter 4, *Inferring the infrastructure,* concerns the study's methods, which are informed by an ethnographic sensibility. My ethnographic standpoint helps me to methodologically approach how fans' information activities become meaningful through the infrastructure enacted in fan practices. I present how I operationalized the study's ethnographic fieldwork, including how I situate myself as a researcher in the MCU fan communities and locate and demarcate the field sites. I summarize the methods, the materials generated and collected, and the analysis of these materials. I also discern the ethical considerations taken in the methods and material generation.

Chapter 5, *Discrepancies in meaning,* is the first part of the study's empirical analysis. The chapter focuses on how the fans' information activities on social media platforms gain meaning. Here, I discuss how fans' meaning-making is *situated*. Through daily posting and commenting on the MCU franchise, the fans develop meanings of varying and conflicting kinds. I also show the situated character of other information activities, like voting, tagging and moderation, where the same activity can mean different things. I argue that these variations and discrepancies in meanings implicate how to delineate context information. It is important to consider all the nuances that fan engagement on the platforms encompasses.

Chapter 6, *Relational dissonances,* focuses predominantly on the infrastructure enacted in and through the fan practices, actualizing various actors, like the MCU producers, advertisers, third-party developers, other platforms and legislative bodies. I perceive these actors' involvement as *relational,* where they are actualized through the fans' information activities. I show how these different actors are entangled with the platforms and mutually constituted. In addition, I shed light on how information access, governance, and control take form on the platforms and their implications for how fans engage with information. I argue that these relational dynamics between the various actors can, sometimes, be dissonant, revealing how

change pervades all parts of the infrastructure. Further, I discuss how the fluctuating boundaries of what is part of the infrastructure complicate approaching and identifying which actors are necessary to include in the scope of context information of fans' meaning-making.

In Chapter 7, *Temporal tensions*, I discern the *temporality* of the situated and relational meanings that emerge through fans' information activities. I focus on the temporal implications formed through the entanglement of fans and platforms. In particular, I discuss how specific platforms' technological capabilities become actualized in the fans' information activities. I provide examples, including how fans entangle with newly introduced features, third-party extensions, algorithmic sorting and curation, and information retrieval. These examples show that the platforms' technological capabilities are actualized in various ways on different occasions, feeding into when and how undertaking a specific activity at a given time seems appropriate. I discuss how the variations and contradictions in how fans engage with information on the platforms lead to temporal tensions, which I discuss as diverging timelines, temporal rhythms and pacing. I discuss the difficulties in defining and demarcating context information in light of changing and dynamic phenomena, like fandom on social media platforms.

In the concluding discussion of Chapter 8, *Constructing context through cutting and binding*, I revisit the thesis's aim and research questions. I summarize the findings from each empirical chapter and connect them to the notions of cutting and binding context. I discuss how the approach of cutting and binding context can aid in developing the archival concepts of provenance and appraisal. I present these insights in three key conclusions. Thereafter, I present the study's limitations and suggestions for further research. Lastly, in the postscript of this thesis, I reflect on recent developments of the MCU franchise, Reddit, and Tumblr.

2. Mapping provenance and appraisal

This chapter provides an exposé on the current body of knowledge regarding digital preservation and its challenges tied to emerging digital technologies. This body of knowledge is primarily situated in information studies within its subdiscipline of archival studies. This field encompasses a wide range of perspectives on the notion of context and offers strategies for identifying context information through archival concepts of provenance and appraisal. The theoretical and professional understandings of archives are closely intertwined, where insights from archival researchers and archivists feed into each other. Preservation and archival research can be highly conceptual in character in terms of investigating, critiquing and developing archival theory and its premises. On the contrary, research of a more applied character addresses archivists directly, focusing on developing archival practices and methodologies. In this regard, the present chapter discusses studies of both a conceptual and applied character to show how preservation challenges tied to digital technologies can be approached from different perspectives.

Researchers have adopted a broader understanding of archives outside information studies, which comprises the so-called "archival turn" in the humanities (Edquist, 2021). Here, archives are adopted as a concept to shed light on power and memory, often anchored in the writings of Michel Foucault (1972) and Jacques Derrida (1996). In recent years, there has been increasing research interest in engaging with the archive metaphor in relation to digital technologies. This research focuses on the access and storage capabilities of digital technologies, and what they mean for processes of remembrance and forgetfulness (e.g., Agostinho, 2016; Dekker, 2017; Jacobsen & Beer, 2021; Mayer-Schönberger, 2011; Pötzsch, 2018; Seberger, 2021). In particular, these researchers have focused on social

media platforms to enable broader participation in memory-making, but at the same time, the platforms have implications for the future representation of individuals, communities, and societies. Although this body of knowledge offers many important insights into digital technologies, I approach archives differently in my study. I focus on archives as the results of concrete efforts undertaken by archivists, other information specialists, and preservation initiatives. These efforts include collecting, appraising, arranging, describing and preserving material that emerges in the present for future use.

Throughout this chapter, various terms are employed in the research I discuss. These terms include records, electronic records, archival records, digital objects, data, and content, among others. For clarity, I employ the terms used by the authors of the studies mentioned throughout the chapters' discussions. However, I consider these various terms to fall under the umbrella of what Marcia Bates (2006) denotes as *recorded information*, namely information recorded in various media. I elaborate on the notion of recorded information in Chapter 3.

In the following sections, I begin by discussing early digital preservation efforts to develop archival concepts of provenance and appraisal in light of emerging information technologies. Next, I discuss advancements in digital preservation techniques, where researchers stress the need to broaden the scope of context information to improve future use and understanding of archival holdings. Thirdly, I address perspectives on the material dimensions of preservation. With material dimensions, I am referring to the social and technological conditions that shape recorded information, how it is preserved, and how recorded information shapes people's lives. Thereafter, I explore areas of archival research tied to fan culture and social media platforms. I focus on how fan-driven preservation efforts predominantly have an artefact-based focus and preservation challenges related to the platforms' technological and commercial character. Because my study's entry point into preservation and constructing context is based on how fans engage with information, I also position my study within research on fan culture and social media platforms. The final two sections of this chapter address key aspects of these phenomena that are essential to my study.

The wild frontier of electronic records

During the last decades of the 20th century, the increasing prevalence of computerization and networked technologies changed the conditions for how people in different societal domains create, use, share, access, and store recorded information. These technological changes have also shaped preservation. New recorded forms of information have begun to occur, operating under different conditions than their analogue predecessors (Klareld, 2017; Klareld & Gidlund, 2017). Several research initiatives have addressed this problem, particularly in the domains of government and business. These research efforts have explored how preservation can adapt to the growing volumes of recorded information and the new networked ways of engaging with it. As John McDonald (1995, p. 70) puts it, these efforts attempt to tame "the wild frontier" of information.

One of the projects was the "UBC project", formally titled "The Preservation of the Integrity of Electronic Records", led by Luciana Duranti and Terry Eastwood at the University of British Columbia, Canada. The project sought to ensure the trustworthiness and evidential value of records created through electronic systems. To ensure records' evidential value, Duranti (1995) highlights three key factors to consider: *integrity*, which ensures the internal structure of the records remains intact; *reliability*, meaning that the records accurately reflect the facts they represent; and *authenticity*, confirming that the records are exactly what they claim to be. The project's strategies outline the essential requirements for preservation, including implementing strong controls, rules, and classification of records created in the organization and its systems. Duranti (2001, p. 274) suggests these requirements to be operationalized in two systems: one for record-keeping and another for preservation, ensuring that the necessary context information is captured (see also Duranti & MacNeil, 1996).

The UBC project is anchored in the perspectives of archival diplomatics. As Luciana Duranti (1989, p. 7) highlights, the perspective of diplomatics originates from medieval studies and law, and concerns "the study of documentation, the analysis of genesis, inner constitution and transmission of documents and their relationship with the facts represented in them and with their creators". The diplomatic outlook draws on archival concepts

defined by archival theorists from the 19th and 20th century, including the Dutch trio Samuel Muller, Johan Feith, and Robert Fruin (1940), Sir Charles Hilary Jenkinson (1937) in the UK and Theodore Schellenberg (1956) in the US. Jenkinson (1937) outlines that the archivists' duty lies in the "physical and moral defence" of the archives, a secure and impartial space safeguarding archival records from corruption and forgery. Further, the archival diplomatics have a so-called "life-cycle" perspective on records, inspired by Schellenberg (1956). The life-cycle perspective outlines the different life stages of records, where, after a time of being inactive, they become deposited in the archive, where the records are appraised, described, and accessioned. The life-cycle perspective separates the responsibilities of various actors (e.g., creator, user, record manager and archivist) into distinct phases of the record's life, where the archives serve as its final holding place (Atherton, 1985). In a similar vein, Duranti (1996, p. 244) stresses that records must pass the so-called "archival threshold" to become evidence, emphasizing the legal dimensions of the record. Passing the archival threshold ensures the records' adherence to the principles of *provenance, respect des fonds* and *original order* that document the records' contextual origin. The notion of respect des fonds refers to the necessity of arranging records according to their so-called "fonds", the individual, family or organization that created the records or from which the records are received (Gilliland-Swetland, 2000, p. 12). On the other hand, the notion of original order states the need to safeguard the internal organization of the archival holdings. This internal organization is considered to mirror how the records were naturally accumulated and organized during their creation and use (Duranti, 1994).

Another project during this period was the so-called "Pittsburgh Project", which was led by David Bearman at the University of Pittsburgh in the US. The project aimed to define records of value for preservation created in contemporary information systems. As Bearman (1994) stresses, a comprehensive approach must be considered where different roles in an organization must collaborate, particularly those of record managers and archivists. The emphasis on collaboration includes designing systems and adapting work processes to meet what Bearman (1995) refers to as the "functional" requirements for record-keeping. According to Richard Cox

(1994), these functional requirements entail a set of demands that information systems must meet to secure the accountability of records. This accountability rests on the comprehensiveness of the records' content, structure, and context to ensure they are understandable, meaningful, and accountable in the future (Cook, 1997, p. 24). Bearman, together with Margaret Hedstrom (1993), highlights that necessary context information about the records is found in the contextual metadata. For example, this context information could be transmission data generated by the systems, indicating the provenance of the records. Subsequently, parameters for appraisal are defined before record creation and built into the system's design (Bearman & Lytle, 1985). Bearman (1995) emphasizes that preservation should focus on the "continuing" value of records rather than their permanent value, as previously argued. Bearman suggests that records should stay in the creator's custody for easier access rather than be placed in the archives (Bearman, 1995). Hedstrom (1995, p. 320) highlights that archives should be the "last resort" when the creating organization is unable or unwilling to keep and maintain the records. Instead, Hedstrom and the project argue that archivists should take on the role of auditors, not undertakers, ensuring that the records are maintained (according to the functional requirements) throughout their lifetime in the systems where they are created (Hedstrom, 1995; see also Acland, 1991).

The Pittsburgh and UBC projects were crucial for the development of digital preservation, building the foundation of knowledge about preservation related to changes and advancements in information technologies. Later evaluations of the projects bring their contributions to the fore, but also their shortcomings. As Terry Cook (1997) notes, when speaking of David Bearman's contributions, the focus on organizations is too pervasive, neglecting archives outside the domains of governments and businesses. Subsequently, another shortcoming that Cook highlights is that the Pittsburgh Project put excessive emphasis on the context information generated from the system of records without attending to the records themselves. Bearman himself (2006) states that, although the projects have often been compared due to their different preservation approaches, the projects do have many similarities. Both projects identify moments of risks in the record-creating processes (see also Hedstrom, 1997a).

The UBC project and the Pittsburgh Project establish the importance of attending to how recorded information should be preserved during or before creation, an approach I adopt in my study. As I argue in the introductory chapter, the definition of the recorded information's context must be expanded to reflect new and evolving ways to engage with information through technology. Compared to Bearman's emphasis on transmission data, I argue that the proprietary and opaque character of commercial social media platforms present significant challenges. It is difficult to fully rely on these platforms to provide a comprehensive account of the context of the recorded information. I discuss the opaque character of platforms related to the preservation of recorded information on social media platforms in the following sections.

Although I focus on the notion of provenance in my study, I do not address the notions of respect des fonds and original order, as they are difficult to apply to recorded information with dynamic characteristics. The organization of recorded information on social media platforms is not static. In fan community settings, the organization of posts and comments is continually changing, with several fan community participants adding and engaging with information in ways that cause it to change continuously. Due to these engagements, it becomes difficult to maintain an "original" structure or separate recorded information according to its creator (e.g., a fond consisting of the posts and comments made by one fan). My decision to focus on provenance and appraisal is supported by researchers who have pointed out how the archival principles respect des fonds, and the original order fall short in the contemporary information landscape. These principles is anchored in static notions of the creation and use of information, which comes in conflict with the dynamic and changing character of recorded information online (e.g., Duff & Harris, 2002; Millar, 2002; Yakel, 2003).

The Pittsburgh Project's redefinition of archives, preservation and the role of archivists aligns with the principles of the post-custodial approach. This approach has been increasingly discussed since the 1980s and 1990s (Ham, 1981). The post-custodial approach, grounded in postmodernist premises, emerged as a response to the positivist perspectives that previously dominated archival research and practice. These earlier perspectives, such as those found in diplomatics, emphasized objectivity and impartial-

ity in archives (Cook, 2001). The post-custodial approach involves rethinking the archival mindset to address emerging technologies and expanding on the archives' social responsibility, particularly in a world with evolving bureaucratic structures and increasing public demand for access to information (Gilliland-Swetland, 2000, p. 10ff). The changing information needs and demands require that archivists be active instead of passive (Upward & McKemmish, 1994). Terry Cook (1994) stresses the need for transparency and accountability. He argues that the archivist holds power over how the past is represented by determining how records are appraised and what is defined as their provenance. Similarly, Chris Hurley (2005a, p. 110, see also 2005b) proposes the notion of parallel provenance and criticizes how earlier notions of provenance mandate "a single view of provenance". As Hurley points out, outlining only one strand of provenance excludes possible narratives of alternate perspectives or conflicting viewpoints on the same record. Hurley further argues that the context of records should be broadened to include a wider "ambience" encompassing individuals involved in the records' creation beyond the sole creator (p.120). An example Hurley brings forward is how parallel provenance of governmental records should encompass the perspectives of the officials who created them as well as those affected by the documented decisions (see also MacNeil, 2001; Nesmith, 2004).

My research contributes to the post-custodial tradition by developing a framework to approach and identify context information that moves beyond the understanding of provenance centred on the creation stage. I agree with Hurley's point on broadening provenance, which is crucial when it comes to fan engagement on social media platforms. I consider it important to broaden the notion of provenance to better account for engagements with information that occur outside of institutions, organizations, and businesses. It is especially crucial in social and leisure settings. Related to the platforms, I also emphasize the need to identify the role of platforms' third-party actors in shaping the fans' information, which I discuss further in the following sections.

These post-custodial concerns of multiple narratives residing in the same record are echoed in the so-called records continuum model developed by Frank Upward and Sue McKemmish (1994), which has a long history in

Australian recordkeeping as created by the archivist Ian McLean, but which was further developed in light of electronic recordkeeping (Cumming, 2010, p. 46ff). Instead of viewing the records' trajectory through the life-cycle approach, records are perceived as traversing through a continuum across spacetime. The model emphasizes multi-dimensionality, which enables the analysis and contextualization of records through the dimensions of creation, maintenance, use and social plurality (Upward, 1996, p. 7). These dimensions correspond to four axes: identity, evidentiality, transactionality and recordkeeping entity (Upward, 1996, p. 6). Using this model, records are identified as they move through time and space, serving different purposes for different actors in multiple contexts. The records continuum approach and the Pittsburgh Project have similarities in their redefinitions of provenance and appraisal and consider physical transfers to the archives to be unnecessary (McKemmish, 1994). Like in the Pittsburgh Project, Upward and McKemmish (1994) point out that the notion of provenance and appraisal should be incorporated in the system design. This incorporation ensures that relationships between active and archival records are preserved, documenting organizational changes over time. According to Upward (1996), maintaining links between active and archival records ensures historical and social accountability along the way. The records continuum approach connects the record to its immediate and broader organizational and societal context, which assists in appraisal (Upward, 2000). Another similarity to the Pittsburgh Project is that the records continuum approach emphasizes the enduring value of records over time. The records are understood as entities that evolve through time and space, where new layers of context are added as the record acquires new meanings through new uses, or, as McKemmish (2001, p. 359) highlights, records are "always in a process of becoming".

My study aligns with the records continuum perspective in accounting for change. Beyond focusing on the context of creation, I expand on how to account for the context of information use among fans and how these conditions can change. What differentiates my approach from the record continuum model is my explicit focus on the platforms' role in fans' information use and how this use can change over time. As I show in the empirical chapters (Chapter 5 through 7), daily changes and developments

of the platforms over time are crucial aspects to account for when trying to understand the context of fan engagement. In Chapter 5 and 7, I discern that the same activity and recorded information can have different meaning for different fans, as well as how the meaning changes over time. In the following section, I further address research focusing on preservation tied to the recorded information's technological dimensions and its implications for defining its context.

Preserving digital objects

Following the years since the preservation efforts of the UBC project and Pittsburgh Project, as well as the records continuum model, several preservation strategies and techniques have been developed. One of these efforts is the "International Project on Permanent Records in Electronic Systems", also called InterPARES, initiated in 1999 and led by Luciana Duranti. The project is considered a continuation of the UBC project and has been split into several phases, where the last phase ended in 2019 (e.g., Duranti & Rogers, 2019). The initial phase from 1999 to 2001 focused on strategies for preservation, methods of appraisal, and ensuring authenticity. The first phase of InterPARES examined how archival concepts and practices can be developed in light of emerging information technologies and environments to ensure the reliability, authenticity, and integrity of records. Through case studies of records creation through digital technologies, the project developed several conceptual frameworks, guidelines, requirements, models, standards and analytical tools for digital preservation and securing authenticity, but also instructions on how these findings from the project can be practically implemented and executed (MacNeil, 2000, 2002).

In the InterPARES' findings, Luciana Duranti (2007b, p. 114) points out that most systems that are expected to create authentic records fail to do so because these systems lack "fixed form and stable content" and display an "absence of identifiable contexts and relationships". As a result, inactive records are often found in obsolete or non-preservable formats without important context information (Duranti, 2007b, p. 114). Like the findings from the Pittsburgh Project, the InterPARES project emphasizes the need to ensure the records' authenticity at their point of creation, with

appraisal and defining provenance as integrated system components. Several assumptions from the UBC project have been revised, including the positivist outlook on the notion of context, which previously was understood as a consistent and objective reality to be identified from the records. Instead, as Heather MacNeil (2004, p. 220) highlights, the context of records in electronic systems is dynamic, localized and "resistant to any easy generalizations". MacNeil further stresses how the notion of context should be understood as more comprehensive than the immediate context of creation. She argues that, context must also include juridical-administrative, procedural, and technological aspects of the records.

The second phase of InterPARES, between 2002 and 2006, investigated the dynamic and multimodal aspects of records. This phase expanded the conceptual framework of diplomatics beyond the previous legal definitions of what constitutes a record (Hackett, 2003). Later phases of InterPARES after 2006 focused on developing the findings from the first two phases into concrete action plans for smaller public and private archives globally (Duranti, 2007a). The research contribution of the InterPARES project lies in highlighting the need to consider how records are created and used through technological means, as well as how technology shapes recorded information. Building on MacNeil (2004), I expand on how to approach and identify context information based on my understanding of how fans create and use information rather than relying on more general prescriptions of the platform features (e.g., instructions on how to use the features provided by the platforms), which I show with fans' voting and tagging in Chapter 5.

Aside from developing strategies for digital preservation, the InterPARES also produced conceptual frameworks for approaching digitally recorded information. Kenneth Thibodeau (2002, p. 6), a member of the Inter-PARES project, puts forth a conceptual framework for understanding records created through technologies as so-called digital objects, namely "an information object, of any type of information or any format that is expressed in a digital form". According to Thibodeau, the digital object consists of three dimensions of properties: physical, logical, and conceptual. The physical properties concern the medium onto which information is recorded. The logical aspects refer to how information is encoded through software and computational processing. The conceptual dimension entails,

as Thibodeau notes, the "meaningful unit of information" (p.8). The digital object's content and structure can be contextually represented differently depending on its encoding. There are relationships between the digital object's physical, logical and conceptual properties, which enable the object to be accessed, used and interpreted. Software updates and deteriorating hardware pose risks to changing the information inherently. Thus, Thibodeau calls for technical preservation solutions that maintain the recorded information's accessibility and authenticity. Thibodeau's notion of digital objects establishes how the technology that assists in creating the recorded information is intertwined with its content and structure. Throughout the empirical chapters (Chapter 5 through 7), I show similar issues by examining how the platforms' algorithmic and data-generative capabilities shape how and when information is created, used, accessed and shared among fans, which must be accounted for in the construction of context.

Several technical preservation solutions were developed during the early 2000s. I group them into two strands: 1) preserving recorded information in its original environment and 2) continuously transforming it into new formats for preservation. The first strand of preservation strategies consists of hardware museums and emulation, while the second includes migration and digitization. Hardware museums allow for recorded information to be viewed in its original environment, and emulation consists of simulating the hardware and software encoding required for access. These strategies preserve links between the recorded information and its context of use (to a large degree). However, these strategies are not sustainable in the long term due to high costs and the need for constant updates in line with technological developments (Borghoff et al., 2006, p. 16ff). Conversely, migration refers to transforming information from one format to another, often utilizing software- and hardware-independent formats like XML (Thibodeau, 2002, p. 25ff). Digitization involves creating digital surrogates of recorded information that previously only existed in analogue formats (Hedstrom, 1997b). As Clifford Lynch (2004, p. 609) notes, a distinction can be made between digital objects that are born digital and those that were initially analogue but have been converted into digital form.

The viability of emulation as a preservation strategy was examined by Margaret Hedstrom and colleagues (2006) in their project Creative Ar-

chiving at Michigan and Leeds: Emulating the Old on the New (CAMiL-EON) from 1999 to 2003. Two experiments involving conversion to software-independent formats, migration, and emulation were conducted to examine user perceptions of the look and feel of the records and judge their authenticity in various formats resulting from the different preservation techniques. The project's findings underscore the significance of focusing on the recorded information's context of creation and use, including the recorded information's initial purpose, audience, and technological conditions (Hedstrom et al., 2006, p. 187).

The findings of the CAMiLEON project and similar research raise questions concerning how preservation changes the integrity of recorded information and how context information about these changes is important for future use and understanding of the records (e.g., Beaudoin, 2012; Conway, 2015; Jarlbrink & Snickars, 2017; Ketelaar, 2007; Snickars, 2011). Concerns about how to address preservation techniques as part of changes in the records' context have also been emphasized by other researchers in information studies, particularly in relation to libraries (e.g., Chowdhury, 2010; Dahlström et al., 2012; Galloway, 2010; Hedstrom & Lee, 2002; Japzon, 2010). While my study does not address the technical details of preservation or preservation strategies per se, I find it important to include perspectives that establish how preservation shapes how recorded information is understood. Like the CaMiLEON project, my study seeks to make the choices in defining and delineating context information visible for the preservation of fan culture, which I discuss further in the thesis's concluding discussions in Chapter 8. In the following section, I present further developments in understanding how digital technologies shape how the recorded information is used and preserved. These technological processes further implicate those contexts represented in the recorded information.

Materialities of preservation

The ways in which archives are constructed shape how the past is remembered, while having material implications for people in the present. As Nanna Bonde Thylstrup (2018) argues, there is a need to broaden the critical inquiry into how the act of preservation shapes the recorded infor-

mation itself, what it can represent and its cultural and material implications. Bonde Thylstrup further points out that what becomes preserved for the future is inherently a political project, which has implications for what becomes part of society's cultural memory (p. 4). Building on Bonde Thylstrup's call, I situate my study not only in the research that develops archival strategies and practices. The study is also situated within research that approaches the notion of context as constructed through archival practices and its implications for how the past can be understood. As Geoffrey Yeo (2012, p. 90) highlights, records, both digital and analogue, have a material existence, and how they are arranged can "offer insights into the conceptualizations and value judgements that underlay its formation". Therefore, I present a body of archival research that focuses on how context is defined and delineated in the archival description standards. My study does not address archival description standards per se. However, I build on this body of knowledge by developing ways of constructing context. In particular, I account for various types of information engagement, particularly in the social and leisure domains of life, like in fan culture.

There is a body of archival research that raises concerns about archival principles like provenance, original order and respect des fonds, defined in the various archival description standards, including the Canadian archival description standard – Rules for Archival Description (RAD), General International Standard Archival Description (ISAD(G)), Machine Readable Cataloging (MARC) and Encoded Archival Description (EAD). Laura Millar (2002) points out that the archival principles of respect des fonds and original order do not resonate with how records are created, arranged and accumulated in the present. Multiple creators can be involved across different contexts. Instead, Millar argues that the notion of provenance needs to be expanded, describing the histories of the creator, records and custody, which together capture how the records traversed across space and time. Similarly, Wendy Duff and Verne Harris (2002) take a critical stance towards standards for focusing on the records' context of creation. Duff and Harris call for more transparency regarding what archivists do with the records. Archivists should resist describing records uniformly, as "the power to describe is the power to make and remake records and to determine how they will be used and remade in the future" (p.272).

How archivists appraise, arrange, and describe records shapes how they are understood in the present and future. According to Duff and Verne (2002, p. 283), what is problematic about archival description standards is that they treat records and their context as static, failing to acknowledge that records' meanings can change over time. Elizabeth Yakel (2003) echoes the same concerns as Duff and Harris, pointing out that while archival description standards improve future access and use, they define the notion of context based on earlier understandings that perceive it as static and singular. Yakel notes that these definitions of records' context promote certain narratives coming forward, which risks making certain parts of the archival holdings more accessible than others. These researchers establish that the records' context is not an object to be found but rather is constructed by the archivist through the preservation act. As I elaborate further in the thesis's theoretical framework, I contribute to raising awareness about the construction of context operationalized through preservation. I address how to construct context in ways that are suitable for preserving changing and evolving phenomena, like fan engagement on platforms.

Concerns about how the records' context is constructed through preservation also relate to the notion of appraisal. As Terry Cook (2011, p. 173) states: "We are what we keep; we keep what we are". Earlier understandings of appraisal, as promoted by archivists like Charles Hilary Jenkinson and Theodore Schellenberg, have shifted from advocating no appraisal (where the responsibility falls on the creator) to recognizing the importance of archivists' role in identifying a record's evidential and informational values, where the records' evidential purposes and future research needs are considered (Bantin, 1998, p. 23ff). Despite various suggestions and guidelines on appraising, the act itself is highly contextually dependent, creating different appraisal methodologies (Klett, 2017, 2019). Geoffrey Yeo (2010, p. 103) highlights how the notion of appraisal is value-laden, where values are not static and can change in the settings of their creation and use, as well as during preservation when the archivist appraises the records. These researchers' contributions emphasize how the notions of appraisal and provenance play into the construction of context. Starting from these insights, I expand on how the archivists' choices and what

happens with the information during its creation and use must be accounted for when constructing context.

Some of these critical perspectives on the notion of appraisal emphasize how the technological environment of creation and use shapes the records. For example, Luciana Duranti (2010) argues for an appraisal methodology that involves performing a structural and formal analysis. This methodology considers the record's content and form itself, as well as the technological environment in which it was created. Richard Cox (2011) also highlights the importance of attending to the technologies involved in creating and using records, stressing that archivists should acquire knowledge of how appraisal has been undertaken historically to take informed decisions on what to keep. In my study, I address the platforms' role in shaping fan engagement and how context can be constructed based on these insights. Related to what Cox highlights, I focus on how to approach the technological dimensions of how fans engage with recorded information (as I show in the empirical chapters (Chapter 5 through 7) and, in turn, how to further translate this understanding into approaching and identifying crucial context information for preserving digital fan culture, specifically fan engagement on social media platforms.

According to Peter Botticelli (2000) and Kit Hughes (2014), emphasis must be placed on how social aspects relate to the technological means in information creation and use. Both Botticelli and Hughes argue for approaching the notion of appraisal by attending to what people do with recorded information on an everyday basis. They reveal how records come to be of use across different settings within the organization, highlighting the tacit knowledge and meanings of records and how technology is used in these settings. On the other hand, Terry Cook (2005) has developed the so-called "macro-appraisal" methodology. Cook's approach considers records' value from several viewpoints, both outside and inside an organization. Instead of a bottom-up approach, where appraisal takes the record as a starting point, Cook's macro-appraisal methodology adopts a top-down and provenance-based approach, where the record's value is based on the social context of its creation and use (p. 128). Related to the domain of governments, Cook argues for focusing on records that capture how the public and government meet. He argues that focusing on these aspects can

highlight different perspectives on the record (p.128ff). Further, inspired by the preservation efforts of community archives, Cook (2011) also develops another appraisal methodology emphasizing the participation of citizens in the appraisal act (see also Huvila, 2008). These researchers underline the importance of capturing the different ways recorded information is used across different contexts. I draw on these insights to understand how provenance and appraisal are closely intertwined. I examine further how the notions of provenance and appraisal can be understood based on what fans do and how they interact on the platforms.

According to Ciaran Trace (2002), records are not simply remnants from past activities. Various social and technological factors shape what becomes a record (e.g., what becomes documented as a record and constructed as its context). Records can shape the direction of people's lives, as they can represent them in certain ways, surfacing the records' material conditions and implications (p. 143; see also Dourish, 2017). As Anneli Sundqvist (2021, p. 13) points out, records are "artifacts with certain properties, the environments of records such as systems, infrastructure, or social settings; and the impact or effects of records". In comparison, with an explicit emphasis on technology, Amelia Acker (2017) stresses the need to examine how the transmission of records through networked technologies also shapes the records and their evidential value (see also Ketelaar, 2018; Lester, 2018; Rogers, 2015). Trace, Sundqvist and Acker's understanding of the material impact on/of records further strengthens my study's approach to preservation. In particular, I build on these perspectives to gain a deeper understanding of the context of fans' information creation and use where the platforms are a crucial component. It becomes important to consider how platforms are adopted in fan engagement, rather than focusing predominantly on the recorded information itself. In addition, I contribute to and expand on this body of research by attending to the dynamics of fans and platforms, such as how fans create and use recorded information and how this implicates the construction of context.

The present body of literature on the material aspects of preservation highlights an ongoing need for further development of the notions of provenance and appraisal. This development is necessary to account for diverse domains in which recorded information is created and used. Here,

the notion of materiality is not only understood in terms of how technology shapes recorded information. Archival research on materiality also addresses how records implicate people's lives. As Anne Gilliland (2017, p. 56) highlights: "the amount of real dynamism that exists in the content and context as well as the fixity of records as they move through time and space is often over-simplified or under-conceptualised". Gilliland's remarks call for more research into the complexities and nuances of the various domains of life in which recorded information is created, used, and preserved. In line with Gilliland, I contribute to the existing knowledge base by exploring the social and technological dimensions of fan engagement. Specifically, I examine how fans engage with recorded information on social media platforms. However, I find that earlier research emphasizes either the social or technological aspects. In comparison, I move beyond the dichotomy between social and technological by developing a theoretical approach to construct the context in which the social and technological dimensions are entangled. In Chapter 3, I elaborate on this approach by focusing on how the platforms are adopted by fans in their engagement, as well as on how the platforms create conditions for fandoms to emerge. In the following section, I discuss research that directly addresses preservation related to fan culture and platforms and how my study is situated in these bodies of knowledge.

Decentralization of archives

Recorded information is created, used, shared, accessed, and stored in almost every aspect of life, both in more nominally structured and prescriptive domains (e.g., governments, institutions, organizations and businesses) and in the social and leisure domains of life (e.g., Hill & Pecoskie, 2017; Price, 2017; Savolainen, 1995; Stebbins, 1992). With the proliferation of internet access, social media use and ubiquitous computing, Mike Featherstone (2000) stresses the need to open up the definition of archives by emphasizing the importance of preserving online cultures. Frank Upward, Sue McKemmish and Barbara Reed (2011) have similar reflections, noting that post-custodial archival approaches are taking new forms through the storage capabilities of digital technologies. Upward, McKemmish and

Reed emphasize that digital technologies offer new opportunities for both memory-making and -keeping. These opportunities extend beyond notions of traditional, centralized archives; typically used for government and business purposes. Instead, these opportunities enable a wide range of decentralized, personal and community-driven archival practices.

In the following sections, I present several strands of research. The first strand focuses on preservation initiatives directed at fan culture and similar social domains. Here, I elaborate on the knowledge gap addressed by my study, as outlined in the introductory chapter of the thesis. Specifically, there is limited research on preserving fan culture that focuses on fan engagement. The second strand focuses on research highlighting the challenges in preserving recorded information from social media platforms. This research explores how to address the dynamic and constantly evolving character of these platforms. The third research strand focuses on the management and curation of research- and cultural heritage data. These perspectives emphasize the importance of capturing context information about the recorded information. By synthesising these strands of research, I present how my study addresses the identified research gap.

Fan-driven preservation

There is a vast body of literature addressing community-driven preservation initiatives to establish archives, also called "community archives", focusing on capturing what has previously not been considered to fall under the purview of archival institutions: the personal and social domains of life. These community archives make efforts to preserve recorded information tied to specific events (e.g., Acker & Flamm, 2021; Gibbons, 2019), of activists (e.g., Carletti, 2011; Currie & Paris, 2018) and artists (Carbone, 2017) and the cultural heritage of ethnic communities and groups (e.g., Caswell, 2014; Flinn, 2010; Gilliland & Štefanac, 2018), among others. Research on community archives offers valuable insights into alternative forms of memory-making that exist outside traditional archival institutions. Since my study focuses on the preservation of fan culture, I concentrate primarily on fan-driven preservation efforts and other similar community-led initiatives.

Research on the preservation efforts of fan culture primarily focuses on the creative work of fans, such as fan fiction and fan art (Kennedy, 2022, 2024b; Pilati et al., 2024). Several studies have examined the archival practices of fans (Keidl & Waysdorf, 2022; Price, 2019). Here, fans try to preserve fan fiction websites and Wikipedias and build archive collections on social media platforms (Asokan, 2021; Einwächter, 2015), which researchers have discussed as forms of knowledge management (Price & Robinson, 2016) and memory-making (Kizhakkethil, 2020). Related to memory-making and archives on social media platforms, researchers have revealed how these efforts by fans become intertwined with the platforms' data-generative, as well as algorithmic features, which shape the conditions of fans' memory-making (Das, 2022; Neece, 2022). As Taylore Nichole Woodhouse (2022) points out, while these platforms present opportunities for fans' memory-making, it is also crucial to attend to how the fan archives are "shaped not only by fans and fan culture but also by the algorithms that process, organize and present information".

There are also examples of fans establishing alternative sites for memory-making beyond social media platforms. The most well-known example of fan-led preservation is the fan fiction repository Archive of Our Own (Ao3) launched in 2008 by the Organization of Transformative Works (OTW). Ao3 was created as a response to commercial platforms, like Fanlib, which attempted to profit from fans' creative works (Hellekson, 2009). According to Abigail De Kosnik (2016), the Ao3 exemplifies how fans are taking control of their narratives by establishing alternative sites for memory-making and creativity. Similarly, Casey Fiesler and colleagues (2016) highlight how Ao3 exemplifies the ways fans assert control over the creation and management of their information through technological means, by establishing their own platforms and spaces.

The strand of research into fan-driven preservation efforts provides valuable perspectives on fans' memory-making and their strategies to preserve fans' creative outputs. However, as I argue in the introductory chapter, there is a need to expand the scope of preservation of fan-related recorded information to encompass how fans engage and interact in their daily activities. These aspects of fans can provide insights into how fans identify as fans and fan community participants. In particular, I emphasize that

these aspects of fan engagement must be accounted for in addition to preserving creations made by fans.

As I point out in the introductory chapter, little is known about preserving fan culture that addresses fan engagement in particular. A few studies have touched upon these preservation matters, like Alexis Lothian (2013), who highlights how fanworks are often more prioritized than less tangible aspects of fan culture in fan-driven preservation efforts. Lothian emphasizes the need of accounting for not only fan works themselves, but also for fans' surrounding discussions, interactions, and activities. Specifically, she argues that this includes acknowledging the negative aspects of fan culture, such as controversies, conflicts, and negative behaviour among fans. Similarly, Renee Ann Drouin (2021, p. 19) points out similar concerns while raising ethical dilemmas as these behaviours are captured and preserved without the consent of those involved. Apart from the more dramatic aspects like fans' negative behaviours, what is preserved of fan engagement and fan culture tends to be quite limited in scope. This narrow focus leaves a significant knowledge gap in how to specifically approach the preservation of fan engagement as it unfolds on social media platforms. As I highlight in the introductory chapter, my study expands the scope by focusing on fans' activities of creation and use, including how they access and share recorded information. My study's contributions lie in providing a framework to identify context information on fan engagement. These contributions can enrich the knowledge of preserving fan-related recorded information. It is important that what fans do and how they identify as fans, build fan communities, fandoms and are part of fan culture at large are captured together with preserving fans' creative outputs.

My study also aligns with an adjacent research area, namely the preservation of videogames and documentation of videogame communities. Preserving videogames presents several preservation challenges, including grappling with the game's intellectual property rights and the technological difficulties of maintaining access to and use of the videogame itself (Galloway, 2011; Winget & Sampson, 2011). At the same time, researchers have increasingly emphasized the importance of capturing players' experiences, engagement and interactions within the videogame, alongside preserving the game itself (e.g., Antonescu et al., 2009; Lowood, 2004; Mc-

Donough et al., 2010; Newman, 2012). Additionally, engagements beyond the videogame are also important, for example, those in videogame communities on websites and social media platforms where the communities create, use and collect information related to the videogames (Winget, 2011; Kraus & Donahue, 2012; see a thorough exposé on preserving sociocultural aspects of videogames in Sköld, 2018a, p. 49ff). As Brianna Dym and colleagues (2023) highlight, community-driven efforts to preserve videogames not only concern the game itself, but also seek to capture the gaming experience as established socially and communally among players. The focus on preserving the players' engagement and interactions surrounding the videogame has been further examined by Olle Sköld (2018a) in his doctoral thesis. Sköld focuses on documenting practices within videogame communities, demonstrating how these practices can contribute meaningfully to videogame preservation. By capturing important context information, such as the game's visuals, mechanics, players' experiences and sources related to its production and development. This documentation helps illuminate the sociocultural dimensions of videogames. Through documenting gameplay and related content, players actively participate in processes of memory-making and knowledge production within their communities (Sköld, 2015, 2017). Subsequently, Sköld (2018b, p. 134) stresses the need to capture the broader context of the videogame in the form of an "expanded notion". Preservation efforts regarding videogames, as Sköld argues, should account for how the game has been received, understood and played among its players as expressed in the videogame communities. My contributions lie in focusing on similar aspects in the setting of fan culture. I argue that preserving only the outputs of fan engagement, like fan works, is insufficient for future understanding of fan culture.

To reiterate, I identify that very few studies have focused on fan engagement in current research concerning fan-related preservation efforts. One predominant focus is on fans' output, while few studies have looked at preservation related to particular behaviour, discourses and knowledge within fan culture (e.g., Asokan, 2021; Drouin, 2021; Einwächter, 2015; Lothian, 2013). Although these efforts serve as crucial archival resources in fans' memory-making, they capture only certain aspects of fan culture, such as what fans produce. Meanwhile, what is often overlooked is the

engagement of fans in their communities and with the media product they are invested in. In comparison, videogame preservation has addressed these concerns further. Videogame communities and fan communities differ in some respects, where videogame community participants do not have to consider themselves fans to play the videogame (Wirman, 2007). Videogames are interactive, where much of what makes a game meaningful depends on the player individually and socially, which spurs the urgency of attending to players' engagement and interactions for preservation purposes (Adams, 2009). However, the same could be said about fan communities. The interactivity among fans takes a slightly different form in their creative outputs and everyday engagements (see also Booth, 2010; Malik & Haidar, 2020; Ocepek et al., 2018). Building on the research perspectives into fan-driven preservation and videogame preservation, I perceive a knowledge gap concerning the preservation efforts of fan culture. As much of the contemporary fan engagement takes place on social media platforms, as Woodhouse (2022) points out, I also find it necessary to address the technological aspects of contemporary fan culture. Building on Olle Sköld's (2018a, p. 132) call to consider the temporal cycles and patterns of communities, I also find it crucial to consider the technological aspects tied to dimensions of change and evolvement in fan engagement and how to account for these when constructing context for preservation.

Preservation challenges with platforms

With the proliferation of the Internet, preservation techniques have evolved to capture web-based information. These approaches focus on recorded content from websites and social media platforms, using methods such as web archiving and data extraction through APIs. One of the more well-known web archiving initiatives is the so-called Internet Archive, founded by the librarian Brewster Kahle in 1996. The Internet Archive provides free access to collections of digitized and born-digital media. The latter includes websites downloaded via their web crawler service, the Wayback Machine (Kahle, 1997, 2007). As Helen Hockx-Yu (2014, p. 3) highlights, web archiving involves using web crawlers to set the scope and frequency of the websites to be crawled, resulting in snapshots where a

copy of the website is downloaded via an HTTP request. Hockx-Yu emphasizes that, while web archiving can be flexible in scope and frequency, it is mostly suitable for static content. Subsequently, according to Pelle Snickars (2011, p. 306), dynamic content, such as newer websites and social media platforms, becomes increasingly difficult to preserve. As Emily Maemura and colleagues (2018, p. 1232) emphasize, the notion of provenance in web archiving must include "a deeper understanding of the sociotechnical systems involved in production, the limitations and constraints imposed". These researchers identify the challenges of preserving dynamic content online, which my study also addresses.

Another strategy to preserve recorded information from the internet, particularly from social media platforms, is through the platforms' APIs. As Sara Day Thomson (2016, p. 7) describes, extracting data from the APIs entails accessing the data via the platforms' "back door". Data available from APIs can differ depending on how the platforms formulate their terms and conditions. Many platforms provide content (such as posts and comments) and metadata (like engagement metrics) that are transferred together in formats like JSON and XML. Subsequently, Thomson highlights alternative and less common preservation strategies, including deposits from individuals who download their personal data archives from the platforms, purchasing from third-party services or resellers, or collaborating directly with the social media platform (p.11ff). In particular, Thomson notes that collaborations between preservation initiatives and platform companies are rare, with one notable example being Twitter's donation of all public tweets since the platform's inception to the U.S. Library of Congress in 2010. Related to the Twitter collection in the U.S. Library of Congress, Michael Zimmer (2015) highlights that there are several challenges associated with the Twitter collection, including how to organize and enable the vast collection to be searchable and usable, while also balancing access with ethical issues of protecting Twitter users' privacy as subjects in the collection. In 2017, the Library of Congress announced a change to the Twitter project by halting the comprehensive preservation of tweets and focusing on preserving tweets "on a selective basis" (Osterberg, 2017). The Twitter collection remains in a closed repository at the Library of Congress (Fondren & McCune, 2018; Manis & Wilde, 2024).

My study does not focus on how to preserve recorded information via the platforms' APIs. However, the APIs still play a significant role in my study. I expand on how the APIs also play an important role in understanding the context of fan engagement.

However, the strategy of extracting data from platforms' APIs comes with various challenges. Like the rest of the internet, the platforms are dynamic, networked and evolving. It is difficult to capture the context of recorded information created and used through the platforms (see Friberg von Sydow, 2018, 2023). Regarding extracting data from the platforms' APIs (depending on the platform's terms and conditions for data access), Sara Day Thomson (2016) highlights several difficulties, including the risk of extracting copyright-protected content and preserving data about platform users without their awareness or consent, making preservation of data from social media platforms also an ethical issue. Amelia Acker and Adam Kriesberg (2017) recognize challenges similar to those pointed out by Thomson. The platforms continuously change their terms and conditions, making the APIs unreliable. Acker and Kriesberg also highlight the proprietary data formats shaped by evolving platform designs. These formats cause difficulties in understanding the data over time. As Acker and Kriesberg point out, "Once removed from its native platform, social media data loses important context and becomes a snapshot of a moment in time" (p.7). In another article, Acker and Kriesberg (2020, p. 107) note how platform companies often adopt a "one-size-fits-all" solution to their APIs. Various actors, commercial and non-commercial, including preservation initiatives, operate under similar conditions and access the same data. The data accessed are most suited for present use and not adapted for preservation purposes. The different actors' access to the APIs also illustrates how data are used across multiple contexts, or as Dominique Glassman (2020, p. 56) points out, the data "can exist contemporaneously as different iterations for different parties involved".

The challenges raised by researchers concerning the data extracted via the platforms' APIs, involving technological, legal and ethical aspects, point to an urgent need to develop preservation for recorded information on the platforms. Having these researchers' contributions in mind, I add further insights by focusing on how fans engage with information and how

the platforms contribute to shaping the fans' activities and their implications for preservation. As I highlight in previous sections, there is a need to broaden what counts as context information when preserving fan culture. Considering that fan engagement takes place on social media platforms, a focus must be placed on the role of third-party actors and how to consider these actors when constructing context. In Chapter 6, I expand on how the platforms' technological capabilities, like the APIs, create forms of access for various third-party actors, shaping how context can be constructed for preservation.

Social media platforms also pose problems for appraisal, in that no appraisal methodologies have been developed specifically for web-based and platform information. As Colin Post (2016) highlights, regarding web archiving, there are no established methods for determining the scope and frequency of what is significant to collect. In relation to my study, I agree with Post, who notes that content from social media platforms is especially challenging due to its dynamic and evolving character. Ed Summers and Ricardo Punzalan (2017) emphasise that the appraisal of web-based and platform content must consider the content's broader social context. Similarly, Sarita Schoenebeck and Paul Conway (2020) discuss how the broader context of the data needs to be considered in relation to what digital technologies allow and the constraints in their design and features. These studies reinforce the need to approach the notion of appraisal in dialogue with understanding the provenance of recorded information, where grasping the context can assist in identifying what is necessary to preserve. Having these research perspectives on appraisal as a starting point, I expand and more explicitly define what the context can entail in the setting of fan engagement. I further contribute insights into how the notion of appraisal must incorporate variations in what is considered meaningful among fans. I demonstrate how fan engagement can vary, change, and evolve over time, as I observe in the empirical chapters (Chapter 5 through 7).

Researchers have begun to raise the ethical dimensions of appraising recorded information created and used on social media platforms. As Alyssa Hamer (2018, p. 174) highlights, there is a delicate balance to maintain, in that appraisal evokes not only accountability but also privacy, considering the abundance of personal information online that can easily

become decontextualized through sharing (see also Acker & Chaiet, 2020; Zannettou et al., 2018). Similarly, Paul Dalgleish (2020, p. 75) puts forward how the archivist needs to consider "the matter of sensitivity in the context", emphasizing how the archivist must have a good understanding of the contextual circumstances. Jessica Ogden (2022) illustrates how users' information privacy can be compromised through digital preservation efforts, using the example of the Archive Team's attempt to preserve Tumblr content during the Tumblr porn ban in 2018. Ogden highlights how these ad-hoc preservation efforts often overlook the ethical implications for the communities that are subjects of the preserved content. Due to the pressing urgency of content removal, appraisal decisions on what to keep are often rushed and made with little to no knowledge about the communities (p.125). To avoid overstepping individuals' information privacy and to support ethical appraisal, Shelly Black (2020) argues that considerations of privacy must be integrated into the concept of appraisal. This approach includes taking into account legislative measures such as the General Data Protection Regulation (GDPR) and the Right to be Forgotten. Subsequently, several researchers have pointed to a deeper contextual understanding of recorded information as a foundation for appraising ethically, including accounting for how the notion of sensitivity is defined by the people whose recorded information is to be preserved (e.g., Post, 2016; Schoenebeck & Conway, 2020; Summers & Punzalan, 2017). In my study, I contribute to this body of research by examining how an ethical approach to appraisal could be anchored in an in-depth understanding of how fans engage with information. In Chapter 6, I shed light on how platforms shape fans' recorded information, revealing how notions of governance, access, and control of recorded information are formulated. These aspects of the platforms shape fans' information activities, which are important aspects to account for in preservation.

One aspect that adds to the platforms' dynamic character is the algorithms, which pose additional challenges to preserving recorded information created and used on platforms. As Clifford Lynch (2017) writes, the algorithms are "embedded in something much more complex and executed iteratively or repetitively over time". Lynch highlights that multiple factors affect what is recommended through the algorithms. However, these factors

are opaque, leaving no insight into how data are classified and how these classifications operate. The factors playing into algorithmic recommendations include users' past activities and the activities of others within their network, and overall, through the platforms. Lynch argues that archivists should document algorithmic processes instead of trying to preserve them as archival objects. He further suggests that documenting the algorithmic processes should be done in collaboration with other disciplines (e.g., ethnographers, reporters, journalists) who navigate with an ethnographic understanding to grasp the contexts of algorithmic interactions.

James Hodges and Ciaran Trace (2023) take on concerns similar to Lynch's, by investigating how to approach the algorithms as a preservable artefact. They highlight that the choices made in design and use are equally important. As Hodges and Trace underline: "Algorithms as such are not wholly separable from the social settings in which they are conceived and operated, nor are social contexts truly separable from the algorithms that shape them" (p.1383). This body of research on the preservation of algorithms highlights the challenges of comprehending the algorithms' social and technical dimensions due to their opaque character. As Lynch (2017) highlights, "'algorithms' cannot stand alone; they operate in a very complex and extensive (and often proprietary, unrecordable or even un-reproducible and unknowable) context". Much of this research has focused specifically on the challenges of preserving algorithms, taking into consideration the engagements and interactions with the algorithms. In comparison, my approach is slightly different as I particularly focus on what constitutes important context information about fans' algorithmic engagements, where the engagements are the focal point. My study draws on Hodges and Traces' (2023) approach by specifically focusing on the operating context of the algorithms. Specifically, I build on their suggestion of examining user discussions aimed at deciphering how algorithms can offer valuable insights.

As I highlight throughout this chapter, I approach preservation and the notion of context by focusing on *how* fans create, use, access, and share recorded information, in other words, on *fans' information activities*. My approach builds on an adjacent field in information studies focusing on data management and curation among researchers and cultural heritage institutions, which I discuss in the following section.

Context information about creation and use

Examining what the notion of context entails and how to translate it into strategies for future access and use of recorded information has been increasingly examined outside archival studies. For example, the notion of provenance is employed in data-intensive fields, like computer science (e.g., Clifford et al., 2008; Moreau, 2006; Moreau et al., 2008; Stamatogiannakis et al., 2015), but also in other areas in information studies, focusing on data management, -curation and -preservation among researchers (e.g., Borgman, 2013; Kerchner et al., 2016; Kinder-Kurlanda et al., 2017) and in cultural heritage institutions (e.g., Bettivia, Cheng, & Gryk, 2022; Bettivia et al., 2023; Dahlström & Hansson, 2019). These understandings of provenance emphasize the processes and practices involved in creating recorded information, rather than centring only on the creator or tracing the custodial chain (Niu, 2013). As Rihannon Bettivia and colleagues (2022, p. 544) point out, "Provenance is more about the journey than the destination". Here, parallels can be drawn to the Pittsburgh Project's emphasis on outlining provenance through electronic systems, where transmission metadata can provide provenance and future access to and reuse of records (Bearman, 1995; Bearman & Lytle, 1985). However, what is different is how this body of research focuses on *how* people create and use information as a starting point to grasp and identify context information in which technology is a factor, rather than simply relying on the metadata generated by the systems.

One aspect concerns how people find information meaningful. For example, Ixchel Faniel and colleagues (2013; 2019) address the issues of identifying context information by examining what is perceived as meaningful among the creators and users of recorded information to support future reuse. Conversely, Isto Huvila (2022) emphasizes the notion of usefulness rather than meaningfulness by also focusing on the perspectives of creators and users. He points out the need for context information about the practices involved in creating, curating, and using the data to enable future access and reuse (p. 29; see also Huvila et al., 2025). I approach the preservation of fan engagement by attending to fans' meaning-making, where I draw on Faniel and colleagues' call to approach preservation by identifying which information

people find meaningful. I combine this with Huvila's approach to focus on *how* people create and use information rather than relying on prescribed notions of how recorded information is created and used.

Understanding context from this viewpoint emphasizes how to translate the qualitative context of these processes and practices into describable entities (Huvila, 2022, p. 33), where so-called provenance metadata and paradata can come into use (Huvila, Greenberg, et al., 2021). The notion of metadata is commonly described as "data about data" (Pomerantz, 2015, p. 19; see also Furner, 2020). Subsequently, provenance metadata are understood as information about the data, including their origins and custodial chain (Dahlström & Hansson, 2019). Subsequently, the notion of paradata, as Olle Sköld, Lisa Börjesson and Isto Huvila (2022) describe, focuses on "the specific processes as in the goal-oriented progression of discrete events and activities that constitute productive ventures in e.g., science and heritage work". In this regard, provenance metadata and paradata can be created to document the processes, as well as identified in existing documentation (Huvila, Greenberg, et al., 2021; Huvila & Ekman, 2024; Sköld, 2017). For example, Sköld, Börjesson and Huvila (2022) compare the two data forms where provenance metadata, expressed through archival descriptions, can be fairly abstract narratives about the data. In comparison, paradata, by focusing on the processes, could be engagement data, logs of revision, and documented choices. However, as Huvila (2022, p. 32) highlights, these two types of data can also be interchangeable as "data that is metadata for someone can be data for someone else, also someone's paradata". Related to algorithms, Ciaran Trace and James Hodges (2024, p. 197) suggest that adopting the notion of paradata could be useful in making the algorithms "describable entities" for accountability and transparency. In this regard, paradata describing the context of algorithms would include the processes and practices that involve creating and using the algorithms.

To reiterate what I highlight in previous sections, I approach the complexities of identifying context information related to algorithms by focusing on how fans engage with algorithms in their information creation and use. The perspectives on provenance metadata and paradata establish productive approaches to capturing context information. However, I argue that these perspectives cannot be directly applied to the setting of fan

engagement and fan culture as they are developed on more nominally structured and prescriptive domains, like how researchers manage, preserve and reuse data where the processes, tasks and activities are established and predefined, with a clear purpose or goal in mind.

Although people in more nominally structured domains do not always do as they are prescribed or instructed to do (e.g., Bettivia et al., 2023), and the processes and practices might not always be meticulously described or documented (e.g., Huvila, Sköld, et al., 2021; see also Trace, 2002), where there are defined processes, practices and a common goal that serve as a template. In comparison, fan engagement on social media platforms is constituted differently. Whereas there are prescribed ways of interacting through the platform and its features (e.g., using a like-button when seeing a post one likes), what users, like fans, actually do may be different, as the platforms cater to many different interests, purposes and needs (Graham & Rodriguez, 2021).

Altogether, I adopt the approach of asking *how* information is engaged with, or in other words, fans' information activities. In my study, I expand on the importance of understanding the conditions for how fans engage with information when preserving fan culture. As I show in the thesis's empirical chapters (Chapter 5 through 7), approaching and identifying context information on fan engagement on platforms must also account for the third-party actors and how they shape fans' information activities and recorded information. Approaching the construction of context with the starting point of how fans create and use information calls for supplementing the current knowledge base by attending to research that directly addresses fan engagement and social media platforms. In the following sections, I present, in broad strokes, research on the notion of platforms, fans, fandom and fan culture. I focus on important aspects of social media platforms and fan culture that must be accounted for when moving further into my study.

Social media platforms

In the early 90s, Howard Rheingold (2000 [1993]) saw the possibilities of the internet and how it would profoundly change how people communicate and access information. Subsequently, Rheingold cautiously proclaimed the Internet's potential as a new public sphere, offering citizens a

voice and revitalizing a citizen-based democracy. In the present day, the Internet unfolds somewhat differently from what Rheingold envisioned. With the rise of social media platforms, social interactions, community formations and access to information via platforms are part of everyday life, permeating the platforms' commercial logic. As Benjamin Bratton (2016, p. 46) emphasizes, platforms are "uniquely ideological in how they realize particular strategies for organizing their publics". Everyday communication and community interactions are entangled with platform components like algorithms and their data-generative features and processes, enabling the platforms to profile, monitor and monetize user preferences and behaviour (see Bucher, 2012; Gerlitz & Helmond, 2013; Mejias & Couldry, 2019). The entanglement extends through the platforms' APIs, allowing third parties, like developers and advertisers, to access data and their functionalities (Bucher, 2013). I employ the concept of platform as a descriptive term for Reddit and Tumblr, but I also draw on research concerning platforms, which I discuss further in the present section. The body of knowledge concerning the notion of platforms highlights several aspects tied to the platforms' technological and commercial characteristics that I consider on a theoretical and methodological level in my study.

What is a platform? Tarleton Gillespie (2018, p. 18) notes that the term is "slippery" and adopted by various actors, ranging from the platform companies and their stakeholders to their critics. Platform companies define their services differently based on their audience (e.g., users, clients, advertisers and policymakers), emphasizing the internet's democratizing potential or downplaying their role to avoid legal liability for user-uploaded content (Gillespie, 2010). Similarly, the platform concept has also been adopted differently by researchers in various disciplines and fields, ranging from media and communication studies, business studies, and human geography to the field of software studies. In broad strokes, Ian Bogost and Nick Montford (2008) suggest a computational perspective, focusing on the platforms as programmable, modular, and layered in hardware and software. An economic view that Bernhard Rieder and Guillaume Sire (2014, p. 199) suggest is to see platforms as multi-sided markets, which "brings together at least two distinct groups of end-users", where the presence of users, like fans, attracts advertisers. Alternatively, Anne Helmond

(2015), from a material-technical perspective, states that the platforms' re-programmability facilitates various needs, from those of users to those of developers, through their data access and exchange. Lastly, the platforms, in a strand of research in media studies, are also discussed in terms of platformization, the process of proprietary platforms expanding into domains traditionally dominated by institutions, organizations, or governments, thereby making themselves indispensable (Plantin et al., 2018; van Dijck, 2020). Thomas Poell, David Nieborg, and José Van Dijck (2019, p. 3) developed a definition that, comprises the different perspectives mentioned above. Their definition of platform is the following: "(re-)programmable digital infrastructures that facilitate and shape personalised interactions among end-users and complementors, organised through the systematic collection, algorithmic processing, monetization, and circulation of data".

In my study, I draw on Poell, Nieborg and Van Dijck's definition of platforms, which acknowledges the platforms' technological and commercial aspects. However, there is a difference between how they define the notion of infrastructure and my definition, where they perceive the platforms themselves as infrastructures. In Chapter 3, I elaborate on how I approach and define infrastructure, namely as the formation of various actors, activities and recorded information that support fans' daily activities. The notion of infrastructure is understood in my study as an analytical framework that assists me in examining how the platforms' technological and commercial aspects are involved in fan engagement. In this regard, I understand platforms as a mobilizing force, producing social, political, and economic implications through their technological capabilities, which are important factors to account for related to preserving fan culture as expressed on platforms. In Chapter 3, I discuss how I approach the platforms' role in fans' information activities and, by extension, shape their fan engagement.

How users are situated in relation to the notion of platforms has been up for discussion. According to Thomas Apperley and Jussi Parikka (2018, p. 354), understandings of platforms, specifically those focusing on the platforms' technological aspects, often miss including the perspective of users while prioritizing publicly available documentation and material from official sources (e.g., the platform company or news). Similarly, Peter

Dunn (2020, p. 337) emphasizes: "The participation and programmability inherent to platforms mean that we cannot understand a platform by studying only the system structure itself; we must also look to what people actually do with the platform". There is a strand of research that focuses on the perspective of end-users, where researchers highlight that while the platforms shape users' activities, they are not a determining factor (e.g., Bucher & Helmond, 2017; Lamerichs, 2020; Massanari, 2017; Priharsari & Abedin, 2021; Tiidenberg et al., 2021). For example, Timothy Graham and Aleesha Rodrigues (2021) illustrate the process of co-constitution between users and platforms through the example of voting on Reddit. As Graham and Rodrigues put forward, clicking the vote button "not only mediates but also intervenes with how Redditors relate to themselves and others" (p. 9). Another example is presented by Emily Van der Nagel (2017), who identifies that users negotiate with the platform features and policies regarding what personal information they decide to present. However, users' strategies for pseudonymity and visibility can also be disrupted, for example, in the case of doxing, when personal information is published against users' will.

How users establish strategies to optimize platform features according to their needs and interests has also been raised by van der Nagel (2018) and Jenna Burrell and colleagues (2019). Van der Nagel highlights that end-users develop strategies to counter the connections made by the algorithms, such as screenshotting and so-called "voldemorting", namely not mentioning specific terms or words (p. 81). Subsequently, Burrell and colleagues (2019) underline that users can manipulate the algorithms in the curation of content both for negative and positive purposes. In my study, I contribute to this body of research by taking fans' information activities as a starting point and attending to how the platforms are caught up in these activities. I showcase how the platforms are caught up in fans' information activities in the empirical chapters (Chapter 5 through 7), including how they create, tag, vote, moderate, sort (through algorithms) and retrieve information. In the following section, I turn to discern the research on fans, fandom and fan culture to present important aspects of fan engagement that I build on when examining fans' meaning-making through their information activities.

Fans, fandoms and fan culture

Fans have been studied across various disciplines, notably in culture studies (e.g., Gray et al., 2017; Larsen & Zubernis, 2012; Sandvoss, 2005), media and communication studies (e.g., Bailey, 2005; Booth, 2010; Duffett, 2013; Lamerichs, 2018) and literary studies (e.g., Black, 2009; Duggan, 2022; Haglund, 2018; Hellekson & Busse, 2006). In early definitions of fans, fans were associated with negative attributes like obsession and hysteria (Jensen, 1992). However, Jeroen de Kloet and Liesbet van Zoonen (2007, p. 322ff) point out that fans have many commonalities with other groups, like researchers who engage in knowledge production. What fans and researchers have in common, as de Kloet and van Zoonen state, is the "extensive and detailed knowledge of their object; they are heavily emotionally connected to their object; they spend large amounts of time on it and deeply appreciate it to exchange their experience with other like-minded people" (p. 323). This object of interest can come in many different forms, ranging from a media product, soccer team, celebrity, band, reality show, or other cultural objects or phenomena (Hills & Greco, 2015). Through the fans' accumulation of knowledge concerning the object, a distinction is made between fans and those who are not, assisting in establishing their identity as a fan (Fiske, 1992, p. 31).

Mark Duffet (2015) highlights how fan identity is realized through fan engagement as fans interact with the object of interest. Fan engagement is also social, where meaning related to the object of interest is often made in dialogue with other fans. As Henry Jenkins (2013 [1992], p. 196ff) highlights, fan communities function as a discursive context where the fan not only engages with the object of interest, but the fan's relation to the object is also shaped by the fan community's expectations and assumptions. Although a fan community can be tied to a specific setting where members develop particular ways of interacting with the object of interest, the notion of fandom can be understood, as Jenkins (2018, p. 15) points out, to be "a more expansive subculture whose members engage with a broad array of different media objects but who share traditions and practices built up over many years". In this regard, a fandom for a specific media property, like MCU fandom, encompasses all the individual MCU fan communities

and consists of the common and collective ways of engaging with the MCU franchise among its fans. Fan culture, on the other hand, is what I refer to as the norms and values established among fans across fandoms, addressing the state of being a fan, the ways of interpreting the world and collective experiences gained from being a fan.

Fan engagement has also been conceptualized through the notion of practice, where researchers highlight fan practices as productive because fans create fan fiction, fan art and other creative outlets, which establish meanings, interpretations and identities among fans (Coppa, 2006; Duffett, 2015; Contra Wirman, 2007). I contribute to this body of research on fan engagement, where I expand on how fans' information activities are a crucial part of fans' meaning-making. As I highlight in Chapter 3, I also adopt the notion of fan practices as a conceptual entry point into how fans' information activities become meaningful.

According to Jenkins (2013 [1992]), fans' social identities emerge through their interpretative practices surrounding the object of interest. Jenkins further highlights how fans are actively engaged in "poaching" the product, namely, subverting and expropriating the product's official interpretation according to fans' interests. Here, one important concept to consider is "canon", which refers to the established interpretation of a product as defined in the official story or backstories created by its creators or producers (Chaney & Liebler, 2007). The canon offers a starting point for the fans' interpretation of the object of interest. This interpretation can be productive, where fans create fan works based on canon. Fans draw on their interpretation of canon in their creative outlets, which can be understood as remixing, creating new material from an existing source (Lessig, 2008), by constructing new narratives and meanings of the object of interest (Hellekson & Busse, 2006). These types of fan engagement can subvert the canon's intended meaning, making them transformative as the practices establish and transform the fans' identities and change the canon's original intent or meaning. As Jenkins (2018, p. 12) emphasizes, these transformative practices "speak back" to the producers and the culture industry by "asserting their [fans] own agenda about what kind of popular culture they want to consume". Having these research perspectives in mind, my research analytically demonstrates how the fans negotiate canon,

showing how the MCU franchise is a crucial component in their information activities, which I discuss in Chapter 5. I expand on the notion that there are various modes of being a fan, a fan community participant, and part of a fandom, including those that reflect transformative and productive fan engagements.

Several researchers have shown that fan engagement is not exclusively transformative. Robert Kozinet (2001) highlights in his study of the Star Trek fandom that fans do not solely actively resist or subvert the product's meaning. Instead, Kozinet highlights that consumption plays a key role in fan engagement. The product becomes incorporated into the fans' "mattering maps", where continued engagement with the product is legitimized by bracketing the fact that they are consuming (p.78). In this regard, fans are contradictory, encompass a spectrum of commitment, and do not always seek to transform the canon (Hills, 2015, p. 363ff). As Line Nybro Petersen (2022, p. 4) states, few fans "view their own fascination with a media text or a celebrity as an opportunity to contribute to a counterculture, to 'produce culture' or to express their frustration with dominant norms (although they certainly end up doing so again and again through their communal participatory practices)". Similarly, it has also been shown that fan culture is not always a progressive force. As Mel Stanfill (2024) highlights, fan culture can also be "ugly" as fans also have reactionary tendencies, which they exemplify with conflicts among fans and anger directed towards the media product and its producers. Stanfill reveals that these clashes happen when fans' perception of the canon does not align with other fans or the product itself, which may involve harassment expressed in a misogynistic or racist manner (see also Gray, 2003; Stanfill, 2019). This body of research establishes that fan engagement is heterogeneous, consisting of both transformative and affirmative tendencies, as well as how consumption and commerciality shape fan engagement. I build on these perspectives by showing how different ways of negotiating canon are tied to the MCU franchise and its producers, which I discuss in Chapter 5 and 6.

Internet and social media platforms present possibilities for fan engagement, but they also impact how it is expressed (Nam et al., 2024). Henry Jenkins (2008, p. 2) emphasizes how the proliferation of digital technologies establishes sites where "the old and new media collide, where grassroots and

corporate media intersect, where the power of the media producer and the power of the media consumer interact in unpredictable ways". Through digital technologies, the dynamics between fans and producers change. Fans can potentially share close proximity to the producer, which also offers the producer opportunities to gain insight into how fans engage with their product (Wood & Baughman, 2012). The internet and social media platforms also offer the possibility of creating and sharing fan work, allowing fans to become creators in their own right (Jenkins, 2018). Tisha Turk (2014) highlights that fandoms often operate as so-called gift economies, where no pay or profit is gained from producing, distributing and consuming fan work (see also Scott, 2009). The free exchange causes fan work to fall under the fair use doctrine, where copyrighted material can be used without acquiring rights from the copyright holder if no monetary exchange is involved (Pearson, 2010, p. 87). The gift economy promotes social interactions among fans as sharing fan work is reciprocal and can be rather elaborate, involving feedback processes similar to peer review (Hellekson, 2009). Aside from sharing, fan engagement can also be socially elaborate in other everyday activities of recorded information, including how fans organize, index, search for and retrieve fan work (Price & Robinson, 2016; Hill & Pecoskie, 2017; Price, 2017), for example, developing folksonomies, which are participatory forms of classification schemes (Bullard, 2016; Ocepek et al., 2018; Price, 2019). These researchers' findings highlight the need to understand how fans create, use, share, search for, and retrieve information through digital technologies. Another crucial aspect these researchers highlight is the close proximity between fans and producers. I expand on this relation in Chapter 6 by showing how the fan communities must be examined in relation to the media product itself and the producers.

Researchers have also highlighted how the internet and social media impose conditions on fan engagement. As Henry Jenkins (2018, p. 23ff) points out, the monetization possibilities offered to content creators by the platforms might put fan creators at risk of infringing copyright by introducing monetary gain into the process of sharing their work. Subsequently, several researchers have shown how data generated from fan engagement on the platforms are to the platform companies' advantage, utilized as a source of profit and to generate more engagement (Coppa, 2013;

James, 2024; Zhang et al., 2019). Mel Stanfill and Megan Condis (2014) emphasize how these new conditions the platforms present for fans may call for fan engagement to be reformulated to fan labour—reinforcing how fans add to the platforms' production of data, which are further distributed to various commercial actors (see also Linchuan Qui, 2017; Velkova, 2016). At the same time, researchers find that fans are aware of how their engagement generates data (Yin & Xie, 2024, 2024) and is algorithmically processed (Wang, 2024). According to Qian Zhang and Keith Negus (2020), fans develop individual and collective strategies to intervene, influence and manipulate the data and algorithms that benefit their interests. As Zhang and Negus point out: "Fans seek to influence the quantity and quality of data circulating" (p. 504; see also Yang et al., 2024). These findings have commonalities with research addressing how users navigate and negotiate how to use the platforms, as I highlight in the previous section. These two strands of research on platforms and fans on platforms, respectively, establish that fan engagement is shaped by the platforms' technological and commercial aspects. Simultaneously, this research also points to how the platforms' role in shaping fan engagement is dynamic. In Chapter 5 through 7, I elaborate on how these dynamics of fans and platforms take form. In the following chapter, I present the sociomaterial outlook on fan practices through which I analytically perceive fans' information activities. I discuss the implications of this outlook for approaching the notion of context for preserving digital fan culture.

3. Enacting a sociomaterial outlook

This chapter presents the study's theoretical framework. I begin with a brief account of practice theory. Building on this, I continue to discern my understanding of practices as sociomaterial, paying particular attention to concepts like *entanglements, agential cuts*, and *enactment.* Afterwards, I present the concepts of *infrastructure* and *infrastructural meaning-making.* These concepts assist in articulating the sociomaterial conditions that fan practices are supported by, which shape how fans make meaning in their engagement on social media platforms. Subsequently, I tentatively introduce my theoretical approach of constructing context through the concepts of *binding* and *cutting* context. I discuss the theoretical implications of the sociomaterial outlook on context compared to how it has been discussed in archival research. I focus on how a sociomaterial outlook on context can assist in developing the archival concepts of provenance and appraisal.

A sociomaterial outlook on practice

In the thesis, I focus on what the fans do on social media platforms, and how they find these doings meaningful. I understand these doings as part of a *practice*, directing attention to what people do rather than how the mind influences action (Swidler, 2001, p. 83). Thus, I perceive fans' information activities on social media platforms to be integral in fan engagement, contributing to establishing fan communities and, by extension, fan practices. Before I delve into sociomaterial perspectives on practice, I briefly explain how I approach information activities in relation to practice.

I align my study with information studies research examining information activities as part of practices (e.g., Cox, 2012, 2013; Talja & Nyce, 2015). Building on practice theory, I understand meaning to be established in the

routinized and unconscious actions of everyday life. Here, activities are not (always) conducted as active and deliberate choices, but rather, particular activities appear meaningful through practice as they shape how one perceives the world (Dourish, 2004, p. 25). In this regard, I approach the fans' routinized and taken-for-granted ways of creating, using, sharing and accessing information, or in other words, *information activities* in the fan communities as part of *fan practices*. I deliberately discuss fan practices in the plural form. As I highlight in Chapter 2, some fan researchers have argued that fan culture does not rest on a singular logic (e.g., Hills, 2015; Nybro Petersen, 2022). Instead, formations of fandom are heterogeneous and multifaceted. Fan identities and -meaning can be articulated differently depending on the media product, fan communities, and fandom. As I highlight in Chapter 2, research on fan practices involves many productive, creative and interpretative activities that contribute to identity- and community-making among fans (e.g., Coppa, 2006; Duffett, 2015; Jenkins, 2013). Subsequently, fan practices often involve activities where fans engage with information. I theoretically perceive fans' engagement with information as part of fan practices rather than information practices per se. As Andrew Cox (2013, p. 185) argues, activities in many social settings relate to the notion that "information is not the main purpose; it is a means to an end". Therefore, my understanding of fan practices differs from previous understandings of fan practices that focus more on the creative and productive aspects, like creating fan work (e.g., Coppa, 2006; Duffett, 2015). In my study, I focus predominantly on fans' information activities on social media platforms, particularly how fans use the platforms' services and features to create and use information, as part of their fan practices.

I understand the information in the fan communities on social media platforms as recorded in various forms, including data, content, posts, comments and videos, among others. In the fan communities and on social media platforms, recorded information becomes meaningful in and through fan practices where it can inform, communicate and bring insights to its creator and others. Therefore, my understanding of information draws on Marcia Bates' (2006, p. 1039) concept of *recorded information*, which entails "communicatory or memorial information preserved in a durable medium". In practice theory, materiality often takes on an inter-

actional character in the relation between humans and objects, where practice emerges from their interactions (Cox, 2012, p. 179). Objects become integral to a practice when humans interact with them. What is deemed meaningful stems from how objects are adopted and incorporated into routines and tasks (Dourish, 2004, p. 25ff). Objects are understood to have a mediating role, where human agency puts the objects into motion (Gherardi, 2016, p. 38). A step away from understanding practice theory centred around humans and gaining a richer understanding of the material dimensions of practice is to view it as *sociomaterial*. When attending to fans' information activities on social media platforms, their meaning-making is not only constituted by what the community participants do socially, but these doings are also materially constituted. The media product and the social media platforms are integral in how the fans *become* fans and community participants. Simultaneously, the opposite can also be stated. The community participants are equally active in bringing the recorded information into existence and use. Having a sociomaterial outlook on fan practices assists in analytically discerning the complexities of how fans' meaning-making takes form through the co-constitution of the social and technological as it occurs in their everyday information activities.

Understanding practice as sociomaterial rests on a posthumanist and new materialist outlook on the world, which moves beyond techno-deterministic and anthropocentric understandings as it displaces humans as the analytical focal point (e.g., Gherardi, 2016; Introna, 2013; Orlikowski, 2007). Technology and objects (e.g., recorded information) do not mediate activities but co-constitute a practice (Gherardi, 2016, p. 39ff). Silvia Gherardi (2019, p. 82) argues that sociomateriality should be understood as an onto-epistemology. With onto-epistemology, Gherardi is referring to how sociomaterial practice not only becomes the object of study from which knowledge can be gained, but also shapes how the world can be perceived and understood. In this regard, the sociomaterial outlook implicates the study in terms of shaping not only how I understand the empirical settings and what knowledge I create from the study, but also how I shape the empirical setting and its representation through the study.

I build my understanding of sociomateriality on Karen Barad's (e.g., 2003) theory of agential realism in combination with Silvia Gherardi's

(2016, 2019) and Lucas Introna's (2013) understandings of sociomaterial practices. Barad (2007b, p. 137) brings forward how meaning and matter are ontologically inseparable and mutually constitutive, which entails rejecting the notion of pre-existing distinctions between entities, that is, distinctions made between what is understood as humans and objects (also non-humans), subject and object, and nature and culture. Through sociomaterial understanding, the dimension of *relationality* is important for my analysis. I perceive the distinctions between fans and platform technology to be relationally constructed—what may appear as separate entities must instead be understood in their mutually constitutive relationship (Introna, 2013, p. 333). In this regard, I approach the fan practices' social and technological aspects (e.g., the fans themselves, the communities, the social media platforms and the MCU franchise) as operating like one ontological unit. Like Gherardi's (2016, p. 39) approaches to the notion of practice, I understand that fan practices mobilize and configure the co-constitution of fans and platform technology in specific ways. From this theoretical outlook, I perceive fans' meaning-making to be shaped by fans and social media platforms in fans' information activities. In the empirical chapters (Chapter 5 through 7), I address how meaning-making takes form under these sociomaterial conditions. In the following section, I introduce how I approach the sociomaterial conditions of fan practices. I pay specific attention to the concepts *entanglements, agential cuts*, and *enactment* regarding how they assist in clarifying the sociomaterial outlook on which the thesis's theoretical framework rests.

In a state of becoming

Understanding practices as sociomaterial means acknowledging how a practice is in a state of becoming, or as aptly described by Gherardi (2019, p. 83), becoming entails: "what is continuing and incomplete towards which it constantly tends but never reaches". For example, a post continues to change over time and space through voting on Reddit. An upvote creates more visibility for a single post. Voting changes its relation to other posts, how visible it is in the community's content feed and the overall Reddit ranking. At the same time, the upvote also relates to how other fans, as well

as the rest of the Redditors, interact with the upvoted post. A highly ranked post in the subreddit creates further interactions, which, in turn, can generate more upvotes. These interactions also change if the post further breaks out from the subreddit and becomes featured in the encompassing subreddit r/all. I discuss the activity of voting further in Chapter 5, but here, it serves as an example to help grasp that fan practices are not a complete or static phenomenon. Fan practices continue to change, and each change also shapes the people, recorded information, and technologies involved.

Fan practices emerge in the *entanglement* of fans and platforms, where, as Gherardi (2016, p. 40) highlights, the notion of entanglement emphasizes the inseparability between the social and technological and that there are no definitive boundaries drawn between them (see also Barad, 2003, p. 815). However, while fans and technology are co-constitutive in fan practices, they come forward as relationally distinct observable entities through what Karen Barad (2003, p. 815) calls *agential cuts.* Using the example of quantum physics, Barad (2007, p. 330) illustrates how agential cuts are made to separate what becomes the observer and the object observed. As Johanna Rivano Eckerdal and Olof Sundin (2015, p. 28) point out, the cuts are made to relatively stabilize what becomes enacted as subject and object, which is dependent on the researcher, the current state of the entanglement of fans and technology, as well as when and where the agential cut is made.

In my study, I make several agential cuts in what becomes different analytical units. The agential cuts I make analytically include the fans, the MCU fan communities, Reddit, Tumblr and other actors (e.g., third-party developers, the MCU producers, advertisers, and other social media platforms) as well as the MCU franchise, the information activities, and recorded information (e.g., posts, comments, data). By making these agential cuts, I identify several conditions that play into how fans' information activities on social media platforms become meaningful. Here, I draw on Huvila's (2018, p. 229ff) operationalization of sociomateriality, where he argues that making an analytical, but not ontological, separation between people and technology can assist in elucidating *how* technologies and humans shape each other. How I approach these agential cuts methodically, as well as positioning my role as a researcher in relation to the fans and fan communities, is further discussed in Chapter 4.

Further, I understand fans' information activities to *enact* meaning, which entails how the entanglement of fans and technology is realized in specific situations and at given points in time (cf. Mol, 2002, p. 33; Gherardi, 2016, p. 44). I perceive enactment to be what Gherardi (2016, p. 49) denotes as an exclusionary act, where what is brought forward as relevant and meaningful in a fan's information activity in a particular situation draws the boundaries of what is included as meaningful and accompanied by what is excluded. Enactment sheds light on how a sensible (or non-sensible) act is not pre-given but negotiated in the entanglement of fans and technology. Fans and platforms equally constitute the establishment, provision, or facilitation of what becomes the boundaries of activities in each situation. An example that could illustrate the logic of enactment is how Tumblr participants comment on posts, which I elaborate further in Chapter 6. What the Tumblr participants select as the appropriate way of commenting (e.g., a reblog tag, a reblogged post or simply a note reply) includes one way to comment and excludes others. Subsequently, the form of the comment affects how other community participants interact with it. The platforms' technological capabilities (which are not given) become entangled with the fans' choices in their activities, anchoring them in their materiality (cf. Gherardi, 2019, p.94). Having fans' information activities as an analytical starting point enables me to attend to how the entanglement of fans and technology is enacted in specific situations.

In sum, I perceive the fans' meaning-making through the notion that fan practices are sociomaterial. Fans' daily information activities become meaningful in specific ways, contributing to the making of fandom, fans and participants in fan communities. These activities are entangled with the MCU franchise, Reddit and Tumblr and recorded information (e.g., content and data). To gain knowledge, I conduct agential cuts to make distinct analytical units of the fans, fan communities, social media platforms, MCU franchise and recorded information to examine how the material objects, like technology and recorded information, are shaping forces alongside the fans in their information activities. By making these agential cuts, I discern how meaning is enacted in their activities, where I assume the inseparability of social and technological aspects but make analytical distinctions. As I highlight in Chapter 2, having the social media

platforms, alongside the fans and their fan communities, as analytical units requires theoretical consideration. In particular, I address how to approach the platforms' algorithmic and data-generative capabilities and the presence of various actors in fans' information activities. To address the factors that play into the fans' information activities, I analytically discuss them as an *infrastructure* enacted in fan practices, which also contributes to making certain ways of acting sensible and meaningful. In the following section, I elaborate on the concept of infrastructure and how it informs my understanding of the entanglement of fans and social media platforms in and through fan practices.

Infrastructure

The fans' information activities on social media platforms present certain sociomaterial conditions where the activity itself is made possible by what I designate as an *infrastructure* of a heterogeneous set of actors, activities, and objects present through the social media platforms (cf. Gherardi, 2019, p. 103). There are overlaps between the sociomaterial outlook on practice and infrastructure theory, as both perspectives seek to pinpoint the broader circumstances that shape how tasks and activities are carried out. However, by adding the concept of infrastructure, I not only examine how the entanglement of fans and platforms is enacted in their information activities, but also explicitly address the broader conditions and dynamics of how certain ways of acting become normalized and taken for granted, as well as occasions where these assumptions must be revised.

In a colloquial sense, infrastructure can connote physical systems and structures that involve technology, standards and practices, like roads, railways and buildings. However, from a theoretical standpoint, infrastructure does not simply refer to physical structures; it can also refer to the organization of technology, standards and practices and how this organization creates meaning and shapes everyday life (Dourish & Bell, 2007). As developed in the field of Science and Technology Studies, the study of infrastructure entails examining how infrastructures come about, how they are developed and maintained, their impact on society and everyday life, and how they break down (e.g., Anand et al., 2018; Edwards, 2019; Star &

Ruhleder, 1996). As Susan Leigh Star (1999, p. 381) emphasizes, the infrastructure "reach[es] beyond a single event or one-site practice". In their seminal study of a collaborative system for researchers, Star, together with Karen Ruhleder (1996), defines infrastructure as an amalgamation of technological capabilities, conventions of practices and embodiments of standards. These conditions establish infrastructures that are routinized, transparent, and embedded so as to be "sunk" into broader settings of work and everyday life, meaning the infrastructures are often taken for granted. As Star and Ruhleder understand infrastructures, they only become visible and apparent during breakdowns, showing how necessary infrastructure is for people to carry out their tasks (p.113). As I further demonstrate in Chapter 6, the infrastructure evoked in the fans' information activities starts from the fan communities but expands beyond them. The infrastructure enacted in fan practices involves the platforms, various actors, and recorded information that are crucial in fans' meaning-making and an integral part of their daily information activities. This infrastructure includes actors and objects salient for fan engagement, like the posts, comments, the MCU producer and the franchise itself.

As the fans' information activities occur on the platforms, various actors and recorded information are *actualized*, such that the platforms' technological and political economic capabilities must be considered. As I highlight in Chapter 2, fans' information activities must be understood in relation to the platforms' third-party actors and their services, data generated from the fans' engagement and legislations that the platform companies must follow. With actualization, I am referring to how certain actors, activities and recorded information forming the infrastructure come into play in specific information activities. For example, when a fan creates a post that gains comments but also likes (or upvotes and downvotes), this, in turn, shapes the post regarding its algorithmic visibility. At the same time, other activities are actualized through the post. The post itself and data generated from the engagement with the post actualize content moderation, sharing and accessing the post and its data among third parties. To continue, these various activities of the post and data enforce and abide by the platform's content policy, shaped by commercial incentives and legislative frameworks.

One particular aspect that the notion of infrastructure makes salient is the tensions emerging between local practices and global standards, how these can be consolidated, and what happens when they do not. An infrastructure emerges, as Star and Ruhleder (1996, p. 113) highlight, "when the tension between local and global is resolved". Related to fans' information activities, the infrastructure is distributed, where there is not one determining factor playing into how activities on the platforms are conducted and what is set in motion. Returning to the example of voting on Reddit, the infrastructure actualized in fans' information activities sets other activities in motion. Voting generates data, which actualizes various less visible activities, like the algorithmic processing and organization of content. Additionally, these data also actualizes the activities of other actors present on the social media platform, including advertisers, third-party developers and others (e.g., other platform services like Google search) who access data via Reddit's API and legal requirements that Reddit must consider when it comes to content, privacy and data policies. In this regard, I understand the fans' information activities as actualizing other activities that contribute to fans' meaning-making. Although the infrastructure supports fans' meaning-making, these meanings are also shaped by other actors, besides the fans, present on the platform. In Jutta Haider and Olof Sundin's (2023, p. 11) words, these actors "come into play together with their politics, values and ideologies" in fans' information activities. The platforms' technological capabilities (e.g., APIs, data-generative and algorithmic features) enable infrastructures to take form. The platform is a constituting part of the infrastructure enacted in fan practices, where the platform's global character not only caters to users, but also attracts various third-party actors.

Apart from the different engagements between users and third-party actors on the platform, there is also what Star (1999, p. 382) would perceive as local adaptations of the platform's technological capabilities among users across and within different communities, like fan communities. However, tension can grow when local ways of acting diverge too far from the constraints of what the platforms can cater for. Here, the concept of infrastructure adds to my sociomaterial understanding of fan practices by emphasizing the dimension of *dynamics* as an important analytical guiding

point in my study. The entanglement of fans and technology is characterized by tension in their negotiations of possibilities and constraints (cf. Huvila, 2018, p. 230). By incorporating the concept of infrastructure into the thesis's framework, I address these dynamics between the local adoptions of platform technology in fans' information activities and the platform's global character, as their services cater not only to users, but also to several other actors.

By mapping these dynamics in the entanglement of infrastructure and fan practices, I can pinpoint how they co-constitute fan engagement. For example, the MCU communities on Reddit and Tumblr are on two drastically different social media platforms, as the fans' information activities actualize the infrastructure in different ways. However, these activities contribute to the overall MCU fandom by establishing appropriate ways to act, topics to discuss, and what they find meaningful in their fan engagement. I devote the following section to presenting the concept of *infrastructural meaning-making*. This concept assists me in theoretically approaching how differences in fans' meaning-making within and across fan communities and platforms can be accounted for by the infrastructure, to a certain point at which it breaks down and is rendered visible for those involved.

Infrastructural meaning-making

To account for how the same or similar activities can establish different meanings, I draw on the concept of *infrastructural meaning-making* as developed by Jutta Haider and Olof Sundin (2019, 2021). The infrastructure can be actualized in fans' information activities in different ways at different times. In this regard, the infrastructure is actualized in various ways of acting that are experienced as meaningful in given situations, where certain possibilities and constraints are assumed. According to Haider and Sundin (2021, p. 132ff), infrastructural meaning-making emphasizes the co-constitution of the infrastructure and practice, which "foregrounds the ways in which cultures and socio-economic, commercial, material and political conditions are as much part of the shaping of infrastructures as the various practices they enable or restrict". The notion of infrastructural meaning-making assists my analysis in examining how

meaning-making can unfold differently in fans' information activities, how they make sense of when things work smoothly and when they do not, and what the fans find meaningful to do instead. I discuss the concept of infrastructural meaning-making in relation to the body of knowledge regarding platforms that I present in Chapter 2. In particular, the social media platforms themselves present specific conditions for what is perceived as possibilities and constraints involving algorithmic, data-generative and governing capabilities, as well as commercial incentives that become part of the infrastructure enacted through fan practices.

Establishing a (somewhat) unified way of doing things has implications for how people experience their world. I understand the infrastructure as concerning not only how it supports the needs of fans to carry out their activities, but also how fans meet and experience the infrastructure, similar to what Geoffrey Bowker and Susan Leigh Star (1999, p. 33) point out. In particular, I focus on how fans understand the platform, its governance, technological capabilities, and commercial interests, and how these experiences shape how fans act on the platforms. I emphasize the infrastructure's experiential dimensions by adopting the notion of infrastructural meaning-making. As John Seberger and Geoffrey Bowker (2021, p. 1715) stress, studying infrastructure "must also be to study the experience of infrastructure: not the study of how a given user experiences a given infrastructure, but rather how the human writ large experiences herself in relation to infrastructures". As similar concept that centres users' experiences as the analytical focal point is Taina Bucher's (2017, p. 31) "algorithmic imaginary", which concerns how users attempt to make sense of platforms and develop strategies to work the algorithms to their advantage. There are overlaps between the notion of infrastructural meaning-making and Bucher's concept. Although imaginaries would be a useful perspective from which to approach fans' information activities, infrastructural meaning-making enables me to understand how fans engage with information and how their experiences are shaped through an infrastructure formed by various actors present and beyond the platforms. The concept of infrastructural meaning-making sheds light on the infrastructural conditions of how people come in contact and engage with information through digital technologies.

The experiential dimensions of infrastructure sensitize the analysis to *when* the infrastructure becomes visible and invisible for fans, which emphasizes *temporality* as an important dimension I account for in my analysis (see also Coleman, 2020; Haider et al., 2021; Haider & Sundin, 2021). The dimension of temporality is particularly discussed in Chapter 6 and 7, where I analyse the Reddit API controversy. Due to the loss of several third-party applications during Reddit's API change, third-party developers of these apps, as well as users who rely on specific features of the apps (e.g., for moderation and visual and auditory disabilities), can suddenly not gain access to the platform as they used to. This example further stresses another significant dimension I highlight in previous sections and analytically focus on in Chapter 6: *relationality*. My attention to how relationality unfolds through the fans' information activities shows how fans and other actors are entangled with the platform technology.

With its invisibility, the political, social and ethical choices shaping the infrastructure are obscured, surfacing as mere allowances and constraints of the technology (Bowker et al., 2010, p. 99; see also Supp-Montgomerie, 2023, p. 384). These choices are reproduced through recurring and routinized activities in practice (Edwards, 2019). In this regard, the infrastructure is highly political, where power is produced, reproduced and distributed. The infrastructure shapes not only the social, but also the material realities of people. As Nanna Bonde Thylstrup (2018, p. 27) puts forward, infrastructures endow "vulnerabilities but also tremendous cultural power", which allow them to "distribute agency and to create and facilitate new forms of sociality and culture". In light of Bonde Thylstrup's words, I understand fan practices' enactment of the infrastructure as *normative*, where certain constraints and possibilities become routinized and taken for granted—giving relative temporal and spatial stabilization in and through fan practices (see also Gherardi, 2019, p. 103; Introna, 2013, p. 337). The recursiveness of fans' information activities produces and reproduces particular ways of using technology, establishing a set of rules and resources that become relevant and sensible in similar and occurring situations.

Despite my understanding of fan practices as normative, the infrastructure is susceptible to change. The ways in which infrastructure is enacted in fan practices are not given, as they can vary and change across space and

time. As Jutta Haider and Olof Sundin (2023, p. 7) point out, the infrastructure "is never completely stable, but neither is it completely formless". The platforms set rules for social conduct, which shape what possibilities and constraints are possible. The infrastructure can be enacted in fan practices in various ways for different fans in different situations, illuminating the variations and contradictions within fan practices (see also Hultin, 2019, p. 101; Sandvig, 2013, p. 8). In this regard, I also see how the infrastructure enacted in and through fan practices is *situated*. This is another crucial analytical dimension in my analysis, particularly in Chapter 5. For instance, as I elaborate in Chapter 5, Tumblr participants tag not only to organize content, but also to comment on posts. Similar to what Mohammad Hossein Jarrahi and Sarah Beth Nelson (2018, p. 256) highlight, the dynamics of how normativity is enacted as prescribed in the platform guidelines and policies and the situated employment of platform technology among fans negotiate what is possible or constrained in fan practices.

The negotiations of possibilities and constraints not only entail normatively reinforcing certain ways of acting but can also lead to tweaking the infrastructure (Sun, 2019; see also de Kloet et al., 2019). I understand these tweaks as part of the variations and even contradictions that exist in the fan practices, where what is experienced as "normal", sensible or possible, is continuously negotiated and challenged. However, continuous tweaking can create variations and contradictions where local adjustments diverge in ways where differences that are too significant risk the infrastructure becoming dysfunctional over time or even ceasing to function, losing its supportive purpose. For example, in Chapter 5 and 6, I discuss the Tumblr porn ban in 2018 and show how the infrastructure was on the verge of losing its function for fan practices as the explicit themes of fan work became equated with illegal content that Tumblr sought to remove from the platform. The moderation of content works against fans' interests, causing the infrastructure to lose its supporting function. However, practices can adapt and change over time, making the infrastructure function again, but differently regarding how it becomes actualized in fans' information activities and how it is experienced (see also Bonde Thylstrup et al., 2024; Seberger & Bowker, 2021).

In the thesis's empirical chapters (Chapter 5 through 7), I focus on the dynamics of the infrastructure and fan practice. I show how normativity

is negotiated by having the variations and contradictions in fans' information activities as a starting point. In relation to the present study's three sub-questions, I attend to the *situated* (Chapter 5), *relational* (Chapter 6) and *temporal* (Chapter 7) dimensions of fan practices and how the infrastructure is actualized in fans' information activities. Through a theoretical framework centred on fan practices and infrastructure resting on a sociomaterial onto-epistemology, I gain an understanding of what context can be related to fan engagement and identify what context information is necessary to account for in preservation. Understanding the fans' information activities in this manner further informs how I answer the overarching research question of conceptually developing the archival concepts of provenance and appraisal to preserve fan engagement on social media platforms. In the following section, I tentatively sketch out the conceptual approach to context information that I have developed, where I understand the context to be constructed through *binding* and *cutting,* as well as the theoretical implications of looking at the archival concepts of provenance and appraisal using this approach.

Cutting and binding context

I understand the notion of context as the sociomaterial conditions for how fans' information activities on social media platforms become meaningful. As I argue in the present section, identifying these conditions in ways that can be utilized as context information for preservation is done through the notions of *cutting* and *binding* context. These concepts shape how I approach the archival concepts of provenance and appraisal. The notion of cutting builds on Karen Barad's (2003, p. 815) concept of agential cuts, which I understand as cuts made in context to mark the boundaries of the context information, where the line is drawn between what is included and excluded when describing a phenomenon (see also Introna, 2013, p. 332). Binding, on the other hand, as built on Pernille Bjorn's (2012) definition, refers to how I understand what becomes included as content in context information, namely, which actors, activities and objects are necessary to account for when preserving fan culture. The operationalization of binding and cutting context is tentatively sketched out in the present section and

the empirical chapters' conclusions and, subsequently, elaborated fully in the concluding discussion of Chapter 8.

According to Lucas Introna (2013), the sociomaterial outlook promotes an ontological openness, where boundaries are not given but rather made at certain times. There are no presumptions of a core or periphery, internal and external or complete or complementary (p. 332). Instead, I perceive the act of defining context through archival concepts of provenance and appraisal as agential cuts. In this regard, the purpose of the agential cut is twofold. As I highlight in previous sections, I conduct agential cuts to analytically separate what I observe in the study's empirical settings. However, I also employ agential cuts to direct attention to how these cuts are made in archival practices when demarcating what is defined as context. Like how researchers demarcate the phenomenon studied, archivists delimit what records are evidence by selecting, describing, and arranging records for future retrieval and use. Archivists and archival researchers need to make these cuts to stabilize meaning and make what is preserved understandable for future use and interpretation. My call for transparency in archival practices has commonalities with the perspectives of archival researchers with a postmodernist and social constructionist stance that I present in Chapter 2. Archival researchers, like Terry Cook (2011) and Wendy Duff and Verne Harris (2002), among many others, have critically interrogated how records' context is constructed through archival practices, where the archivist is highly active in constructing what will be remembered. These understandings of context argue for transparency, such that archivists must acknowledge how their preservation choices shape the record and how preservation narrates the past, but *how* these demarcations are made remains undertheorized.

Aside from cutting, approaching what context can be through Pernille Bjorn's (2012) binding metaphor directs attention to what is necessary context information to include to offer context to fans' information activities regarding how the specific act is found meaningful to carry out. The binding metaphor pinpoints what actors, activities and recorded information must be in place for the specific act to be realized, which can also point towards what is missing. Bjorn (2012, p. 3ff) further emphasizes that what becomes bound is situated and continuously negotiated, where cer-

tain actors, activities and recorded information are tied together with hyphens and bracketed into a specific activity in and through practice.

My understanding of context as cut and bound is developed through my theoretical and empirical insights from the analysis. Related to my discussions in Chapter 2, what differentiates the perspectives of post-custodialists in archival research of context from my approach is how their understandings of context prescribe pre-existing boundaries, which they argue should broadened (e.g., Hurley, 2005a, 2005b; Upward, 1996, 1997; Upward & McKemmish, 1994). For example, the post-custodialists emphasize the need to broaden the definition of context by complementing additional layers of context in line with new uses of the record (e.g., Upward, 1996, p. 8). This understanding of context still centres on the human perspective, where technology and objects play mediating roles and are products of human activity. In comparison, a sociomaterial outlook enables me to shed light on the construction of context, drawing on my analysis of how the infrastructure is actualized in fans' information activities at given moments across time and space.

The notions of infrastructure and context have certain overlaps, as both seek to conceptualize the conditions of people's actions and identify factors that play into a specific phenomenon (e.g., Dervin, 2003; Monteiro et al., 2013; Talja et al., 1999). Parallels between the concepts have been made in archival research. Amelia Acker (2017) argues for attending to when a record is made by examining the social and technological infrastructures where it is transmitted. Moreover, Peter Botticelli (2000) conceptualizes the record as a starting point to map the infrastructure surrounding it, which can guide appraisal. Like Acker and Botticelli, I do not make any particular distinctions between the concepts. I perceive the concept of infrastructure, as understood through the thesis's theoretical framework, to assist in identifying and constructing context for preservation. However, my approach differs from that of Acker and Botticelli in how I perceive the role of technology and how it plays into what context entails, which I discern below.

As Anneli Sundqvist (2021, p. 14) points out, "materiality is an undercurrent in archival discourse", where it is seldom explicitly addressed. Even more so, archival research has rarely addressed the relation between social and material factors, as I highlight in Chapter 2. Some archival researchers

I presented in the previous chapter, including Ciaran Trace (2002), Peter Botticelli (2000), Kit Hughes (2014) and Amelia Acker (2017), have discussed accounting for the social and technological conditions of records' creation and use to understand the records' context better. Similarly, other researchers, like Margaret Hedstrom and colleagues (2006), Gobinda Chowdhury (2010), Paul Conway (2015) and Emily Maemura (2018), have argued for acknowledging how preservation techniques also change the records' constitution and context. Among these understandings of context, there is often an emphasis on either the social or the material conditions. In cases where both aspects are considered, their relationship is predominately interactional, with a cause-and-effect dynamic. For example, humans create recorded information using technology or vice versa, technology determines how humans create recorded information. As I highlight in Chapter 2, I draw on Isto Huvila's (2022) approach to identifying context information, which focuses on *how* recorded information is created and used, where neither the human nor technological actors are given precedence. To enable future use and comprehension of fan materials that are preserved, it is important to attend to how and what they find meaningful in settings like social media platforms, which also informs how the recorded information is created and used among fans (see also Faniel et al., 2019). Based on my sociomaterial understanding of the empirical settings, I attend to the notion of context by identifying the context information that is necessary to incorporate when preserving digital fan culture. From this outlook, I develop the archival concepts of provenance and appraisal to define and draw the boundaries of the context of fan engagement, where social and technological factors are understood as co-constitutive.

The notions of binding and cutting context also shed light on the sociomaterial conditions for archival practices. The activities in archival practices, ranging from appraising, describing, arranging, and specific preservation techniques to future uses, all contribute to continuously enacting what becomes the material and the phenomena it represents. This conceptual approach can shed light on what direction preservation of fan engagement should take regarding what is necessary to include and where to draw the boundaries of the context of fan engagement, where not only what fans do is considered, but also how their activities are entangled with the media

product, the fan communities and platforms. Therefore, what is necessary to include and where to draw the line for the context is informed by my empirical understanding of fans' information activities on social media platforms through the lens of fan practices and the infrastructure enacted in and through fan practices. In the following chapter, I address these methodological considerations. I discuss how the study was operationalized regarding the methods, including how I approached, selected, and analysed the field sites using the materials generated.

4. Inferring the infrastructure

My empirical focus is on fans' information activities in the MCU fan communities on Reddit and Tumblr. I perceive that these activities constitute an analytical starting point from which to examine how fans' meaning-making emerges in the infrastructure enacted in and through fan practices. With this theoretical lens on fans' information activities, I adopt an ethnographic sensibility, directing attention to how meaning is created in what people do in everyday settings (Pink et al., 2017). Defining ethnography can be challenging due to its varying applications and emphasis across different disciplines, including anthropology, ethnology and the social sciences and humanities (e.g., Dourish & Bell, 2011; Forberg & Schilt, 2023; Hammersley, 2006; Horst et al., 2012). This versatility of ethnography means that an ethnographic approach can take different forms depending on the study's topic, design and selection of phenomena to be studied. Conducting an ethnography entails the researcher situating themselves in the participants' social world (see also Katz, 2019). Martyn Hammersley (2018, p. 8) emphasizes that the ethnographic approach involves the researcher gaining an understanding of the social processes studied through engagement with field sites, where knowledge is produced from interpretation. By becoming immersed in the field sites, the interpretations I make based on my fieldwork result in what Clifford Geertz (2008 [1973]) describes as a "thick description" grounded in the doings and meanings of the social settings studied. My interpretative position also renders me visible as a researcher, as well as my choices of selecting, entering and interpreting the field sites.

As I highlight in Chapter 3, the demarcations I make of the field sites and what come to be the analytical units are understood as what Karen Barad (2003) denotes as agential cuts (see also Barad, 2007, 2014). In this regard, the infrastructure enacted in fan practices is not out there to be "found" but

rather is inferred by the methodological procedures, choices and interpretations I make. The empirical material generated from my fieldwork is also shaped by what and how I have chosen to engage with these settings. Making my actions, choices and interpretation of the field sites visible evokes reflexivity, which entails being attentive to how my choices and decisions as a researcher interpretively shape what knowledge can be gained from my study. Reflexivity also calls for responding to the particular conditions, challenges, and limitations of the empirical settings and adapting to them (Hine, 2015; Markham, 2020). As Tom Boellstorff (2012, p. 72) stresses, the researcher must remain flexible enough to respond to practices unique to the social world being studied. Here, there is also an ethical dimension tied to ethnographic reflexivity, where my study is conducted in ways that protect the study participants' privacy based on the field sites' circumstances (see Eynon et al., 2017; Franzke et al., 2019; Lomborg, 2012).

In the following sections, I describe how my fieldwork was conducted by exploring, defining and demarcating what the infrastructure entails. I present the process of exploring, including selecting which fandom and platforms to study, how I approached the study participants, and how the boundaries of the field sites were defined. After that, I discuss how I defined the infrastructure during my fieldwork. I discuss the ethnographic methods and analysis undertaken to map and analytically grasp fans' meaning-making through their information activities and the infrastructure actualized in them. I describe the methods of participant observation, interviews, and document analysis and what material was generated and collected from these methods. Subsequently, I discuss the analysis process. I describe how I worked with the material, including how I organized, stored, transcribed and processed the empirical material and how my writing unfolded. Lastly, I discuss the ethical considerations taken in my study and present the strategies undertaken to protect my participants throughout the research process.

Exploring the infrastructure

I adopt what George Marcus (1995) denotes as a multi-sited approach in the thesis's study design. I intended to find two communities in the same fandom but on two different platforms. Designing my study this way would

allow the analysis to maintain the same reference point: the theme of fan culture. Simultaneously, examining communities on two platforms enables me to gain insight into different information activities among fans. Each platform brings various technological capabilities and actors. The first few steps in inferring this infrastructure were exploratory, guided by the thesis's aim. After a while, my explorations of what to study became more aligned and focused, where establishing relevant criteria was vital in narrowing down the alternatives. In the present section, I present my process of searching for the communities comprising the study's empirical settings. I present this process in two steps: selecting and approaching the subjects of study, where a rationale is provided for choosing the MCU communities of Reddit and Tumblr. Lastly, I discuss how the field sites were demarcated.

Selecting

My process for selecting which fandom and fan communities to study was an organic process where I let my research interests guide the search. For the field sites, I looked for public or semi-public fan communities that use pseudonymity. The definitions of what public and semi-public entail are not as clear-cut when it comes to online communities (boyd & Ellison, 2007). I argue that these fuzzy lines between public and semi-public are particularly noted in fan communities, where the recorded information in fan communities has a particular "audience" in mind, specifically other fans who share their interest, making them semi-public (see also Tagg & Seargent, 2016). At the same time, the boundaries of who is included in this audience are fluid, as fans of the media product, like the MCU franchise, can exist both within and outside of the fan community. Public or semi-public fan communities with a fluid constellation and low threshold for participation, as well as the use of pseudonyms, allow me to examine how fans' meaning-making and community-building take form through their information activities despite no clear boundaries and little knowledge of each other. My empirical focus is on what the participants do rather than what they identify as.

At the beginning of my search process, I observed several fan communities on various platforms without writing field notes. These fan commu-

nities revealed specific patterns depending on whether the community revolved around a TV show or a movie. For example, one fan community focused on a TV show on air exhibited increased engagement whenever a new episode was released. Many discussions during this period were centred on the latest episode. I also observed that engagement in fan communities revolving around TV shows that were concluded or between seasons was sporadic. In some cases, fan communities tied to one-off properties (e.g., a movie) declined in engagement after the movie's release. Thus, I sought fan communities connected to a more extensive and ongoing franchise with continuous releases to ensure that my fieldwork could be sustained for an extended period.

I became more adamant about attending to larger fandoms (e.g., Star Wars, Harry Potter and Marvel) to assist in broadly shedding light on these aspects by showing how fan engagement on a large scale unfolds. Thus, fan engagement around the multimedia franchise MCU arose as a promising fandom to study. As I argued in the introductory chapter, I perceive the MCU franchise to be an important contemporary cultural phenomenon in its own right as one of the most popular media franchises in the present that pulls in both fans of the comics and new fans. Attending the MCU franchise's fan engagements can yield insights into how it was received, interpreted, and made meaningful among fans. My previous engagement with the franchise was sparse prior to the study. More specifically, I have consumed very little Marvel-related media apart from watching the first and second Guardians of the Galaxy movies. Entering a fandom with little or no prior knowledge allowed me to be attentive to aspects of their fan engagement, particularly how fans engage with information that long-time fans might take for granted.

After selecting what fandom to study, I searched for which fan communities and platforms to conduct my fieldwork in. I initially observed MCU fans on open-source platforms like Pillowfort, one of the platforms that Tumblr participants migrated to following the Tumblr porn ban (Valens, 2019). However, due to low engagement in these communities, I quickly moved on to the more established platforms like Reddit and Tumblr, where pseudonyms were also used. As I highlight in the introductory chapter, Tumblr and Reddit are different in terms of their technological capa-

bilities, the historical development of their platforms, and community culture. However, anchored in my theoretical understanding, I argue that attending to fan communities engaged in the same topic on these two platforms assists in discerning how the infrastructure is not entirely bound to a specific platform or community. Instead, I perceive fandom to be established across sites rather than in one particular sphere. Thus, building on Marcus's (1999, p. 7) multi-sited ethnographic approach, I analytically juxtaposed and placed the different fan communities parallel to each other to gain a broader understanding of different facets of fan engagement. Most importantly, Reddit and Tumblr comprise two important sites for understanding not only fan culture but also other modes of participation in digital culture, where the fan communities act as an entry point into how people come together socially and how these engagements become meaningful despite the fluid and pseudonymous character.

I discovered several subreddits dedicated to Marvel on Reddit, including those focusing solely on Marvel comics, creating memes about Marvel, and discussing the MCU franchise. Through an initial comparison between the subreddits concerning their posts, level of engagement, and number of subreddit members, I found the subreddit r/Marvelstudios most promising. The subreddit in question focuses primarily on the movies and films within the MCU franchise. However, its comic origins and other media depictions of Marvel properties by other production companies are also discussed, as well as whether there is a connection to the MCU franchise. The subreddit was created in 2012 and surpassed over 2 million members in the second half of 2021, and at the time of writing, it encompasses over 4 million members. The subreddit's posts are organized and curated by moderators, who gather information about upcoming or recent releases. Parallel to discovering r/Marvelstudios, I found fan engagements surrounding the MCU franchise on Tumblr. Compared to Reddit, communities were less demarcated on Tumblr when I began my fieldwork, with no dedicated community pages or forums[1]. Through some initial observa-

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1 In late 2024, Tumblr introduced a new feature called "Communities", allowing Tumblr participants to create public or private pages for particular topics that have admins and moderators (Tumblr, 2025).

tions of postings within MCU-related tags (e.g., "mcu" and "marvel cinematic universe"), I discovered that fan community formations have fewer clear boundaries, where fan engagement tied to a specific topic is accessed via tags. That is, fan engagement in the MCU fan community on Tumblr is tied to overarching tags like "MCU" and "Marvel Cinematic Universe", but it also overlaps with engagement surrounding specific properties or characters within the franchise.

Approaching

My strategies for approaching the MCU communities on Reddit and Tumblr were informed by their public/semi-public character. The MCU communities on Tumblr and Reddit are publicly accessible, where the subreddit r/Marvelstudios and MCU-related posts via Tumblr tags are public and can be seen without an account. However, an account is required to upload and interact with posts and comments.

As Christine Hine (2015, p. 112ff) argues, showing transparency and establishing trust is necessary to enable fieldwork to be conducted. In other words, my credibility as a researcher is negotiated and established with the community participants to gain meaningful access (cf. Kaufmann & Tzanetakis, 2020, p. 933). I made a post presenting myself and the study, which was uploaded to the two communities after creating a user account on Reddit and Tumblr. On Reddit, I uploaded the post in the subreddit r/MarvelStudios. On Tumblr, I posted onto my blog where I used relevant tags (e.g., "Marvel", "MCU", "Marvel Cinematic Universe") to make the post visible to Tumblr's MCU community. The posts included the following information: a brief study summary, study methods, the material generated, collected and processed, an invitation to participate in an interview, and, lastly, contact details in case of questions or if participants wished to withdraw from the study. A link to my staff page at Lund University was also included to highlight the study's university affiliation while enabling the participants to access additional information about the project. Disclosing my offline identity, my position as a researcher, and my affiliations is part of my efforts to show transparency, thus an effort to establish credibility in the communities.

I also disclosed my experience with the Marvel franchise and fan engagement when introducing myself to the communities. According to Abby Waysdorf (2020), the researcher's personal experiences with fandom can be beneficial when studying fan culture. Similarly, Sara Mayorga-Gallo and Elisabeth Hordge-Freeman (2017, p. 381) discuss the importance of cultural credibility, namely establishing the researcher's familiarity and openness with the particular setting. I adopted a similar approach, highlighting my previous experiences of being active in fan communities in my early teenage years (e.g., Harry Potter) while simultaneously being open with the communities about my previous connection to the MCU franchise. I highlighted that I was a novice in MCU fandom and was eager to learn more. Promoting transparency by foregrounding my position as a researcher, my previous fan engagements, and most of all, being open with my newcomer position allowed the potential participants to assess and make an informed decision on whether the study was worth investing time in (see Appendix 1 for information letters to the communities on Reddit and Tumblr).

Throughout the fieldwork, my main concern was gaining more visibility and informing as many community participants as possible about my project. I also continuously reflected on the potential impact of my presence on the fan communities. The balancing act between gaining visibility and not disrupting the engagement was initially challenging. These problems were directly related to the communities' size, form and engagement level. Firstly, the MCU communities contain a large number of participants, where membership is fluid. It was impossible to inform all community participants, as a constant influx of participants caused the community constellations to change constantly. Secondly, because I was a newcomer, my posts lost visibility quickly, and the continuous stream of new posts pushed my posts further down in the subreddit or tag feed. My strategy for visibility was to continuously make posts discussing how the study was progressing and to "pin" the latest version to my user profile. I posted once every third month during my fieldwork to minimize interference with the communities' information. With every new post I made, the project description and its progress were also revised. For example, the revision included specifying terms such as "pseudonymization" and "opt-out" (see Appendix 1). Additionally, I tried posting at different times to account for the time zones in play, which en-

abled community participants in different time zones to see my posts, increasing the probability of informing them about my presence.

The first posts I made to introduce myself on the subreddit and my Tumblr blog received only a few interactions. My Tumblr blog post performed poorly, as it received no interactions. In comparison, my subreddit post received one positive comment pointing out that the project seemed interesting and thirteen upvotes. However, the votes are not calculated based on a one-to-one ratio, but rather on an estimate of the total up- and downvotes of the post. The attention my subsequent posts about the project received varied in terms of votes, likes, reblogs, and comments throughout my fieldwork. On Reddit, the posts received votes ranging from two to 27. Sometimes, the posts did not receive any comments, while at other times, several comments were received. These comments included compliments, good luck wishes (and one calling me a dork). Some users have also asked questions about certain concepts (e.g., "What is preservation?") or asked for clarification about the project, to which I replied and explained the project further. On Tumblr, my posts continued to do poorly. Consistently, my posts only received 2-3 likes from different participants. A reflection I have regarding my struggles to gain visibility is that it depended on various overlapping factors, which also influenced each other. For example, I did not have many followers who could reblog my posts, and the constant stream of new posts made mine less visible and less likely to gain interactions. Simultaneously, by using the same features as other community participants, I also learned about efforts to try to attain visibility, which is an experience shared with the community participants. Although these efforts to attain visibility were, at times, frustrating, they also provided, as Christine Hine (2015, p. 82) highlights, "insight into the conditions of existence as lived through those media".

Demarcating

As Annette Markham (2013, p. 435) asks: "When identities and cultural formations are located or made of information flows through global networks, where do we demarcate the boundaries of 'the field'?". I had a similar question in mind when trying to figure out where to make the

agential cuts. In other words, I had to define my relation to the field sites and where to draw the line for what comprises the infrastructure and the subsequent units of analysis, including the fans, their information activities, fan communities and actors that shape the fan engagement. In the present section, I discuss and exemplify how I demarcated the field sites, including the decisions on what to include and exclude.

What became the field sites was enacted through my engagement as a researcher with fans' information activities examined (see also Hultin, 2019). What became the field sites' boundaries was not predefined at the start, but instead grew out of the continuous dialogue between the study's design and what happened during fieldwork, including the insights I gained from my interviews, which I discuss in the following sections. I continuously reflected on what aspects found in the empirical setting would be part of the study's field sites. My starting point was the MCU communities on Reddit and Tumblr. In particular, having r/MarvelStudios and the MCU-related tags as my starting points allowed me to systematize my fieldwork, specifically the participant observation, while staying open to potential paths and connections emerging.

It became easier to decide what connections and paths to investigate further as I learned more about the communities on the platforms. For example, the participant observations and interviews assisted me in defining what actors were relevant as part of the infrastructure actualized in the fans' information activities. Actors such as the MCU franchise itself, Marvel Studios, the franchise producer, and the main owning company, Disney, as well as advertisers (in the form of sponsored posts), were recurring themes in the community discussions and were also brought up by the interview participants. Similarly, the interview participants mentioned their use of third-party applications and extensions to access the platforms. This also led me to investigate how these third-party actors shape fan engagement. Learning more about Reddit and Tumblr also indicated what paths to pursue. For example, some interview participants mentioned how they used Google to search for Reddit posts, surfacing how Google is actualized in how fans search for and retrieve information.

In another example from the interviews and discussions within the MCU communities on Tumblr, I discovered that the Tumblr porn ban in

2018 was an event that significantly impacted the communities and influenced their perception of Tumblr. Even in this case, I learned how Apple's App Store guidelines played a role in Tumblr's moderation of posts with explicit themes. Making these connections also made me aware of the importance of staying updated on new changes and features on Tumblr and Reddit, as well as how they were being discussed among fans and other users on the platform. Even though it was not directly related to the MCU franchise per se, I observed how it was an integral part of how information activities came to be meaningful for fans on Tumblr and Reddit.

I concluded my fieldwork in May 2022, but resumed it for a period when the so-called Reddit API Controversy unfolded in late spring and early summer of 2023. As I highlighted in the introductory chapter, Reddit's restriction and monetization of API access significantly impacted third-party resources, like applications and content moderation services. Reading about the API change led me to follow the protests among Redditors (also called the Reddit Blackout), which took place in subreddits created for the specific cause. These investigations also led me to discussions on Tumblr, as the Reddit API change led to Redditors migrating to Tumblr. Following the discussions concerning the Reddit API controversy on Reddit and Tumblr, I took a more unobtrusive position regarding discussions beyond the MCU communities' engagement, where I did not declare my presence as a researcher. I argue that, due to the urgency of the events surrounding the Reddit API controversy, it would have been disruptive to the discussions to declare my presence and redirect focus from their engagement. To ensure that the people involved in these discussions cannot be identified, I describe, paraphrase and summarize these discussions (the process of working with quotes when writing is discussed in the section *Organizing, analysing and writing*).

Though remaining open to what the field sites are, it is also important to draw the line somewhere. One aspect to consider in relation to fan engagement is the relationship between what happens in the communities and how it shapes the community participants' fan engagement in the physical world. The proliferation of digital technologies, like social media platforms, in everyday life makes the dichotomy of offline and online increasingly blurred, as the two spheres are entangled and mutually shape each other (e.g., Hine, 2017). My fieldwork in the MCU fan communities on Reddit and Tumblr

showed that the fan culture is not limited to the online sphere, but also feeds into activities offline and vice versa, which previous research on fans has also found (e.g., Baym, 2007; Duffett, 2013; Zhang et al., 2018). For example, fans occasionally post photos from MCU-related events, such as movie premieres or comic conventions they have attended, which would initiate a discussion on what to think about the specific movie or what it means for the overarching story. However, I decided not to pursue the offline components of MCU fan engagement and explore these parts of the infrastructure.

Defining the infrastructure

The methods I adopted for my ethnographic study were participant observation, interviews, and document analysis. By participating and interviewing fans, I was able to learn about how the fans engage with each other and the MCU franchise, as well as how they experience the fan communities and the platforms. I emphasized generating rich and varied field material by engaging with different community perspectives. As Christine Hine (2017, p. 13) underlines, the fieldwork needs to expand beyond the most apparent and visible participants as "we need to acknowledge diverse forms of engagement with online space". Through different methods, I gained insights into different ways to engage, involving both older and newer, active and highly visible participants and the less visible ones. Simultaneously, the platform documentation offered me insight into how the platforms operate and the actors that are present on the platforms. These different kinds of materials offered insights into how the infrastructure is actualized in fans' information activities, including creating, using, sharing and accessing recorded information. Each method generated ethnographic material that contributed to mapping and navigating the infrastructure in terms of what paths and connections I pursued and what I decided to leave behind. In this regard, the infrastructure does not entail a pre-existing entity searched for and discovered. Instead, the infrastructure, as the study's unit of analysis, was brought into existence by my engagement with the fan communities operationalized through the study's methods. In the following section, I describe how I conducted the methods, the challenges that arose, the decisions I had to make, and what material was generated.

Participating

Throughout my fieldwork, the participant observations focused on following the fan engagement in the MCU fan communities on Reddit and Tumblr and examining what they discuss and create. In parallel, I have also tried to grasp the platforms and how their features play into the communities' engagement. Most of my fieldwork was conducted from June 2021 to May 2022. At the beginning of the fieldwork in June 2021, longer and more frequent fieldwork sessions were undertaken to become familiar with field sites. From August 2021 to May 2022, fieldwork sessions were conducted one to four times per week, where each session lasted around one and a half to two hours.

I ended the weekly fieldwork sessions when I noticed how recurring themes began to surface for an extended period, where my engagement did not yield new analytical themes (see Katz, 2019; Morse, 1995, 2015). To conclude my fieldwork, I wrote a project update describing the study's current status and the next steps, including organizing, processing and analysing the material, which I posted on r/MarvelStudios and on my Tumblr blog (adding the relevant tags). In these posts, I highlighted the possibility of revisits in the fan communities and on the platforms if more material was necessary for the analysis. Sporadic visits in the fan communities were conducted in June and July 2022, respectively, from April to September 2023. These more recent visits to the communities and platforms focused on examining specific topics, such as announcements of features being removed or implemented, as well as discussions surrounding the events of the Reddit API Controversy. How the participant observation was undertaken, how I interacted with the community participants and how the field notes were created are presented in the following section.

Interacting with fans

My participation in the fan communities alternated between active and passive, depending on situations, interactions, or discussions. I often employed a more passive approach at the beginning of my fieldwork when I was gaining an initial understanding of the field site. Conversely, I took a more passive and observational approach in encounters and discussions,

touching upon unfamiliar topics and themes. Taking a step back and observing the ongoing discussion or interaction allowed me to identify new potential themes rather than solely actively pursuing specific topics. Subsequently, I did not declare my presence as a researcher in every interaction I had. One risk of my obtrusive presence was that it could potentially affect fan engagement negatively. For example, suddenly declaring my presence in a discussion post could derail the discussion and place the focus on my presence rather than the post's topic. My strategy was to continuously inform the fan communities about the project in separate posts to stay transparent towards the fans. Another strategy was to ensure that quotes and descriptions of the communities' discussions were paraphrased and pseudonymized when writing the analysis. Paraphrasing and pseudonymization are discussed further in the section *Ethical considerations*.

Participating in the communities also made me aware of the various temporalities at play and the duration of the posts and comments. My fieldwork was conducted in real time as I sought to engage with the daily flow of community interactions like the community participants did, similar to what Hine (2017, p. 10) encourages. Meanwhile, posts and comments were continuously uploaded before, during, and after field visits, making my engagement with content asynchronous. Replies and answers to content I posted could be handled throughout the day whenever I visited the fan communities via my mobile phone or web browser. Some posts I interacted with could evolve by receiving more comments, points, or likes. Oppositely, some posts culminated socially and slowly died down once I got involved with them. Sometimes, a post could be removed, deleted, or edited before, during, or after fieldwork.

Systematizing and documenting the fieldwork

Although I was trying to immerse myself in the communities' engagement and familiarize myself with the topics discussed, I was also developing a strategy for writing field notes. Early on, one challenge I had was managing the constant influx of posts and comments, which was initially overwhelming. It was difficult to grasp how to engage with posts in a systematized fashion, as it was practically impossible to engage with and document

everything. Systematizing my fieldwork involved finding a balance between gaining an overview of the current day's postings and becoming immersed in the engagement. I began attending to recently uploaded and popular posts, including their comments, tags, likes, and votes. These posts offered a glimpse of more or less popular topics of the current day: the posts that gained considerable traction quickly and those that were less visible, seen when sorting on recent posts but that never reached the popular page.

A typical fieldwork session started by examining each community's most recent and popular posts. On Reddit, I would examine the ten most popular posts and the most recent posts. Examining these posts offered an overview of the topics discussed, the post's voting score, and its comments. I also looked through the comments. With popular posts, I would look through the top comments (those with the most upvotes) to gain a sense of the discussion. I performed a similar procedure on Tumblr, checking recent and popular posts within MCU-related tags. I focused on more general tags, like "Marvel Cinematic Universe" or "MCU", instead of tags for specific properties. Although most posts would often focus on particular characters or topics, they were usually tagged with more general and specific tags (e.g., "MCU" and "Captain America"). The strategy of casting a wider net allowed me to gain an overview of the overall topics discussed in the fan community, but also enabled me to find discussions concerning more niche topics. After gaining an overview of the day's posts, I selected one or two posts in each fan community to examine more closely, digging deeper into the posts' interactions and discussions.

I made annotations of the fieldwork for each fan community, which were written in separate documents. Each field note entry followed a similar structure: a general description of the most popular and recently uploaded posts and an outline of specific posts. Here, I also included personal reflections or commentary, where the latter is marked and separated from the descriptive parts of the field notes. Lastly, I employed different strategies for writing field notes depending on how I engaged with the posts during fieldwork. Sometimes, I would write detailed field notes during fieldwork with more observational character. When more engagement was needed, I wrote shorter notes, mostly using keywords, which had to be fleshed out afterwards.

Identifying what posts to pursue was inspired by Nicholas Wolfinger's (2002, p. 90) strategy of the salience hierarchy. As he highlights, the strategy is to annotate "a particular observation because it stands out". Simultaneously, Wolfinger emphasizes that what makes a detail, discussion, event, or situation stand out from the rest is dependent on the research design and what background knowledge the researcher has acquired during fieldwork. For instance, what I decided to pursue in my fieldwork shifted as I learned more about the fan communities and the MCU franchise at large. At the beginning of my fieldwork, I often looked at posts with fan work (e.g., fan art). Although I found these posts interesting concerning what the creator chose to depict and how, there was not much discussion in them. Most comments were compliments on the art. To gain a deeper understanding, I expanded the scope and started actively focusing on posts discussing the movies and TV shows, for example, posts where the poster began with a question or a theory about a particular character or plot. These discussion-heavy posts became easier to engage with as I learned more about the MCU franchise itself. However, I did not only pursue discussion-oriented posts. After a period of engaging with these posts, I would explore other posts, such as returning to fan work or attending to discussions on the production aspects of the MCU franchise, among other topics. Overall, I shifted between having a broad and narrow focus, building on what I had learned from previous fieldwork sessions. In particular, I directed my attention to engagements, situations, and events that deviated from my previous observations and assumptions about the communities (see also Emerson et al., 2011 [1995]). I argue that having a shifting focus when navigating the field sites is needed, as the interactions and engagements among fans would change in line with new releases or developments in the franchise.

Interviewing

Interviews were conducted to gain the community participants' perspectives on how they participated in the communities and how they perceived the platform and its features. The interviews offered a window into individual community experiences, emphasizing the interview participants'

outlook on the practices examined. Although there are common themes in interviews and participant observations, they do not correlate directly (e.g., the same post is brought up in the interview and field notes). Instead, I intended to conduct interviews and participant observations to gain insights into fans' information activities from multiple perspectives, learning from their actions and words. The participant observation began before the interviews, as I wanted to learn more about the fan communities before formulating relevant interview questions. After conducting initial exploratory fieldwork to become familiar with the fan communities, the interviews were carried out concurrently with the rest of the fieldwork. The interviews were semi-structured and anchored in an interview guide (see Appendix 3 for the interview guide). The semi-structured character of the interviews allowed me to have more flexibility, giving me the ability to pick up and expand on certain topics or aspects brought forward by the interview participants (cf. Salmons, 2016, p. 133). The interview guide was continuously revised. New insights from previous interviews and participant observations guided what questions or themes should be added, revised, or removed from the guide (see also Rabionet, 2014). In the following section, I describe how I sought out interview participants from the communities and how I planned for the interviews.

Seeking interview participants

I sought to interview participants in two ways: the participants could contact me via email or private messages on Reddit and Tumblr, or I would reach out to potential participants via private messages during my fieldwork. If the participant expressed interest in participation, our communication moved to either email or Discord, where I provided more information about the study. If the participants were still interested, I would give them the letter of consent, which provided information about the interview, including topics discussed, what material would be generated from the interviews, personal information collected and how it would be processed and stored afterwards (see Appendix 2 for the letter of consent). I also emphasized the need for the participants to take their time reading through the letter of consent and encouraged them to ask questions if any

part seemed unclear. The participants could accept or decline the interview offer by replying to my email or Discord message. When approved, the participants accepted by stating in writing on email or Discord that they accepted the terms. I collected the participants' informed consent as written statements instead of a signature to streamline the informed consent process and minimize collection of unnecessary personal information. After receiving consent from the participant, we would book a date for the interview and decide on the preferred interview format for the participant.

The criteria I had for interview participants were broad, as I wanted to gain a wide range of perspectives on being a fan, being a fan community participant and using the platform. Participants had to be 18 years or older, be a fan of the MCU franchise, have had an account on Tumblr or Reddit for at least one month, and be active in the communities to some degree (e.g., at least making posts and comments). No attention has been paid to age (besides being over 18 years old), gender, ethnicity, or other social factors underlying individual participants' identity, behaviour, and experiences, as these parameters fall outside the study's scope. I did not collect any personal information about the participants other than their confirmation of being 18 or older, email address (and name as shown in the email), or alternatively, username on Discord and sound recordings of their voices. The language employed in the interviews was English.

In addition, I recruited interview participants by asking those I had interviewed already whether they had someone they could recommend (see Robinson, 2014). This form of referral, also called snowball sampling, assisted me in finding potential interview participants beyond those I met during my participant observation. However, I used this strategy cautiously, as it can cause selection bias, generating material in which only specific perspectives are represented (cf. Baltar & Brunet, 2012, p. 61). Most interview participants were found during my participant observations. I conducted 29 interviews: 14 with participants from r/Marvelstudios and 15 from the MCU Community on Tumblr. From the 29 interviews I conducted, four interview participants were found through referrals from other interview participants. For example, they were recommended because they were a friend of an interview participant, known for being active in the fan community, or had expertise in particular topics related to the MCU franchise.

Interview format

The interviews were conducted between August 2021 and February 2022. Like the participant observations, I concluded the interviews when the same themes increasingly began recurring (Moser & Korstjens, 2018). The interviews were undertaken in various forms, either via email, video call, or text chat on digital communication software *Zoom* or *Discord*. The interviews featuring sound were recorded with a dictaphone and later transcribed (discussed in detail in the section *Transcribing*).

Initially, it was difficult to find interview participants. When I started informing the communities about the project, I relied solely on these posts to find interview participants. The only interview format offered then was via *Zoom*. Only a few community participants showed interest despite my efforts to regularly inform the communities about the project. Subsequently, I had to rethink recruitment, adding a more proactive recruiting strategy. Despite being proactive, I experienced a low response rate. A few months into my fieldwork, potential interview participants indicated they were interested in participating but did not feel comfortable with the interview format, where they had to show their faces or where their voices were heard. The feedback helped me adapt the interview format to be more suitable to how the participants usually communicated in the fan communities. I expanded the interview formats to include real-time text chats and email correspondence. The instant messaging platform *Discord* was also added as an alternative to Zoom, as suggested by one interview participant.

Several factors need to be considered when expanding to several interview formats. The only format in which the interview participant and I met face-to-face was interviews via video calls on Zoom or Discord. Several interviews conducted as voice calls via Zoom or Discord were only undertaken with sound, relying on social cues in their voice, such as intonation and expressions of emotions (e.g., laughter). Some interview participants preferred being interviewed via real-time text chat or email correspondence. According to Raymond Opdenakker (2006), the advantages of synchronous and face-to-face interviews are the possibility to read social cues and the conversational spontaneity that occurs as "there is no significant time delay between question and answer; the interviewer and

interviewee can directly react to what the other says or does" (n.p). However, I found in my fieldwork that this interview format forces participants out of their pseudonymity and might make them feel exposed. In communities where pseudonymity is shared and expected, a face-to-face meeting online with a stranger would appear odd and uncomfortable (Leander & McKim, 2003, p. 216). Thus, I found it important to offer alternative communication methods for the interview participants that are in line with their usual ways of communicating, even if some are comfortable with video or voice calls. The various interview formats and number of participants from each fan community on Reddit and Tumblr are presented in the following table:

Interview format	Reddit	Tumblr
Mail		4
Zoom Video call	6	7
Discord voice chat	2	
Discord text chat	6	4
Number of interviewees	14	15

Table 1. Overview of the interview formats and the number of participants from each community on Reddit and Tumblr.

Conducting interviews via text chat and email involves challenges, including that they are time-consuming and lack social cues. Another challenge concerns time. Firstly, interviews through text chat took longer than the interviews I conducted via video or voice call. Interviews through text chat took two hours or even longer, extending to three hours, while those conducted via video and voice call took around one hour. The possibility of thinking and revising one's message before sending it caused a time delay between questions and answers. Although many interviews were conducted in real-time text chats, I found that they lasted longer than planned. Luckily, the participants were understanding and allowed me to continue the interview until we had gone through all the questions. Conversely, I found that asynchronous email interviews were a time-efficient alternative, as participants could answer the interview questions at their convenience (see also Meho, 2006; Hunt

& McHale, 2007). Secondly, there was a lack of social cues established through body language and intonation. However, typographical conventions were used in the text chat and email interviews by the interview participants and me to express emotions, such as abbreviations "lol" [laughing out loud] or emoticons ":D" [a face with an open-mouth smile] (cf. Boellstorff, 2012, p. 101ff). Simultaneously, some participants felt they expressed themselves better in text. This was sometimes due to not having English as their native language or finding it easier to articulate what they were thinking in writing.

Collecting documents

Collecting platform documentation from Tumblr, Reddit and news articles about them became vital in learning how the platforms operate and how new platform features and changes are implemented during fieldwork. The platform documentation (in various versions) I collected from Reddit and Tumblr dates back to 2019, including terms of service, policy documents, announcements from Reddit's administrators and Tumblr staff, API documentation and instructions. The table above shows the various sources and the number of documents/articles collected (see Table 2).

Source	Number of documents/articles
Platform documentation from Reddit	47
Platform documentation from Tumblr	37
Platform documentation from other platforms (e.g., Apple, Google, Pushshift and Xkit)	8
News sources	74
Number of sources in total	166

Table 2. Overview of sources and the number of documents and articles collected from each source.

When closely reading the platform documentation, I paid attention to aspects of its purpose, the intended audience (e.g., users, third-party developers, advertisers), the setting in which it was found (e.g., part of the platforms' support resources or terms of services) and the relations be-

tween the different documents (e.g., how does the code of conduct relate to the content policy) (see also Davie & Wyatt, 2021). The platform documentation provides insight into how the platforms provide access (e.g., via APIs) and moderate and govern recorded information. The platform documentation puts forward what the platform companies define as part of their liabilities and legal responsibilities, what type of content is permissible, and prescriptions for how to use the platform features. Simultaneously, the documentation also brings forward other actors present on the platforms. For example, from reading the privacy policies (e.g., how posts can be shared beyond the platform) and various terms of use (for various third-party actors), I could identify various actors involved with the activities on the platforms, like advertisers, third-party developers, as well as other platforms.

Aside from the platform documentation, news sources (e.g., BBC and The Guardian) and tech-oriented journalistic articles (e.g., Wired and The Verge) were included to keep up with the platform changes and implementations. Much of this material concerns the events of the Reddit API Controversy and the Tumblr porn ban. However, the material collected also contains more general news about the platforms, which sometimes focuses on the companies themselves (e.g., Reddit releasing an IPO). The perspective and knowledge of journalists are important. They offer an entry point into an interchangeable and evolving field, often directly after a platform-related event or change occurs. Simultaneously, the news and journalistic articles provide insight into the platform companies. For example, interviews with the companies' staff or key figures (e.g., Reddit's CEO Steve Huffman) offer details on how the platforms operate and the reasoning behind specific changes or developments. It is important to keep in mind that the platform documentation and the news and journalistic sources do not provide a complete and comprehensive overview of the platforms. What is made explicit in this material is what the platform companies want to communicate externally, offering only partial insight into how the platforms operate. However, while these sources do not fully disclose everything about the platforms, they provide an entry point into the platform company's rhetoric and perceptions about its services (cf. Hine, 2015, p. 76).

Analysing the infrastructure

The study's empirical material contains 59 field note entries from Reddit (148 pages), 55 entries from Tumblr (117 pages), 29 interview transcriptions, platform documentation, and news and journalistic sources (see the previous section *Analysing documents* for a list of what platform documentation and news sources were collected). I wrote a research diary throughout my fieldwork to reflect on the study's methods continuously. The study's material and documents were stored following the GDPR legislation for storing personal information and its conditions for consent[2]. Material generated and collected during fieldwork was stored on a cloud storage unit with authorized access within Lund University's internal servers. In the storage unit, I kept a range of information and material related to the study, including the research diary, interview guide, letter of consent (and documentation of their informed consent), the materials collected, and thesis drafts. In the present section, I describe the analysis process. I begin by presenting how the interviews were processed through transcription. Afterwards, I describe how the material was organized, analysed and translated into text.

Transcribing

I conducted verbatim transcriptions of the interview sound recordings, where I tried to transcribe as close to the sound recording as possible (cf. Boellstorff, 2012, p. 111ff). This includes emulating the participants' speech and use of words in writing. For example, word contractions were written when expressed in the sound recording instead of their formal two-word equivalents (e.g., "don't" instead of "do not"). The transcripts include various notations of conversational cues, sounds, and expressions, including pauses, cut-offs, and laughter. I followed the transcription conventions suggested by Alexa Hepburn and Galina Bolden (2017; see Table 3). The transcription conventions assisted me in making the transcripts comprehensible and easier to read, where the conventions marked whenever words

2 See Article 5-9 in the EU General Data Protection Regulation (679/2016).

or parts of a sentence were unclear while also capturing the flow of the conversation. The transcription process also helped me gain a deeper understanding of the interview material, which provided initial ideas concerning potential analytical themes. When transcribing, the following specific conventions were employed:

Transcript convention	Description
((ring))	transcriber comments
(word)	uncertain hearing
( )	unrecoverable speech or speaker identifier
(word1/word2)	two possible hearings
Voiced vowels	huh/hah/heh/hih/hoh/ha/ehh
(.)	Micropause
[	Overlap onset
]	Overlap offset
Cut-off sounds – a hyphen after a word or part of a word	bla-

Table 3. Overview of the transcription conventions employed in the study (Hepburn & Bolden, 2017).

Organizing, analysing and writing

I began organizing and analysing the material six months after fieldwork began, allowing the first fieldwork period to focus on choosing, approaching, and becoming familiar with the field sites. In the present section, I present how the analysis grew from the recursive and iterative process of organizing, analysing, and writing. I describe how analytical themes were created and the process of selecting quotes.

In the initial analysis process, each material was organized separately at the beginning using the software program *Nvivo* for qualitative data analysis. Through close reading, I began to identify analytical themes connected to the different materials. As described in the previous section, some analytical themes tied to the interview material were created during transcription, which I conducted before reading the field notes, platform documentation and news sources. Analytical themes were developed, identi-

fied and organized in two categories according to the communities—r/MarvelStudios and the MCU community on Tumblr. Within these two categories, I began to establish analytical themes drawing on fans' information activities in the material. Afterwards, I connected these themes, where some align but also come into conflict with each other. Exploring the relationships between the analytical themes provided an understanding of the material as a whole by examining its parts (Ayres et al., 2003, p. 873).

After a period of organizing and analysing the material, I began writing. The organization and analysis of the material continued, feeding into the writing and helping carve out the empirical chapters' initial structure. Based on this initial structure, I would begin to work with the material in each theme, shaping it into a readable text. However, writing also entails making certain concessions, where the material, as Birgitte Bönisch-Brednich (2018) highlights, is handled in ways similar to cooking: "we choose our ingredients, chop them into bite-sized pieces, re-arrange them, cook them, spice them. Only then are they made into stories, into the ethnographic narrative". There is a challenge associated with analysing the material and identifying what should go where when trying to form a coherent narrative structure in text. The material is shaped, interpreted, and, in most parts, reformulated. Some parts of the material are presented as quotes, sometimes in a condensed form, and others are combined and summarized; some parts never make it into the final text.

Drawing on Kevin Rockmann and Heather Vough's (2023) approach to selecting potential quotes, I attended to the statements in the material and how they could exemplify and represent the claims. I particularly sought engaging and illustrative statements that conveyed a coherent narrative and captured several nuances of the claim. Sometimes, longer quotes would also be edited where I removed irrelevant parts to sharpen their narrative (indicated by "[…]"). Some quotes with less detail, though engaging and illustrative, would also be included. These quotes provided additional information, were grouped with other quotes, or were descriptively summarized to represent a claim. The latter includes quotes with similar statements indicating a shared opinion or quotes risking confidentiality. For example, certain discussions about certain events or topics only took place in specific posts, which could even be identified, when para-

phrased (paraphrasing is discussed in detail in the section *Ethical Discussion*). My experience of the field sites and knowledge gained from my fieldwork was crucial in navigating how to edit, combine and summarize quotes so as not to cloud or distort their meaning. The empirical chapters' text structure grew and developed throughout the writing process. The analytical themes, related quotes, metatext, and claims were restructured in several iterations to strengthen the text's thematic coherence and sharpen the study's focus. The restructuring process also reflects the progression of my theoretical understanding, which has developed and has become increasingly anchored in the study's empirical settings.

Ethical considerations

In my ethical considerations for the study, I followed the recommendations set out by the Swedish Research Council, anchored in the European Code of Conduct for Research Integrity (ALLEA, 2023) and the General Data Protection Regulation (2016). My study also follows the Association of Internet Researchers (AoIR) guidelines for research on the internet (Franzke et al., 2019; Markham & Buchanan, 2012). I gained clearance for an ethical review during Spring 2020 (registration number: 2021-02046) due to the possibility of encountering and collecting sensitive information during my fieldwork, including information about sexual orientation, ethnicity, and political opinions[3].

Being reflexive during my fieldwork requires an understanding of how my presence as a researcher interpreting fan engagement in the fan communities on the platforms shapes what representations of the fan communities come forward in the analysis and how my presence affects the communities during fieldwork. Similar to what Sharan Merriam and colleagues (2001) stress concerning the position of power that the researcher posits, I was aware of the power inherent in how my interpretation shapes what representations of the MCU fans come forward. Entering a social setting as a newcomer can be challenging as implicit knowledge—including unspoken conventions, norms, or rules—is initially obscured. Fan commu-

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3 See Article 9 in the EU General Data Protection Regulation (679/2016).

nities follow a similar logic, especially in communities with a long history and tradition where a situated body of knowledge, or so-called "lore", has been developed over time (Ball, 2017). As I had the position of a newcomer to the fandom and the sites, I needed to learn what and how the fans do things, enabling further immersion into the fan communities. In this regard, being a newcomer helped me better understand why the fans do things in certain ways in the fan communities (see also Dennen, 2014; Boellstorff, 2012). Simultaneously, in my efforts to be transparent about the choices made in my fieldwork, as I discerned in the present chapter, I hope the representations that come forward in my study offer an interpretative account of fan engagement that does not stray too far from the fans' perceptions.

I declared my presence in the communities when beginning my fieldwork. To avoid disrupting or derailing the discussions, I did not declare my presence in every interaction. On the contrary, I also had difficulties gaining visibility myself when introducing and reminding the communities of my presence. Despite my concerns over my presence and its effects, it is also important to remember that my presence was naturalized over time. As Kalpana Shankar (2004, p. 377) notes, although the researcher's presence might seem intrusive at the beginning, the researcher becomes "another 'normal feature' of their landscape" once the participants grow familiar with this presence.

Drawing on Lisa Sugiura, Rosemary Wiles and Catherine Pope's (2016) bottom-up approach to navigating perceived public and private spheres, I made an effort to stay attuned and responsive to the fans' perceptions of what is considered sensitive information and whether the fan communities are public (as well as semi-public) or private. I gained insight into the fans' perceptions of sensitive information through my fieldwork, which included conversations with the interview participants and participant observations, all framed within current ethical discussions in research (e.g., Eynon et al., 2017; Franzke et al., 2019; Lomborg, 2012). As mentioned previously, the MCU fan communities' posts are public, as anyone can read them, even without an account. Simultaneously, to engage with the posts, one does not need to be a participant in the fan communities. The posts about the MCU franchise are accessed through tags on Tumblr, making the

MCU fan community rather fluid in its boundaries. In contrast, although the subreddit r/MarvelStudios has more clearly defined boundaries, it does not require membership for users to engage with posts, only an account. The subreddit's boundaries are not rigid; occasionally, popular posts can "break out" and become visible alongside trending content across other subreddits. However, despite the public display of the fan communities' interactions and discussions, fans' engagement can be considered semi-public as there is often a specific recipient in mind: fellow fans. Simultaneously, what is considered a fellow fan becomes quite ambiguous due to the MCU franchise's popularity and the unclear boundaries of the MCU fan communities on Tumblr and Reddit.

Although the fan communities do not deal with sensitive topics or practices, I have taken specific measures to ensure the community participants' privacy. Due to the public character of the communities' interactions and discussions, I have focused on processing the material in ways that do not risk revealing the fans' identities. Fans who have been interviewed and whom I met during the participant observations have been pseudonymized. I have also paraphrased quotes from field notes written during participant observations. Another step to protect the fans' identities is how posts, interactions and the platforms' interface are depicted visually in the thesis. Similar to how Anna Lundh (2011) visually depicts her informants in her doctoral thesis, I have chosen to present these depictions of the fans and platforms as illustrations. These illustrations also mitigate the risk of potentially violating copyrighted material (e.g., screenshots of movies or TV shows used in memes). An inspirational source for these illustrations is found in Tiidenberg, Hendry, and Abidin's (2021) book about Tumblr. Instead of featuring screenshots, they asked an artist to illustrate the platform, its features, and social interactions to protect the study participants' identities. A similar strategy has been adopted in this thesis, where the artist Ylva Oknelid has contributed illustrations to portray the fans' content, discussions, and interactions.

The material was pseudonymized by removing usernames and any other personal details relating to the participants' identities. The latter concerns any personal information about the community participants' lives that was brought up during the fieldwork, like occupation and place of

residence; all such information was left out of the transcriptions and field notes. However, some personal information tied to the interview participants, like username and contact details, has been kept to allow me to ask follow-up questions based on the interviews and to reach out to them after the thesis is finalized. Information about the interview participants' usernames and contact details have been kept in a password-protected file. After finishing the interview process, each participant was assigned a code (e.g., C1). This code and the corresponding username were kept in a separate password-protected file to keep track of what material belonged to what interview. The assigned code for each interview participant was used to organize and process the material in Nvivo.

New pseudonyms were given to every interview participant when processing the material for analysis. These new usernames do not resemble the interview participants' usernames on Reddit and Tumblr. The pseudonyms are generated by a username-generator, tracking whether the username is taken on various platforms, including Reddit. I manually checked whether the usernames had been taken on Tumblr before assigning the new pseudonyms to the interview participants on Tumblr. By the time of writing in 2024, the pseudonyms generated by the username-generator and employed in the thesis' text were not taken on Reddit, Tumblr, or any other major social media platforms. During my participant observation, I pseudonymized the individuals in my field notes to maintain confidentiality throughout our interactions and discussions. Depending on which fan community is in focus, these fan community participants are referred to as "the original poster (OP)" or "commenter", "fans", and "Redditor", as well as "Tumblr participant" in the empirical chapters.

Paraphrasing assisted in maintaining the privacy of the fan community participants while presenting engagements as depicted in the fieldwork. Similar to the strategies employed by Tom Boellstorff's (2008, p. 83) seminal study of Second Life, I combined quotations and changed details on locations, names or other identifying aspects. The conditions of the empirical settings influenced the balance between transparency and protecting the privacy of community participants. Boellstorff's approach (2012, p. 138) helped me determine which information was essential to include in a reformulated version of the reporting of the material and how to present

it in ways that would align with the character of the communities' inter-actions and discussions. Subsequently, drawing on Alex Thompson and colleagues' (2021, p. 124) suggestions on paraphrasing, I changed details about discussions engaged with during participant observation and para-phrased quotes found in these discussions to ensure they could not be traced back via text search.

In the following chapter, I delve into the empirical parts of the study, starting with how fans' information activities come to be meaningful as part of their fan engagement.
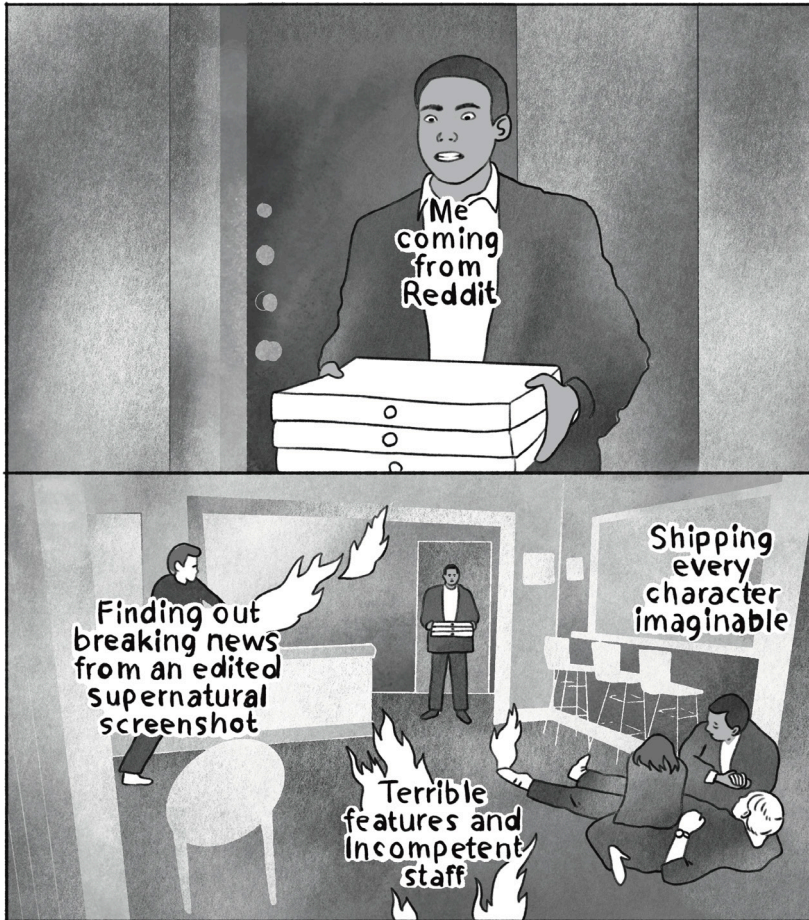
Figure 4. Meme on being a newcomer on Tumblr. Illustration: Ylva Oknelid.

5. Discrepancies in meaning

In June 2023, amid the Reddit API Controversy, many Redditors began migrating to other platforms, including Tumblr. On Tumblr, welcome posts and unofficial guides on how to navigate the platform started appearing. These unofficial guides describe a variety of things one should do when becoming active on Tumblr. For example, one Tumblr participant stresses the importance of changing the profile picture and blog layout so as not to be mistaken for a bot: "Hey, make sure to update your profile picture, header, and blog title now to avoid being mistaken for a bot and getting blocked" (Field notes, Tumblr, June 21, 2023). These guides also try to describe the Tumblr features in ways that the Redditors can understand, drawing a parallel between the two platforms' features: "Reblogs are super important here, kind of like upvoting on Reddit. You can add your own comment, image, or tags when you reblog, but you don't have to". Simultaneously, they point out how to use certain Tumblr features, for example: "We don't really use tags to find stuff because the search function isn't great; we mainly use them for categorizing. We also talk in the tags". One newcomer responded to the welcome committee with a meme[4], expressing their initial impression of Tumblr (see Figure 4). The meme jokingly depicts the platform as a chaotic place of fan engagement, memes and shitposting[5] (Field notes, Tumblr, June 21, 2023).

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4 The meme template "The Darkest Timeline" features two screenshots from the TV series Community. In the picture of the meme, one character enters a room and is shocked by the chaotic situation of another character lighting the room on fire. This meme is commonly used to express confusion or differing opinions on current events (KnowYour-Meme, 2017)

5 Shitposting refers to the act of posting absurd, provocative, or offensive content that is often out of context and does not contribute to the discussion (Greszes, 2018).

When and if an exodus happens to another platform, the migrants, like the Tumblr newcomers, are exposed to a new setting with features they need to grasp. This takes time, as one needs to learn new routines. These everyday information activities, which involve creating, using, sharing and accessing posts and comments, become routinized so that the fans do not reflect on them. For newcomers, these activities can be somewhat puzzling, which makes these unofficial welcome guides helpful, by rendering implicit acts explicit. The welcome guides explicitly describe how things should be done, prescribing particular ways of acting that are meaningful and making them understandable for newcomers.

In this chapter, I discern how meaning emerges through fans' information activities. With meaning, I am referring to how fans' meaning-making is enacted through their information activities as part of fan practices, making certain ways of acting appear appropriate or meaningful. I show how fans' information activities are an integral part of becoming a fan and a fan community participant. I also show how fans' meaning-making is *situated*, where there are variations and even discrepancies in the meaning of the same activities.

In the following sections, I analytically demonstrate the variations and discrepancies in meaning enacted in how fans negotiate canon, surfacing how fans relate to the MCU franchise in many ways. Next, I focus on fans' meaning-making through activities like voting and tagging, illustrating how what appears to be the same act of voting and tagging can be carried out differently at different points in time. These variations render the meaning of these activities uncertain and, by extension, what the recorded information generated from them (e.g., data) connotes. Lastly, I focus on moderation, particularly aspects that play into how posts are labelled, for instance, which posts are or are not deemed explicit in their content.

Canon

In the present section, I focus on how fans interpret and negotiate canon and how this activity, which is heavily reliant on posting and commenting, shapes how they relate to the MCU franchise. Starting from what I highlight in Chapter 2, I understand the notion of canon as the established

interpretation of the MCU franchise among the fans, often anchored in the official story or backstories created by its creators or producers. These negotiations of canon among fans reveal several ways to relate to the MCU franchise and how they find the MCU franchise meaningful. In the following sections, I discuss how the MCU franchise is not unanimously considered canon, but can also be situated in relation to Marvel Comics and, in particular, the MCU fan community in which the discussion takes place. Subsequently, I analyse how the MCU franchise itself shapes fans' perceptions of the canon in terms of the interpretations and negotiations that unfold among the fans.

Negotiating canon

The MCU franchise strays away from its comic counterparts in creating or rearranging plotlines established in the comics and previous portrayals of the Marvel universe. The Redditor Helmetnet describes how the MCU franchise is discussed in r/MarvelStudios:

> Many Marvel fans completely discounted the older TV shows and would not even acknowledge that they were MCU or anything like that. There's even now still heated debates about whether the old shows are part of the MCU or not. It's just- it's getting pretty cut-throat (Helmetnet, interview, August 31, 2021).

On the one hand, the MCU franchise can be interpreted as canon, compared to previous Marvel movie adaptations (outside of the MCU franchise). On the other hand, the MCU franchise itself can be treated as an interpretation of the Marvel comics, where I argue that the latter is interpreted as canon. As I saw during my fieldwork, with newly released MCU movies and TV series, the plots and characters are often compared to their comic book counterparts. For instance, these comparisons were made when the TV show Hawkeye was released in 2021. Hawkeye, also named Clint Barton, is a superhero with exceptional archery skills and a member of the superhero team Avengers. A discussion among Tumblr participants took place, highlighting how the comic version of the character is portrayed with darker undertones, as he was initially introduced as a villain in the comics.

This portrayal differs from the MCU version, which portrays Hawkeye as a grumpy family man (Field notes, Tumblr, September 7, 2021).

Some Tumblr participants are critical of the portrayal of Hawkeye in the TV series. One Tumblr participant puts the blame on Joss Whedon, the director of the first and second Avengers movies, where Hawkeye made his first MCU appearances. The Tumblr participant points out that the creation of Hawkeye's family is superfluous and adds nothing to the character, as the family often gets sent away before Hawkeye goes on a dangerous mission. Simultaneously, other community participants in the same discussion have more positive thoughts about MCU's portrayal of Hawkeye as a family man, but this plotline has not been used enough. As one Tumblr participant comments: "Marvel Studios just randomly gave him a family and then never really used them except to give him a bit of angst. It feels like they wasted the potential there" (Field notes, Tumblr, September 7, 2021). Building on this, another Tumblr participant suggests that the family device can be used while still staying true to its comic counterpart, exemplifying how Hawkeye's dark past as an orphan (as portrayed in the comics) haunts his fatherhood. Lastly, some speculate whether the MCU portrayal of Hawkeye as a family man is meant to avoid unnecessary romance and love interest storylines involving the character. From this discussion, I understand that these fans treat the comics as the canon, of which the MCU franchise is merely an interpretation. I also find that the fans, as part of MCU fandom, are not uniform in their understanding of what canon is. Fans have different perceptions of what canon entails. Some fans consider the comics canon, and others have a more fluid interpretation of canon.

The MCU franchise can also be treated as canon in its own right. During my fieldwork, I found that some fans used the MCU franchise as their focal point, arguing that it is possible to build on the comics but reinvent and readapt the characters in new forms. One example of promoting a looser relation to the comics is seen in a post on r/MarvelStudios on Reddit. The post discusses the various film adaptations of Spider-Man before and in the MCU, comparing how the movies portrayed Spider-Man's background story differently. A question arising in the discussion is whether future portrayals of Spider-Man will adhere to the official background story, where the death of Spider-Man's Uncle Ben is a defining moment in creating his su-

perhero persona, motivating him to fight crime. This background story of Spider-Man has been included in the comics and portrayed in the previous Spider-Man movie adaptations, but left out of the recent one (Field notes, Reddit, December 15, 2021). There are divided opinions about the importance of Uncle Ben among the Redditors. One Reddit speculates that Uncle Ben's death was skipped in the MCU franchise because the producers did not want to waste time on "another origin story". Instead, focusing on the relationship between Peter Parker and other characters like Iron Man (with whom Spider-Man in the comic version does not share a close relationship) (Field notes, Reddit, December 15, 2021). The other side of the discussion is more critical of not including Uncle Ben. As one Redditor argues, Spider-Man's motives become more difficult to understand compared to the previous Spider-Man portrayals, as "He hasn't suffered as much as the other Spider-Men". Another Redditor replies to this comment, arguing: "People keep complaining about how superhero movies, especially in the MCU, always retell the same origin stories. But come on, the movies are as good as they are. We shouldn't be demanding that they get remade to fit our every little wish" (Field notes, Reddit, December 15, 2021).

These negotiations of the MCU franchise further strengthen the notion that there is no uniform meaning of what canon is in the fan communities. There are tendencies to remain faithful to the comic origins, exemplified by the posts about Hawkeye and Spider-Man. However, I also see fans who welcome readaptations that stray from the established formula (in the comics). The latter perception of canon emphasizes how the MCU portrayals should be judged on their own premises rather than as an extension of the comics. These different ways of finding the MCU franchise meaningful illustrate how fan engagement within and even across fan communities is widely different, where there are many different nuances in fans' perception of what canon is in the MCU communities on Reddit and Tumblr. For instance, in the subreddit r/MarvelStudios, I find more inclinations towards seeing the MCU franchise as a canon in its own right. On the other hand, the MCU fan community on Tumblr encompasses a broader spectrum of how the fans perceive canon. At the same time, meanings are not uniform within each fan community. Considering the MCU franchise as canon or merely an interpretation can differ even in the same community. The multiplicity of how canon

is interpreted indicates that fans are not solely affirmative or critical in their relation to the MCU franchise. Instead, fans' perceptions of canon have a situated character, as they are developed in negotiation with other fans in the fan communities. What I further examine in the following section is how the MCU franchise is also a contributor to the fans' meaning-making, where the franchise's form and content shape their negotiations.

Multiverse of canons

The central plot unfolding in the MCU franchise, at time of this writing in 2024, is the "Multiverse Saga". This saga involves alternate timelines and multiple plots, and it presents a vast set of characters in the Marvel universe. As the Redditor Doughnutscheetah highlights:

> I like to lurk on the subreddit because the MCU has proven time and time again that almost anything is possible in the movies now. Anything can happen, and the characters and tones that it encompasses are so vast right now. It's really great to think about the cool possible juxtapositions that are yet to be seen. The subreddit [r/MarvelStudios] often brings up such things, and it's a lot of fun to think about (Doughnutscheetah, interview, December 15, 2021).

The multiverse concept in the franchise not only destabilizes what canon is, but also broadens the canon. There is a feeling among the fans that anything can happen in the Marvel Universe. Future plots, character developments and possible character appearances are open for discussion. Production-wise, the franchise's ambiguous multiverse-building makes it possible to incorporate pre-MCU productions into the overall plot of the franchise. For instance, alternate universes merged in Spider-Man: No Way Home (2021), bringing back older Spider-Man versions and introducing superheroes like Daredevil from pre-MCU productions. The form of the MCU franchise encourages the fans to interpret, fill in plot holes, and flesh out characters in ways that might deviate from the MCU's portrayals but are in line with the feeling that anything could happen, and if not, it could be seen as an alternate timeline or universe.

My fieldwork shows that multiverse-building in the MCU franchise is

successful in opening up discussions, speculations and guesswork on what happens next. Post-credit scenes and trailers often shown in the MCU films work as fodder for these discussions. As the Tumblr participant Highnoonleaf notes:

> These posts are like gold mines because you get to analyse scenes from movies or TV shows. In a way, you invite people to tell you their opinion or if they see a specific scene differently, agreeing or disagreeing with you (Highnoonleaf, interview, November 29, 2021).

The MCU fan communities are often buzzing with discussions when a new episode or movie is released. So-called *headcanons* can be created, which entails a personal or shared interpretation of a character or storyline (cf. Chaney & Liebler, 2007; Coody, 2023). Headcanons include elaborating on characters' traits or attributes that are not explained in the movies or TV shows. One example is found in r/Marvelstudios on Reddit, in a post discussing Yelena Belova, initially a Russian spy. The post focuses on Yelena's Russian accent, which the Redditors find strange given that Yelena spent her childhood in the US. One Redditor speculates: "I mean, she's a spy, so she's probably trained to blend in. The accent she's using is definitely a deliberate choice" (Field notes, Reddit, December 21, 2021). Headcanons can also entail filling in logical gaps in the plot. As highlighted in one post in r/MarvelStudios, one Redditor finds it odd that Hawkeye struggles to fight street hoodlums in their eponymous TV show but could take on space villains in previous movies. Another Redditor tries to explain Hawkeye's reduced strength in relation to his older age and presumed post-traumatic stress syndrome from the space fights (Field notes, Reddit, December 9, 2021). Subsequently, headcanons can become an established "truth" among community participants, with little or no connection to what is portrayed in the movies and TV shows. As the Tumblr participant Cocoastardustlizard describes:

> There are some universally accepted headcanons that no one knows where they started, but everyone agrees, like Thor loves pop tarts or that Clint [Hawkeye] hides out in vents […]. Sometimes, they are based on some-

> thing from the movie. Thor might have said that he likes pop-tarts in a passing line in the first Thor movie. However, the headcanon grew to the point of him being obsessed with them and them being his favourite food (Cocoastardustlizard, interview, December 13, 2021).

The MCU movies and TV shows can act as stepping stones to elaborate, develop, and revise parts of the canon. What might be a minor detail in the movies and TV shows can be expanded as a character's defining trait. As Tumblr participant Ariescroissantfoxpie points out: […] "If you don't like it [canon], go write a story that has what you like in it" (Ariescroissantfoxpie, interview, September 13, 2021). I find that while these headcanons expand the meaning of the MCU franchise, like relatable traits, funny attributes or elaborating on the background story of a character, they still conform to the stories and plots as told in the movies and TV series.

Compared to the headcanon, so-called *shipping*, namely the act of pairing two or more characters together as a romantic couple, pushes the boundaries of the canon more drastically. Sometimes, shipping can challenge and even replace what is established as canon. I found shipping to occur more often in the MCU community on Tumblr, while it is rarer on Reddit. There are particular couples, in other words, *ships*, that are more established among the fans. Fans can begin to claim that shipping is part of canon, and that what is actually portrayed in the MCU franchise's movies and TV shows is not canon. For instance, one popular shipping I noted in my fieldwork was fans' depictions of the relationship between Steve Rogers (also known as Captain America) and Bucky. The fans call these Marvel characters' ship "Stucky", a portmanteau of Steve and Bucky. In the movies, Steven and Bucky are portrayed as friends, but the fans think otherwise.

There have been ongoing discussions among the Tumblr participants on how the MCU franchise is downplaying Steve and Bucky's relationship. In one post on Tumblr discussing a recent purchase of a behind-the-scenes book on the MCU films, the original poster (OP) highlights that they cannot find any pictures of Steve and Bucky in the book. Several comments point out how the characters' relationship has been portrayed in the later MCU films. One Tumblr participant comments, "In the Avengers: Endgame, they basically sidelined Stucky's relationship because of ho-

mophobia" (Field notes, Tumblr, November 3, 2021). During my field-work, I found another post on Tumblr that complains about how "Stucky" is not recognized by the franchise, where one comment points out: "Everyone ships Stucky, except Marvel" (Field notes, Tumblr, January 4, 2022). The shipping of "Stucky" has, among its fans, replaced canon. In comparison, the so-called headcanon draws on the MCU franchise as canon and seeks to elaborate and develop character traits and background stories as well as fill in plot holes, as shown in the MCU movies and TV shows. The act of shipping constitutes the opposite. The MCU franchise is demoted from being canon to being merely an interpretation in relation to fans' interpretations. Here, I find meaning to be enacted in the fans' engagement tied to the fan communities, but also in how the MCU franchise is constituted. What the fans consider "Stucky" to be is compared to how these characters' relationship is portrayed in the movies and TV shows, where the characters' actions in the movies' plots are seen through the lens of what they consider the characters' relationship to actually be.

By attending to how the fans discuss the MCU franchise, I find that the negotiations among fans regarding what canon is shown are not straightforward or uniform, but unfold in multiple ways. I interpret the open-ended form of the MCU's multiverse as promoting expansions, interpretations, and explorations of what the MCU franchise means among fans beyond what the movies and TV series portray. The negotiations among fans both expand and challenge what canon can be. In my fieldwork, the subreddit r/MarvelStudios on Reddit engages with headcanons more, while the MCU fan community on Tumblr takes a more critical approach to the MCU franchise, making it meaningful by detaching plots and characters. As I highlight in Chapter 2, the latter form of fan engagement has been extensively explored in research on fans, which has often been discussed as "transformative" fan engagement, seeking to subvert or transform what is established as canon (e.g., Coppa, 2006; De Kosnik, 2016; Hellekson & Busse, 2006; Jenkins, 2018). Although the transformative aspects of fan engagement are noted in the fan communities, I argue that engagement among the MCU fans is much more multifaceted, comprising both affirmative and transformative dimensions. These variations in how fans perceive canon are established in relation to other fans in the fan communities. My findings indicating that MCU fandom is mul-

tifaceted align with what other researchers have stressed (e.g., DeFelice & Stanley, 2024; Griffin, 2023; Hubbard et al., 2024), which is that fans do not always actively resist or subvert canon (e.g., Hills, 2015; Nybro Petersen, 2022; Price & Robinson, 2016), but rather find various ways of making their consumption meaningful (e.g., Kozinets, 2001), which can be both affirmative and transformative.

I also want to stress how the multifaceted ways in which fans find the MCU franchise meaningful must be seen in light of how the MCU franchise is formulated. Similar to Carolyn Hardin's (2023) point on how certain franchises encourage more interpretation than others, my findings show that the current multiverse plot in the MCU franchise encourages fans to speculate more freely, and their interpretations could be regarded as part of the canon. The fans perceive that their interpretations could potentially happen or could be explained as alternate timelines for what is shown in the movies and TV series. In and through fan practices, I see how the continuous negotiation of canon creates situated boundaries, determining what should or should not be considered meaningful in a given situation. These boundaries of what is considered canon are neither given nor static, but continuously changing through engagement among fans and in their engagement with the MCU franchise's releases. In the following section, I zoom in on other forms of meaning-making among fans by focusing on how what would seem to be the same act conducted by many fans, like voting and tagging, has variations in meaning.

Organizing

Voting on Reddit and tagging on Tumblr organize recorded information through ranking and categorization. These activities affect the visibility, accessibility, and arrangement of posts and comments. Although the ways to vote and tag are rather limited in their functionality and variability compared to writing a post or comment, different meanings are assigned to the same activity carried out by different fans. In the present section, I focus on the activities of voting and tagging and how they reveal not only variations but also discrepancies in meaning among the fans and what is prescribed in the platforms' instructions for using these features. Firstly, I attend to voting

and show the different ways of voting, shaping the organization of the recorded information and what this organization connotes. Secondly, I focus on tagging. There are manifold ways to tag, which affect the categorization and access, but entail ways to tag that significantly diverge from how Tumblr prescribes tagging in their instructions. What I show is that tagging can also be adapted for social and communicatory purposes. Altogether, I show how activities that involve one or a few actions contribute to the situated enactments of meaning in the fan communities.

Uncertainties of voting

Voting is a collective way to rank posts and comments on Reddit. Upvotes and downvotes make posts and comments visible by decreasing or increasing their ranking (see Figure 5 and 6). The votes generate so-called voting points. However, these points do not directly reflect the number of votes the post or comment has received. Instead, the voting points are calculated based on a formula that results in a score indicating the post or comment's popularity (or the opposite) (Reddit, 2021c). Reddit provides instructions on how to vote: "If you think something contributes to conversation, upvote it. If you think it does not contribute to the subreddit it is posted in or is off-topic in a particular community, downvote it" (Reddit, 2021a). Voting in a subreddit, as Reddit emphasizes, should consider the post's or comment's relevance and contribution to the discussions rather than whether one agrees or disagrees with what is stated (Reddit, 2021a, 2022a). What is discouraged by Reddit is opinion-based voting. The non-permissible ways to use the voting features include manipulating, soliciting, or participating in group voting (Reddit, 2023r).

In r/MarvelStudios, many Redditors vote as prescribed by Reddit. These Redditors stress that they usually upvote rather than downvote, where the latter is carried out more sporadically and often in cases with malicious or hateful posts or comments. For example, the Redditor Teanixkale notes: "I would only really downvote something if it was being hateful against someone. I don't usually downvote opinions I disagree with" (Teanixkale, interview, January 17, 2022). Relevance-based voting becomes a collective way to moderate non-relevant and unwanted posts and comments, de-
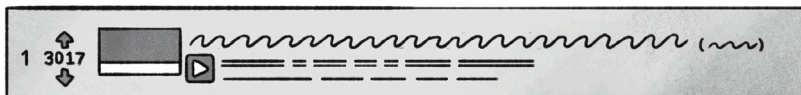
Figure 5. Reddit's voting feature in the old interface. Illustration: Ylva Oknelid.
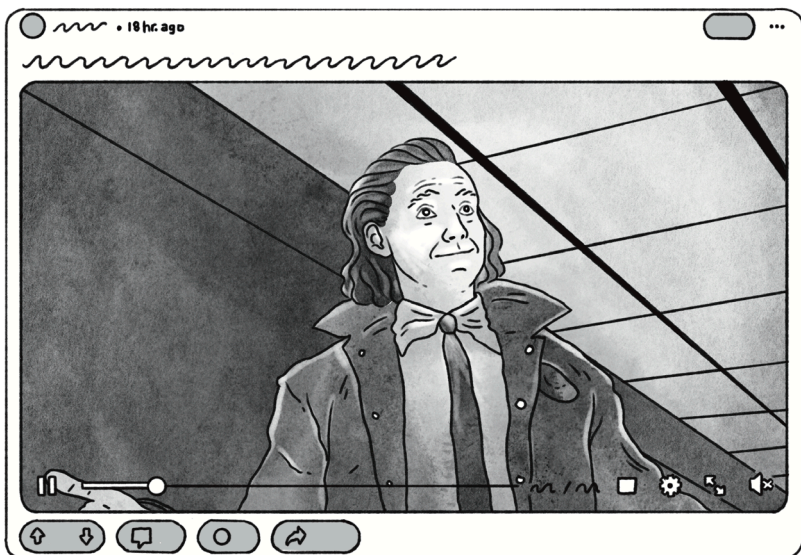
Figure 6. Reddit's voting feature in the new interface. Illustration: Ylva Oknelid.

creasing the visibility of low-effort content, spam, and bad behaviour. However, in my interviews, several Redditors also highlighted that they can vote based on whether they agree or disagree with the post or comment. For instance, the Redditor Spiralshapecomposer points out that they downvote if they feel "someone is wrong" or they do not "agree with their opinion" (Spiralshapecomposer, interview, January 20, 2022). Similarly, the Redditors Sharkhaumea and Flybatsea express similar approaches to downvoting, where Sharkhaumea highlights, "I will downvote anything I dislike" (Sharkhaumea, interview, October 3, 2021), and Flybatsea puts forward "if I read something I strongly disagree with, I downvote it" (Flybatsea, interview, November 8, 2021). Subsequently, some Redditors find opinion-based voting problematic. As the Redditor Flybanjo highlights, voting based on opinion contributes to making one kind of opinion prev-

alent in the subreddit, risking a so-called "circle jerk" or an "echo chamber"[6] (Flybanjo, interview, September 7, 2021).

Opinion-based voting may risk amplifying and reinforcing certain opinions, pushing out dissenting opinions. There is a discrepancy among the fans in what voting means. In my interpretation, the different meanings enacted in voting highlight how votes not only organize and rank posts and comments but also have social dimensions, as votes are involved in collectively assigning visibility to posts and comments in the subreddit. As I found in my fieldwork, voting serves not only to filter out non-relevant posts and comments but also to maintain the discussions tied to the given topic. When a vote is opinion-based, voting helps reinforce certain kinds of opinions by making these more visible. What a vote means cannot be deciphered by the post or by itself as a single action, but only becomes meaningful in relation to voting patterns in the subreddit in general. These ways of voting bring forward the question of what the voting points actually connote. Do the voting points indicate the post's or comment's relevance to the subreddit's topic or how well they align with the opinion held by the majority in the subreddit? Or could it be both? I argue that, while inferences can be drawn from Reddiquette or the subreddit's guidelines and interviews with fan community participants, there is an inherent degree of uncertainty in voting, as voting in the same post, and even within the same subreddit, can be ascribed different meaning. It calls into question how much a particular voting pattern (e.g., whether it is based on relevance or opinion) contributes to the overall score of a post or comment, unless one sees the ranking as being situated among the other posts in the subreddit.

Voting also contributes to "karma points", which are, as Reddit describes, "fake internet points" (Reddit, 2022c). Karma points are a metric reflecting how the individual Redditor is appreciated through their contributions, similar to how voting points signify how well a post is received (Reddit, 2022c). Adrienne Massanari (2013, p. 116) suggest that karma

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6 The term echo chamber denotes the reinforcement of existing opinions and worldviews within a group (Del Vicario et al., 2016). By similar logic, subreddit can also be referred to as "circle jerks", where the community members, in a self-gratulatory manner, confirm and reinforce beliefs and opinions primarily coinciding with theirs (Reddit, 2021a).

points are socially meaningful as they "offer a concrete articulation of the perceived value of contributions that a particular Redditor makes to the community". Karma points indicate the individual Redditor's engagement level and credibility (Reddit, 2022c). However, as some fans in the subreddit point out, the karma point system has run into problems with so-called "karma-farming". The notion of karma-farming entails posting and commenting solely to accumulate karma points, making it challenging to decipher whether the Redditor has a genuine interest in interacting with others. For instance, in r/MarvelStudios, accusations of karma-farming are regularly made. One example is a post focusing on Scarlett Johansson, who portrays Black Widow in the MCU franchise and received a star on the Hollywood Walk of Fame in 2012 (Field notes, Reddit, October 8, 2021). When checked on October 8, 2021, the post had received over 35,000 points, and other Redditors began accusing the original poster (OP) of karma-farming. Whilst some initial comments highlight their appreciation for the actress, one Redditor comments: "Farming some karma, eh?". Following the initial accusation of karma-farming, another Redditor responds and points out that OP uploaded the same post to other subreddits. Another Redditor joins the discussion and asks: "Why do people care so much about karma? It's like, does it really mean anything?" (Field notes, Reddit, October 8, 2021). The discussion continues and goes deeper into the topic of karma-farming, where one Redditor believes that user accounts with high karma points on Reddit can be sold and used for political or marketing purposes. This Redditor puts forward that accounts with higher karma points are seen as more authentic and can then be used for malicious purposes, like spreading misinformation and disinformation, as people may be more likely to trust these accounts. Some Redditors find these claims exaggerated, but do underline that trust in karma points has decreased due to fake accounts, often run by bots to farm karma.

In the subreddit discussion I present above, some reassurance is given by one Redditor who argues that deceptive behaviour is not common on Reddit, suggesting that one should check how long the account has been active compared to its karma points when in doubt. An indication that a Redditor is karma-farming is if the account has more post karma than comment karma (Field notes, Reddit, October 8, 2021). In my interpreta-

tion, karma points can have different meanings for different fans, which also creates uncertainties in meaning similar to the voting points. What I find is that karma points can indicate how engaged and credible a Redditor is, but it can also be the opposite: a source of distrust and suspicion.

There are uncertainties concerning what voting and karma points mean, as there are different and opposing ways of voting. These different ways of voting also shape how the posts and comments are organized. Following Reddit's guidelines for voting, high karma points, as well as highly ranked posts and comments, should indicate relevance and credibility, as ensured by other Redditors. However, what is shown in my fieldwork is that voting among the fans does not always follow the official instructions, which creates variations as well as discrepancies in meaning in terms of what purpose voting should have. As Timothy Graham and Aleesha Rodrigues (2021, p. 10) highlight, Redditors' voting "make[s], and enforce[s] their own rules, norms and ethics around it". My findings on voting align with Graham and Rodrigues' results, highlighting the social dimensions of voting and how this simple action contributes to collective meaning-making. I further show with my findings how the situated enactment of meaning through fans' voting has variations and discrepancies within the same subreddit.

There is a normative dimension of fans' information activities that is established not only in what the fans continuously produce and reproduce in their actions, but also in how the platforms instruct the users on how to use certain features. For example, Reddiquette, the community guidelines for Reddit communities, encourages Redditors to consider how a particular post or comment is relevant to the subreddit when voting. However, my findings show how these seemingly generic activities (e.g., voting is just a click on a button) are intricately developed among the fans and how one vote depends on the given situation. In the following section, I explore discrepancies in meaning further by focusing on tagging on Tumblr. Here, I show how tagging among Tumblr participants carries a manifold of meaning. Tagging not only organizes posts, but can also assist in delineating visibility and acting as a mode of communication.

Manifolds of tagging

Tagging entails adding relevant words or so-called tags to a post before submission, enabling retrieval (see Figure 7). Posts of specific topics can then be found by searching these tags (Tumblr, 2022h, 2023h). Tags can also assist in organizing posts. As one Tumblr participant highlights in the unofficial guides for newcomers: "We don't bother with tags to find things because the search function is terrible. Tags are mostly for organizing stuff" (Field notes, Tumblr, 21 June 2023). Tags are not simply access points to posts on the same topic, but they can also shape posts' visibility.

I found during my fieldwork that, tags can also be used to demarcate discussions with different opinions on the same topic. As the Tumblr participant, Namakatamarisk points out: "There is, sadly, a lot of negativity, especially toward certain characters, and it can be walking on eggshells sometimes, which is why most of the people tend to interact only with the ones they know share their opinions" (Namakatamarisk, interview, December 7, 2012). What I saw was how Tumblr participants would put the prefix "anti" in the tag before the title or name (e.g., #anti Captain Amer-

Figure 7. Adding tags to a post on Tumblr. Illustration: Ylva Oknelid.

ica) to mark that the post contains a critical and often controversial opinion. The anti-prefix, when searched, enables access to a set of posts sharing the same critical opinion rather than critical posts mixed with posts more positively inclined towards the topic (Field notes, Tumblr, October 28, 2021). Anti-tags are employed to situate one's post in a separate sphere where others share opinions that might be considered controversial to post to the rest of the fan community.

Anti-tags are often found in polarized discussions, for example, the discussions that unfolded surrounding the MCU character Loki. In the MCU franchise, Loki has transitioned from being a villain in the first Thor and Avengers movies to becoming the protagonist of the TV show Loki (2021). During my fieldwork around the period when the TV show Loki was released, I found posts tagged with anti-tags, which created a separate sphere of discussions that focused on criticizing the TV show. Here, I found discussions among fans that are critical of how Loki has been romantically paired. In the TV show, Loki is paired with Sylvie (e.g., ship name when combined with Loki: "sylki"). However, other fans prefer to ship Loki with Mobius (e.g., shipname: "lokius"). These different strands of shipping are in conflict with each other. Instead of tagging posts with broader tags like "#marvel" or "#mcu", anti-tags like "anti sylki" and "anti lokius" have been used to separate discussions with these conflicting opinions (Field notes, Tumblr, September 24, 2021). In contrast to Reddit, where opposing opinions share the same sphere (sometimes within the same comment section), people with conflicting opinions seldom meet on Tumblr. As the Tumblr participant Desertclarinet notes: "It's like speaking into a void or addressing a discourse instead of a person" (Desertclarinet interview, October 9, 2021). One similarity tagging has with voting is shaping what and who becomes visible. Demarcating discussions through tagging risks creating and amplifying echo chambers where dissenting opinions are absent. To some extent, Tumblr participants' ways of tagging follow Tumblr's instructions. However, I also find that how fans tag diverge slightly from the prescribed notions of tagging, as tagging not only becomes a way to organize posts for retrieval, but also creates distinct social spheres.

Tumblr participants also use tags as a way to communicate with others. Throughout my fieldwork, I came across posts with not only descriptive

tags (e.g., "Loki", "MCU", and "Marvel"), but also tag comments—where fans would write a comment within the tag, such as "I think Loki is pretty awesome" (Field notes, Tumblr, February 11, 2022; see Figure 8 and 9). As the Tumblr participant Cabbagevega notes: "It's just like a weird Tumblr thing to do". Cabbagevega further points out that tagging can seem slightly strange to outsiders because Tumblr does have features for commenting (e.g., reblog and note reply) (Cabbagevega, interview, November 27, 2021). Some Tumblr participants in my fieldwork point out that deciding whether the comment should be written in a reblog post (sharing the post on one's blog with the possibility to add text to it), as a comment (also called note reply) or as a tag comment (a comment in a tag) depends on its length. Shorter comments, such as compliments, can be left as a tag

Figure 8. Tag comments in an original post on Tumblr. Illustration: Ylva Oknelid.
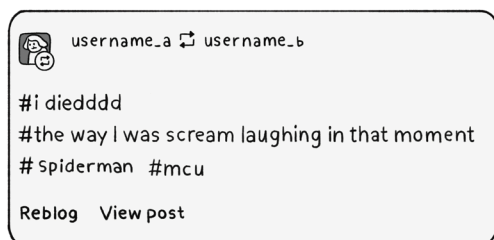
Figure 9. Tag comments in a reblog post on Tumblr. Illustration: Ylva Oknelid.

comment when reblogging the original post, and more extended responses should be posted as text in a reblog post. Alternatively, as stated in one of the unofficial guides for newcomers: "Remember to put any comments as tags or note reply. Only add comments as a reblog caption if you want to be part of the original post thread" (Field notes, Tumblr, June 21, 2023).

Tag comments can also be a reply to a previous set of comments instead of to the original post. Sometimes, as the Tumblr participant Desertclarinet exemplifies, Tumblr participants only tag their reblog with "prev" or "previous tags" to mark that they agree with the previous reblogger's tag comments (Desertclarinet, interview, October 9, 2021). The Tumblr participant Cocoastardustlizard draws parallels between tag comments and footnotes by adding reflections and additional facts to the post (Cocoastardustlizard, interview, December 13, 2021). Tagging is a way to communicate not only with the original poster (OP), but also with other Tumblr participants engaging with the same post. Different communication modes connote different forms of engagement. Depending on the occasion and the nature of the discussion, Tumblr participants find different ways of tagging to be appropriate.

Talking in tags becomes a way to control the visibility of one's comment. As the Tumblr participant Cricketglove emphasizes, the tag section of a post thread is a site where community participants can talk in a semi-public manner:

> I believe it allows people to comment on the post without those comments showing up in the reblogged version. In that way, it seems like a form of expression that requires and also shows less commitment to what is being said (Cricketglove, December 20, 2021).

Although the original post's tags are visible, tags in reblogs are initially obscured. These reblog tags are foremost visible for the original poster and those who also joined the post thread by reblogging. The reblog tags remain hidden if one does not actively look through the original posts. All subsequent posts' tags can be accessed through the post's so-called note section (Tumblr, 2024g). Given that not everyone reads the tags, the Tumblr participant Highnoonleaf considers them a way to share reflections that they "don't feel like sharing on a bigger scale" (Highnoonleaf, interview,

November 29, 2021). As fewer Tumblr participants read the tags, Desert-clarinet highlights that one does not necessarily expect or get any response back (Desertclarinet, interview, October 9, 2021). Instead, as the Tumblr participant Neonixclover notes: "Sometimes it's fun to ramble in tags especially if the ramblings don't really fit with the main post. I think it's a good way to get extra thoughts out as it avoids 'cluttering the post'" (Neonixclover, interview, November 15, 2021). The tag comments of a post thread become a semi-public sphere. Like how anti-tags are employed, writing a tag comment instead of creating a reblog post delineates the visibility of the fans' interactions. There are things to be said that fit in certain settings and not in others.

Although the tag comments have limited visibility at first, they can gain visibility through "reblogging" of tags. As Watermelonunforgiven highlights:

> I've seen people say it's called a peer-review process. If you put your comment in the tags and if someone agrees with your comments, they'll be like, "Yeah, this comment is worth mentioning," and take a screenshot or copy-paste the tag onto their reblog. Maybe add "this is good insight" or something (Watermelonunforgiven, interview, September 19, 2021).

A similar definition is provided in one of the unofficial guides: "If you like someone's tags, just take a screenshot and add them to a reblog. This is what we call peer review" (Field notes, Tumblr, June 21, 2023). These ways of tagging seem to be almost established as rules among Tumblr participants, but they can also vary and contradict each other. For example, the tag "prev", an abbreviation of "previous", is used among fan community participants to refer to previous reblogger's tags instead of copying their tags or writing their own. The Tumblr participants are divided on whether "prev" is an acceptable way of talking in tags, as it makes the peer review process more difficult. One post points out this problem, where the original poster complains about how "prev" makes it challenging to trace back to the tags referenced: "I'm not gonna bother following a trail of tags to find out what those tags were" (Field notes, Tumblr, January 13, 2022). Another Tumblr participant agrees and suggests how one should "talk" in the tags: "The tags have to be reviewed. If they're good, they will be reblogged" (Field notes, Tumblr, January 13, 2022).

Overall, I have found that tagging contributed to various purposes, ranging from its organizational and access capabilities to ways to communicate. My findings on tagging resonate with previous research perspectives on these activities, highlighting how they contribute to sociality and identity-making (e.g., Bourlai, 2018; Dame, 2016; Kennedy, 2024a; Price & Robinson, 2021). I show that visibility is an important aspect to consider regarding why fans choose to comment in tags rather than through other commenting features. My findings have similarities with Ingrid Brett and Sarah Maslen's (2021) study, pointing out that tag comments are grounded in intimacy and privacy. I expand on this further by connecting these themes to anti-tags specifically, showing how fans delineate discussions. Visibility is an important factor in whether a fan comments via note reply, reblogging or tags. There is no set way of commenting; rather, a specific way of commenting becomes the most appropriate option at a given time. In this regard, both utilizing anti-tags and commenting via tags are situated activities, where the tag is actualized in different ways and produces different outputs at certain times.

The voting and tagging activities show how fans make meaning through seemingly generic features that, at first glance, are primarily for organizing posts and comments. The visibility of posts and comments enacted through voting and tagging unfolds in several ways. For example, visibility can take many different forms, based on the premises on which fans rank posts and comments (e.g., based on opinions or relevance). However, it can also be expressed by making certain posts visible to a specific audience (e.g., anti-tags and tag comments). Voting and tagging are situated because they carry particular meanings in the fan communities in connection to what other fans do and to what is appropriate to do on what occasions. In my interpretation, these different ways of voting and tagging show the variations and discrepancies in fans' meaning-making. There are discrepancies among fans in how to vote and tag, and in relation to what is prescribed by the platforms. In the following section, I discuss the discrepancies in meaning emerging through content moderation through the example of how the notion of explicit content is negotiated among fans and platforms.

Moderating

According to Tarleton Gillespie (2018, p. 8), content moderation is a difficult task as it needs to balance "offence and importance". Content moderation needs to consider and maintain a balance between different perspectives. Simultaneously, Gillespie also highlights that moderation must differentiate between illegal and objectionable content and behaviour to mitigate the risk of users and advertisers leaving, as well as to address legal liability. At the same time, content moderation is value-laden and normative. What is deemed acceptable to post follows the moderators' (and the platform companies) often homogenous worldview, which not only risks disregarding the perspectives of those in the minority, but also comes into conflict with certain perspectives of the broad user base (Gillespie, 2018, p.12). Moderation evaluates recorded information by defining what is valuable to keep, what is not, and what should be visible where. In the present section, I focus on content moderation and how the discrepancies in meaning affect what becomes visible by focusing on how the notion of explicit content is defined. I begin by discussing how moderation governs the recorded information in several ways. Thereafter, I show how the notion of explicit content is not static but negotiated by various parties, not only the fans, but also other actors, like moderators and commercial actors. I address how there are different connotations of what is deemed explicit or not, as well as the dynamics of negotiating the boundaries of explicit content, affecting the visibility of recorded information and, in the long run, shaping what is preserved.

Levels of moderation

Reddit and Tumblr outline acceptable behaviour and content through their terms, policies and guidelines. Here, they define what is deemed problematic and not acceptable. As Tumblr (2022i) states the following in their community guidelines:

> As a global platform for creativity and self-expression, Tumblr is deeply committed to supporting and protecting freedom of speech. At the same

time, we draw lines around a few narrowly defined but deeply important categories of content and behavior that jeopardize our users, threaten our infrastructure, and damage our community.

Tumblr's community guidelines try to balance maintaining openness and taking a stance against illegal and unacceptable behaviour. Reddit echoes similar sentiments in their "Reddiquette" (2021a), urging Redditors to "remember the human" when they engage with others. Moderation is enacted in different ways through Tumblr and Reddit. Tumblr's moderation is centralized and enacted foremost by an in-house moderation team. As the Tumblr staff highlights, these moderation practices are "a mix of machine-learning classification and human moderation from our team of trained experts" (Tumblr, 2024d). The Tumblr staff (2024d) explains the automated aspects of content moderation because "computers are better than humans at scaling process, and we need them for that, but they're not as good as making nuanced contextual decisions". The automated moderation identifies posts potentially containing nudity or pornographic content and flags them for removal. Simultaneously, the Tumblr staff points out that a human moderator handles the appeals of posts flagged as mature (Tumblr, 2024a). To assist with moderation, community participants can label and filter their posts. Specifically, community participants can apply a "community label" to their posts, marking them as containing either "regular" or "explicit" content (Tumblr, 2024c). The labelling contributes to filtering, which blurs and decreases the visibility of posts flagged as explicit for those under 18 years old (Tumblr, 2022d, 2023c, 2024a).

According to the Tumblr participants, the moderating instances on Tumblr are barely noticeable on an everyday basis and are described as rather relaxed. This is highlighted by one of the unofficial guides for Tumblr newcomers:

> The censorship is pretty chill. I could make a post saying, 'I'm gonna stab Elon Musk' and nobody gives a damn. There's no real moderators, and when you report something, it just gets sent to the staff who might not even do anything about it (usually they don't) (Field notes, Tumblr, June 21, 2023).

In parallel, moderation through Reddit is performed on several levels. Posts and comments can be filtered out through voting, but there are also other governing instances like the moderation undertaken by admins and subreddit moderators (Reddit, 2021b). Whereas the admins focus on announcing changes and moderating subreddits, the role of moderators is focused on the subreddit's posts and comments, which works in tandem with the voting. As Reddit highlights: "The culture of each community is shaped explicitly by the community rules enforced by moderators, and implicitly, by the upvotes, downvotes, and discussions of its community members" (Reddit, 2021a). The moderation in each subreddit may differ, such that moderators can establish additional rules for behaviour and content (Reddit, 2023p; see also Singh, 2019). Automated moderation is also actualized, assisting in filtering through the influx of posts and comments (Reddit, 2023f). In the subreddit r/Marvelstudios, the moderators emphasize how the subreddit's guidelines should be considered an extension of Reddiquette (/r/MarvelStudios, 2024). Content that would lead to direct removal from r/MarvelStudios includes copyrighted material (e.g., promoting illegal downloads or streaming of MCU films and series) and pornographic material (as the subreddit is flagged as Safe-For-Work).

The guidelines also encourage giving proper credit when uploading someone else's work and not uploading reposts or so-called "low-effort" posts. The latter refers to posts where no effort is made in their creation, as the guideline for r/MarvelStudios states: "if your post can be answered with a quick Google search" or "if your post is a question that can be answered with a yes, no, or another one-word answer" (/r/MarvelStudios, 2024). There are also rules for how to discuss the MCU franchise. These rules include no posting of spoilers, excessive postings of fan casting (e.g., speculating on actors who would be suitable to play a specific character), showing off merchandise, or being a troll, alternatively "fanboy", namely someone whose […] "loyalty is so strong that it prevents one from having a civil discussion" (/r/MarvelStudios, 2024). Moderation can take different forms, both in a centralized and decentralized manner, involving the communities to different degrees. Compared to the more centralized moderation on Tumblr, decentralized moderation on Reddit is undertaken by several actors: Redditors (through voting), admins, and moderators.

Whereas moderation actualizes platform policies and guidelines, it also actualizes rules set by the moderators, which work as an extension of the former. The differing ways of moderating establish different perceptions of what to keep or not keep.

Among the fans in the subreddit r/MarvelStudios, content moderation is found to be necessary for regulating the subreddit's influx of posts and comments. Moderators remove redundant content, freeing the subreddit from duplicates and low-effort posts and comments. As the Redditor Flybanjo points out: "You need someone moderating, so people do not just troll or people will just leave the community" (Flybanjo, interview September 7, 2021). The Redditor Clefharp also appreciates the moderator's efforts to keep discussions on track or remove "over-circulated" content, such as reposts or duplicates (Clefharp, interview, November 4, 2021). Subsequently, the Redditor Stormveal highlights that subreddits are being flooded with bad content, which can make them less enjoyable:

> […] There was a surge of low-effort posts that were the vast majority of the content produced there, and for that month, I have not really interacted with the community much. Luckily, recently it turned back into genuine conversations and theories again (Stormveal, interview, November 22, 2021).

Redundant content, such as spam, low-effort posts, and reposts, is unwanted content that the moderators actively reduce. However, due to the decentralization of moderation, it is carried out differently depending on the subreddit and subject. What the moderators accept might clash with the platform's policies and guidelines. Although the fans appreciate the content moderation efforts in r/MarvelStudios, it might not be the case in other subreddits. As the Redditor Messier63bat stresses, some subreddits are more "wholesome" than others (Messier63bat, interview, January 27, 2022). The decentralized moderation also restricts and removes posts and comments to different degrees. As the Redditor Delightfulbeet brings forward, it can allow for the "extremes of both ends of the spectrum" (Delightfulbeet, interview, February 1, 2022). Delightfulbeet exemplifies how, during the pandemic, several subreddits were suspended, including those that were spreading misinformation or inciting violence to such a degree that Reddit had to close them down, like r/NoNewNormal, a conspiracy-riddled and

anti-vaccine subreddit, and r/Donald, dedicated to Trump Supporters and right-wing engagement (Reddit admin, 2021b; u/spez, 2020, 2021).

Decentralized moderation encourages Redditors to shape the posts and comments in the subreddits according to their interests. What I found during my fieldwork is that the moderators can specify what is permissible within the subreddit apart from Reddit's guidelines and policies. Here, the question is not whether the individual Redditor's post (or comment) follows the rules brought forward, but what posts and comments the moderators allow. Apart from the subreddits, various actors contribute to shaping the notion of what recorded information should remain visible or be removed. Moderators of each subreddit play a significant role in shaping what content is deemed valuable or not. Some methods of moderation might reflect what the communities need, and others might not. As Tim Squirrell (2019, p. 1923) highlights, "moderators are subject to the risk that if they push their desires too hard, then alienated users will go elsewhere". Discrepancies in meaning that are too great create problems, like when the moderators' or communities' perceptions of the content come into conflict with the platform's policies and guidelines.

In sum, several factors shape what is allowed and constrained, aside from what is constrained by the platforms' technological capabilities. With the example of content moderation in the subreddit r/MarvelStudios, I show how content moderation responds to Reddit's policies and guidelines, where the former is often an extension of the latter. However, these policies and guidelines can be followed to various degrees, making the moderation arbitrary, as the decision concerning what is deemed valuable is tied to those conducting the moderation at certain times. In the following section, I continue to discuss content moderation. I focus on visibility in terms of the negotiation surrounding what is labelled as explicit content. I show how certain perceptions of what explicit content entails can take precedence over others in shaping the content's visibility.

Explicit and mature content

Ever since the infamous porn ban in 2018, Tumblr has had a complicated relationship with so-called explicit content. Though Tumblr participants

still find the platform moderation relaxed, it was even more so in the past, as the platform currently is rather restrictive with any depictions of nudity and sex (Tiidenberg et al., 2021, p. 33). The Tumblr participants widely criticized the removal of posts during the porn ban. As the Tumblr participant Grasshopperaquarius describes:

> The devs [developers] decided to ban adult content from Tumblr, the base, the spine, and the entire nerve system of the site. Chaos spread like wildfire, artists and writers' works and content were flagged, banned, or even worse, deleted. Many painful voices shouted in dismay, protest, and hopelessness took the once safe place of the fandoms. The fight between devs and people lasted months. Uncountable artists, writers and fans left the site one by one, slowly but surely abandoning their 'homes' (Grasshopperaquarius, interview, November 21, 2021)

In 2022, Tumblr decided to loosen its grip on explicit content, allowing for nudity but not posts featuring sexually explicit acts (Robertson, 2022b). As Tumblr (2024j) highlights in its community guidelines:

> Visual depictions of sexually explicit acts (or content with an overt focus on genitalia) are not allowed on Tumblr. […] Historically significant art that you may find in a mainstream museum and which depicts sex acts – such as from India's Sunga Empire – are now allowed on Tumblr with proper labelling.

With the possibility of labelling and filtering mature content, Tumblr tries to involve Tumblr participants in moderation. The Tumblr participants have begun labelling their content to prevent potential flagging and removal. As one of the unofficial guides to newcomers points out: "Not sure about the rules for porn, so just slap a mature content flag on anything you think could get you in trouble for viewing at work" (Field notes, Tumblr, June 21, 2023). As Spandana Singh (2019, p. 29ff) states, a problem with the moderation performed during the Tumblr porn ban was the lack of accuracy and reliability of the automated moderation, focusing solely on what is depicted. As Singh continues, there was also a lack of understanding of the contextual circumstances of the content, what the communities do and how they express themselves. The Tumblr porn ban illustrates what discrepancies in

meaning can lead to. The fans' content had only one similarity: featuring nudity. As I perceive it, there was an apparent discrepancy in what the content connoted, where different forms of nudity were equated. Despite Tumblr loosening its grip on banning explicit themes in 2024, my study shows that there is still ambiguity about what qualifies as "mature", as there can be different meanings assigned to what is deemed "mature", and where the line should be drawn for when content becomes illegal is unclear.

In juxtaposition, there is more leniency towards explicit content on Reddit. This approach entails allowing explicit content in the form of nudity, sex, and violence. As Reddit specifies, violence can be posted if context is provided, like whether it is "educational, newsworthy, artistic, satire, documentary" (Reddit, 2023k). In turn, what would violate the platforms' policies, apart from not providing any context, includes a threat of violence directed towards an individual or group, promoting terrorism, glorifying mass killers, and self-harm. Similarly, content featuring nudity and sexual acts is not permissible on Reddit when it contains abuse of minors or involuntary involvement (Reddit, 2023i, 2023n). Subsequently, Reddit encourages moderators and Redditors to mark whether the subreddit or individual posts are Not-Safe-For-Work (NSFW). As stated in Reddiquette (2021a): "Post containing explicit material such as nudity, a horrible injury, etc., add NSFW for nudity, and tag". I find that the fans, by being able to label their posts, gain more control over content moderation. It is especially important for Tumblr participants who previously, during the porn ban, had their posts flagged or removed without any explanation. However, marking/labelling explicit content, making it less visible, also actualizes other interests, like those of advertisers.

Explicit content negatively affects the platforms' commercial potential, risking scaring away advertisers and other collaborations. The threat of becoming invisible played a role in the Tumblr porn ban, where Apple threatened to remove Tumblr's mobile application from the App Store (Gartenberg, 2018). Similarly, Reddit has tried to sustain its commercial viability while enabling the posting of explicit content. An ad content policy was implemented in 2019, disallowing advertisements to be shown in NSFW subreddits (Reddit admin, 2019). During the Reddit controversy, one of the main criticisms was the difficulties moderators would face

due to the closure of third-party applications and other resources (some automated) used for moderation. One potential consequence of losing these moderation resources is that explicit content may occur more frequently beyond the NSFW subreddits due to moderators' limited capacity to handle the vast influx of posts and comments.

During the Reddit Blackout, a post suggested how explicit content could be used to their advantage in protesting Reddit's API change. The original poster (OP) highlights that they should hit Reddit where it hurts: in their wallet. The strategy entails reaching out to advertisers with screenshots of their sponsored posts next to explicit content. As the OP highlights, the potential proliferation of explicit content beyond NSFW subreddits would harm advertisers, because "most companies prefer not to be linked with porn, violence, or profanity" (Field notes, Reddit, June 21, 2023). Other strategies suggested in the same post included switching the settings of subreddits from SFW to NFSW and loosening moderation without violating Reddit's policies, which many moderators put into effect. However, Reddit administrators began switching back to the settings of subreddits (Peters, 2023e). As one Redditor speculates, the switch back from NSFW to SFW might be to "restore ad revenue", as no revenue would be gained if all postings are made within NSFW subreddits, because these do not show ads (Field notes, Reddit, June 21, 2023). In my interpretation, the platforms' concerns about explicit content show how there is also a commercial incentive to decrease certain recorded information's visibility. It consists of not only removing posts through moderation, but also labelling them as explicit, so they can only be visible in certain settings. The variations in what is deemed explicit content make the content that can be labelled as such a site of contestation. At the same time, certain perceptions of explicit content take precedence, as expressed in the platforms' policies and shaped by the presence of commercial actors. In turn, I argue that these different governing instances shape how fans engage with information as they establish certain boundaries around what they can do or create and what posts become visible, less visible, or removed.

During my fieldwork, I found that content moderation is not only connected to the platforms' liability and consideration for their users, but also to a commercial incentive. The current body of knowledge concerning

content moderation, specifically on Reddit and Tumblr, highlight its consequences for visibility (e.g., Schneider, 2021), particularly related to the Tumblr porn ban in 2018 and its implications for marginalized and minority groups (e.g., Pilipets & Paasonen, 2020; Sybert, 2021; Tiidenberg, 2020). In general, researchers have highlighted how content moderation is prone to the inherent biases of those conducting the moderation, whether it is automated or manual (e.g., Gillespie, 2022; Gorwa et al., 2020; Haimson et al., 2021). My study differs from previous research in that it broadens the activity of moderation to encompass how users also engage in moderation by labelling their content. By focusing on the dynamics among different actors in how they perceive what constitutes explicit content, I show how fans also adapt to prescribed categories of what content is explicit to keep their content on the platform. What is exemplified by the different forms of moderation is how the notion of explicit content is not static but continuously negotiated and can change over time. The approach to explicit content on Tumblr has changed to be more similar to Reddit's; it remains a contested topic and is allowed to exist only under certain conditions.

To summarize, apart from some clear instances of what explicit means (e.g., pornography), I perceive that there is much content that resides in a grey area where the boundaries of whether it is explicit are situated in how the post is formulated and what community it is uploaded in. As I exemplify with the switching from SFW to NSFW (and back) of subreddits on Reddit, these switches show how the boundaries of defining explicit content are situated and can change. The category of explicit is not static, but is continuously being produced and reproduced, and can change due to various circumstances. The example of Reddit admins switching the subreddits' status to NSFW or SFW illustrates how these boundaries are not only, as often, shaped by legal concerns where minors might be exposed to mature content, but also by the platform companies' commercial interest in gaining ad revenues. My findings show how dynamic the categorization of explicit content can be, and how those involved in enacting these categories make certain content more or less visible.

The situated meaning-making of fans is not only expressed through their posts and comments, but also through how they organize informa-

tion through voting, tagging and moderating (e.g., labelling content as explicit or not), which might seem like generic activities at first glance. However, as I show in the present chapter, these activities are integral to fan practices as they contribute to shaping how fans engage with other fans and information in the fan communities. I understand these activities as normative, similar to Lucas Introna's (2013, p.337) understanding, establishing certain ways to act, produce and reproduce certain constraints and possibilities concerning what seems relevant or sensible in a particular setting to the point where it is taken for granted. More specifically, these information activities shape which recorded information becomes visible and taken to be relevant in the fan communities.

Throughout the present chapter, I also show how these information activities are *situated*. Although certain assumptions are made regarding how to relate to the MCU franchise as well as vote, tag and moderate, the fans' assumptions regarding how to carry out these activities vary and even contradict each other. The situated enactments of meaning in the fans' information activities have consequences for preserving digital fan culture, as operationalized through the archival concepts provenance and appraisal. Through the variations of fans' information activities, I show the importance of considering not only the breadth of activities, but also what constitutes their realization when constructing context for preserving digital fan culture, specifically fan engagement on platforms. When defining provenance, I emphasize the importance of accounting for the potential variations and discrepancies within the same activity. These variations also affect appraisal by surfacing different information sources that should be included when preserving digital fan culture as expressed on platforms. I elaborate further on these matters in the concluding discussions in Chapter 8. In the following chapter, I move on to attend to the infrastructure enacted in fan practices. I address the various actors that create conditions for fans' information activities and how these actors come to shape fan engagement.

6. Relational dissonances

Fans' information activities actualize the various actors necessary for fan practices, which, aside from the fans, include the platforms, advertisers, the MCU franchise and its producers, developers, applications, other platform companies and legislators. These actors create certain conditions for how fans can engage with information and, ultimately, co-shape fan engagement. As I highlight in the previous chapter, advertisers become involved with fans' information activities, creating variations and discrepancies in what explicit content entails among the fans, platforms and advertisers. I expand on these dynamics by highlighting how the fans' information activities are *relationally* shaped, where variations and discrepancies in meaning create what I refer to as *relational dissonances*. I show how these relational dissonances cause the infrastructure to shift, such that it can shrink and expand at given times. By highlighting the relational dynamics of the infrastructure, I identify which actors to account for when identifying context information to include when preserving digital fan culture, specifically fan engagement on platforms. However, this is not only a matter of identifying the relevant actors involved, but also of analysing how they shape fan engagement.

In the following sections, I show how the infrastructure is dynamic by attending to how the fans negotiate commerciality in relation to the MCU producers and advertisers. Thereafter, through examples of the Reddit API controversy and banning tags on Tumblr, I show how notions of governance and access are established, shedding light on the involvement of various actors. Lastly, I show how the entanglement of various actors on the platforms creates difficulties in delineating ownership of the recorded information.

Commercial involvements

In January 2022, the Marvel comics character Moon Knight was introduced in the MCU universe in their eponymous show on Disney+. The TV series Moon Knight (2022) follows the story of Steven Grant, a British museum employee who discovers he has an alternate personality named Marc Spector. Marc Spector is a mercenary who transforms into the vigilante known as Moon Knight with the help of the Egyptian god Khonshu.

Before the premiere, a Tumblr participant uploaded a post with a meme[7] and the caption: "Yep, I'm going to lose my mind" (Field notes, Tumblr, January 19, 2021; See Figure 10). The OP expresses excitement over the show but, at the same time, indicates a bit of fatigue over the MCU franchise. These contradictory feelings are echoed by other Tumblr participants commenting on the post: "Sorry for being all Marvel, but Moon Knight is gonna be amazing!". Similarly, other Tumblr participants describe how they initially planned to stop consuming the MCU movies and TV series but began reconsidering when they saw Moon Knight: "Ugh, Marvel, every time I think I can stop talking about your movies, you come out with something like this. I'm ready to be let down again". Also, those who are allowing themselves to see one more MCU release before stopping: "I guess I'll let myself watch one more dumb Marvel show", pointing out how the MCU has disappointed them in the past. However, some are more hesitant: "I really hope Marvel doesn't screw up this character". Some community participants direct their frustration and fatigue over the franchise to The Walt Disney Company, the owner of Marvel Studios since 2009: "Man, I really can't stand dealing with that mouse". The "mouse", in this case, is Mickey Mouse, one of the production company's most famous characters and the main symbol for the company.

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7 The meme features the opening scene of the video game Grand Theft Auto: San Andreas (2004), developed by the videogame publisher Rockstar. In the scene, the main character, Carl 'CJ' Johnson, is harassed by law enforcement. Later, he finds himself out on the street and says "Ah shit, here we go again". This meme is commonly used to express frustration regarding repeated confrontations or disappointment (KnowYourMeme, 2019; see also Meming Wiki, 2020).

Figure 10. Meme based on a screenshot from the videogame "Grand Theft Auto: San Andreas" (2004). Illustration: Ylva Oknelid.

This Tumblr discussion about Moon Knight illustrates how a relation to the MCU franchise producers comes into play in fan engagement. The idea of the producer is actualized in fans' discussions where they engage with the franchise's movies and TV shows, like the TV series Moon Knight. The producers become relevant actors to account for, as the fans do not solely discuss the franchise's content when negotiating canon. The fans also consider what the producers do, how the production of movies and TV shows goes and other factors surrounding the production and marketing of the franchise, which are incorporated into their negotiation of notions of canon. However, the fans' attitudes towards the producers are conflicted. Similar to the previous chapter, where I discuss how fans negotiate canon, I find that there is an ambivalence among the fans towards the producers, which indicates that fans' relation to canon is multifaceted and, sometimes, carries contradictory meaning. During my fieldwork, I found fans expressing weariness with the franchise and disdain for Disney. However, at the same time, they also showed excitement over new releases and continued to express fondness for the Marvel universe and its characters.

At the same time, other actors are also involved in fan engagement, namely commercial actors, like advertisers, as I already hinted at in the

previous chapter. The advertiser becomes involved in fan engagement by being present in fans' daily information activities, as advertisements are incorporated into their individual content feeds. The presence of the advertisers and their sponsored posts shapes how the fans perceive the platforms and their commercial components.

In the following sections, I focus on how fans' negotiation of canon actualizes the MCU producers. Although the producer is not directly involved, the fans continuously stay updated on what the producers do. I show how fans' relation to the MCU producers is multi-faceted, beginning with those fans who believe in the producer's capacity to produce qualitative movies and TV shows, to those who are becoming increasingly frustrated and disappointed over the franchise's developments. Lastly, I discuss how advertisers are actualized in fans' daily engagement with information.

"Kevin is trying"

In a post on r/MarvelStudios on Reddit, the trailer for the movie Doctor Strange: Multiverse of Madness (2022) is discussed. The discussions in the comment section range from those who interpret details seen in the trailer, presenting speculations of what the movie could be about, to how well the movie will succeed commercially. One Redditor ponders whether the upcoming Batman movie would do better than Doctor Strange. Another Redditor quickly replies, highlighting that there is nothing to be worried about and boasts: "The MCU is killing it with their branding, marketing, and storytelling" (Field notes, Reddit, February 15, 2022). During my fieldwork, I have often seen enthusiasm for the MCU franchise in r/Marvelstudios, where some fans are quick to defend the franchise when others raise doubts or criticism. In a post with a fan-created video featuring a mash-up of fighting scenes, one Redditor comments: "The video is cool, but I feel like some people might find it kinda repetitive with all that CGI [Computer-Generated-Imagery]. It's like they just use the same CGI in all the movies" (Field notes, Reddit, March 7, 2022). Another Redditor defends the movie: "It's not that it's repetitive, it's more that Marvel has its own choreographic style. The person who made the video on Reddit intentionally picked actions and scenes that fit together". However, the Redditor

defending the video also acknowledges the flaws in the producer's output, while also stressing that the franchise is continuously improving (Field notes, Reddit, March 7, 2022).

The MCU franchise, as a continuously improving entity, is also recognized in the MCU fan community on Tumblr. As one Tumblr participant highlights in their post, it is notable how Marvel Studios has "silently addressed" the criticism they have received over the years (Field notes, Tumblr, October 26, 2021). The franchise's strength, as the Tumblr participant points out, includes managing to meet the fans' expectations and listening to their feedback by creating more multifaceted villains, explaining various plot mechanics or components more clearly and incorporating a more diverse set of characters. Another Tumblr participant agrees in their comment to the post:

> I think the way the MCU is evolving and connecting with its fans is spot on. Kevin Feige doesn't throw out past storylines just to please the audience, and he doesn't put down fans for speculating about the plot. The MCU has really delivered some awesome stuff. I'm totally loving it! (Field notes, Tumblr, October 26, 2021).

Some additional tag comments also express appreciation: "Kevin [Feige] is trying", and some are more cautiously optimistic: "I really hope so". However, I also found that there are instances when the producer is actually present. Occasionally, the moderators of r/MarvelStudio organize an AMA[8] with representatives from Marvel Studios, often related to an upcoming release. Throughout the years, the subreddit has invited a range of guests, from various actors starring in the MCU productions, to people who are working with productions, like the president of Marvel Studios, Kevin Feige (/r/MarvelStudios, 2022). The outreaches from Marvel Studios demonstrate the close proximity between fans and producers through the platforms. Aside from engaging with the content of the MCU franchise, I find that the fans also take a meta-perspective on the franchise, where what the producers do in their productions and how they market their

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8 Abbreviation for "Ask me anything", denoting an online Q&A session with a person, or a group, ranging from celebrities, experts to everyday people (Reddit, 2022e)

products are taken into consideration. In my interpretation, fans taking these aspects of the franchise into account illustrate how they do acknowledge that it is a commercial product they are engaging with, but a meaningful product, nonetheless.

Apart from these visits from the producers, some community participants speculate about the producer making unannounced visits or even being involved with r/MarvelStudios on Reddit. As the Redditor, Delightfulbeet speculates:

> I don't know who started this subreddit, but I feel like corporate forces are involved, and I'm not saying that's a bad thing […] I wouldn't take it against them because I'm seeing a lot of genuine interactions here anyway (Delightfulbeet, interview, February 1, 2022).

Though the fan community becomes an important site for creating buzz around the producer's products, consumption of these products can also promote genuine community formation and interactions (cf. Stanfill, 2018; Wood & Baughman, 2012). However, the potential presence of the producer can also result in suspicion regarding whether someone's engagement is genuine or part of a marketing strategy. The Redditor Flybanjo highlights how these posts are sometimes purported to be from an undercover Marvel representative. As Flybanjo continues:

> There is a lot of speculation about whether something is real or not because there are a lot of corporate marketing shenanigans that go on in general. I can see why people are naturally cautious about what's real and what isn't. I think Marvel tends to do a bit of a job where you don't know if it's Marvel marketing or not (Flybanjo, interview, September 07, 2021).

Similar to the question of whether or not karma-farming points to the Redditor's credibility, as I discuss in Chapter 5, speculations about the producer's potential presence in the fan communities add a dimension of suspicion to the interactions among fans. It is also difficult to prove whether someone is being paid to promote the franchise or is just a passionate fan. These questions surrounding the producer, how they are responsive to fans' feedback, their marketing efforts in the subreddit (e.g., AMA), and speculatively, their more covert involvement with the fan communities are exam-

ples of how the communities' relation to the producer become actualized in the fans' negotiation of canon and, ultimately, in their daily engagement with information. During my fieldwork, I observed this positive engagement with the MCU producer in both fan communities on Tumblr and Reddit. However, the positive inclinations occur to a more considerable extent in r/Marvelstudios on Reddit. The MCU community on Tumblr expresses a more critical stance towards the MCU franchise and, foremost, its head owner, Disney, which I further discern in the following section.

#Disneycritical

Disney's impact on Marvel Studios and the franchise's quality is a recurring topic in discussions within the MCU community on Tumblr. Some of these Tumblr participants raise concerns over how Disney is taking opportunities to make money without showing regard for quality, resulting in uniform and bland products. As the original poster (OP) of a Tumblr post highlights, Disney is watering down their products to address "as many as possible" (Field notes, Tumblr, January 26, 2022). According to the OP, the previous Marvel films and TV shows prior to Disney's acquisition of the MCU franchise were not perfect but still better, as they "took some artistic and thematic risks that the MCU would never dare to do". In comparison, according to the OP, the fact that the Marvel properties are in the hands of Disney, means they are at risk of being "blandified". Similar sentiments are raised in the post's comments: "RIP superhero media", "I really can't stand Disney", and "modern media ruined by fucking capitalism", as well as tags like "disneycritical", "creative monopolies". Additional criticism voices how the MCU franchise's recent efforts to diversify the stories, characters, and cast are only superficial and made to boost their own image (and, therefore, to make more money) (Field notes, Tumblr, January 26, 2022). As one Tumblr participant sarcastically points out in another post addressing diverse representation in the MCU franchise: "Hey Kevin [Feige], I see that you saw the complaints about the colour palette" (Field notes, Tumblr, October 26, 2021). Similar to the more positively inclined fans, I perceive that these discussions also acknowledge the commercial dimensions of the MCU franchise, but in a different way.

Among these more critical fans, there is a worry about how corporate interests risk dictating and even ruining the MCU franchise.

Some Tumblr participants feel the harm has already been done. One Tumblr post featuring initial reactions to the Ms Marvel (2022) trailer included the tag "MCU derogatory" to mark its critical stance towards the MCU franchise (Field notes, Tumblr, March 18, 2022). The OP is critical of how the trailer seems to portray Ms. Marvel's shapeshifting abilities, and the trailer depicts themes like ethnicity and culture. In the comic, Ms Marvel's powers allow her to change the form of her body and limbs, which, as OP points out, "shows how the character handles her own self-image and where the shapeshifting abilities show how Ms Marvel internalizes what society wants her to be". The comments are equally critical of the portrayal of Ms Marvel's powers. One Tumblr participant comments and suggests that Ms Marvel's powers are perhaps changed to avoid being mistaken for Mr Fantastic's[9] similar abilities, a character from one of MCU's future projects: the Fantastic Four. However, several commenters disagree, highlighting that it is "a poor excuse" as many Marvel characters have similar abilities (Field notes, Tumblr, March 18, 2022). Following the same line of argument, one Tumblr participant argues:

> They might have changed Mr Fantastic's powers since they're not as crucial to his story as they are for Kamala [Ms Marvel]. But Disney and Marvel Studios probably won't do that because Reed is a white dude, and tweaking his abilities might upset a lot of fanboys (Field notes, Tumblr, March 18, 2022).

Subsequently, the OP also criticized the portrayal of Ms Marvel's bracelet, including its origins and function. Ms. Marvel, also known as Kamala Khan, is a Pakistani American, and in the comics, Kamala's powers are gained from bracelets given to her as family heirlooms. In comparison, while the character's ethnicity remains the same in the TV show, the bracelets are portrayed as alien objects, hinting that she is, in fact, of alien de-

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9 Reed Richards, or so-called Mr Fantastic, is one character from the superhero team Fantastic Four and has been previously featured in films by other production companies. In 2019, Marvel Studios regained the rights to the property after Disney acquired 21st Century Fox. A new Fantastic Four film, set within the MCU, is scheduled to release in mid-2025.

scent. One Tumblr participant complains that changing the story of the bracelet's origins could be interpreted negatively, equalizing "being from other cultures with being alien". There is much anger and disappointment expressed in the discussions directed towards Disney and the MCU franchise: "I'm starting to lose patience with the MCU", but also how they already have low expectations of the franchise: "I didn't really expect anything better from Marvel, honestly" and "Ugh, Marvel just had to ruin things by whitewashing again". Only a few in the discussion, while being sceptical, want to give the TV series a chance (Field notes, Tumblr, March 18, 2022).

My interpretation is that the post discussing Ms Marvel raises the question of what is canon (is it the comics or the franchise?). The fans show, in a critical manner, that the MCU producers are not correctly handling the themes of ethnic representation and cultural heritage inherent to the character Ms Marvel. However, I also note ambivalent feelings towards the franchise. Although the fans are sick of how the MCU franchise handles the Marvel characters in light of the comics, they are still intrigued by the franchise's products, which keeps them consuming the products despite low expectations. These critical fans are also consumers of the franchise, similar to those who have positive attitudes towards the franchise's products and producers. Meaning can also be established when positioning oneself against something. In my analysis, the negative engagements with the MCU franchise also contribute to the critical fans' negotiation of canon, namely, as fans who detach themselves from the product but simultaneously keep engaging with it.

What the producers do in the MCU franchise becomes part of the fodder in discussions within the MCU fan communities. The producer has a presence in the MCU fan communities, both as an idea to project their negotiations of canon onto and in their direct and covert (as speculated) engagements in the fan communities. At the same time, the production and marketing efforts of producers are also recognized by the more critical fans, emphasizing how their strategies are to make profits. Ultimately, in my interpretation, the producers' presence plays a significant role in fan engagement, as their decisions and actions taken in the production of movies and TV series are considered in fans' discussions of why and how characters and storylines are portrayed in various ways (e.g., Ms Marvel). Identifying how the producers play a part in fan engagement reveals that the relationship

between the producers and fans is not unidirectional, but rather multifaceted, dynamic and complex.

A parallel can be drawn to Annette Hill's (2019, p. 4) take on audience engagement in the form of "push-pull dynamics". The producers attempt to push audiences into content through marketing and advertisements; the audience is also pulled into the content through storytelling due to the unfolding of the characters' plotlines and narratives. Hill emphasizes that these dynamics are not unilateral, as the audience can push back, develop alternate reading strategies and meanings for the content, or even disengage. Whereas some fans have straightforwardly positive or negative attitudes towards Disney and Marvel Studios, many are notably ambivalent about the franchise. Subsequently, the relation sheds light on how commercial interests are actualized in the MCU fan communities. Here, the producers become part of how the fans negotiate canon, but they also shed light on how consumption is made meaningful. In the following section, I explore other commercial interests actualized through the infrastructure. Advertisers influence how fans perceive the platform, contributing to shaping how fans negotiate themselves as platform users and their overall view of the platform itself.

An attempt to blend in

In June 2022, Tumblr participants began noticing a strange post that populated their individual content feeds, causing quite a stir. What caused this stir was its content: a stock photo[10] of a person dressed as an anthropomorphic Pikachu[11] with the ambiguous caption "where your interest connects you to your people" (Field notes, Tumblr, June 27, 2022; see Figure 11). Automattic, Tumblr's current owner, created the post.

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10 According to the encyclopedia of memes, KnowYourMeme (2022), the photo was uploaded on the stock photo site Envato Elements in 2021, and later used by Tumblr in their advertisement during spring 2022.

11 A multimedia franchise created by Satoshi Tajiri in 1996 and currently owned by Nintendo, Creatures and Game Freak, takes place in a universe where creatures with special powers called Pokémon (abbreviation for the English translation of the franchise's Japanese title "pocket monsters" frequent the world among humans, who carry them in their pockets in a so-called poké ball (a device used to catch and carry the monsters) (Bainbridge, 2014).

Tumblr participants began referring to the figure in the post as the "Pikachu man", which has inspired various artwork and memes, making fun of the ad. Initially, Tumblr participants were puzzled by the post: "Please stop showing me this man on Tumblr", and "What is this? Totally typical for my favorite hellsite" (Field notes, Tumblr, June 27, 2022). The term "hellsite" is often employed by Tumblr participants when expressing how they feel about Tumblr, referring to the paradoxical state of Tumblr as a vital part of their social lives, but simultaneously, technically and socially dysfunctional (e.g., anti-fans) (see Glenhaber, 2021; Kender, 2022). The "Pikachu man" offers a starting point for grasping how commerciality comes into play in the fans' information activities, actualized through the infrastructure. As I show analytically, the entanglement of the advertisers and platforms co-shapes how commerciality takes form on the platforms. These forms of commerciality concern not only how the advertisers relate

Figure 11. Sponsored post featuring the anthropomorphic Pikachu on Tumblr. Illustration: Ylva Oknelid.

to the fans as potential customers, but also how the fans relate to these commercial engagements and perceive the platforms.

My fieldwork shows how advertisements, like sponsored posts, are a familiar component in the fans' daily engagement with recorded information on the platforms. Advertising revenue is instrumental for the platforms' continuing relevance as social spheres and corporate entities, despite the platform companies' rhetoric of empowering their users (Gillespie, 2010, p. 353). As Tumblr highlights in the advertising policy: "In order to provide free content, we selectively run advertisements on Tumblr" (Tumblr, 2022b). The engagement of end-users, like the fans, fuels these commercial processes through the platforms. As José van Dijck (2013, p. 25) highlights, through the freemium model, accounts are free, lowering the threshold for engagement, thus allowing advertisers to expand their customer base and, at the same time, increase revenue for platform companies. As van Dijck further notes, the platforms' accumulation of user engagement makes them an important resource for advertisers wishing to maximize their visibility and reach. The entanglement of advertisers and platforms creates advertisements embedded between user-generated posts and comments that are adapted to and based on individual users' preferences and interactions (Bodle, 2014, p. 131). During my fieldwork, I also saw these tendencies in how advertisements are present in the fans' information activities, where the advertisements are a crucial source of revenue for the platforms. However, what I found is that fans do not always engage with the advertisements as planned, simply accepting their presence and treating them like any content among others. Instead, I find that many fans are overly sceptical about these commercial components of the platforms.

It is not always easy to engage with advertisements on the platforms. During my fieldwork, I observed how sponsored posts are squeezed in between posts in the feeds on Tumblr and Reddit, attempting to blend in seamlessly. However, these sponsored posts have disabled certain social features, which makes them different from other posts created by users. Aside from the image of the advertisement, the sponsored posts also contain an outbound URL, redirecting to the advertiser's website. The URL

is the main interactive element in the posts, as only a few sponsored posts are possible to engage with. For example, voting and commenting are disabled for most sponsored posts on Reddit, making it only possible to click on or share the post. Similarly, most sponsored posts on Tumblr are also restricted. Some sponsored posts enable reblogging and likes but exclude the possibility of commenting. In my interpretation, advertisements are similar in form to the posts created by fans, but advertisements stand out as one cannot engage with them on the same premises as one can with other posts. I argue that disabling the possibility of engaging with these advertisements is a strategy used by the platforms to obstruct any negative interactions undertaken by the users (e.g., trolling and flaming). Aversion to commercial engagement among users online is not new. In an early article on online flaming in mailing lists for academics and students, Hongjie Wang and Yan Hong (1995) highlight how flaming (the act of posting insults) was employed to scare away unwanted advertisements. Wang and Hong provide an example of how advertisers' efforts to promote their products resulted in "a flood" of flaming messages pouring into the advertiser's email and crashed the computer system as a result (p. 5; see also Tolomei et al., 2019). A parallel can be drawn to my fieldwork results, showing that the relationship between advertisers and fans is not straightforward. The fans do not solemnly accept the advertisers' presence; the advertisements are also ignored and ridiculed.

Reddit and Tumblr operate according to the freemium model, but it is possible to have an advertisement-free interface for a fee. The "Reddit premium" services offer greater customizability of the interface, access to exclusive content and subreddits, and render the interface free from advertisements (Reddit, 2023l). On the other hand, in 2022, Tumblr introduced a similar service of offering ad-free platform experiences for a fee. For a while, advertisements for the new service circulated among the Tumblr participants. Like the reactions to "Pikachu Man", these Tumblr ads caused reactions from the Tumblr participants (see Figure 11 for the "Pikachu Man" and Figure 12 for the advertisement for ad-free browsing). One Tumblr participant sarcastically notes: "Did you create that scary Pikachu Man ad just to make us panic-buy this?" (Field notes, Tumblr, June 27, 2022).
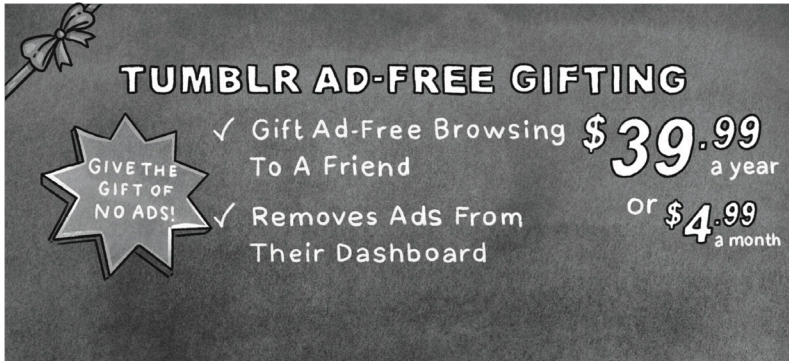
Figure 12. Sponsored post for ad-free browsing on Tumblr. Illustration: Ylva Oknelid.

When introducing ad-free browsing, Tumblr bluntly wrote: "If you love ads, then this post is not for you. If you love Tumblr but hate ads and want the one to continue without having to endure the other, then this post is literally for you" […] (Tumblr, 2022g). The advertisements seek to expand their potential customer base. Here, I find that the entanglement of the platforms and advertisers is shown in the sponsored posts, as well as the freemium and premium models, which, in my interpretation, is done to ensure different forms of revenue for the platforms. However, the fans' engagement with the advertisements can take various routes beyond either engaging with the sponsored posts or buying the premium services. As I show with the Tumblr participants, advertisements are contested (and ridiculed). I regard the fans' relation to these advertisements, particularly the Tumblr participants, as examples of how users' commercial engagements promoted by the platforms and advertisers are not straightforward. The restricted possibilities to engage with sponsored posts and how the Tumblr participants perceive them reveal that the sponsored posts are sources of relational dissonances.

Although the fans are not engaging with the advertisements per se, the advertisements' presence shapes the fans' perception of the platform. The fans become involved in how commerciality is negotiated and shaped through the infrastructure. In my fieldwork, these dynamics shed light on how commerciality is expressed in content feeds, embedded between user-generated posts. In addition, these dynamics also illustrate the entan-

glement between the advertisers and platforms, shaping how the former is present on the platforms and how the latter establishes its sources of revenue through its technological capabilities (e.g., how sponsored posts can be engaged with, as well as the freemium and premium services). Thus, the advertisers become directly involved in fan engagement by being embedded into their daily information activities and serving as a backdrop to fans' meaning-making.

Previous understandings of fans on social media platforms have highlighted how fans are exploited by the platforms (e.g., Coppa, 2013; Linchuan Qui, 2017; Stanfill & Condis, 2014; Velkova, 2016) and, conversely, researchers have pointed out how fans appropriate the platforms to serve their interests (e.g., Yin & Xie, 2021; Zhang & Negus, 2020). My findings offer a middle ground between these two perspectives, where I show how the commercial aspects of the fans' consumption or their engagement on the platforms are neither enforced nor challenged, but negotiated. Like the MCU franchise itself, the MCU producers are an integral part of how the fans interpret and negotiate canon. Similarly, advertisers are present in the fans' daily information activities through sponsored posts squeezed between user-generated posts in the content feeds.

As I discern in the present section, advertisers and platforms unfold in a mutually beneficial entanglement. The advertisers seek to expand their customer base through the platforms, while the platforms gain ad revenue from sponsored posts. With the example of the MCU producers, I show how there are both positive and negative perceptions among the fans of the MCU producers' efforts, where choices made in the MCU productions are incorporated into the fans' interpretation of the plot and character development. In parallel, advertisers have become part of the landscape of fans' daily information activities. However, there are examples where the fans find alternative ways of engaging with the advertisements, becoming part of how fans find the platforms meaningful. In the following section, I shift my attention to other actors enacted through the infrastructure and actualized in the fans' information activities. I change my focus from actors present in the interface to the third-party actors entangled with the platforms' technological capabilities in various ways. The dynamics in these entanglements show how the infrastructure shifts through expansion and shrinkage.

Access

The platforms' technological capabilities, like their programmability, are entangled with various third-party actors. The platforms' APIs provide access to data but also set up interconnectivity to other platforms' APIs (Gerlitz & Helmond, 2013; Helmond, 2015). Posts can be shared through and beyond the platforms, within and across communities, but also to other websites and platforms through linking and embedding (Reddit, 2023q; Tumblr, 2024e, 2024i). For example, a YouTube video can be embedded in a post on Reddit through the video's URL, enabling Redditors to watch the video without being redirected to YouTube. Through linking and embedding, Reddit became entangled with YouTube. Simultaneously, boundaries are also set for governing access to data. When sharing and access expand the infrastructure through linking and embedding, the boundaries for governance are simultaneously reinforced. As Reddit (2023j) notes in their privacy policy:

> In general, Reddit does not control how third-party services collect data when they serve you their content via these embeds. As a result, embedded content is not covered by this privacy policy but by the policies of the service from which the content is embedded.

The platform policies and terms and conditions delineate where responsibility and liability begin and end to avoid liability for illegal content created elsewhere. I find access to be a running point in these entanglements, where the dynamics lie in both giving access and governing access. In turn, how access is enacted through the infrastructure implicates the fans in their daily access to recorded information. I exemplify how actors contribute to shaping the conditions for fans' access to information by focusing on two types: third-party developers and other platforms, which are involved in giving and governing access through the infrastructure. Firstly, I focus on third-party developers and how they provide alternative access points. Here, I illustrate how the example of Reddit's API change and its effect on third-party applications shows that the infrastructure does not solely expand but sometimes also shrinks. Secondly, I emphasize the role of other platforms, exemplified by Google's search engine and

Apple's App Store, and how they become involved with access and governance of fans' recorded information.

Alternative access

Third-party developers access data (generated by the end-users' engagement) through the platforms' APIs, which these third-party developers use to develop and maintain third-party applications. In turn, these third-party applications become alternative access points, aside from the official one, for the fans. These applications mirror what is posted and modify what is possible to do through the platforms. In Reddit's case, accessing the APIs for development purposes includes gaining access to data and services like the developer's platform, service for embeds (Reddit embeds), and software development kits (SDK). Reddit also provides additional services, code, and data (Reddit, 2024f, 2023c). Similarly, Tumblr offers developers access to data via their APIs, or so-called "Tumblr Firehose" (Tumblr, 2018). The developer's access to data must go through platform-authorized access points, like the platforms' API, and the developed software cannot be commercial (Reddit, 2024f; Tumblr, 2018). As Reddit emphasize concerning commercial use in its terms for developers:

> Without our express written approval, you will not, and will not attempt to, or permit or enable others to (including through your app) […] access or use any of the Reddit Services and Data by or on behalf of a business or as part of a service or product that is monetized; or sell, lease, sublicense, monetize, or otherwise obtain or derive revenues of any kind from any portion of Reddit Services and Data, whether directly or indirectly, including from any data derived from the foregoing (Reddit, 2024f).

Reddit also specifies that, in addition to complying with the terms, the application developed utilizing Reddit's data needs to be reviewed by the platform (Reddit, 2024f). Enabling third-party developers to access data via the platforms' APIs to create various extensions and applications expands the possible content fans can access.

There were various third-party applications for Reddit, including BaconReader, Reddit is Fun and Apollo. Another source for Reddit data that

many third-party applications relied on was Pushshift, a data scraping and analysis tool extracting data via Reddit's APIs (Baumgartner et al., 2020). Most of these applications were defunct at the time of writing in 2024 due to the Reddit Controversy. For Tumblr, a browser extension named Xkit is available to enhance its features. A web browser extension differs from a software application in that it does not provide a new interface or, in other words, an access point, as it focuses more on modifying the existing interface according to the community participant's preferences. My examination of how the web browser extension Xkit is actualized in fans' information activities is further elaborated in Chapter 7. In the present section, I focus on the third-party applications on Reddit. Through the example of the Reddit API Controversy, I discuss how the events following Reddit's restriction of API access shaped the different access routes to content and data for end-users and third-party actors. The example of the Reddit API Controversy highlights how a change can drastically transform the relational dynamics of the infrastructure.

Reddit restricted access to its APIs in 2023, which followed a trend found among other platforms, like X (formerly known as Twitter), during the same year, and Facebook, which decided to close off public and free API access[12] in 2018. Free access via Reddit's API still exists. The difference is that free access is allowed up to a certain point of data use. Reddit charges when the data usage reaches the rate limit of 100 queries per minute (Reddit, 2024c)[13]. Subsequently, Reddit's API change has affected var-

12 For API access changes implemented by X and Facebook, see Calma, 2023; Mehta, 2023, respectively Archibong, 2018; Meta, 2018; Statt, 2018; Wagner, 2018.

13 According to Reddit (2024c), aside from the rate limit, they state in their Wikipedia for Data API access that the data extracted via the API, whether free or paid, cannot contain any deleted information from Reddit to protect the Redditors' privacy. As Reddit highlights: "When posts and comments are deleted, you must delete all content related to the post and/or comment (e.g., title, body, embedded URLs, etc.)" as well as "Note that retention of content and data that has been deleted – even if disassociated, de-identified or anonymized – is a violation of our terms and policies". A similar rule applies for deleted user accounts, including the user ID and any references from posts and comments created by the account that enable identification of the account. Reddit strongly suggests that those retaining data from Reddit must delete "any stored user data and content within 48 hours", setting forth these rules for all forms of access via their API, including commercial and research purposes, under the rate limit. However, as Reddit specified in their terms

ious third-party actors. The consequences are noted for various actors, ranging from large ones like Google, which indexes Reddit's data, to smaller commercial actors, such as third-party applications used by Redditors to access the platform, including Apollo, BeaconReader, and Reddit is Fun (RIF). Most of these applications were free, often gaining revenue from inserting other advertisements, but some offered certain features when upgrading to the paid version. Compared to the bigger third-party actors, these smaller third-party developers, who used data well above the rate limit, could not afford the new API pricing[14]. Several third-party applications had to shut down or switch to paid versions. In my interpretation, the API change also drastically transforms the dynamics of the infrastructure and imposes new conditions that make certain actors' activities on the platform cease or change, like Google and the smaller third-party applications that previously created alternative access points to the platforms. In turn, these changes also affect the daily operations of moderators[15] and, ultimately, fans' access to information.

Apart from losing the alternative access points to Reddit, moderators and Redditors raised the issue of content moderation. In particular, the API change would create challenges for moderators as they risk losing third-party applications and automated resources for moderation. The latter are bots that can help the moderators sort through the vast influx of posts. Apart from the so-called "AutoModerator" developed by Reddit to support content moderation on a large scale (Singh, 2019), moderation through third-party applications has depended on Pushshift (Pushshift, 2024; Field notes, Reddit, June 20, 2023). Pushshift has been a valuable resource for moderators and other platform-related services, like Unddit, making it possible to retrieve deleted and removed posts and comments (Unddit, 2023).

As I found during fieldwork, Reddit's API change severely debilitated access to Reddit and spurred a pushback from the Redditors, making the

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for Developers (2024f), commercial and research use of the API exceeding the rate limits requires a separate agreement.

14 For the third-party developer's response to the API change, see Clover, 2022; Edwards, 2023; Perez, 2023; Peters, 2023a, 2023b; Pierce & Patel, 2023; Roth, 2023.

15 For API change's impact on moderators, see Peters, 2023g.

subreddits private. The pushback, also called the Reddit Blackout[16], was carried out by redditors and moderators, turning several subreddits private as a protest against the API change and as a strategy to cope with the imminent loss of moderation resources. In one post on Reddit discussing the API change, one Redditor writes: "The folks [moderators] running your favorite sub rely on mod bots to tackle spam, add captions to images, and keep things in order. Even though Reddit said they wouldn't, it looks like they're planning to get rid of a bunch of bots, especially the ones everyone uses the most" (Field notes, Reddit, June 13, 2023). Subsequently, the loss of these resources risks giving rise to a broader presence of NSFW content, spam, and illegal content. As the Redditor emphasizes, this change enables an increase in "scammers and creeps". Aside from the potential rise of problematic content, moderators began switching their subreddit settings to NSFW in preparation for solely manual moderation. As one moderator highlights in another post on the API change: "Losing important third-party apps and tools is going to make it harder to keep things Safe For Work (SFW) around here. Maybe we should just label the whole sub as NSFW and give folks a heads-up about what they're likely to see, right?" (Field notes, Reddit June 21, 2023). In my interpretation, the API change shows how a change has a rippling effect, where the infrastructure is changed throughout. Not only third parties are affected but also Redditors and moderators, not only regarding how the platforms govern the Redditors' access, but also regarding how they can respond to these changes with their own access restrictions.

Steve Huffman, the CEO of Reddit, who also goes under the moniker "spez", tried to respond to the widespread criticism by specifying in a post what and who would gain access to the API. Huffman, under his moniker u/spez (2023), points out that commercial third-party apps on Reddit, like Apollo, would have to close as they could not reach a pricing agreement. However, Huffman also emphasizes that they were working with Pushshift to enable free access for moderating purposes and give accessibility-focused third-party apps like Redreader, Dystopia and Luna access (u/spez, 2023;

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16 For Reddit Blackout, see Avi-Yonah & Timsit, 2023; Fung, 2023; Peters, 2023; Sato & Peters, 2023.

Reddit, 2023f; u/Pushshift-Support, 2023; Reddit, 2023h). Accessibility-focused third-party apps add features that make it easier for those with visual and auditory disabilities to access Reddit's content (Smith, 2023). Although the Redditors welcomed these changes announced by Huffman, I observed how many were still displeased and demanded that the API change be called off entirely (Field notes, Reddit, June 14, 2023). Several unforeseen implications concerning access have come about with the API change, such as the accessibility-focused third-party applications. In my analysis, the API change reveals differences in access between moderators and Redditors and among Redditors themselves. By removing the third-party applications, certain flaws with the platforms' capabilities are exposed. Before the API change, these flaws were invisible, as the third-party applications modified the platform's capabilities to make various ways of accessing points possible, like the accessibility-focused third-party applications.

In an interview with Huffman (Peters, 2023d), he claims that the API change was implemented to secure the data. As Huffman notes, the third-party actors supported by the platform cost the company $10 million while simultaneously profiting from Reddit's data. Huffman continues to point out: "But it's not labor, that's not R&D [Research and Development], that's not safety, that's not ML [Machine learning], and that doesn't include the lost monetization of having users not on our platform. Just pure cloud spend. It's real money" (Peters, 2023d). Subsequently, in another interview, Huffman states that the APIs were never intended for supporting third-party applications but rather for making "tools, bots, enhancements to Reddit" (Peters, 2023c). He continues, pointing out that while he previously argued for letting the third-party applications continue to operate, he has now realized: […] "the extent that they were profiting off of our APIs" (Peters, 2023c). However, in my interpretation, aside from preventing third parties from drawing on Reddit's resources, another factor that could influence changes in API access is monetary considerations. At the beginning of 2024, Reddit entered a deal with Google for $60 million (Roth, 2024a), enabling Google to access their data to train their large language-learning model and, in exchange, improve Reddit's search features (Reddit, 2024a). By monetizing API access, Reddit gains control over the various access points and can do so while making a profit (and saving money).

The controversies surrounding the Reddit API change reveal how access is gained in various ways and how access can be formulated differently depending on who is seeking it. Access is also crucial for the fans' daily information activities and, by extension, their fan engagement. Several of Reddit's previous access points have changed, further affecting the conditions for how content and data are created, used, shared and accessed. What I show with the example of the Reddit API Controversy is how changing the platforms affects the whole infrastructure, having several consequences for several actors forming the infrastructure enacted in and through fan practices. The entangled state of infrastructure evokes a ripple effect, where a single change affects not only one isolated part but several unexpected ones. Reddit's API change impacts third-party developers and other actors, such as moderators and communities.

The API change shows the importance of third-party applications in the platform environment, providing alternative access points and modifying Reddit's capabilities to work with user groups' needs. These third-party applications enabled the creation and usage of posts and comments in ways that the official entry points did not support for those with visual and auditory disabilities. For instance, posts and comments can be modified to become more accessible, and moderators can manage the vast flow of posts and comments in their subreddits through third-party applications. Subsequently, the Reddit API Controversy also sheds light on how relational dissonances can occur. In particular, the Reddit API controversy shows not only what actors are actualized through the infrastructure, but also how the relational dynamic among these actors can change, jointly affecting those involved. It also triggers a reaction, as I show with the Reddit Blackout, illustrating the different needs that the previous API access accommodated. Through these dynamics, I argue that the infrastructure shifts in its formation, causing it to shrink. At the same time, the infrastructure can be expanded to other entanglements. In the following section, I dig deeper into how access is negotiated in the infrastructure by focusing on the involvement of other platforms. In particular, I focus on how other platforms like Google's search engine and Apple's App Store become involved through the infrastructure.

Negotiating access

Through the creation, use, sharing and accessing of content and data, Tumblr and Reddit are entangled with third-party actors of a much larger calibre than the third-party developers. These third-party actors, as exemplified by Google and Apple, are also involved in negotiating access to Reddit and Tumblr and play a role in shaping the governance as formulated through the infrastructure. I argue that the dynamics of the various actors can sometimes become complicated due to the entangled state, disrupting how content and data are accessed and redefining existing relations.

Tumblr and Apple have had troubles in the past. Apple played a crucial role in the Tumblr porn ban. Due to Tumblr's grappling with the occurrences of illegal content, the Tumblr app was temporarily removed from the App Store when Tumblr violated the App Store's content policies (Gartenberg, 2018; Porter, 2018). Tumblr attempted to curb the proliferation of illegal content, leading to the removal of fan work and any content containing nudity, much to the Tumblr participants' disappointment.

Similar issues arose a few years later, but this time, the focus was on tags. In December 2021, the Tumblr participants noticed how specific tags prevented their posts from showing up for others. The sudden disappearance was caused by a recent update to the iOS version of the Tumblr App, censoring a wide range of tags and affecting those using the platform's iOS version (Roth, 2021). In one post, the Tumblr staff explained that blogs containing sensitive content or specific words and phrases would be excluded from participants' feeds and search results (Tumblr, 2021a). The sudden ban on specific tags was part of Tumblr's effort to, yet again, not violate the App Store's content policies. As the Tumblr staff states: "We are having to extend the definition of what sensitive content is as well as the way you access it to comply with their Guidelines" (Tumblr, 2022c; Apple, 2022). The staff stressed that the changes were necessary measures taken by developers of the platform's app to remain available through Apple's App Store. Subsequently, frustration grew among the community participants, resulting in various strategies to identify which tags were banned. An extensive list of banned terms was compiled. The list included a disparate selection of terms, ranging from potentially sexually suggestive phras-

es such as "homo", "erotica", "butt", and "hot" to terms such as "bald", "girl", and surprisingly, "tony the tiger"[17]. Simultaneously, as my fieldwork shows, strategies among the Tumblr participants were developed to bypass the censorship, like avoiding updating the Tumblr app to the newest version (Field notes, January 12, 2022).

A month later, the Tumblr staff released a new update enabling the choice to opt in or out of sensitive content (Tumblr, 2022c). Sensitive content would be hidden by default through the iOS version of the Tumblr app. However, those over 18 could turn off the feature by adjusting the settings (Tumblr, 2022d), making it possible to skip the default content filtering. Apple plays a crucial role in shaping Tumblr's capabilities and governance regarding how the company contributes to negotiating access to Tumblr. Apple's presence shows how the notion of governance and access on the platforms are intertwined. Removing the Tumblr App from the App Store would lead to a loss of a considerable segment of current and potential users and, subsequently, a loss of legitimacy. Considering how third-party developers were affected by Reddit's API change, a similar pattern could be observed in how Apple puts pressure on Tumblr, where negotiations of access between Tumblr and Apple impact the fans' daily engagement with information.

Similarly, Google's role in negotiating access to Reddit's content shows how Redditors search for information. Many subreddits are public, making reading possible for those without an account. Online search engines index Reddit's content, one of the most prominent of them being Google. However, this alternative retrieval method renders Reddit's own search function obsolete. For example, several of my interviewees are hesitant to use Reddit's search function. The Redditors Flybanjo and Doughnutscheetah find

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17 The tag "Tony the tiger" alludes to the character Tony the Tiger, which has been popular in furry communities, namely the fandom surrounding anthropomorphic cartoon animals. In 2016, the so-called #tonythetigergate unfolded when furry community participants on Twitter began sending sexually suggestive tweets to the official Tony the Tiger account, which responded by blocking any furry-related accounts (Hern, 2016; KnowYourMeme, 2016). However, it can also reference the infamous shipping of "Grony", namely the fictitious relationship between Tony the Tiger and Grinch, originating from a post from 2020 highlighting how the Grinch song "You're a mean one, Mr Grinch" could be interpreted as a break-up song, and was performed by the voice actor of Tony the Tiger (Fanlore, 2021).

searching through Reddit annoying. As Doughnutscheetah points out: "Reddit's search takes things very literally and will not match misspellings and stuff like that" (Doughnutscheetah, interview, December 15, 2021). Stormveal shares a similar view, noting that the search results can be "very random" (Stormveal, interview, November 22, 2021). Subsequently, the lack of relevant search results through Reddit is mitigated by searching via Google instead. As the Redditor Delightfulbeet highlights: "On Reddit, I have not had a lot of luck. It would sometimes give me weird results that I do not want, so I just resort to, like, just going on Google" (Delightfulbeet, interview, February 1, 2022). Doughnutscheetah also resorts to googling: "I will occasionally use Google with site:reddit.com search query since Google's search engine is so powerful it will sometimes give better results" (Doughnutscheetah, interview, December 15, 2021). Thus, the fans' experience that Reddit's search function is flawed reveals how Google is allowed to assume a pivotal role in the access to the recorded information on Reddit, which creates a co-constituting dependency between the platforms.

However, the dynamics between Reddit and Google changed during the Reddit API Controversy. As part of the Reddit Blackout, one strategy was to switch subreddits from public to private, which affected not only Redditors trying to access their favourite subreddits, but also access to Reddit's content via Google (Field notes, Reddit, June 13, 2023). Making a subreddit private cuts public access to posts, where access must be granted by the moderators (Reddit, 2023b). Peters (2023b) highlights the impact of the Reddit Blackout on Google. He notes that when many subreddits went dark, search results from Reddit on Google could not be accessed, only showing a pop-up message stating that the subreddit was private. However, this protest strategy did not last for long. During my fieldwork, many subreddits were forced to reopen when admins threatened to replace the moderators (Field notes, Reddit, June 21, 2023).

An additional consequence of the Reddit API controversy for Google is moderators' difficulty handling the vast influx of posts and comments without the resources provided through third-party applications. Loosening the moderation while changing the subreddit's settings from SFW to NSFW would not risk the subreddit violating any Reddit policies or guidelines (Field notes, Reddit, June 21, 2023). These changes in subreddits'
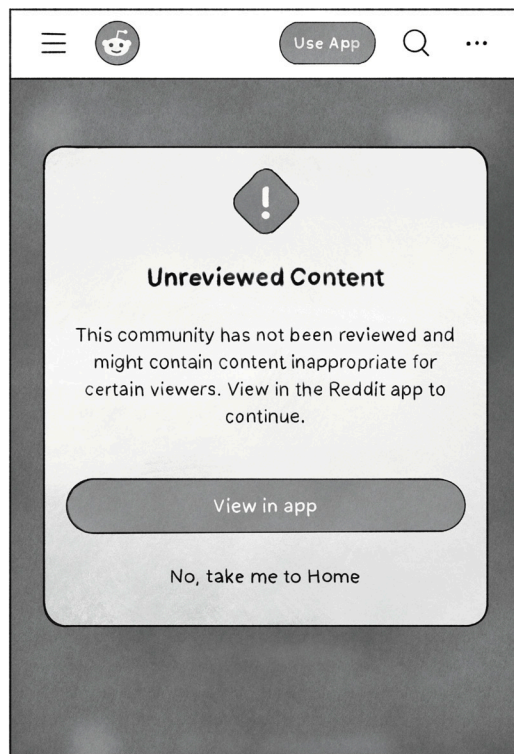
Figure 13. Pop-up message for unreviewed content on Reddit. Illustration: Ylva Oknelid.

settings also affected search results involving Reddit's posts on Google. As I found during my fieldwork, a pop-up message would appear, warning that the posts "might contain content inappropriate for certain viewers" and, encouraging one to view the post via Reddit's official app instead (Field notes, Reddit, October 5, 2023; see Figure 13).

The encouragement to use Reddit's official app is a way to ensure that Reddit complies with Google's content policies (Google, 2024). It also helps to limit the risk of exposing minors to mature and explicit content (Reddit, 2024e). NSFW subreddits and posts marked as NSFW are only accessible from the age of eighteen (Reddit, 2024h). In my interpretation, the redirection to Reddit's official app makes it easier to control whether people accessing the potential NSFW posts are of the right age. At the

same time, redirecting access to Reddit's official app may also be a strategy. Instead of gaining traffic from Google to Reddit (which Google also benefits from), the traffic is rerouted, such that one goes straight to Reddit without detours. In this regard, I argue that the API change has, in various ways, reformulated the conditions for accessing Reddit's posts via Google. These consequences show how the dynamics between Reddit and Google change and how the everyday search tied to Reddit content via Google is impacted, creating relational dissonances.

Through the platforms' APIs, content and data created by and from users are accessed by various third-party actors, including developers and other platforms. As Carolin Gerlitz and Anne Helmond (2013) highlight, the platforms interconnect with the rest of the internet via the APIs, making it possible for content to be shared through linking and embedding but also allowing applications to be built on top of the platforms' inherent technological capabilities. I perceive this form of interconnectivity as part of the platforms' programmability, enabling the platforms' reach on the internet to expand. The platforms' programmability plays a crucial role in the formation of the infrastructure, actualized in fans' information activities, as it expands beyond the platforms. Although the fans' information activities take place on Reddit and Tumblr, embedding other platforms' content (e.g., embedding a YouTube video in a Reddit post) or sharing a link to a post on another platform makes parts of the rest of the internet present in their engagements.

Previous research on platforms' interconnectivity has focused much on these expansive aspects of the platforms, emphasizing how platforms gain leverage through their programmability (e.g., Gerlitz & Helmond, 2013; Helmond, 2015; Plantin et al., 2018; Poell et al., 2019) as well as the dynamics between platforms and various actors, including third-party developers, governments and non-state actors (e.g., Ghazawneh & Henfridsson, 2013; Gorwa, 2019; Helmond et al., 2017; Kim et al., 2016; Rieder & Sire, 2014). In my findings, I contribute to these perspectives by providing more empirical insights into how the relational dynamic can change concerning how platforms govern their data and its implications for the various parties involved, including the fans' daily engagement. I show how these boundaries are set in terms of access and how this type of change causes the infrastruc-

ture to lose its supportive function, which impacts the dynamics in the platforms' entanglement with various actors-. I find that the access restrictions to Reddit's APIs demonstrate how a shift in the infrastructure—such as shrinking its boundaries—can undermine its supportive role for the users. The change almost causes an infrastructural breakdown. Fans are affected in several ways, especially regarding access, ranging from how they can access recorded information (e.g., via third-party apps and Google) to what recorded information is accessed (due to the change in moderation resources).

Through these changes in fans' information activities, I also identify the co-constitutive dependencies of the platforms and other platforms. Reddit's prompt on accessing via their official app demonstrates not only how they adhere to Google's content policies (not risking Google becoming liable for potential NSFW content on Reddit), but also how Google's search engine is affected concerning how it is constituted (as a proxy for Reddit's search feature). In light of Reddit's API change, the power distribution has shifted between the various actors involved in the infrastructure actualized in the fans' information activities. The shift in power distribution creates relational dissonances such that, for a moment, the infrastructure loses its supportive purpose for several parties, including the fans. However, as John Seberger and Geoffrey Bowker (2021) point out, practices adapt to new conditions, causing the infrastructure to regain its supportive function. The same can be said of the infrastructure enacted in and through fan practices. Even with significant events like the Reddit API controversy, the fans manage to continue their engagement, even if the inherent constitution of the infrastructure actualized in their activities has changed. In the following section, I discuss the entangled state of the infrastructure by attending to how ownership of recorded information is negotiated among the different actors.

Entangled creation

The Reddit API Controversy shows the co-constitutive dependencies of fans, the platforms, and various actors, such as third-party developers and other platforms. When a change occurs (e.g., Reddit's API access is restricted), several parties are impacted, which illustrates the entangled state of the

infrastructure. In the present section, I show how these entanglements also shape ownership and control of the recorded information, which actualizes the role of legislative instances in the fans' information activities. I begin by discussing how recorded information is defined by the platforms as content and data, and I show how the definitions concerning ownership of content and data are asymmetrically formulated. Subsequently, I explore how these asymmetrically formulated ownerships actualize legislations, like GDPR, that allocate more control over recorded information to its owners.

Ownership and control

In the platforms' document for terms and conditions, recorded information accessed through the interface, like posts and comments, is defined as "user content" (Tumblr, 2023j) or "Your Content" (Reddit, 2023d). The user agreements state that this kind of recorded information belongs to its creator, like the fans, who own the rights to their work's intellectual property. However, at the same time, the platforms are granted extensive rights to the recorded information. As Tumblr writes in their terms of service:

> When you provide User Content to Tumblr through the Services, you grant Tumblr a non-exclusive, worldwide, royalty-free, sublicensable, transferable right and license to use, host, store, cache, reproduce, publish, display (publicly or otherwise), perform (publicly or otherwise), distribute, transmit, modify, adapt (including, without limitation, in order to conform it to the requirements of any networks, devices, services, or media through which the Services are available), and create derivative works of, such User Content. (Tumblr, 2023j)

Similarly, Reddit states in their user agreement:

> When Your Content is created with or submitted to the Services, you grant us a worldwide, royalty-free, perpetual, irrevocable, non-exclusive, transferable, and sublicensable license to use, copy, modify, adapt, prepare derivative works of, distribute, store, perform, and display Your Content and any name, username, voice, or likeness provided in connection with Your Content in all media formats and channels now known or later developed anywhere in the world […] (Reddit, 2023d).

According to Reddit's user agreement, the license grants Reddit the right to make recorded information available to other parties, like "companies, organizations, or individuals who partner with Reddit". In turn, the licence grants these parties the right to circulate, use and change the recorded information. On the other hand, Reddit and Tumblr define the notion of data slightly differently. Although the notion of content is formulated as the users' output in these terms and conditions documents, the notion of data is presented as a joint effort, generated when users interact with the platform features. For example, in Tumblr's policy for API use, content and data are defined differently. According to Tumblr, the notion of content revolves around what the user uploads, while data are generated from "native Tumblr actions such as Tumblr likes, reblogs, and replies" (Tumblr, 2018). Similarly, Reddit also makes these distinctions between what content is, an active user output, and what data entails, generated from actions on the platforms (Reddit, 2023c).

Both Tumblr and Reddit emphasize functionality, personalization, and maintenance as the main purposes of what they denote as data (Reddit, 2023c; Tumblr, 2018). Reddit's privacy policy highlights that data are utilized to "provide, maintain, and improve the services" (Reddit, 2023j). Alternatively, in a similar fashion, Tumblr explains: "We may use this information about how you and others interact with the services for a number of things generally related to enhancing, improving, protecting, and developing new services". What is defined as data feeds into the personal recommendations of posts, which affect the recorded information accessed through the interface, or in other words, content that is adapted to individual preferences and interests (Tumblr, 2022f; 2023c). In this regard, the notion of data is also used by the platforms to identify patterns in behaviour. As Reddit points out, data are used to "monitor and analyze trends, usage and activities in connection with our services" (Reddit, 2023j). The aggregation of data generated from actions makes it possible to measure them. The data fuel platform development, but are also of interest to advertisers in learning how users engage with their posts.

Similar to the license granting that users' "content" can be used by others, what is defined as data are used not only by the platforms, but also by other actors. For example, Reddit states regarding the use of the API for advertisers:

The Ads API and Reddit Data are licensed and not sold, and ownership and all intellectual property rights therein and goodwill associated therewith shall remain and accrue to Reddit or its licensors alone (Reddit, 2023g).

Tumblr puts forward a similar statement concerning the use of API for third-party applications and advertisers:

Tumblr and its licensors, particularly its users, retain all worldwide right, title and interest in and to the Licensed Materials, including all worldwide intellectual property rights therein (Tumblr, 2018).

In comparison to Reddit, Tumblr explicitly emphasizes that data generation is a joint effort that involves users and other actors present on the platform. Thus, the platforms position themselves as owners, or at least co-owners of the "data". These formulations of ownership differ from how ownership of "content" is defined, where the terms explicitly attribute ownership to users who create and upload the recorded information. I argue that this slight shift in the formulation of ownership concerning the notion of data is subtle, but makes a big difference.

In my interpretation, the platform highlights the notion that data are not just necessities, but also valuable resources. In particular, the license allows platforms to carry out their capabilities and functionalities, enabling recorded information to be engaged with and shared among fans on the platforms. Still, as I interpret the platforms' terms and conditions documents, the line drawn between what content and data entail is rather arbitrary. During my fieldwork, I observed that the users are aware that the platforms rely on their recorded information. Consider below how one Redditor tries to remind other Redditors when discussing how they should move forward with their protests during the Reddit Blackout:

As users, moderators, and developers, we are both customers and partners of Reddit. Consequently, we are not obliged to use their services. Reddit's reputation with us is one of its most crucial business assets, as Reddit relies on its communities to generate profit (Field notes, Reddit, June 13, 2023).

This puts users, like fans, in a dual role, where they are customers but also, through their engagement, contribute directly to creating value for the platforms, where their recorded information is the resource. As customers, users can cease their engagement on the platforms and take their business elsewhere. However, leaving a platform is easier said than done (see also Baumer et al., 2013). For example, for fans, quitting a platform can be a social loss. It can be difficult for fans to find other community spheres that can act as replacements, making the act of opting out much more difficult.

Throughout the thesis, I have adopted the terms *content* and *data* descriptively, where I define the notion of content as posts and comments that the fans purposefully engage with in their information activities. With the notion of data, on the other hand, I am referring to what is generated through engagement with platform features, which Carolin Gerlitz and Anne Helmond (2013) describe as "social buttons". For example, these types of platform features include likes and votes and features used to categorize content, like tags and labels for explicit content. Although I adopted these terms in several places in the thesis for reading clarity's sake (e.g., explicit "content", which I discuss in Chapter 5), the distinctions made by the platforms should be examined further. Based on my field-work, I argue that the distinctions in recorded information made by the platforms between "content" and "data" are arbitrary and, in my interpretation, a strategy used by the platforms to assert control over the recorded information. As Jeffrey Pomerantz (2015, p. 193) points out, the distinctions made in recorded information are "largely in the eye of the beholder […] everything provided via the API is data, since there may not be any distinction in how different pieces of data are stored". Building on Pomerantz's argument, I perceive the status as owner of the "content" attributed to fans and the other platform users to be a hollow title, or as Dominique Glassman (2020, p. 48) describes, "illusory ownership". Instead, I understand the recorded information as emerging from a form of asymmetrical co-ownership, where the formal ownership rights are ambiguously attributed to the fans, but the control lies with the platforms.

In my interpretation, legislating bodies are making an effort to regulate the platforms' extensive control over recorded information and assert more control over the users. Efforts are made at regional, national, and suprana-

tional levels across the globe to grapple with data privacy and security issues in line with the rise of platforms. On Reddit and Tumblr, two legislations on data privacy are brought up in the platform policies (Reddit, 2023j; Tumblr, 2021c, 2022f): the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act of 2018 (CCPA). GDPR is an extension of the right to privacy, a part of the European Convention on Human Rights (Wolford, 2022). GDPR was implemented in the spring of 2018. The legislation imposes specific obligations on organizations and companies that collect, generate, manage, use, and store the data of EU citizens. GDPR implements stricter rules for obtaining consent from individuals to process their information[18] and enhances the rights of individuals in relation to how companies, like the platforms, use and handle their information. The legislation of GDPR defines several rights of users, including the right to access data, being informed of how their information is processed, the possibility to transfer data through data portability[19], and the right to delete their information or, as it is often called, "the right to be forgotten"[20].[21] The CCPA regulation operates on premises similar to GDPR. CCPA emphasize how organizations and companies are required to give individuals more control over their personal information, including the right to know, delete, opt out, and not face discrimination. The right to correct and limit information was added to the CCPA starting in 2023 (California Consumer Privacy Act, 2018; State of California Department of Justice, 2024). The legislations CCPA and GDPR have been impactful in

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18 See Article 7, paragraph 1-4 in the EU General Data Protection Regulation (679/2016).

19 According to Article 20, paragraph 1 in the EU General Data Protection Regulation, the right to data portability is defined as "the right to receive the personal data concerning him or her, which he or she has provided to a controller [e.g., social media platform], in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided" (Regulation 679/2016).

20 The right to be forgotten has been discussed even before GDPR was put in effect; efforts were made by the EU in 1995 in the Directive on Data Protection (95/46/EC), but also by individual countries (e.g., France in 2010) where data processors or controllers should remove data deemed no longer relevant, with the exemption of media companies, involving new reporting and journalism. However, companies like Google were classified as such and, thus, need to act in accordance with the directive (Arthur, 2014).

21 E.g., Article 12-23 in the EU General Data Protection Regulation (679/2016).

their scope, which has led to other countries outside of the state of California and the EU taking similar paths (Jamieson & Yamashita, 2023).

Additional efforts have been made to address online services and providers specifically, like the Digital Service Act (2065/2022), passed in August 2023. The Digital Services Act stresses the platform companies' accountability to the public. The act focuses on limiting illegal content that can harm individuals, especially minors, online. It also allows people to challenge content removal, requires platforms to be more transparent about their terms and conditions, and emphasizes the platforms' responsibility for managing data (European Economic and Social Committee, 2021). GDPR and similar legislations push the platform companies to become more transparent towards the public (Bertram et al., 2019). However, the platforms' liability extends and becomes muddy due to the entangled state of how recorded information is created, used, shared, and accessed by the fans, other users, and various actors present on the platforms. As I perceive it, the platforms are also aware of the co-constitutive dependencies formed on the internet. As Tumblr states: "When you make something publicly available on the internet, it becomes practically impossible to take down all copies of it" (Tumblr, 2023j).

Through the efforts of legislation, like GDPR, users can restrict how recorded information that they create and generate is used and accessed through Tumblr and Reddit. The users can opt out of personalized advertisements and recommendations based on their engagement and of having their posts show up in results from search engines like Google (Reddit, 2023a, 2023m; Tumblr, 2023d, 2024h, 2024f). However, due to the entangled state of the recorded information—it becomes a question not only of how platforms collect, use, and manage data, but also of how the recorded information is exchanged among various third parties through the platforms. For instance, on Reddit's help pages, Reddit points out that Redditors need to also consider the web browser settings (e.g., reject cookies[22])

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22 Cookies are data placed on one's computer or mobile device when visiting a website, enabling the website to function efficiently (Tumblr, 2022f) and the website and their affiliates and partners to track and target the interest of website users, personalizing the experience of the interface by remembering setting made (Reddit, 2020). The cookies can be divided into first-party and third-party cookies, where the former is set by the website

and how tracking is done through technological devices (e.g., opting out from sharing location) (Reddit, 2022d). In this regard, users who want to assert control over their information must attend to how their information is purposed by the platform, as well as other actors that generate and collect their information. As Tumblr states in their privacy policy, they do not account for "practices of third parties that we do not own, control, or manage including but not limited to any third-party website, services, application or businesses" (Tumblr, 2021c, 2022f).

In their user agreement, Reddit also emphasizes the limits of their control: "Third-party content is not under our control, and we are not responsible for any third party's website, product or services" (Reddit, 2023d). Subsequently, Reddit also highlights how interacting with embedded posts (e.g., clicking on play on a YouTube video embedded into a Reddit post) generates data for Reddit and YouTube (Reddit, 2023j). This means that the platforms can handle data privacy requests – up to a certain point. The platforms are not responsible for how third-party actors or other platforms manage data, which consequently puts a great deal of responsibility on users to keep track of all the data-collecting instances that they are engaged in or involved with. There are similarities with what Glassman (2020, p. 48) points out, exemplified by Facebook:

> […] users are giving up any actual ownership of the content they are creating when they agree to Facebook's 'Data Policy', which gives the site full control over user information. Because very few casual users actually parse the site's policies to understand how Facebook processes their data, the biggest problem for users is the illusory ownership and authorship they believe they possess over their content.

Boundaries are drawn where the platforms' liability begins and ends, and I find these boundaries to be relationally asserted. On the one hand, the boundaries of the platforms' control of recorded information are constituted in relation to certain third parties, like the developers and advertisers

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and the latter by third parties for purposes involved in advertising, interactive content, analytics among others. In addition, the cookies also enable the platform to create "aggregated anonymized statistics" on user behaviour (Reddit, 2020).

who can access it, but on certain conditions, which I highlight in the previous section. On the other hand, the boundaries are not always asserted, particularly because they do not account for links or embedded posts, even if these are occurring on the platforms. I argue that the creators' ownership of information created on platforms is difficult to assert, as the boundaries for what is controlled or, put differently, the responsibility for recorded information shifts.

The legislation, actualized in the fans' information activities, asserts more rights for users to control their information, and pressures platform companies to become more responsible and transparent in their collection, use and sharing of the recorded information. At the same time, there are relational dissonances between the legislation, platforms and users as fans' control over their information is difficult to implement due to the entangled state of the infrastructure. There is no doubt that GDPR and similar legislations have significantly contributed to creating conditions for users to assert more control over their information. The legislation forces the platform companies to be more transparent about how they generate, collect, and use information. However, what complicates these matters is that the legislation does not consider the co-constitutive dependencies of platforms and other actors on the internet. It is difficult to draw boundaries that define who is responsible and liable. Subsequently, these fuzzy boundaries enable arbitrary demarcations, like distinctions between what "content" and "data" entail.

For preservation, the relational dynamics of the infrastructure raise the question of defining and delineating context through provenance and appraisal. I show that various co-constitutive dependencies exist among fans, the platforms, and other actors, as well as when a change occurs. I argue that it is necessary to identify context information by mapping *how* third-party actors are involved in fans' information activities and the changes that can occur in these relations, which I elaborate further in the concluding discussions in Chapter 8. Subsequently, a parallel can be drawn between the negotiations of explicit content that I discuss in Chapter 5 and what I show in the present chapter concerning the boundaries made in the notions of content and data. Based on my findings in this chapter, I argue that how the recorded information is defined by the platforms, in its form

and content, should not be assumed as given. I stress the need to acknowledge and problematize the arbitrary character of these definitions when preserving fan engagement or any other modes of participation on platforms. Simply accepting the premises laid out by the platforms in their definitions of explicit content, or where the line is drawn between "content" and "data", risks overlooking how these notions are relationally negotiated. In the following chapter, I discuss the aspect of change further, addressing the aspects of temporality in the situated and relational character of fans' information activities. I show how the variations in how fans engage with information create temporal tensions.

7. Temporal tensions

The temporal dynamics in fans' information activities are expressed in how the same activity can serve different purposes and contribute to different ends across time. This led to what I refer to as *temporal tensions,* namely, how the different ways of carrying out similar activities among fans create different temporalities, particularly, several diverging temporal trajectories with different rhythms and pacing. These tensions implicate how to identify context information, particularly because what is captured in preservation might only be salient for how the activities were carried out at that given point in time. I begin by discerning how different temporal trajectories of similar activities are formed through the platforms' programmable and modular capabilities, through the example of the third-party extension Xkit on Tumblr. Thereafter, I attend to how fans sort and curate their content feeds, particularly focusing on their algorithmic engagements, which create different temporal rhythms and pacing concerning when recorded information becomes visible and disappears. Lastly, I delve further into how notions of visibility are enacted in fans' efforts to maintain access to older recorded information and their strategies for retrieving it, which illustrates that fans' meaning-making does not unfold in a linear progression but instead is recursive in character.

Divergences in time

The platforms enable various third parties to access recorded information via the platforms' APIs. Some of these third-party actors, like the defunct third-party apps for Reddit, create applications that provide alternative access points for users, which can enhance or modify Reddit's default features (e.g., adding features for Redditors with visual or auditory disabili-

ties). As I highlight in Chapter 3, I regard these enhancements and modifications as *tweaking* the infrastructure, negotiating and, in some cases, challenging what are considered the established ways of acting. Third-party extensions work similarly, building functionality on the platforms' technological capabilities. The difference between extensions and applications is that extensions are embedded in the platform's interface, whereas applications provide an alternative one.

The platforms are always subject to change and customization. The platforms' programmable and modular character allows them to keep evolving, with features continuously being implemented, developed and removed. In this regard, variations and changes in fans' information activities are shaped by third-party resources' modifications and the platforms' own development.

In the following sections, I show how the variations in fans' information activities take form through reinforcing or tweaking the infrastructure, which creates temporal divergences in how the platforms' interface looks for fans.

Conflicted improvements

The platforms regularly implement new features. Sometimes, the platforms adopt and implement features similar to other platforms to meet new demands as well as sustain and maintain their relevance (Plantin & de Seta, 2019). The platforms' modular capabilities enable new features to be implemented without affecting other platform components (McKelvey, 2011). For instance, the rise of TikTok and its increasing popularity pushed other platforms to adopt and enforce similar algorithmic scrollable video feeds. Reddit, one of these platforms, has adopted a similar way of showing videos. As the Redditor Flybanjo notes in my interview with them:

> They [Reddit] recently updated the way videos are played, and it feels weird. I try to close the comments and end up closing the whole post. It looks just like how TikTok shows its videos, and I don't like it when platforms use famous features of other apps. For example, when Facebook or WhatsApp introduced stories or reels on Instagram […] I use TikTok a lot, so I do not dislike the feature itself, but it feels out of place on Reddit (Flybanjo, interview, November 8, 2021).

Implementing new features is far from straightforward, and sometimes, it can be met with scepticism. These implementations change the platforms' technological capabilities regarding what becomes allowed and constrained, which, in turn, shapes how the fans can carry out their information activities.

During my fieldwork, I noticed Tumblr was repeatedly called a "hellsite" by Tumblr participants. What I observed was that their perceptions of Tumblr as a "hellsite" stem from their underlying frustration with how the platform deals with content moderation, banning and removing posts on loose grounds. However, I also noted during my fieldwork that the term is not only employed critically, but also has an affectionate dimension (Field notes, Tumblr, June 27, 2022). For instance, posts discussing Tumblr as a hellsite can have tags like "hellsite (affectionate and derogatory)" (Field notes, Tumblr, September 21, 2023). The Tumblr participant Desertclarinet shares this conflicted view of the platform:

> I'm definitely one of those old Tumblr people who like to talk smack about the platform because, when it comes to all of the platforms out there, like Twitter, Instagram, and Facebook, Tumblr is, like, in the backcountry (Desertclarinet, interview, September 10, 2021).

Tumblr is understood by fans as obscure and underdeveloped compared to other social media platforms. However, these characteristics are also what make Tumblr unique for the Tumblr participants. Tumblr is, as Desertclarinet continues to point out, "one of the places where you don't monetise, you don't go to Tumblr to be famous or like, being an influencer" (Desertclarinet, interview, October 9, 2021). Despite Tumblr being "in the backcountry", as Desertclarinet suggests, they are noticing that Tumblr is trying to keep up with the other platforms in its recent developments, explicitly implementing features geared towards monetization.

During the recent years, Tumblr has implemented and removed various features, often to Tumblr participants' dismay. One example is when it was announced that the group chats were going to be removed. The group chat feature was implemented in 2019 (Tumblr, 2019), allowing Tumblr participants to carry on real-time topic-specific discussions. The messages in the group chats could not be saved or edited (Tumblr, 2023g). When announc-

ing the group chat removal in 2021, Tumblr wrote: "As with any new feature, we'd hoped that it would succeed. Of course, not everything we built will be a hit, and recognizing those things that aren't working can be difficult. Group chat is one of those things" (Tumblr, 2021d). I observed anger, frustration, and confusion among the Tumblr participants, who threatened to leave Tumblr for other platforms with group chat features, like Discord. In one post, one Tumblr participant expresses their frustration with how the platform seems to be out of touch with its users: "I'm starting to think they're intentionally trying to push everyone away from Tumblr... It's ridiculous how little the staff [The Tumblr staff] seem to understand about Tumblr's users" (Field notes, Tumblr, September 13, 2021). One comment to the post points out: "Tumblr keeps saying they want to add new stuff to make Tumblr better, but all they do is things like Post+. Why are you [Tumblr] ruining your own site?" (Field notes, Tumblr, September 13, 2021).

Returning to the notion of a hellsite, I interpret Tumblr participants' view of Tumblr as stemming from their frustration with Tumblr's misdirected focus. The removal of group chat works against Tumblr participants' interests as it obstructs possible methods of social interaction. Removal of a feature in this manner changes the possibilities for and constraints on how Tumblr participants can engage with information and, by extension, with each other. In the case of the group chat, the removal of the feature directly impacts how Tumblr participants interact. During the time of the removal, there were no other features for real-time discussions in groups, not until the feature of "communities" was introduced on the platform in late 2024 (Tumblr, 2025).

Post+ was introduced on Tumblr in 2021. In a news entry on the updates, Tumblr staff states: "Post+ empowers creators to monetise their blogs and gives fans a way to support the creators they love directly on Tumblr" (Tumblr, 2021b). Through Post+, content creators on Tumblr can get paid by their followers through monthly subscriptions, where followers gain access to exclusive content behind a paywall (Tumblr, 2021b). As the journalist Ali Robertson (2022c) highlights, the feature is part of an effort by the company behind Tumblr, Automattic, to revitalize the platform. Alongside the introduction of Post+, several features geared towards mon-

etization for content creators were introduced. For example, features like tipping, the possibility to tip posts (Tumblr, 2022e), and Blaze, increasing the reach of a post (Tumblr, 2024b), were implemented. During my field-work, I observed that Post+ was met with anger by the Tumblr partici-pants. For example, in several interviews I conducted, Tumblr participants negatively discussed the new feature. Cocoastardustlizard describes Post+ as a "stupid money grab" (Cocoastardustlizard, interview, December 13, 2021). Desertclarinet doubts whether Post+ and the other features are even going to be used (Desertclarinet, interview, October 9, 2021). One inter-viewee, Neonixclover, mentions that Post+ comes with potential issues for those creating fan work. As Neonixclover states:

> I think Post+ is very stupid because of copyright issues, and I get annoyed that the whole internet is trying to make money now. […] I know that most fandom posts, if they were to be monetised, would probably get sued for copyright infringement (Neonixclover, interview, November 15, 2021).

Sharing fan work as part of a gift economy enables it to be categorized as fair use (Turk, 2014; Velkova, 2016). Thus, putting content behind a pay-wall, as Ariescroissantfoxpie emphasizes, "opens them [the fan creators] up to be sued by these companies" (Ariescroissantfoxpie, interview, September 13, 2021). As soon as sharing fan work becomes monetary, the fan work creator is susceptible to copyright infringement. Like the removal of the group chat feature, Tumblr's implementation of Post+ changes the condi-tions for how Tumblr participants can interact. In this way, Post+ works against fan engagement and how fans create and share their creative out-puts. By introducing the element of monetization into ways to engage with information on the platforms, the feature changes the dynamics of how fans relate to fair use and copyright by putting them at the risk of being sued for copyright infringement.

Unsurprisingly, it was announced that Post+ would be shut down on Tumblr at the beginning of December 2023. As brought forward by the Tumblr staff: "We can no longer justify the costs required to maintain and operate Post+ based on current usage" (Tumblr, 2023a). Automattic CEO Matt Muellenweg offered a further explanation of the foreclosure in their Tumblr blog post, where he points out that the reception of Post+ has been

problematic, including "a coordinated campaign to attack (including with death threats) everyone who signed up for the program" (Muellenweg, 2023). I perceive that changes through the infrastructure are not unidirectional, where the platforms set the conditions for how fans should engage with information. Change can also be imposed by Tumblr participants, which again shapes the platform's technological capabilities, where the possibilities and constraints in engaging with information are negotiated and always in motion.

Platforms' modular capabilities enable their features to be changed, developed, and removed. I understand modularity as crucial to the platforms' evolvement, allowing them to maintain relevance among users in the competition against other platforms. However, I note that the way the platforms evolve is not linear. Sometimes, the efforts are diverted or even halted, which I exemplify with Tumblr's efforts to introduce monetization. The anger and frustration arising among Tumblr participants when features are removed and implemented reveal the different perceptions of what Tumblr should be among the fans and the platform company. These different perceptions of what Tumblr should be and how it evolves create tension and, sometimes, clash when the different parties' interests are incompatible. Implementation of Post+ created temporal tensions, particularly concerning how the platforms try to establish the specific temporal trajectory of development by focusing on monetization in content creation, but this trajectory was halted by the Tumblr participants. The tension arises in how the purpose of Post+ directly clashes with how fans engage with information. I understand Tumblr's roll-out of Post+ to be a form of tweaking the infrastructure, challenging fans' established ways of creating and sharing fan outputs through a gift economy. Implementation of Post+ risked rendering dysfunctional the infrastructure enacted in fan practices (putting fans at risk of being sued for copyright infringement). However, the pushback from fans and the removal of the feature made the infrastructure change, once again, back to a functional state that supports fans' endeavours. In the following section, I continue to discuss the tweaking of the infrastructure, but from the perspective of how fans enhance and modify Tumblr's interface through Xkit, which changes the possibilities and constraints of what fans can do on the platform.

Modifying

The platforms' programmable character enables modification of the platforms' capabilities through third-party applications and extensions, making it possible for third-party actors to, as Anne Helmond (2015) describes, "plug in" and enhance platform capabilities. For example, aside from Reddit's official app launched in 2016 (Reddit admin, 2016), the now-defunct third-party applications, including Relay, Sync, Bacon, Joey, Reddit is Fun and Apollo, offered alternative access to Reddit's subreddits and recorded information through another application interface. These third-party applications also modified how posts and comments could be created and used. Several third-party applications became the default way to access Reddit, like the Redditor Doughnutscheetah, who barely remembers what Reddit's official interface looks like (Doughnutscheetah, interview, December 15, 2021). For Tumblr, there are also several official access points, such as the web browser, the official app (iOS and Android), and a third-party extension for web browsers called Xkit. In the present section, I discuss how tweaking the infrastructure takes form in fans' information activities through third-party applications and extensions by focusing particularly on the example of Xkit. I also show how tweaking the infrastructure, when diverging too far from what is considered the default, can be consolidated, redirecting diverging timelines that emerge from the different versions of the platform interface into one platform development trajectory.

Xkit was originally developed by Atesh Yurdakul, also called "the Xkit guy", in 2011. In 2015, allegations of predatory behaviour by Yurdakul (and claims of him being racist and xenophobic) began to circulate on the platform, causing Yurdakul to abandon the Xkit extension and his Tumblr accounts (Glenhaber, 2021; Willard, 2020). Several developers assumed responsibility for Xkit and its development, including the latest versions, "New Xkit" and subsequently, "Xkit Rewritten". Since 2020, the latest version has been developed and maintained by April Sylph, a web engineer at Tumblr (Sylph, 2023). The third-party extension Xkit adds various features to make creating, using, sharing and accessing content through Tum-

blr more efficient[23]. For some fans, Xkit is the default way to access Tumblr. As the Tumblr participant Desertclarinet notes: […] "Xkit mods the hell out of Tumblr" (Desertclarinet, interview, October 9, 2021). Similarly, as some Tumblr participants point out in the unofficial guides for newcomers: "A lot of people use the Xkit Rewritten extension to undo unnecessary updates, and it really makes a difference" (Field notes, Tumblr, June 21, 2023).

Another feature third-party applications and extensions can provide is ad-free browsing, which both Xkit and the now-defunct third-party applications of Reddit offer. In an early version, Xkit Rewritten offered the ad-free browsing feature "Anti-Capitalism", which served to hide "sponsored posts, vendor buttons and other nonsense that wants your money" (Sylph, 2022). Another example of a previous feature Xkit provided was the possibility to bypass recent platform changes by reverting to older versions of the interface (Sylph, 2022). Although the third-party applications provide a different interface, extensions operate in the official interface, creating a different version of the platform. I argue that these alternate versions of the platform establish diverging timelines from the platforms' developmental trajectory, which challenges the established possibilities and constraints as prescribed by the platforms.

Certain features first introduced through Xkit have also subsequently been implemented by Tumblr as official features[24]. These implementations have made some Xkit features obsolete. Subsequently, some features of Xkit have also been removed, like the feature that made it possible to revert the interface back to earlier versions (Sylph, 2022). Similarly, the "Anti-

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23 Xkit offers a range of accessibility features and the ability to highlight, shorten, hide, or block posts and reblog threads. The third-party extension also provides features to remove, unlike, and make posts private in bulk and to check whether the search function can be adjusted to focus on tags instead of keywords. Additionally, Xkit can highlight unread posts and make tracking, creating, or replacing tags easier. Xkit also enables the use of an audio or video player native to the browser instead of Tumblr, as well as different ways of scrolling, like the possibility to scroll to the bottom of the page instead of endless scrolling (Sylph, 2023, 2024).

24 These changes implemented by Tumblr include shortening posts, time stamps, various customization settings, the possibility to remove infinite scrolling and hide recommended posts, and blacklisting (Sylph, 2023).

Capitalism" feature has been changed to complement ad-blocker extensions for web browsers like uBlock and Tumblr's paid service for ad-free browsing (Sylph, 2023, 2024). I understand these changes in what Xkit offers to indicate how Tumblr is catching up with Xkit, making certain extension features obsolete and even removing some. Although Xkit still enhances Tumblr's technological capabilities to make Tumblr participants' engagement with posts more efficient, it is becoming increasingly difficult to create alternate versions of the platform's interface (e.g., reverting to the old version). In my interpretation, the diverging timelines created via Xkit are consolidated and redirected back into Tumblr's "official" timeline, the platform's developmental trajectory, where variations in how to engage with posts are anchored in the same version of the platform.

How platforms change and adapt has been discussed in previous research, focusing on how platforms develop to maintain their relevance and legitimacy (e.g., Bucher & Helmond, 2017; Helmond et al., 2019; Kaye et al., 2021; Nieborg & Helmond, 2019) as well as how users push back against changes (e.g., Glenhaber, 2021). For example, Bridget Barrett and Daniel Kreiss (2019, p. 2) conceptualize these changes using the notion of "platform transience", highlighting how platforms develop due to external and economic pressure. A parallel can be drawn to my example of Post+, which can be interpreted as an effort by Tumblr to introduce monetization into its environment, similar to other platforms, like YouTube and Instagram, among others. I contribute by showing how change is not unidirectional but emerges from relational dynamics between different parties, with examples of the users' pushback on Post+ and how Tumblr "catches" up with Xkit's features. The platforms' development trajectory can unfold differently; it is knotty and not always straightforward.

Temporal divergences and consolidations can take different routes, where it is not simply the platforms inflicting change, as with the Reddit API controversy, as I discuss in Chapter 6. In the example of Tumblr's implementation of Post+, I show how the new feature drastically diverges from the established ways of engaging with information among fans, coming in direct conflict with how they create and share fan work. I argue that Post+ is an example of tweaking the infrastructure that is constrained in and through fan practices, where the platform drops the feature to accom-

modate Tumblr participants. A similar form of tweaking the infrastructure I show is how Tumblr "catches" up with Xkit's functionalities. In my interpretation, making Xkit's features obsolete redirects customized versions of the platform's interface into its "official" timeline. This consolidation of the different versions of Tumblr's interface inherently changes the constitution of the infrastructure as it changes the premises for what is considered possible and constrained through Tumblr, alternatively, Xkit. These different forms of consolidation show how practice and infrastructure are mutually co-constitutive, where both can be tweaked and adapted to maintain functionality. Subsequently, I find these divergences and consolidations of temporal trajectories to show how power is distributed dynamically, where not only one specific actor sets changes in motion. In the following section, I discern fans' algorithmic engagement, creating multiple temporal rhythms through its situated character. I show how the fans reinforce, negotiate or interfere in the algorithmic rankings and curation.

Multiple algorithmic rhythms

Algorithms contribute to shaping what posts become visible or drift into obsolescence (Jacobsen, 2021; Raffa & Pronzato, 2021; Rieder et al., 2018). Through algorithms, the distribution of posts becomes personalized, presented differently in each fan's individual content feed. As Rob Kitchin (2017, p. 21) highlights, platform algorithms are "emergent and constantly unfolding". The algorithms are foregrounded and temporally non-linear, moving beyond the chronological logic of the output presentation. Instead, the information is presented, as Taina Bucher (2020) describes, at the "right time" for users by anticipating what posts they will interact with based on personal preferences and previous engagements (see also Jacobsen, 2022)

The personalized post suggestions can also be understood to create, as Tarleton Gillespie (2014, p. 17) points out, a "recursive loop" where users shape the algorithms they encounter, which in turn, recalibrate and adapt to users' current interests and engagement patterns. Here, visibility emerges as an important dimension to account for when attending to the temporalities of algorithmic engagements. For example, Bucher (2012, p. 1167) focuses on how ranking algorithms construct visibility, revealing the exis-

tence of an algorithmic bias towards certain posts. Bucher further high-lights how factors like previous interactions between viewer and creator weigh the interactions surrounding the posts (e.g., a comment is "weighed" more than a like) and time decay, and how prioritizing fresh content shapes what gains visibility, alternatively disappears. In a similar vein, what I found during my fieldwork is that what becomes visible through the algorithms is reinforced in relation to parameters like personalization, and popularity. However, I also found several ways to engage with the algorithms that enact other forms of visibility beyond personal preferences, such as what is viral.

The following sections discuss the fans' negotiation of the algorithms, which creates multiple temporal rhythms for the recorded information. Firstly, I turn to how notions of visibility are enacted, where I focus on the different visibilities that emerge through sorting on Reddit. Secondly, I examine how Tumblr participants interfere in algorithmic curation and how they engage with automatic and manual curation of posts. These various algorithmic engagements show that variations in how fans engage with information create different temporal rhythms regarding when recorded information becomes visible and when it disappears from sight.

Sorting visibility

The voting assists in curating what posts and comments should be more or less visible (Reddit, 2022a). As Redditor Doughnutscheetah mentions in my interview with them, voting […] "sift the stuff that generally is the best up quite consistently, while removing stuff that is 'lame' and 'not that cool' or in some cases just not relevant" (Doughnutscheetah, interview, December 15, 2021). Collectively, Redditors' votes decide what posts should be visible. The ways in which voting ranks posts affect how posts and comments can be sorted. The home feed enables sorting according to "home" (e.g., communities joined), "popular" (.e.g., popular posts), "all" (e.g., less filtered version of popular including NSFW posts) in its desktop version, and additional sorting alternatives of "news" (e.g., new posts shared across subreddits), and "latest" (e.g., new posts) on Reddit's official app (Reddit, 2023e).

The sorting possibilities for a subreddit feed and a post's comment section include "new" (e.g., most recent content), "hot" (e.g., upvoted and recent content), "top" (e.g., most upvoted content), "controversial" (e.g., high count of upvotes and downvotes). Additionally, subreddits can be sorted according to "rising" (e.g., posts with the most recent views) (Reddit, 2023o). However, it is not only these collective decisions that determine recorded information's visibility. Reddit's algorithms also play a role in how recorded information is ranked. Reddit's algorithms contribute to shaping what posts become visible for individual Redditors, which is grounded in how Redditors have engaged and voted in the past. Among the ranking possibilities, there is also the algorithmic sorting alternative "best" for the home feed and comment section. Introduced in 2009, sorting on "best" in comment sections entails:

> When a few people have voted on a comment, you get a rough idea of its quality. The more people who vote on it, the better an idea you get of where it 'should' ultimately end up. With this algorithm, you quantify exactly how much you can tell about a comment from a limited number of votes (Reddit, 2009).

Based on the existing number of votes, the sorting alternative "best" makes predictions on whether the comment should become more visible or stay close to the bottom. The "best" sorting, which is the default sorting in the home feed, as Reddit explains, is based on "whether you tend to like new communities or not, how old or new your account is, and what types of posts you've upvoted or commented in the past" (Reddit, 2023a). Through voting and algorithms, the recorded information is set in a transitory state that continuously changes the way posts are presented that are relevant on a personal and collective level. However, other forms of visibility can be established through the various sorting possibilities that I highlighted, depending on what the Redditor wants to do at a given time. These sorting options, like "controversial", enable Redditors to see posts and comments that might not be prioritized by the algorithms. The different sorting options create multiple temporal rhythms of engaging with information. In the present section, I explore these temporal rhythms based on how fans sort the recorded information to bring forward different facets of their discussions.

In a news entry made in 2021 by the Reddit administrators, an update of "best" was announced (Reddit admin, 2021a). The announcement described how the new update of "best" involved grounding its recommendations and ranking in a process called "candidate post generation", filtering out posts from subscribed and adjacent subreddits (Reddit admin, 2021a). In turn, what posts are shown is based on the posts' characteristics, including votes, content, comments, and age. These parameters were combined with metrics, like the individual Redditor's engagement across subreddits, general location, and account age (Reddit, 2024d). Overall, sorting on "best" predicates the probability of the individual Redditor interacting with the post through activities like viewing, commenting, and voting (Reddit, 2023a). The Redditor Flybanjo finds Reddit good at providing personalized recommendations in the individual feed (Flybanjo, interview, November 7, 2021). However, personalization does have its downsides. Flybanjo points out that algorithmic curation can be somewhat addictive:

> It [Reddit] is delivering things I want to watch now. I cannot put it down. It is a manipulation tool because Reddit wants you to stay and watch stuff, so they have gotten really good at delivering that chemical hit people need (Flybanjo, interview, November 7, 2021).

Building on Flybanjo's reflections, I find that Redditors' preferences are continuously reinforced as they keep scrolling. The visibility of a certain post or comment and, subsequently, the decision to engage with it are continuously carried out by the individual Redditor through the algorithms. Visibility is also reinforced collectively through certain sorting options, emphasizing content that many engage with (e.g., sorting on popular). The algorithms are continuously enacted and reinforced in the fans' engagement with recorded information through ranking and sorting. Subsequently, following what the algorithms suggest creates one temporal rhythm established by the fans' algorithmic engagements that enact and reinforce what is personally recommended.

However, other temporal rhythms can also be established. Within the same comment section of a post, different facets of a discussion can come forward through how fans sort comments. Whereas sorting options "best"

and "top" favour comments with high counts of upvotes, sorting on "new" and "controversial" can present other parts of the discussion. For example, during my fieldwork, I found one post discussing Black Widow before its premiere, where sorting on default, namely "best" presented comments with a positive sentiment towards the movie (Field notes, Reddit, June 22, 2021). However, by scrolling through the comment section, I noted that many comments were also deleted. I found one fan responding to one of the deleted comments: "I came across this comment while sorting by controversial. Mine is probably going to get downvoted too". This fan then proceeded by paraphrasing the deleted comment, which wrote that the original poster should have been more nuanced by including not only positive reviews, but also average and negative ones (Field notes, Reddit, June 22, 2021). Through sorting options like "controversial", posts that express different or dissenting opinions, also called "unpopular opinions", do not necessarily have to fade into obscurity because of downvotes. Thereby, the sorting option of "controversial" allows for the formation of other temporal rhythms. These rhythms are not based on what the subreddit collectively thinks (e.g., through voting) or algorithmic decisions about visibility (e.g., top and best), but instead, reveal less visible facets of a discussion.

From the perspective of creating posts, I found during my fieldwork that the fans have strategies for increasing the visibility of posts, namely having the right timing and being first. The Redditor Clefharp highlights that timing contributes to increasing the visibility of one's posts. Clefharp continues to highlight how releasing a post at the wrong time could mean being "out of touch and out of tone", for example, discussing a movie released a few years ago without any reference or connections to current releases (Clefharp, interview, November 4, 2021). Regarding comments, it is important to be the first commenter. The Redditors Helmetnet and Stormveal explain that submitting the first few comments would increase their chance of being more visible than comments submitted late, further into the conversation (Helmetnet, interview, August 31, 2021; Stormveal, interview, November 22, 2021).

However, it is not simply a matter of having the right timing or being first. As I highlight in Chapter 5 and the present section, the fans' strategies

for their recorded information to gain more visibility involve a collective dimension. Already upvoted posts and comments tend to generate more upvotes. As with voting in general, there is a risk of reinforcing certain perspectives or opinions, where so-called "unpopular opinions" can have difficulties gaining traction. The Redditor Stormveal notes that this often happens in larger subreddits where certain opinions come to be defining for the community, like in r/MarvelStudios:

> You rarely see posts criticising the MCU reach 100+ upvotes. It's almost exclusively only praise. Same with posts that make you question the inner logic of the franchise. There are exceptions, but in general, they are dismissed. While it's obvious that in a community centred around Marvel, the content is going to be massively positive, I think it's important to strike a balance with critique as well (Stormveal, interview, November 22, 2021).

An example of unpopular opinions is found in a post that also discusses the movie Black Widow (2021). One Redditor jokingly comments about the recent MCU releases being "not so good but charming", which gained over 100 downvotes the day after the post was uploaded (Field notes, Reddit, December 21, 2021). Another Redditor who feels sorry for the downvoted Redditor replies to the mentioned comment: "Haha, this really cracked me up. It sucks that you're getting so many downvotes for dissing the MCU!". Similarly, in the same post, another commenter explicitly addresses that it is an unpopular opinion they are expressing, namely criticizing the Russian accent of the character Yelena Belova: "Gonna get some serious downvotes from the brigade for this one!" (Field notes, Reddit, December 21, 2021). Although the algorithmic engagements enact and reinforce a certain temporal rhythm of how posts and comments become visible, I find that visibility can also be established anchored in other parameters, like having the right timing and being first or having the "right" opinions in the subreddit. These forms of visibility create other temporal rhythms that do not continuously reinforce what is presented (where recorded information being suggested at the right time is included), but rather place an emphasis on the notion of recency; the fans' knowledge of the MCU franchise and past experiences of the subreddit, respectively.

When should a post about a specific character or plot be posted? Could a raving review of the latest DC comics movie resonate with the Redditors on r/MarvelStudios? Probably not.

Unpopular opinions are not static and can develop over time. In r/MarvelStudios on Reddit, what is an unpopular opinion can change in line with how the MCU franchise develops. As one Redditor exemplifies in a post discussing Black Widow: "So, Black Widow goes from being a disappointing movie to becoming your favorite a few months later? Come on, make up your mind" (Field notes, Reddit, October 20, 2021). However, some unpopular opinions are recurring, like criticism of Kevin Feige. As the Redditor Teanixkale highlights:

> While most people will let you criticise stuff, you can't talk badly about Marvel Studios President Kevin Feige. Anything you don't like has to be someone else's fault and not his. Don't get me wrong, the guy has played an important role and deserves credit, but some people (a vocal minority) tend to treat him like a saint who can do nothing wrong. (Teanixkale, interview, January 17, 2022).

On the contrary, framing something as unpopular or controversial can also contribute to visibility. One Redditor points out the following in a post discussing annoying traits of MCU fans, highlighting how some frame their post as an unpopular or controversial opinion to gain traction: "Why isn't anyone talking about [insert very popular topic everyone is discussing]? Here's my unpopular opinion: [insert the currently most popular opinion]" (Field notes, Reddit, February 8, 2022). My findings show that unpopular opinions do not only entail a straightforward trajectory of losing visibility. Sometimes, a post or comment with an unpopular opinion can lose visibility, but it can also be a matter of timing, as what is unpopular changes over time. Paradoxically, unpopular opinions can also be adopted to increase engagement, enticing other fans into commenting (or perhaps arguing) on the post. Similar parameters, as I mentioned earlier, are at play in relation to unpopular opinions, which form different temporal rhythms beyond reinforcing what the algorithms present. It is a matter of timing and of knowing the MCU franchise and subreddit. In the case of gaining visibility by being provocative and posting unpopular opinions, this requires

knowledge of what will create reactions among other fans, which could, sometimes, be a currently polarizing topic in the subreddit.

Visibility can unfold in many ways. Sorting affects what posts and comments become visible to others. Algorithmically-infused sorting does not have to be understood only in terms of popularity and personalization. Through negotiating with the algorithms, visibility can take various forms depending on the parameter used for sorting, such as a newly submitted post with no votes or comments or a controversial comment with fluctuating upvotes and downvotes. The various forms of visibility, when content becomes visible, create multiple temporal rhythms in how content is presented through the home feed, in subreddits, and in comment sections. These rhythms are enacted and reinforced but also require a sense of timing, being quick (being first to comment, that is) and having knowledge of the community. In the following section, I explore the role of algorithms in relation to automated and manual content curation among fans on Tumblr as well as how these engagements interfere with what posts are presented, where and when.

Curatorial interferences

At first glance, one might find Tumblr's content feeds relatively straightforward for Tumblr participants, presenting posts based on whom one follows and their reblogs (Tumblr, 2023f). In 2021, Tumblr redesigned the content feed to encompass several tabs that structure the posts differently. This redesign includes a new tab called "For You", which consists of a feed with personal recommendations of posts based on past engagement and interactions. The Tumblr staff describe this new tab as:

> […] an ever-expanding personalised mess of fresh content organically sources from all across Tumblr. Yes, this is it: the dreaded algorithm. This is where it dwells, in its own place, where you can choose to go-as, when and if you please (Tumblr, 2021e).

Two other tabs were added: one tab with a content feed showing posts from followed blogs ("Following") and tags ("Your tags"), which previous-

ly was presented as one default content feed, which was chronologically structured (Tumblr, 2021e, 2023e). In May 2023, the "For You" feed was made the default setting for the dashboard. However, the personalized recommendations could be turned off in favour of the previous chronological feed, which showed the newest posts first (Tumblr, 2023d, 2023i). When it comes to curating posts, the Tumblr staff states that the new default setting would: […] "show you the stuff Tumblr thinks you'll like, rather than just the newest content" (Tumblr, 2023d). Parameters like engagement patterns and personal preferences are considered in what posts would be recommended, as the staff highlights:

> […] the user's engagement patterns, in terms of historical and real-time preferences over content. These signals include explicit positive and negative engagement on blogs (e.g. following, blocking), posts (e.g. likes, replies, reblogs, shares, dismissing), and tags (e.g. following, blocking), as well as search queries and browsing events (e.g. tapping, clicking) (Tumblr, 2024f).

Additionally, so-called "importance weights" are assigned to these actions, where more direct engagement is given more weight (Tumblr, 2024f). Like Redditors' ways of sorting, what I found during my fieldwork on Tumblr is that Tumblr participants create workarounds in and through the algorithms to negotiate the visibility of posts, which does not only entail reinforcing one particular temporal rhythm. In the present section, I focus on Tumblr participants' ways of curating recorded information in their blogs and content feeds and how algorithms are actualized in these curatorial activities. I understand the negotiation of posts' visibility among Tumblr participants as interferences with Tumblr's curatorial algorithms, by asserting and establishing activities to manually curate posts. The automated and manual content curation shapes how Tumblr participants perceive the algorithms, creating distinct temporal rhythms of visibility, with some aspects moving at a faster pace and others at a slower one.

During my fieldwork, several Tumblr participants expressed their aversion to the "For You" content feed and how they prefer the older chronological one. The way content is presented in the "For You" feed is perceived by my participants as irrelevant. As the Tumblr participant Ariescroissantfoxpie highlights: "You know, especially with Tumblr being the kinda place

Figure 14. Reblog thread on Tumblr. Illustration: Ylva Oknelid.

where you are not at the mercy of algorithms, you can choose what you want to see, you can keep scrolling, or you can stop following that one person" (Ariescriossantfoxpie, interview, September 13, 2021).

One unofficial guide for newcomers on Tumblr offers advice on turning off personalized recommendations:

> Tumblr's dumb algorithm hardly gets used. This place should be all about the community. The algorithm messes up your dashboard by not showing posts in the right order and only focusing on popular content. Don't use that. Tumblr should be used as it has always been (Field notes, Tumblr, September 25, 2023).

During my fieldwork, the Tumblr participants brought forward reblogging as a way to counter the algorithmic curation. When reblogging, an original
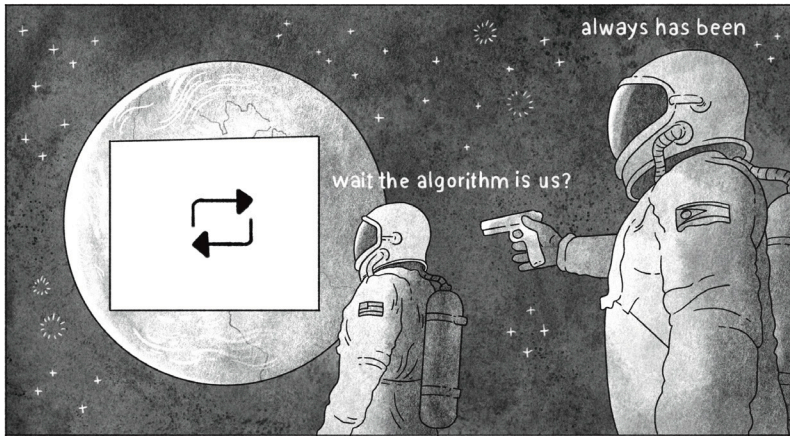
Figure 15. Meme "Wait, It's All Ohio? Always has been" on the importance of reblogging on Tumblr. Illustration: Ylva Oknelid.

post is featured on the reblogger's blog, where they can add a comment or caption. If reblogged by several Tumblr participants, the reblogs become part of the original post's thread (Tumblr, 2022a, 2023c). The original post can be traced back through the thread (see Figure 14). The complete number of reblogs, likes and replies that the original post has received can be found via the post's so-called notes (Tumblr, 2023b). One post illustrates the importance of reblogging with a meme[25], portraying how Tumblr participants, through reblogging, are what defines Tumblr, not the algorithms (Field notes, Tumblr, September 20, 2023; see Figure 15).

The post receives supporting comments, emphasizing how Tumblr, compared to other platforms, is not dominated by algorithmic recommendations and the imperative of going viral. As one Tumblr participant comments:

> Since the early days of Tumblr, the easiest way to rack up followers is by following others, with most of them following you back if they like your content. Alternatively, you might strike it lucky with a post that goes viral

25 The "Wait, It's All Ohio? Always Has Been" meme denotes two astronauts in space. One astronaut realizes that the Earth is made up of something unexpected and asks, "Wait, it's all […]?" The other astronaut responds with "Always has been". The meme shows a tense situation where one person realizes their suspicions are true, but another person is trying to stop the truth from being exposed by killing the other (KnowYourMeme, 2020)

and gets reblogged a ton. But it's not really the place to build a huge fol-
lowing since there aren't any sponsorships or deals to be had. It's more
about creating a cozy community rather than chasing after fame (Field
notes, Tumblr, September 20, 2023).

In my fieldwork, the Tumblr participants emphasize that manual curation,
as undertaken through reblogging, takes effort. For example, one Tumblr
participant highlights in a post discussing the old feed compared to the
"For You" feed that "If your feed sucks, it's your own fault" (Field notes,
September 20, 2023). The Tumblr participants show a clear aversion to the
new feed, emphasizing the importance of manual curation compared to
the automatic one in the "For You" content feed. Manual curation stem-
ming from what the Tumblr participants create and reblog establishes one
temporal rhythm that moves away from popularity and recency and is
slower in its pacing. I find that automatic curation in the feed "For You"
is interfered with by Tumblr participants' assertion of manual curation.
Manual curation could involve popular and recent posts, but also requires
effort on the part of Tumblr participants to find specific blogs or tags to
follow that they enjoy, which takes form over time. What becomes viral,
and in other words, more visible across individual content feeds, is a col-
lective decision enacted through reblogging.

   The aversion to the "For You" feed also stems from the Tumblr partic-
ipants' perception of how badly the "For You" feed functions. As the
Tumblr participants Desertclarinet and Neonixclover highlight, the al-
gorithms are less intuitive than those of other social media platforms.
During my fieldwork, I encountered a post where one Tumblr partici-
pant expressed frustration with the algorithms. The Tumblr participant
complained about how the algorithms keep showing them the same
posts. One commenter sympathizes: "Yeah, Tumblr sucks at making al-
gorithmic feeds (Field notes, Tumblr, September 21, 2023). Among the
Tumblr participants, the perception that the "For You" feed is dysfunc-
tional seems to be a recurring issue. Another Tumblr participant com-
plains in their post: "Why does Tumblr keep showing me the same post
from five days ago every time I go into the app? It's getting really annoy-
ing" (Field notes, Tumblr, September 20, 2023). Some Tumblr partici-

pants comment and point out that the algorithms are not well calibrated and too sensitive, resulting in strange or repetitive post recommendations. One Tumblr participant comments: "Is anyone else feeling embarrassed for the algorithm because it's trying way too hard to get your approval?" (Field notes, Tumblr, September 20, 2023).

A comparison can be drawn to the Redditors' algorithmic engagements, which I discussed in the previous section. The Redditors have better experiences with the algorithms; some even find them addictive because they are continuously engaged with and reinforced over time. If the reinforcement is absent, as I show here with the Tumblr participants, the selection of posts suggested by the algorithms becomes unreliable, as there is no reinforcement from the Tumblr participants in their personal preferences. The negative perceptions of Tumblr's algorithms become a self-fulfilling prophecy. Tumblr participants' interference in the algorithmic curation, as it is experienced as dysfunctional, reinforces its poor performance, which leads to continued interference. These interferences also reinforce Tumblr participants' negative perceptions of what the Tumblr algorithmic curation is capable of and why the feed "For You" should not be used.

Despite the negative perception of Tumblr's algorithms, some Tumblr participants do not mind its presence. In one post, a Tumblr participant points out how they occasionally engage with the algorithms. This Tumblr participant prefers the chronological one (e.g., content feeds with posts from followed blogs and tags), but turns to the "For You" feed when the former "runs dry". As the same Tumblr participant notes: "I'm cool with having stuff semi-curated to me by the algorithm. It might show me things I might have missed otherwise" (Field notes, Tumblr, September 20, 2023). The Tumblr participant continues by arguing that "the chronological feed should be kept where you can pick and choose what you see and make the For You feed just an option. This way, the site stays up to date while still being easy to use" (Field notes, Tumblr, September 20, 2023). Several who reblog the post agree. One of these commenters finds the negative reactions to be overreacting to Tumblr's algorithms:

> Algorithms have been getting a bad rap because of bad use. People say they
> keep you hooked and dictate how you see content. But when they're used

right, they can actually be pretty cool. You get recommendations for stuff you're into and have engaged with. Still, it's important to have the option for a chronological feed as the default (Field notes, Tumblr, September 20, 2023).

I find that the accounts I have come across in my fieldwork assist in establishing nuances in how the Tumblr participants perceive the algorithms. These Tumblr participants describe how the algorithms can also be engaged to benefit the participants by suggesting posts they might not have seen otherwise. However, these Tumblr participants are also cautious about letting the algorithms completely dictate their curation of posts. The automatic curation is perceived more as a complement rather than the default way of engaging. In my interpretation, algorithmic engagements that combine automated and manual curation reveal that the fans do not conform to one specific temporal rhythm, but different rhythms can be actualized. The visibility, as enacted through manual and automatic curation of posts, fluctuates between higher and slower pacing.

Altogether, my findings concerning how fans sort and curate recorded information show that several algorithmic visibilities of recorded information take form through the fans' engagement with information. The visibilities create different temporal rhythms concerning when and how recorded information becomes visible. I understand these temporal rhythms to be situated where the several methods of sorting and curating information illustrate different facets of the fans' discussions. Making these different facets visible contributes to the recorded information's visibility, fluctuating between fast and slow pacing. My findings on the situated temporal rhythms of fans' algorithmic engagement align and expand on the body of research that focuses on how other temporal rhythms are also possible, where algorithmic engagements might anticipate, intervene in or break from temporal rhythmös anchored in recency or popularity (e.g., Burrell et al., 2019; Haider & Sundin, 2021; van der Nagel, 2018). What I expand further is how these visibilities create temporal rhythms different from one that is based on what is most recent and viral. In John Law's words (1994, p. 2), I understand these algorithmic engagements to be "materially heterogeneous", where the same algorithms can become meaningful in different ways when situated in a specific activity at a given time.

Enduring access

Since its emergence, the ephemeral qualities of the internet have been problematized. As Brewster Kahle, the creator of Internet Archive, wrote in 1997: "While the Internet's World Wide Web is unprecedented in spreading the popular voice of millions that never would have been published before, no one recorded these documents and images from 1 year ago". Although the one-year mark of disappearance might not be the case for all recorded information on the internet, Kahle pinpoints recorded information's malleable and fluid characteristics as it can easily be deleted and edited in ways that create various copies and versions. In comparison, there have also been claims of the opposite. As Viktor Mayer-Schönberger (2011) argues, due to the possibilities of sharing, even if the original post has been deleted, other versions might still exist elsewhere. On the contrary, Wendy Hui Kyong Chun (2008) stresses how the material dimensions of digital technologies have to be accounted for, because technology may change by deteriorating or becoming obsolete. Instead of permanence, digital technology should be understood as *enduring ephemeral*. With the notion of enduring ephemeral, Chun refers to how digital technology establishes a fluid yet sustained temporality where recorded information can endure, but only through maintenance (e.g., migration).

Although Chun and Mayer-Schönberger enter into the discussion on recorded information's enduring and ephemeral properties from different starting points, I find that there is a common thread between their perspectives, which is that information can endure, but only if effort is put into sustaining it. In the present section, I focus on similar efforts by attending to how fans sustain access and retrieve information. What I discern is how these information activities affect the temporal pacing of recorded information, where fans try to assert slower pacing. Firstly, I discuss fans' strategies for sustaining access and retrieving information. Secondly, I show how retrieving older posts contributes to fan engagement through the act of reminiscing, which establishes temporal trajectories of older recorded information that are non-linear and recursive.

Searching and retrieving

Among the platform users, there is a predisposition to engage with fresh and recent posts. For example, sorting through Reddit is often focused on recency and popularity. The individual content feeds display newly uploaded content based on Redditors' recent engagement and consider the overall popularity of posts in terms of upvotes or views (Reddit, 2024d). Simultaneously, older posts are automatically placed in the subreddit's "archive" after six months, or in other words, a repository of older posts. These posts are read-only and cannot be voted on or commented on (Reddit, 2024g). Similar parameters for content are present on Tumblr. The chronological feed showcases the newest posts first. The "For You" feed and the sorting option of "Best Stuff First" give more weight to parameters like overall popularity and the individual participant's recent engagement. As the Tumblr staff describes: "We also consider the time elapsed since each action to give more importance to recent engagement and events, as this allows us to capture shifts in the user's preferences over time" (Tumblr, 2024f). The emphasis on recency and popularity creates a fast pace of visibility. Combined with the continuous creation of recorded information, older recorded information easily loses visibility and is pushed further down in the content feeds. In the present section, I discern how temporal tensions emerge between the fast-paced presentation of posts based on recency and popularity and the fans' efforts to sustain and revisit older posts. In turn, the fans develop various strategies to prolong access to posts, which I find to assert a slower pace concerning when and how long posts remain visible.

The fans I encountered during my fieldwork often focused on recent and popular posts in their daily engagement through the platforms. As the Redditor Teanixkale notes: "I'd say 80% of the time I sort by hot, but I also sort by new sometimes" (Teanixkale, interview, 17 January 2022). However, there is also a social aspect of prioritizing recent posts and comments. As Redditor Flybatsea points out, they often sort by new comments, as they are more likely to get a response: "It feels weird replying to a comment that was made 7 hours ago" (Flybatsea, interview, November 8, 2021). There is a chance one can be noticed by others, cutting through the noise. As Redditor Helmetnet highlights:

> I like to get on threads early so people actually see what I wrote. If I post on the popular ones with thousands of replies, it would probably only be seen by two people. I don't know, I just feel that I put a lot of work to my comments, so I like people to see […] If I'm wrong, I want someone to point it out like 'oh nononono you didn't consider this', and I'm like, 'oh ok yeah'. There's a higher chance that someone will start a discussion with me if I'm in the post earlier than if I'm there later where there's thousands of posts and I might only get one person to reply (Helmetnet, interview, August 31, 2021).

The inclination towards recent and popular posts among fans has a social dimension, like with most kinds of social media use. Through popular and recent content, fans can stay updated with the latest events and participate in current discussions. Engaging with older posts where no one replies is like shouting into an empty room. At the same time, these inclinations towards the new and popular among fans also shape what is deemed old and, sometimes, no longer relevant. Due to the vast influx of content, there is an acceleration in the pace at which content becomes old and less visible.

Access to information becomes more difficult over time. Trying to find older posts can be done via the search features of Tumblr and Reddit. As Reddit suggests: "If you already know what you are looking for, using the search bar will be the most direct" (Reddit, 2022b). Both Redditors Flybanjo and Doughnutscheetah find searching through Reddit annoying. As Flybanjo notes in my interview with them: "Reddit makes it really difficult to find old content, and it is like you have to remember the exact headline, and that is generally tough" (Flybanjo, interview, September 7, 2021). Similarly, Doughnutscheetah points out how older posts disappear from one's feed:

> I think Reddit puts weights on older content, so content with the same number of upvotes but more recent is rated higher. As a result, older content eventually falls off the hot page, and you have to know what you are looking for to find it. You are less likely to stumble upon it organically (Doughnutscheetah, interview, December 15, 2021).

Although posts are stored in each subreddit's "archive", serving as an entry point for finding older posts, locating them in popular and active subreddits can be difficult. As Redditor Sunoboe highlights, one has to scroll through volumes of posts to find a specific one (Sunoboe, interview, Jan-

uary 10, 2022). On Tumblr, posts are found by searching for text or tags. Like what the Redditor expressed, the Tumblr participants I interviewed also find it difficult to locate older posts. As the Tumblr participant Namakatamarisk notes: "It always shows you the most recent content, and you'll have to scroll through tons and tons of them before even reaching the week before" (Namakatamarisk, interview, December 7, 2021). Some Tumblr participants try to track a specific post by looking at blogs that might have uploaded or reblogged the post. However, this search strategy is not optimal. As the Tumblr participant Cricketglove highlights: "Retrieving older content that has stopped being iterated is very tedious, and you usually have to scroll through someone's blog to find it" (Cricketglove, interview, December 20, 2021). At the same time, what I find is that the fans' complaints about the platforms' search and retrieval capabilities illustrate how they actively search for older content. Whereas the possibility of getting a reply is minimal in a stagnant discussion, revisiting older posts can be meaningful. The problem is being able to find it.

Instead of spending time and effort searching for specific posts with no success, different strategies are developed to make access to older posts easier. These strategies are foremost expressed by the Tumblr participants whom I interviewed. Some Tumblr participants might seek help from other Tumblr participants to track down a specific post. Other strategies involve liking, reblogging and tagging. The Tumblr participant Treeturnips highlights how they save posts by liking and reblogging, which saves the post among other liked posts or on their blogs to view later (Treeturnips, interview, September 6, 2021). However, these strategies also seem to have their downsides. As the Tumblr participant Ariescroissantfoxpie describes, liking and reblogging "adds up over time". The accumulation of liked or reblogged posts makes it difficult to backtrack and find specific posts, even if one knows where they are (Ariescroissantfoxpie, interview, September 13, 2021). The Tumblr participant Cabbagevega also experienced difficulties comparing the possibilities of retrieving on Tumblr and in libraries. Cabbagevega explains that there are often librarians in the library who can provide help, while when on Tumblr, Tumblr participants are left to their own devices (Ariescroissantfoxpie, interview, November 27, 2021).

Tagging, Tumblr's feature for search and retrieval, also poses difficulties for Tumblr participants. The accumulation of posts in tags and blogs entails that each tag encompasses large numbers of posts. I let the Tumblr participant Highnoonleaf elaborate on the topic in three longer quotes that exemplify how tedious it can be to follow this strategy:

> Search the #sambucky tag on my blog because it's the tag that I am using NOW for the posts about these two characters – […] it ended up in 32 pages of posts tagged with #sambucky in the past 10 years. Do I have the time to look through all those 32 pages for a post I made in 2013? No. But if we look at the original post, it wasn't TAGGED with #sambucky because back then, I wasn't using this tag. So, I will not find THAT post in those 32 pages and it will end up in a complete waste of time (Highnoonleaf, interview, November 29, 2021).

However, as it is possible to add several tags to posts, Highnoonleaf suggests another strategy if the first one fails:

> The second option is to search on my blog for one of the names of those two characters. Again, I made the search just now, this time for #bucky, and I ended up with 22 pages of content about Bucky, from the last 10 years. This time, luckly, the post I was looking for is there, on the last page (Highnoonleaf, interview, November 29, 2021).

Lastly, Highnoonleaf reflects on how this search would be done when carrying out a general search via tags or on other blog archives:

> But what if that post wouldn't have been on the 22nd page either? My only other option would have been to look in the archive and look for bits and pieces of the post that I remembered. This whole search would have been IMPOSSIBLE to do on the explore page of Tumblr because if you search #Bucky on Tumblr there are hundreds of pages from all the users on Tumblr who ever posted about Bucky. Also, I made this whole search on my blog because I knew what to look for and where, because I remember that post. But doing the same search on someone else's blog, looking for a post THEY made back in let's say 2014, would be even harder because again, you would have to search through pages of content THEY made in 2014, just for one post (Highnoonleaf, interview, November 29, 2021).

Aside from the annoyance of sifting through large volumes of posts in tags, what I find is that searching also involves identifying the right tag. What one may have previously tagged a post with might not be the tag one looks through when searching for the post now. Alternatively, posts can be tagged differently by their creators and rebloggers despite addressing the same subject. These arbitrary categorizations of posts risk the same post being tagged differently in the various reblog iterations, which makes future retrieval more difficult. There is an inherent risk that what one is searching for may be removed. As the Tumblr participant Tomatootter highlights: "If that blog has been removed, sometimes you're just out of luck" (Tomatootter, interview, November 30, 2021). Similarly, Grasshopperaquarius emphasize: "If they [blogs] are deactivated, you simply cannot. I tried to find some older blogs that left Tumblr many years ago, but they deactivated their blog and within it. The contents are lost forever" (Grasshopperaquarius, interview, November 29, 2021). I find that several factors contribute to the challenges of searching for and retrieving content, including variations in tagging, the accumulation of posts, deactivated blogs, and removed posts. These elements create multiple points of risk where things can go wrong.

Acceleration of the pace at which posts become "old" and lose visibility has led the fans, foremost exemplified by the Tumblr participants in my fieldwork, to develop strategies to prolong access, trying to establish a slower pace for how long posts stay visible. A parallel can be drawn between what I discern as different temporal pacings and Hartmut Rosa's (2013, p. 104ff) notion of social acceleration, where technological advancements transform social relations and perceptions of time, creating a constant feeling of time deficiency.

Building on Rosa's perspective on time, Jutta Haider, Veronica Johansson, and Björn Hammarfelt (2021) stress the importance of attending to how acceleration unfolds in engagements with information through digital technologies, but they also call for perspectives that nuance or even contradict this view on time. My findings show signs of acceleration in how fans engage with information. For example, I perceive the high pace of posts' visibility as a form of acceleration, exemplified by the platforms' prioritization of recent and popular posts, entangled with fans' need to interact with these posts. At the same time, I also see how other temporal

pacings are enacted. I argue that the Tumblr participants' strategies to sustain access nuance the notion of acceleration. This shows that the temporal trajectory of recorded information is not always straightforward and has an accelerating pace. Instead, fans push for a slower pace by attending to the past. In the following section, I elaborate on what fans do when retrieving older recorded information and how they engage in the act of reminiscing. These ways of reminiscing show how the temporal trajectory of recorded information not only slows down the pace of visibility but also unfolds in a non-linear and recursive pattern. I focus on reminiscing in r/MarvelStudios, where I show how the negotiation of canon among fans involves bringing past discussions into present discussions, shaping their anticipation for future MCU releases.

Reminiscing

With the notion of reminiscing, I am referring to activities that involve remembering the past with a sense of nostalgia or fondness. As John Meacham (1995) highlights, reminiscing can collectively reveal what memories are meaningful for a group, community, or particular setting. Subsequently, reminiscing through digital technologies, like social media platforms, as Olle Sköld (2015) highlights, adds an additional dimension where the past can be looked back on by revisiting previous engagements through the posts created. Revisiting older posts can evoke particular memories of past events as they resurface, further informing present practices (Jacobsen & Beer, 2021; Jungselius & Weilenmann, 2023). In the present section, I focus on the act of reminiscing among the fans in the r/MarvelStudios on Reddit. By reminiscing and looking back at previous discussions, I see that the MCU fans' engagement differs from other users' engagement on the platform, which often focuses on the most recent and popular posts. I found that reminiscing takes the form of bringing older discussions and statements into present negotiations of canon among fans. The retrieval of older posts to support current discussions illustrates that what fans find meaningful in their fan engagement changes continuously. Revisiting the past can inform fans' perceptions of current and upcoming MCU releases and how current understandings of the franchise assist them in revising their past perceptions.

The fans in r/MarvelStudios often refer to past discussions in line with a new or forthcoming MCU release. Although posts older than six months cannot be engaged with, because they are stored in the subreddit's "archive", these posts and comments can still be viewed and referred to. As the Redditor Flybanjo notes in my interview with them:

> You might have someone who might say 'hey this post from eight years ago they predicted that something was going to happen' and someone reference that post like 'this user was a prophet, whoever posted this really know what was going on' (Flybanjo, interview, 7 September, 2021).

According to my participants, referring back to older posts helps them to confirm or debunk theories that were made prior to the movie or TV show being released. Examples I found during my fieldwork include how fans revisit older posts to confirm how past statements came true, like with fan casting, which entails discussing what actors would be suitable to play certain Marvel characters. For instance, in one post where the fans discuss the casting of Moon Knight in the subreddit, one Redditor brings forward in their comment how a fan casting of the actor Oscar Isaac playing Moon Knight was already made four years ago (Field notes, Reddit, 20 January 2022).

Opinions of certain movies and TV shows can change over time, parallel to new MCU releases. As the Redditor Helmetnet points out when I asked them about it:

> There's definitely a change of thought for some after some time has passed. When Age of Ultron (2012)[26] came out, it was popular, but people started nitpicking it shortly after, saying it wasn't very good, like, 'Oh, it's one of the lower-tier films; it's not that great'. But recently, people have been coming back to it and started rethinking the movie. They're like, 'Maybe it wasn't that bad as we thought, maybe we weren't seeing it in the way we were supposed to' and pointing out, 'We know now how that movie affected everything else' (Helmetnet, interview, 31 August 2021).

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26 The first Avengers movie from Phase One of the MCU franchise is about the Avengers' battle with Ultron, an entity with artificial intelligence initially programmed to advocate for peace. However, Ultron turns evil as it considers that peace can only be achieved by annihilating the entire human race.

Older and unpopular movies can gain more appreciation in light of the overall plot development and new movies. For example, a month after the release of Spiderman: No Way Home (2021), which featured previous versions of Spiderman, a lot of discussion was generated. In the movie, Peter Parker accidentally reveals his identity and seeks Doctor Strange's help to make everyone forget that Peter is Spider-Man. However, the spell goes wrong, bringing other versions of Spider-Men and their enemies into the current Spider-man timeline. One Redditor highlights in their post in the subreddit that the movie has led to an overall increasing hype about older productions of Spiderman (before the MCU universe was established). The Redditor exemplifies how fans are perceiving the critically panned Spider-man franchise of The Amazing Spiderman (TASM) (2012-2014) in a new light. Some commenters are more reserved in their praise of TASM, pointing out that the TASM movies still "suck", but Spider-man was portrayed well by the actor Andrew Garfield, which was shown in the latest Spiderman movie. As one commentator notes in the same post:

> Garfield is finally getting the recognition he deserves because people have realized he was actually as good as Spiderman but were overshadowed by the fact that other parts of those movies weren't as great. It feels like only a few folks appreciated him before, but now it seems like more people are on board (Field notes, Reddit, 5 January 2022).

Another commentator finds the sudden appreciation for Garfield's performance a product of time. As this commentator points out, fans have transitioned from "being pretty upset about the reboot, but then they had time to see the good stuff that TASM did" (Field notes, Reddit, 5 January 2022). In my interpretation, fans are shown to continuously revise their perceptions of past releases in light of the current ones, like how fans revisit the TASM movies after they have seen the newest Spider-Man movie. The negotiation of canon among fans is not only done in relation to current MCU releases, but also undertaken retroactively, tying back to past releases and past discussions about them. In my view, the form and plot structure of the MCU franchise (the movies and TV shows are interconnected, forming a multiverse) play a crucial role in how fans reminisce, which points to what fans find meaningful about the MCU franchise in motion.

Reminiscing connects the past not only to the present, but also to the future. Past knowledge and experiences about the MCU franchise shape how fans anticipate future releases. During my fieldwork, I found one post in the subreddit that discussed how MCU fans should have higher expectations for the movie Eternals (2021), which was about to be released a few months later (Field notes, Reddit, 31 August 2021). The Redditor refers back to how fans have been wrong in the past, including a link to a post where fans complained about the release of Guardians of the Galaxy (2014), a movie that fans had low expectations of prior to its release, but which was warmly received among fans and movie critics when released. Another Redditor agrees and points out that Eternals should be seen in the light of the franchise's previous success:

> Totally! This franchise has always come through with great movies, so I've got total faith in them. No way they're gonna start making bad movies now. Even the ones I'm not crazy about are still way better than a lot of other movies out there (Field notes, Reddit, 31 August 2021).

However, past successes of the franchise can also be seen as a burden to the fans, creating too high expectations while disregarding those who do not share them. After the release of Eternals (which was moderately received), I found one post during my fieldwork that complained about the MCU fans' high expectations and how these expectations only set fans up for disappointment. One commenter to the post agrees and points out: "This subreddit exploded when Infinity War was released, and the fanboy hype around the MCU went wild. Many believe that everything Kevin Feige and Marvel Studios touch turns to gold, but that's not true!" (Field notes, Reddit, 2 November 2021). Inadvertently, what I find is how past successes of the MCU franchise and returning to how these successful releases were discussed among fans before and after their premiere can create too high expectations, which increases the risk of being disappointed. The ways fans reminisce serve to revise perceptions of the past and act as a reassurance for future releases. The fans revisit past discussions to establish anticipation and expectations of what the future should and might contain.

The way fans reminisce stands out from the often fast pace of visibility of posts on the platforms. The fans' ways of reminiscing illustrate how the

temporal trajectories of posts in the subreddit are non-linear and recursive in their pattern. In line with a new or forthcoming release, past posts are brought into present discussions, which not only informs how the fans perceive the MCU franchise but also revises how they view past productions. I argue that reminiscing shows how fans' meaning-making is not static but is continuously negotiated and developed in light of new (or old) information. The temporal trajectory of meaning-making is not only in a forward-looking progression, but also carries retroactive dimensions. The temporal trajectory of what fans find meaningful is continuously negotiated through retrieving past information. In this regard, retrieving and putting past information to use in current discussions dissolves earlier set boundaries of what canon entails, and what is meaningful or not is continuously reformulated. I view the slower and recurring temporal pacing of information among the fans as relational. Past activities become mutually co-constitutive with the present, shaping perceptions of the future.

Researchers have studied reminiscing through technology, both in terms of capturing memories (e.g., Gibbons, 2019; Kizhakkethil, 2020; Sköld, 2015) and engaging with information in ways that evoke memories and nostalgia (e.g., Acker & Brubaker, 2014; Jacobsen & Beer, 2021; Jungselius & Weilenmann, 2023; Niemeyer, 2014). My findings contribute to this body of knowledge by empirically demonstrating how memory-evoking activities can unfold through the retrieval of older recorded information. In this regard, my findings align with Olle Sköld's (2015) and Priya Kizhakkethil's (2020) contributions, which highlight how delving into past events and activities plays into present actions in collective forms of reminiscing, where I also expand on how present fan engagements can assist in revising perceptions of the past. I argue that changes do not always have to be as drastic as with the Reddit API controversy, which I discuss in Chapter 6. Instead, I perceive change as being integral to the state of becoming: how fans identify as fans, fan community participants and part of a fandom. My findings show how platform development, algorithms and retrieval, as well as storing capabilities, are actualized in the fans' information activities. In turn, I discern how the situated and relational enactments of meaningful ways to act among fans also have temporal implications. The different ways that fans engage with information at given points in time create

temporal tensions between different rhythms and pacing. Subsequently, as I show in the present section, some of these temporalities also have a non-linear and recursive pattern.

For preservation, my findings highlight the need to account for change when identifying context information. Fan engagement is not static. What fans find meaningful is different and sometimes contradictory. The fans' meaning-making also evolves in line with how the MCU franchise and platforms develop, what I regard as temporal tensions found through my fieldwork reflect the potential challenges in capturing context information of ongoing phenomena and dynamic environments, like the platforms, without simply capturing a snapshot in time. I argue that what is needed is an approach that does not constrain the identified context information to a static representation of fan engagement. Instead, the notion of provenance and appraisal must follow fan engagement as it evolves over time. In particular, constructing the context of fan engagement needs to consider how fans engage with recent and popular posts and their use of older posts. To address the different temporalities in fans' information activities, I call for preserving digital fan culture as expressed on platforms in an iterative form. With each new iteration of preserving fan engagement on platforms, it becomes important to consider how newly identified context information shapes the construction of context previously undertaken. The questions of how to follow fan engagement over time in preservation and its implications for the archival concepts of provenance and appraisal are further discussed in the concluding discussions in the following chapter.

8. Constructing context through cutting and binding

In this chapter, I discuss the thesis's main findings and offer some conclusions. The thesis aims to advance knowledge of preserving digital fan culture, focusing on how to construct context. To achieve this aim, I argue that constructing context must be based on how fans make their engagement on the platforms meaningful. To identify crucial information about context, I draw on how fans make meaning through creating, using, accessing and sharing recorded information, or in other words, fans' *information activities*. Anchored in a sociomaterial outlook, I approach fans' information activities through the notion of *fan practices,* where the information activities gain meaning through establishing fan engagement, fan community participation and fandom as a whole. Furthermore, fans' information activities occur on social media platforms, where the entanglement of fans and platforms shapes how the activities can be carried out. I map how the platforms and other actors create conditions for fan engagement through the concept of *infrastructure*, which I understand as being enacted in and through fan practices. The concept of infrastructure assists me in analytically discerning the conditions on which the information activities rest and that shape fans' meaning-making.

Based on this theoretical framework, I can gain an understanding of the MCU fans' information activities, which assist in identifying what context information is necessary to include when preserving digital fan culture. These preservation matters are crucial to examine, as preserving MCU fan engagement enables future understanding of the MCU fan communities in their present constitution and how they evolve over time. At the same time, the insights I gain from studying preservation in rela-

tion to MCU fan engagement also extend to preservation related to modes of participation in digital culture, and, more precisely, those emerging on social media platforms.

I begin this chapter by summarizing the findings I present in Chapter 5 through 7, where I answer the three sub-questions I pose in Chapter 1. My answers revolve around how fans' information activities in the MCU fan communities on Reddit and Tumblr are situated, relational, and temporal, making fan engagement multifaceted, dynamic, and continuously changing, which is synthesized to answer the overarching research question. When answering the overarching research question, I place particular emphasis on my conceptual approach, *cutting* and *binding* context, and how this approach can assist in constructing context for preserving digital fan culture, specifically fan engagement on platforms and developing the archival concepts of provenance and appraisal. My answer to the overarching research question is informed by the body of knowledge in archival research, presented in Chapter 2, and the study's theoretical framework, introduced in Chapter 3. Thereafter, I draw three conclusions, showing what a sociomaterial outlook on preservation entails, specifically how to approach the concepts of provenance and appraisal, as well as the archivist's role in the preservation. Following the thesis's conclusions, I present the study's limitations and potential areas for further research. The thesis ends with a postscript, which sheds light on the current state of the MCU franchise and the platforms Reddit and Tumblr at the time of my writing in 2025.

The context of fans' meaning-making

The three sub-questions assist me in gaining an understanding of *how* fans' information contributes to their fan engagement, how other actors on the platform become involved in the activities, and the temporal aspects of these dynamics. Insights into fans' information activities raise important questions to account for when constructing context for preservation, which can fuel the development of the archival concepts of provenance and appraisal related to fan engagement or other phenomena on platforms.

The thesis's first sub-question is: *How do fans' information activities become meaningful as part of their fan engagement?* In Chapter 5, I examine

how fans create posts and comments, and how they organise and moderate information in activities like voting, tagging and labelling posts (e.g., whether posts have explicit content or not). From a sociomaterial outlook on fan practices, I understand fans' information activities as being situated and mutually constituted by fans and platforms. With the information activities' situated character, I am referring to how certain ways of acting become meaningful and sensible because they are embedded in how the fans, fan communities and the MCU franchise are constituted on the platforms at given times. In Chapter 5, I analytically demonstrate, with examples of fans' ways of creating information, voting, tagging and moderating, how the same information activities become meaningful in different ways, creating variations and discrepancies in what is perceived as meaningful among fans.

There are variations in how fans engage with information within and across the fan communities. In fans' negotiation of canon related to the MCU franchise, there are both positive and negative attitudes towards the media product, or what Linda Zygutis (2021) denotes as the "affirmative" and "transformative" dimensions of fan culture. As I highlight in Chapter 5, fans' interpretations reinforce and challenge the established plots. The transformative perspective entails disregarding how the MCU franchise portrays certain events, characters and their relationships. Much research has been done on the transformative aspects of fan culture, highlighting how fans subvert and transform the established canon (e.g., Coppa, 2006; De Kosnik, 2016; Hellekson & Busse, 2006; Jenkins, 2018). Although my findings show these tendencies among the MCU fans, they also support another body of fan research emphasizing that fans do not always aim to subvert the media product, but rather find various other ways to make their consumption meaningful (e.g., Hills, 2015; Kozinets, 2001; Nybro Petersen, 2022; Price & Robinson, 2016). Subsequently, my findings align with research into MCU fandom that highlights its heterogeneous character (e.g., DeFelice & Stanley, 2024; Griffin, 2023; Hubbard et al., 2024).

Activities that serve to organize information, such as voting and tagging, show variations and even discrepancies in meaning. Here, it is particularly salient how voting and tagging can differ among fans, but also in relation to how the platforms prescribe that these features be used. I show that

the meaning of voting and tagging is intricately developed among the fans, depending on the given situation. For example, voting can be based on whether the post or comment is relevant (to the subreddit's topic) or whether it aligns with the fans' opinions. My findings support Timothy Graham and Aleesha Rodrigues' (2021) findings on voting on Reddit, but I expand further on how voting contributes to collective meaning-making on Reddit by attending to how voting also can be expressed in particular ways in specific communities, like MCU fandom.

What is considered explicit content (e.g., themes of violence, gore, nudity, or of sexual or pornographic characters) can also vary among fans, moderators, platform companies and advertisers. There are discrepancies among these actors' perceptions of what explicit content entails, which have consequences for what recorded information is visible on the platforms. What I show is that the platforms' definition of explicit content often takes precedence in content moderation. Similar to what Tarleton Gillespie (2018) highlights, what happens is that different types of explicit content are categorized as the same, like fan work that involves nudity and illegal content (e.g., containing sexual exploitation). Conversely, I also find that the notion of explicit content is not static, as it can change during changing circumstances. For example, during the Reddit API controversy, Reddit admins forcibly switched subreddits from Not Safe to Work (NSFW) to Safe to Work (SFW) despite the risk of exposing explicit posts to minors or non-consenting adults. As I show in Chapter 5, Redditors believed these switches were made to secure ad revenue, as NSFW subreddits did not show ads.

The thesis's second sub-question is: *How do actors, aside from the fans, set conditions for fans' information activities, and how do these actors impact fan engagement?* Various actors are involved in fans' information activities, which contribute to shaping fan engagement. In Chapter 6, I expand on how these actors, alongside the fans, including technologies, companies and other instances, are necessary for fan practices. In my understanding, the various actors, their activities, and the recorded information on the platforms form an infrastructure enacted in and through fan practices. The infrastructure is actualized in fans' information activities by creating conditions for certain ways to act to appear sensible and meaningful to fans. I focus on the relational aspects of fans' information activities, specifically

how these different actors co-shape fans' perceptions of themselves as fans, fan community participants and platform users. In Chapter 6, I answer the second sub-question by showing the actors forming the infrastructure: fans, the MCU producers, advertisers, third-party developers and their applications, other platform companies (e.g., Google and Apple) and legislations (e.g., GDPR and CCPA). I analytically demonstrate how some of these actors shape their negotiation of canon (e.g., the MCU franchise producers) and how fans engage with the platforms' commercial components (e.g., advertisers and sponsored posts). The rest of the actors, like third-party developers and their applications, other platform companies and legislation, shape daily fan engagement in terms of how information is governed, accessed and controlled.

What I refer to as *relational dissonances* can occur among some of these actors (e.g., third-party developers and other platforms) as they, through their entanglement with the platforms, have purposes for engaging with the recorded information other than simply supporting fan engagement on the platforms. These relational dissonances shift the infrastructure by *expanding* and *shrinking* it, which affects fans in their daily information activities. I show the dynamics of the entanglements, exemplified by how a change in the infrastructure impacts all actors involved. For example, regarding the Reddit API controversy I discuss in Chapter 6, I highlight how the API access restrictions affected the third-party developers and their applications as well as many other actors: moderators, users (particularly those with visual and auditory disabilities) and even Google, as much of Reddit's recorded information is indexed in their search engine. These entanglements show how access to recorded information and how it is governed on the platforms are relationally negotiated. My findings on actors' co-constituting dependency on the platforms contribute to research on platform governance, like studies by Robert Gorwa (2019) and other researchers have shown how multiple actors shape how the platform governs the information, aside from the platform companies themselves (e.g., Ghazawneh & Henfridsson, 2013; Helmond et al., 2017; Kim et al., 2016; Rieder & Sire, 2014).

The conditions for fans' information access depend on the involvement of various actors (e.g., the platforms, third-party applications, and Google). I also show how these dynamics affect information governance on the plat-

forms. What recorded information is deemed permissible is shaped by the platforms' content policies and, by extension, by other platforms' content policies. For example, I exemplify how other platforms are involved by showing that Apple's content policies extend into how Tumblr formulates its content policies and moderation. Lastly, these entanglements also implicate ownership and control of information on the platforms, actualizing the role of the legislations of GDPR and CCPA. Like what Dominique Glassman (2020) points out, I highlight how these legislations are challenging to implement due to the entanglements within and beyond the platforms.

The third sub-question is: *How do the conditions of fans' information activities change over time, and how do these changes affect their fan engagement?* In Chapter 7, I focus on the temporal dynamics of fans' information activities by analysing how fans' information activities continuously evolve (e.g., daily and during longer periods) through the conditions created by the various actors forming the infrastructure, as discussed in Chapter 6. I build on Jutta Haider and Olof Sundin's (2021, see also 2019) concept of *infrastructural meaning-making*, which they develop to discern the conditions under which people come in contact and engage with information at given times. What I expand further is how the infrastructure enacted in fan practices constitutes not only a part of fans' meaning-making, but also their experiences of being a fan and user on the platforms. In particular, the infrastructure contributes to shaping what the fans experience as possible to do in their information activities.

Through my findings in Chapter 7, I show how fans' information activities can serve different purposes and contribute to different ends at different points in time by actualizing the same infrastructure. The examples I bring forward are how fans cope with changes in the platforms' developmental trajectory (e.g., removing and implementing features) and sorting, curating and retrieving information through the platforms' algorithms. As Bridget Barrett and Daniel Kreiss (2019) highlight, platform development is spurred by external political and economic pressure. What I expand on further is the temporal aspects, as I show that the possibilities and constraints experienced by fans regarding what they can do on the platforms are continuously being negotiated and changing over time.

In Chapter 7, I also show how the negotiation of experienced possibil-

ities and constraints among fans takes form through the infrastructure, which is enacted normatively, alternatively through what I refer to as *tweaking* the infrastructure (see also de Kloet et al., 2019; Sun, 2019). With the infrastructure's normative dimensions, I underline how certain ways of acting become routinized and taken for granted, which can be established among the fans and prescribed by the platforms. Conversely, when tweaking the infrastructure, I refer to how these routinized ways of acting are sometimes challenged, which creates variations and discrepancies in how to carry out the same activities. This tweaking creates temporal tensions, and maintaining the tweaking is a delicate balance. The continuous tweaking of the infrastructure unfolds in the different ways fans engage with information on the platforms. However, tweaking can be constrained when the variations come to be too many or to diverge too much. For example, fans modify the Tumblr interface through the third-party web browser extension Xkit, which adds and enhances Tumblr's features. Simultaneously, Tumblr continues to develop by removing and implementing features. As shown in my fieldwork, similar features offered by Xkit can be implemented as the platform's default features, rendering Xkit's features obsolete. I discern that what was initially tweaked through third-party extensions becomes consolidated through the infrastructure, changing fans' perceptions of what is possible to do and in what ways (e.g., via a third-party extension or directly on the platform).

With fans' algorithmic engagement in the form of sorting and retrieving information, I show how variations and discrepancies in carrying out the activities create different temporal rhythms and pacing concerning how posts and comments become and stay visible. In particular, my findings highlight how algorithmic engagements shape visibility, not only regarding what becomes most popular and viral, but also regarding creating other temporal rhythms similar to what other researchers have shown in their studies (e.g., Burrell et al., 2019; Haider & Sundin, 2021; van der Nagel, 2018). The algorithmic engagements of fans that I show in Chapter 7 go in line with what Roser Pujadas and Daniel Curto-Millet (2019, p. 282) highlight: "Agency is not only social, and never only the result of algorithmic calculations. It is in the encounter of the social and the technical that realities get constructed and contested".

My findings also point to how fans seek to engage with the newest and most popular posts and comments, but they also stand out in their search and retrieval of older posts. Research into memory-making in online communities reveals how past information can resurface among community participants in ways that create collective forms of nostalgia and reminiscing (e.g., Acker & Brubaker, 2014; Kizhakkethil, 2020; Sköld, 2015). What I expand on further is that the fans tend to engage with both the newest and most popular posts, which reflects more general user engagement on social media platforms. At the same time, the way fans engage with the older posts is specific to fan culture and specifically to MCU fandom, where older recorded information adds to the fans' negotiation of canon, where bringing forward past events and discussions can assist in revising their perceptions of the MCU franchise's past releases while also informing how they should interpret current and upcoming movies and TV series.

Starting from the understanding I gained from addressing the three sub-questions, I answer the overarching research question: *How can understanding the context of fans' information activities on social media platforms assist in developing the archival concepts of provenance and appraisal?* In my answer to the fourth research question, I develop the concepts of cutting and binding context. These concepts emphasize how the construction of context must take into account how meaning is constituted among fans at given moments and across time and space. I argue that it is important to account for the actors, activities and the recorded information I identify in the empirical chapters (Chapter 5 through 7). By cutting and binding context, the phenomena preserved are left ontologically open, like my study's empirical example of MCU fandom. With ontologically open, I am referring to what Lucas Introna (2013, p. 332) describes as being in a state of becoming, where the phenomenon is continuously emerging and changing. What I particularly emphasize is how preservation should reflect the fact that meaning changes over time among fans, fan communities and platforms.

The notions of cutting and binding context move beyond establishing a static and encompassing representation of fan culture through preservation that risks reducing it to a single logic. Drawing on Karen Barad's (2007, see also 2014) concept of agential cut, the notion of cutting refers to demarcating what is included and excluded as context information

when preserving specific engagements in fan culture as well as other modes of participation on platforms. Cutting context is not definite, as it does not set and determine permanent boundaries, but it defines where it is meaningful to draw a line around fan engagement's contextual scope at a given time. The cut provides relative stabilization and predictability concerning what entails context, but is also open to change over time. Cutting context is mutually constituted with what becomes bound in context. With the concept binding context, I am drawing on Pernille Bjorn's (2012) concept of bounding practices. Bjorn develops the notion of binding related to what people, technology and objects (e.g., recorded information) are necessary for a practice to be realized. What I expand further is how the act of binding constitutes what is meaningful to include as context information at a given time in preservation.

In the following two sections, I delve deeper into answering the overarching research question. My discussion is divided into two themes: *binding meaning* and *cutting across time.* I discuss the concepts related to the situated, relational and temporal aspects of fans' information activities and their implications for the archival concepts of provenance and appraisal.

Binding meaning

Binding takes into account context information regarding what actors (e.g., fans and the platforms, among others) and recorded information are necessary for the information activities to be realized and how these actors and recorded information contribute to realizing the activity. What is crucial to acknowledge when binding context is how the same and similar activities can vary and even be contradictory in purpose, making different ways of binding context possible.

The notion of provenance defines the context of recorded information's creation and use, emphasizing the creator's perspective. As I highlight in Chapter 2, several researchers have shown that the notion of provenance must be expanded beyond the focus on the creator, pointing out the risks of constructing a static and unidimensional representation (e.g., Glassman, 2020; Hurley, 2005a, 2005b; Upward et al., 2011). A running theme across these understandings of provenance is recognizing that the recorded

information serves different purposes for different people, and several parties could be involved in its creation and use. Building on these perspectives, I contribute by moving the focus to the activities themselves and how the same or similar activities can be carried out differently, implicating the meaning of the recorded information. As I exemplify in Chapter 5, the different ways of voting and tagging make it difficult to pinpoint how an activity was carried out that led to recorded information being created or used. As Haidy Geismar (2016, p. 334) highlights, platforms' data-generative features co-opt "local expressions" into "recognizable generic forms". With voting, for instance, the voting data underscore that voting took place, but they do not offer insights into how the voting was carried out (see Acker & Kriesberg, 2017, 2020). As I show in Chapter 5, voting can be based on relevance (e.g., whether it is relevant to the subreddit's topic) or opinion (e.g., whether the voter agrees or disagrees with the proposition stated in the post's or comment's content).

As I show in Chapter 5 and 7, the same activity and recorded information can serve different purposes at given points in time, not only among fans but also between fans and platform companies. These differences across time are crucial to acknowledge as part of the recorded information's provenance. Returning to my example of voting, what must be considered is that there are certain assumptions about how voting is done, as prescribed and documented in the platform instructions and community guidelines. I argue that the context information extracted from these types of platform documentation, describing how features (should) be used, only provides one potential binding of context. A parallel can be drawn between my findings and Isto Huvila's and the CAPTURE project's concept of paradata, which identifies context information starting from existing preserved material, which offers insight into how information is created and used (see also Börjesson et al., 2021; Huvila, 2022; Sköld et al., 2022). As I highlight in Chapter 1 and 2, I draw on a similar approach to identify context information, making the notion of paradata a possible approach to preserving digital fan culture. For example, context information could be extracted from existing posts and comments in the fan communities and platform documentation. However, the notion of paradata might not be enough, as there can be variations in how to carry out the same or similar activities,

but they also change over time. Huvila (2022, p. 42) also recognizes the limitations of paradata by pointing out the need to identify how the same recorded information has been used in different ways and that the context information about use is not "stable in time and space".

It is important to recognize the platforms' commercial interests in the engagement data, or as Ciaran Trace and Yan Zhang (2020, p. 309) stress: "Personal data are treated as a commodified form of knowledge, liberated from and outliving its owner (the data subject) to fulfil a myriad of commercial purposes)". Binding context based on what the platform documentation prescribes might reveal one aspect of how voting is done from the platform companies' viewpoint, but leaves out the perspectives of fans. Expanding on Trace and Zhang's findings, the notion of provenance must account for how the context of fans' information activities, like voting, can be bound in context differently. In this regard, binding context is not a permanent act, but *how* context is bound can change and be different from case to case. Subsequently, binding context entails identifying the possible different co-constituents and how they can be bound in different ways. The different potential ways of binding context must draw on how voting is situated in the discussions and interactions among fans, as well as how the platforms prescribe the activity. That is, descriptions of different voting patterns exist in the platform documentation, and for different types of posts (e.g., discussion, fan work, and news) in the subreddit. Additionally, different posts can encompass one prevalent way of voting (e.g., a controversial topic might make many votes based on opinion), but different ways of voting can also intersect in one and the same post.

Understanding provenance through binding context also implicates how one can approach appraisal by identifying what recorded information should be included when preserving. As I highlight in Chapter 5, tags are not simply ways to categorize and retrieve content, but also constitute one form of communication aside from posting and commenting on Tumblr. Binding context in different ways to capture variations in the same and similar activities shows how different recorded information becomes meaningful for fans, like the information in tags, which can be metadata for posts (e.g., enabling retrieval); it also sheds light on how fans interact with each other. I argue that the notion of appraisal must have situated

activities among fans as a starting point, which supports Peter Botticelli's (2000), Kit Hughes's (2014) and Isto Huvila's (2019) understandings of appraisal. In different settings, ranging from businesses to government bodies and data management in research, these researchers argue that understanding engagement with the recorded information can offer guidance on what is necessary to include in preservation. I particularly emphasize that the same approach to appraisal must be taken with fan engagement on platforms. A parallel can be drawn to Jessica Ogden (2022), who aptly illustrates the importance of having insight into the communities whose recorded information is potentially preserved to grasp what might be necessary to preserve. With the example of Archive Team's ad-hoc efforts to preserve Tumblr content during the Tumblr porn ban in 2018, Ogden highlights that, due to the lack of knowledge of the Tumblr communities' context, data generated from comments (i.e. note replies) and the like were disregarded.

My findings also highlight the various actors that the notion of provenance must be able to account for when preserving fan culture or other modes of participation in digital culture. With actors, I am referring to the fans, platform companies, advertisers and MCU producers, as well as technologies and objects, like the recorded information, third-party applications, the MCU franchise, and the platforms' algorithmic and data-generative features. However, as I highlight in Chapter 3, rather than understanding the distinctions between human and non-human actors as predefined, I do not perceive these distinctions as given, in that what is grasped as human or non-human is mutually constituted by the social and technological. This sociomaterial understanding has implications for how I understand the co-constituents necessary to bind context. By extension, my understanding also informs what counts as an actor to incorporate into the notion of provenance.

As I show in Chapter 5 and 6, the MCU franchise and its producers are crucial co-constituents to bind in context if one wishes to show the multifaceted character of fan culture. I highlight how fans engage in the fan communities, their relation to the media product, and the product's producers, which are important aspects to consider. My findings show that fan engagement is mutually constituted with the platforms' techno-

logical capabilities, making them important co-constituents to bind in context. For example, as I show in Chapter 7, fans' social interactions must be understood in light of how the platform algorithms play into fan engagement, particularly how the activities and algorithms co-constitute and co-evolve. A parallel can be drawn to Olle Sköld (2018a), who identifies players' engagement in video game communities as important context information to include in the preservation of video games, which he exemplifies with the documentation efforts of videogame communities (see also Dym et al., 2023). I agree with Sköld (2018b), who argues that there is a need to broaden the preservation scope to what the players do with videogames and documentation from the game industry. However, I also underline the importance of accounting for the technological aspects of the communities' endeavours when preserving. Starting from my findings in Chapter 7, I suggest that the notion of provenance should expand its scope from predominantly human actors to other actors, like algorithms, binding together several co-constituting actors in context. Here, I find support from James Hodges and Ciaran Trace (2023), who approach the matter from the opposite end, highlighting that the preservation of algorithms must account for how users engage with algorithms. I elaborate further in my findings on how to approach algorithmic engagements in certain settings, like among fans, where their algorithmic engagement becomes part of their fan engagement.

I further suggest that the scope of provenance should extend to actors that are not directly tied to fan engagement but are present on the platforms. As I show in Chapter 6, these actors include advertisers, third-party developers, third-party applications, other platforms and legislations. What I emphasize is that provenance should not only account for the presence of these actors but also how they are shaping fans' information activities. For example, as I discuss in Chapter 5 regarding content moderation, the notion of explicit content is negotiated among several parties, including the platforms, moderators, advertisers and fans. In this regard, my findings have similarities with those of Dominique Glassman (2020), who argues for attending to third-party actors (other than users) on the platforms who also use the recorded information, but I emphasize as well the importance of understanding how users are involved.

Another example concerning explicit content can be found in Chapter 6, where I show Apple's role in shaping content moderation on Tumblr, where the entanglement of different platforms makes it difficult to demarcate where one platform company's responsibility ends and where the other begins. Including both Apple and Tumblr as co-constituents to bind in context creates nuances in the conditions on which content moderation rests. Binding Apple as a co-constituent in context shows how the platform not only moderates content due to its legal liability, but there is also pressure from other platforms. In turn, identifying the co-constituents in this manner sheds light on how to approach the notion of appraisal. The co-constituents guide what additional recorded information—beyond what fans create and use—should be included in the scope of preservation. For instance, in the case of Apple and Tumblr, the content policies of Tumblr and Apple could assist in shedding light on the conditions under which fans' posts and comments are moderated.

I argue that the notion of provenance must account for binding context in ways that identify the co-constituents forming the infrastructure actualized in fans' information activities, namely, actors that are beyond what is present in the fan communities. Subsequently, binding co-constituents in context has a relational dimension. I emphasize that binding context through the notion of provenance should not only list which actors to include, but also how each actor shapes binding and how the context itself changes with each co-constituent bound in context. My findings reflect Ciaran Trace's (2024) approach to the notion of provenance, where she draws on the metaphor of a home. To situate recorded information in a broader context, Trace shifts the focus from individuals to the internal and external relations formed within and outside the home. She exemplifies how the internal connects to the external in terms of the corporate entities that generate and collect data through the technological devices that are present in a home (p. 569).

Altogether, binding context is an act conducted at specific moments in time by the archivist. For example, what is considered canon or "explicit" content is different depending on what recorded information the archivist comes across at a given time. Depending on when the co-constituents are identified and bound in context, different representations of the fans' in-

formation activities come forward. For example, the fans' interpretation of the MCU movies and TV series changes over time. How fans relate to the MCU franchise can look very different depending on what is in focus, namely, what fans are involved, the fan community's current constellation, the specific movie or TV series or even the current form of the MCU franchise (e.g., the Infinity Saga or the Multiverse saga). How the temporal aspects of fans' information activities implicate the notion of provenance and appraisal is further discussed in the following section, where I focus on how context is cut.

Cutting across time

Cutting context entails drawing boundaries that define where the binding begins and ends, constructing the limits of what is defined as provenance and demarcating what should be included and excluded through appraisal. Like binding, where and when to place the cut in context rests on understanding fans' information activities and what makes these activities meaningful for fans. Inevitably, the cut constructs a snapshot of fan engagement as it appears for the archivist at a given time. These snapshots are unavoidable, but as I argue, the cut in context to construct the snapshot should not be understood as definite or given.

What I suggest is that the preservation of digital fan culture must be iterative. I argue that the way context is cut in each iteration also alters the constitution of context and, ultimately, the representation of the phenomena in the preserved recorded information. Several other researchers have also stressed the need to undertake preservation iteratively, particularly in web archiving, where they suggest taking iterative snapshots of websites to capture how they develop over time (e.g., Brügger, 2018; Dougherty & Meyer, 2014). However, several researchers have shown that there are challenges in capturing context information in ways that aid future use and understanding of the web-archived material, including decisions made in the preservation process (e.g., Maemura et al., 2018; Post, 2016). In this regard, my argument concerning cutting context iteratively resonates with the ideas of Lizhou Fan and colleagues (2022), who state that the preserved material must be iteratively redescribed (e.g., the material's provenance)

and reappraised to follow the dynamics and changes unfolding on the platforms.

The change in context through iterative cuts raises questions concerning how to ensure the authenticity of the recorded information. As I highlight in Chapter 2, the notion of authenticity, as understood in archival research, refers to ensuring the records' evidentiary value in terms of being what they claim to be and is often stressed by archival researchers (e.g., Duranti, 1995; Duranti et al., 2022; Rogers, 2015). Corinne Rogers (2015, p. 8) highlights that the notion of authenticity rests on capturing context information that discerns the recorded information's provenance. However, several researchers have noted that authenticity tied to recorded information on platforms is difficult to maintain due to their dynamic character (e.g., Acker & Kriesberg, 2017, 2020; Glassman, 2020). I argue that the previous understanding of authenticity in archival research is challenging to apply to preserving fan engagement and other modes of participation on platforms, as authenticity rests on an understanding of provenance as static and monolithic. As I highlight in Chapter 7 concerning the temporal dimensions of fans' information activities, the changes and continuous evolvements in fan engagement call for understanding provenance as cuts that momentarily stabilize context rather than identifying pre-defined limits. Old posts and comments can resurface in fans' discussions, which assist fans' interpretation of past, current and future MCU releases. In turn, gaining new information from the new MCU releases assists the fans in revising their interpretations of past releases. I show how fans' meaning-making evolves in line with how the MCU franchise changes, where particular ways of perceiving certain releases, plots or characters are continuously revised by the fans.

I argue that the notion of provenance and, by extension, authenticity must be developed in ways that follow how fan engagement moves across time. It calls for taking a different approach to time and how it plays into the ways in which information is created and used. I find that a linear approach to time is not sufficient in delineating provenance when preserving fan engagement on platforms. A parallel can be drawn to Kimberly Anderson's (2013) critique of linear, sequential and even cyclical understandings of time in archival research. Anderson argues for an alternative approach, where she draws inspiration from non-Western perspectives of time by fo-

cusing on the so-called "eternal present" that "reflects a constantly moving target" (p. 11). The eternal present, as Anderson describes, has no temporal endings (e.g., what delineates past and present) and consists of "the continued enactment and performance of processes through time" (p. 24).

In Chapter 7, I show different temporal rhythms and pacing through fans' algorithmic engagements, as well as how older recorded information is employed in fans' discussions. These temporalities do not conform to the more linear and sequential temporal trajectories of recorded information in other more nominally structured domains of information, for example, in organizations with defined processes (Bettivia et al., 2023; Botticelli, 2000). Understanding fan engagement as a moving target, I emphasize the need to conceptually delineate provenance in a similar manner. That is, context must be continuously cut. I argue that perceiving the notion of provenance as a moving target can better capture engagement that does not conform to temporal linearity with a clear beginning and end, such as how fans engage with past discussions in the fan communities.

The emphasis on iterative cuts in context also raises the question of frequency concerning when it is necessary to cut context, and how often. New cuts in context can be scheduled in advance. Indications of the need to cut context again can derive from upcoming implementations or removals of features that are usually announced in advance and reported by journalists (e.g., the announcements and journalistic work surrounding the Reddit API change and the removal of Post+ in Chapter 6 and 7). Alternatively, suppose such changes are not announced. In these cases, indications of change might show in fans' information activities or become a topic of discussion among the fans (e.g., the ban of specific tags discussed in Chapter 6). In this regard, iterative cuts in context also shed light on how the notion of appraisal should be approached related to changes. Making new cuts in context marks what recorded information is necessary to further include in preservation. For example, if it concerns removing or implementing a feature, important context information could be identified in specific platform documentation, as well as how fans engage with the feature.

With the iterative cuts in context, "temporary absences", as Trace and Zhang (2021, p. 201) point out, are inevitable. With temporary absences,

Trace and Zhang refer to gaps in the preserved material, which leaves unexplained how the recorded information is created and used on certain occasions or during certain time periods. Although I argue that the notion of provenance can be enriched in many ways to account for how fan engagement unfolds on the platforms, I also emphasize that the context constructed cannot encompass every aspect of fan engagement. One example is the platform algorithms. Capturing algorithmic changes when preserving fan engagement in the fan communities becomes impossible as it constantly evolves in the fans' individual feeds based on their engagement. Returning to what I argued in the previous section, the notion of provenance should account for how fans engage with algorithms. Attending to activities where the algorithms are actualized (e.g., sorting and curating information) becomes a relatively stable starting point for understanding how the algorithms are situated among the fans.

As I show in Chapter 7, the algorithms become meaningful in fans' interactions with each other as part of the fan community. Subsequently, I argue that temporary absences can be approached productively. Based on my findings concerning fans' algorithmic engagements in Chapter 7, I agree with Trace and Zhang's (2021, p. 205) suggestion that one should perceive contextual gaps as meaningful. Building on their findings, I perceive contextual gaps as a stepping stone to understanding the rhythms and patterns of fan engagement in the fan communities. The iterative cuts in context do not follow a set rhythm. Instead, the cuts' frequency can ramp up or slow down in pace depending on how change unfolds in the fan communities or on the platforms. For instance, the cuts can change in frequency in line with the release of an upcoming MCU movie or a change implemented on the platforms.

In sum, my approach of cutting and binding context sheds light on how the archival concepts of provenance and appraisal must be developed when preserving fan and digital cultures in general. Cutting and binding context directs attention to identifying how fans' information activities come to be meaningful. The approach entails mapping the co-constituents in realizing these activities and how the co-constituents can change, as fan engagement and other types of engagement on the platforms are a moving target. In the following section, I present the thesis's conclusions, which

focus on what a sociomaterial outlook on the notions of provenance and appraisal, as well as the archivist's role in preservation, entails for capturing fan engagement and, by extension, modes of participation in digital culture for the future.

Conclusions

In the present section, I draw three conclusions for researchers and archivists based on my findings in the thesis. The first two conclusions address how a sociomaterial outlook on the archival concepts of provenance and appraisal can be adopted to preserve fan engagement on social media platforms. I present how the notions of provenance and appraisal should be approached as theoretical constructions in archival research and offer suggestions for operationalizing them in archival practice, specifically providing a framework for conceptually grasping and defining fan engagement and, by extension, modes of participation in digital culture. Although I do not outline practical strategies for preservation, I underscore the need to understand the phenomena in particular ways to define context, which assists in identifying what recorded information to preserve and what information to include in the archival descriptions and metadata that could enable future access, use and understanding of the preserved material. Finally, I present how a sociomaterial outlook, by adopting the concepts of cutting and binding context, contributes to positioning transparency as a key component of the archivist's work.

Shifting provenance

I call for research to approach the notion of provenance in ways that can account for fans' or other actors' meaning-making. I particularly emphasize acknowledging how the various actors create conditions that enable fan engagement on the platforms to become meaningful over time. I stress the need to conceptually approach the notion of provenance not as a stable and static entity, but as *shifting*. I perceive provenance as a moving target that should follow the movements of the phenomenon it defines and delineates. I suggest embracing the shifting character of the phenomena in

focus for preservation, like fan engagement on platforms. Understanding provenance as shifting follows how a fandom changes, particularly accounting for how fan engagement on the platforms is dynamic, where different actors are actualized in specific activities and how these conditions evolve over time. I argue that the provenance must move beyond conceptualizations anchored in causation or contextual layering, where there is a core (e.g., the immediate context) and a periphery (e.g., complementary context information). Here, the actors risk becoming represented as either determining factors or appendages. By approaching provenance through cutting and binding context, I emphasize the need to account for the specific conditions that are at play in realizing an activity at given points in time, but also how these conditions can change.

For archivists, approaching the notion of provenance as shifting consists of focusing on how the fan engagement of a specific fandom can differ across different fan communities on different platforms. It is important for archivists involved in fan-focused preservation efforts to attend to how fan engagement unfolds (with its variations and discrepancies) and who else is involved besides the fans. To be able to identify crucial context information, archivists need to gain an understanding of the fan communities, starting from how the fans undertake their daily activities. A preservation effort of this calibre will take time, as it not only requires continuous visits, given that fan engagement changes over time, but it is also vital to establish contact and involve the fan community in these efforts.

Moreover, it is crucial to map the specific conditions for the fan communities in terms of other actors involved in fan engagement. As I have shown in the thesis, this does not only concern actors who are directly involved with fan engagement per se (e.g., the MCU franchise and its producers). There are also other actors who create conditions for fan engagement to emerge on the platforms, including advertisers, third-party actors (e.g., third-party developers, applications and other platforms) and various legislations (e.g., GDPR). Therefore, important context information can also be found in platform documentation (e.g., terms and services and policies). In addition, announcements from platform companies and other sources found beyond the platforms can also shed light on the conditions for how fans create and use information. These investigations need

to be conducted in conjunction with understanding how the actors are present in the fan engagement, for example, how a third-party application provides fans access to the platforms. Archivists undertaking preservation efforts must reassess the context information defined in light of significant changes or events to identify further aspects to cover. For instance, significant changes could include the implementation or removal of platform features and newly released media products.

Situated appraisal

Identifying what recorded information is necessary to preserve can differ depending on when and what information activities among fans act as the starting point. I argue that appraisal should be conceptually understood as *situated*. What is identified as meaningful to preserve depends on what activities are in focus. Situated appraisal addresses what recorded information should be preserved, more so, than defining and delineating relevant context information through provenance. At the same time, approaching appraisal as if it were situated is closely intertwined with the notion that provenance is shifting. In particular, to know what recorded information should be preserved, the context of the phenomenon, like fan engagement on platforms, needs to be defined and delineated. Identifying what is meaningful to preserve must also follow fan engagement, with a particular emphasis on how their information activities become meaningful for those involved. For example, as I show in the thesis, fan engagement within the same fandom can look different depending on what fans, fan communities and platforms are examined. What might be meaningful ways to act can be different and change among fans.

   There is also a relational aspect to consider, because there are variations and discrepancies in how fans and other actors engage with the recorded information. These different engagements with the recorded information shape what can be perceived as meaningful to preserve. I stress that it is necessary to not simply conform to the definitions made by the platforms, nor to how platform features are actualized in the fans' information activities. Instead, appraisal should account for how various actors perceive the same recorded information and the dynamics between different percep-

tions (e.g., how explicit content is negotiated). Through cutting and binding context, the notion of appraisal should account for identifying what is made meaningful at a given point in time by different actors, but also recognize that meaning is not static and can change.

For archivists, a situated approach to appraising fan engagement must be anchored in an understanding of provenance and its shifting character. By establishing contact with the fans and following how they engage with information in the fan communities, archivists can identify where to cut in context in terms of what types of recorded information should be the focus of the preservation effort. Starting from an understanding of how fans' information activities are realized through these activities' co-constituents, archivists would also be able to map what other actors' information must be included in preservation. As I discuss in the thesis, materials like platform policies, terms of service, announcements and information sources from other actors can offer an understanding of the conditions of fans' information activities. However, it is also important to disclose *how* the actors are involved in the fans' information activities and not simply rely on either the fans or other actors' accounts. In other words, the archivist must consider the variations in how context is bound to avoid falling into deterministic explanations of the preserved recorded information. Following the notion of shifting provenance, appraising fan engagement must be undertaken iteratively to identify what other recorded information must be preserved in light of recent changes and events.

A sociomaterial outlook on preservation

Through a sociomaterial outlook, I perceive that the notion of preservation has its own onto-epistemological implications for the future. With the notion of onto-epistemology, I am referring to how preservation shapes what should be remembered and forgotten from the past and present, which impacts future knowledge and perceptions of the world. As I discuss in Chapter 2, several archival researchers call for transparency in archival work (e.g., Cook, 2001, 2011; Duff & Harris, 2002; Hegarty, 2022). I contribute to this body of knowledge with my conceptual approach to constructing context through cutting and binding. Using this

approach, the archivist is made visible as acts of preservation illustrate the mutually constitutive relation between the archivist and what is preserved. Through preservation, how a specific phenomenon targeted for preservation appears shapes how the archivist understands and approaches its preservation, while mutually constituting how the phenomenon is captured and represented in the preserved material for future use and interpretation, from which knowledge can be gained. At the same time, while the cutting and binding context provides momentary stabilization in representing the phenomenon targeted by preservation, the cuts and bindings in context are not definite; they could have been different had they been conducted by the archivist during different sociomaterial conditions at other points in time.

Momentarily stabilizing context through cutting and binding brings forward an ethical dimension. As I highlight in Chapter 2, archival researchers stress the need to acknowledge and account for the ethical dimensions of preservation, particularly, how to protect the information privacy of individuals whose recorded information is preserved and how to balance this protection with access (e.g., Agostinho, 2019; Dalgleish, 2020; Hamer, 2018; Mkadmi, 2021). In this regard, through a sociomaterial outlook, I perceive that the notion of preservation should be further understood as what Karen Barad (2011, p. 150) calls an *ethico*-onto-epistemology to accentuate the archivist's ethical responsibility in constructing representations of the past and present. The ethical concerns regarding how and what to preserve are inseparable from the knowledge and perceptions of the world that archivists and archives produce. In the setting of quantum physics, Barad (2011, p. 150), by developing the notion of ethico-onto-epistemology, argues that the agential cut made in what becomes the observer and the observed object raises ethical dimensions. The agential cut heightens the researcher's responsibility and obligation to follow up on the ethical demands of what they have constructed. With ethical demands, Barad is referring to how the researcher must make the cut visible in terms of how it contributes to shaping knowledge and how the world is perceived.

Building on Barad, I also stress the need to signal the ethical responsibility of archivists in constructing context when preserving digital fan cul-

ture or any modes of participation in digital culture (see Drouin, 2021; Marsh & Lerner, 2024; Ogden, 2022). Based on my findings tied to the moving boundaries of what "content", "data", and "explicit" content entail, I address the ethical aspects of constructing context related to how definitions, categories and labels, as described in the platforms' policies, cannot be taken for granted, but rather, need to be problematized (see Bonde Thylstrup et al., 2024; Bowker & Star, 1999; Edwards, 2019). I argue that the ethical responsibility of archivists starts from constructing context in ways that do not reproduce definitions made by the platforms, or, as Wendy Duff and Verne Harris (2002, p. 283) emphasize, "replication of the power relations", but rather in ways that, break the cycle of control. Therefore, by approaching preservation as an ethico-onto-epistemological effort, I emphasize that preservation must shed light on the phenomenon captured and the conditions shaping it. Cutting and binding its context is one step forward in such an effort.

Limitations of the study

In this section, I discuss how the study's aims, theoretical framework, and methodological operationalizations impose certain limitations on the thesis's epistemological contributions. For the study, I have made certain demarcations of the field sites to make the phenomena I studied graspable and observable through my ethnographic fieldwork. Choices have been made regarding what to include in terms of feasibility and what material I can collect through ethnographic methods that are also theoretically, ethically, and epistemologically sound. These choices have influenced how I conducted my fieldwork and the materials I generated, shaping the salient aspects of the analysis and what came to be the findings. Through these demarcations, I was able to shed light on the dynamic and multifaceted character of fan engagement on the platforms and how understanding these aspects can assist in developing how to approach and identify context information when preserving fan engagement and, by extension, other modes of participation on platforms. In particular, MCU fandom, Reddit, and Tumblr offer important insights into preservation tied to large fandoms, as well as user engagement overall, on these specific platforms.

I have focused less on the technical aspects of the platforms and on specific elements of fan engagement, particularly the creative outputs such as drawings, fan fiction, and other works often associated with fan culture. Instead, as informed by a sociomaterial outlook, I have focused on how the platforms and other actors are actualized as an infrastructure in fans' information activities in and through fan practices. This theoretical focus has contributed to identifying how recorded information is shaped in these settings, offering an in-depth account of fan engagement on social media platforms. The study's theoretical and methodological focus shed light on how preservation initiatives directed at fan communities on platforms must consider the entangled state of the recorded information, where the platforms neither determine nor facilitate the engagements.

In my study, I pay little attention to the social backgrounds of the individual fans in my fieldwork and the material generated. Emphasizing meaning-making rather than social backgrounds has been a conscious decision informed by the study's aim and theoretical framework, where I have worked against approaching and understanding my empirical settings through the lens of causes and effects. My emphasis has been on examining fans' meaning-making as enacted through their information activities on the platforms, which focuses on what fans do on the platforms and as part of becoming fans and fan community participants. Although the social backgrounds of fans can be explanatory in some regards, I avoid discussing fans categorically. By prescribing specific social categories to the fans, their practices risk being locked into specific interpretations. At the same time, as I highlight in Chapter 3 and 4, I make agential cuts myself (see Barad, 2003). I have continuously reflected on these agential cuts in the said chapters, spurring the concepts I developed as my findings: *cutting* and *binding* context. This theoretical approach demonstrates not only how to productively identify and define context information for preserving digital fan culture, but also emphasizes that the definitions and boundaries of what context entails are conscious acts carried out by the archivist at specific points in time.

Ethnographic knowledge is a specific form of knowledge. Ethnography seeks to establish what Clifford Geertz (2008 [1973]) denotes as "thick de-

scription" by getting close to the local meanings and experiences rather than offering a holistic representation. The ethnographic sensibility shapes what I have done in my fieldwork and what epistemological claims I can make. The ethnographic material I generated for the study is dependent on individuals who were kind enough to let me interview them, as well as the discussions that unfolded during the times I chose to do fieldwork. Because my fieldwork was conducted through the platforms' interface, I did not focus on the technical details and operations of more opaque platform components, such as the APIs and algorithms. My fieldwork on these components was based on how the platform documentation describes them in their terms and policies, and how they are actualized in the fans' information activities. Starting from how I emphasize fans' meaning-making in this study, I argue that the ethnographic sensibility allows for a more embodied experience, learning about how information emerges in these settings, drawing on what we do with technology (see Hine, 2015).

Timing also played a significant role. For instance, the Reddit API changes occurred after I finished my fieldwork, but the impact of the API change necessitated a brief return to the fieldwork. My examination of the fans' meaning-making as observed in their information activities has not been intended to offer an "objective" account of how fan culture is expressed on social media platforms. At the same time, I argue that the rich research material generated from my fieldwork—ranging from interviews and field notes to platform documentation—offers valuable insights into the local setting of MCU fandom as expressed on Reddit and Tumblr. This material also points to broader trends in how fan culture is articulated on platforms, as well as the modes of participation in digital culture that are entangled with algorithms, data-generative features, and the commercial logic of platforms. Most importantly, my study emphasizes the need to develop preservation strategies that address the dynamic and changing character of fan culture, as well as digital culture more broadly. Additionally, my study provides suggestions on how to approach these challenges.

Suggestions for further research

Several potential paths for future research take form through the thesis's findings. One potential path for further research is to develop the notions of cutting and binding context, anchored in different empirical work. A study of this kind could focus on the empirical settings of online communities other than those I discuss in the thesis, which could enrich the concepts and provide further knowledge. It could be interesting to develop the concepts in line with other collectives or community formations that focus on other topics, including video games, politics, or any other interests that cause people come to together. In particular, the notion of cutting and binding could be enhanced by attending to social formations on other social media platforms, particularly platforms with more distributed and individualized characters, like TikTok, as well as tied to other phenomena in digital culture, like content creation and influencers. Subsequently, the ethical dimensions of cutting and binding context could be developed in relation to notions of sensitivity by examining sensitive settings and how context can be cut and bound in ways that consider concerns related to the information privacy of individuals.

Further research is needed to develop archival theory and practices related to fan engagement. A natural progression from my study would be to examine how adjacent concepts, such as the notion of paradata (e.g., Huvila, 2022; Huvila et al., 2025; Sköld et al., 2022; Trace & Hodges, 2024), could be developed to study fan engagement. Subsequently, broadening the methodological scope beyond the ethnographic approach could generate further knowledge about the more datafied aspects of fan culture. Specifically, a mixed-methods approach that incorporates computational methods could assist future studies in addressing the preservation challenges of fan culture (e.g., Naik, 2024; Vadde & So, 2024; Zhou, 2024), particularly tied to material collected through web archiving (e.g., Mackinnon, 2022) and machine-learning preservation methods (e.g., Fan et al., 2022). These methods are particularly relevant given the data on fan engagement obtained from platforms' APIs. These investigations would also benefit from attending to the challenges of preserving fan engagement tied to API access restrictions imposed by social media platforms (e.g., the Reddit API change).

Similarly, the concept of cutting and binding context could be developed by expanding the methodological scope to incorporate computational methods. Taking different methodological approaches would help clarify aspects of data fandom (e.g., Yin, 2020; Zhang & Negus, 2020), critically examine fandom metrics (e.g., Maris & Baym, 2022; Napoli & Kosterich, 2017; Zhao, 2021; see also Lewis, 2024), and how to cut and bind the context of large datasets concerning fan engagement. This conceptual work could also benefit from cross-articulation with bodies of knowledge from critical data studies and data feminism (e.g., Bonde Thylstrup, 2022; D'Ignazio, 2022; Loukissas, 2019; Ogden et al., 2024; Posner & Klein, 2017). Such a cross-articulation would facilitate a deeper investigation into the quantifiable aspects of fan engagement on various platforms and help strengthen ethical notions of fans' information privacy related to data usage (e.g., af Segerstad et al., 2017; Dym & Fiesler, 2020).

Finally, conducting empirical work to operationalize this study's conclusions would be crucial to developing guidelines and concrete tools for archivists. Studies into this venture would enable the preservation of richer materials of present fan engagement and other participatory forms of digital culture to be captured for future generations.

9. Postscript

In this section, I would like to devote the last part of the thesis to discerning the current state of the MCU franchise, Reddit and Tumblr, offering a glimpse of how the infrastructure of fan culture is always in motion. Following the MCU franchise's commercial success with the Infinity Saga, with its concluding act, Avengers: Endgame (2019)[27], Marvel Studios ramped up and intensified its release schedule. From 2019 to the first half of 2025, thirteen MCU movies and twelve TV shows have been released as part of the ongoing Multiverse Saga, where the Marvel Universe has transitioned to a Multiverse encompassing multiple yet interconnected universes, with an ever-growing repertoire of characters. Recent MCU movies and TV shows have received varied reviews and box office sales have been lower, which various news and media outlets have interpreted as a growing tendency towards "superhero fatigue" (Hughes, 2024; Phillips, 2023; Pulver, 2023). However, with the recent release of "Deadpool and Wolverine" (2024), the franchise' only movie release in 2024 (which got favourable reviews) and projects in 2025 like the reboot of Fantastic Four among others releases, news sources point out that Marvel Studios still have a chance to revitalize the MCU franchise (Bradshaw, 2024; Debruge, 2024; Kit & Couch, 2024; Taylor, 2024; Whitten, 2023).

Turning to the platforms, since Reddit's API change in mid-2023, the number of third-party applications has drastically declined. As the journalist Scharon Harding (2024) reports, several third-party applications like Narwhal, Infinity, MultiTab Nara and Relay still operate in paid versions,

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27 In 2019, Avengers: Endgame became the highest-grossing film of all time internationally based on ticket sales. However, it was later surpassed by Avatar after it was re-released in China in 2021. The re-release in China allowed Avatar to regain its position as the globally highest-grossing film (BBC News, 2021; Whitten, 2021).

while few apps remain free as these manage to operate under the rate limits as well as exemptions made for accessibility-related apps like Dystopia, Luna and RedReader. With Reddit's IPO debut on the New York Stock Exchange (NYSE) in March 2024, Elizabeth Lopatto (2024) highlights that Reddit has tried to offer stock shares to "qualified users", those with enough karma or who have spent enough time as moderators to mend their relationship with the Reddit communities. However, Lopatto points out how the stock offering to Redditors also minimizes the risk of them revolting against the company as they did during the Reddit Blackout, which is an effort the Redditors remain sceptical of. As Lopatto highlights, "its [Reddit's] model of community moderation has upsides—it means that the 60,000 mods are more familiar with their community than contractors would be. But Reddit doesn't pay them, and thus, will have a harder time controlling them".

Reddit's user engagement keeps increasing. In Reddit's (2024b, p. 2) letter to shareholders for the second quarter of 2024, Reddit highlights 91.2 million "daily active uniques", which entails "an all-time high and an increase of 51% year-over-year" (Peters, 2024a). Subsequently, Reddit is becoming increasingly viable for advertisers and publishers due to the increased traffic (Sato, 2024a). Other developments include making further access restrictions on unlicensed data scraping (Heath, 2024a, 2024b; Roth, 2024b), requiring that moderators request making their subreddits private (Peters, 2024b) and introducing the pipeline of a new AI-powered search feature called "Reddit answers", which summarizes content found across the platform, rendering unnecessary the usual detour via Google not needed (Peters, 2024c).

After the Tumblr porn ban, New York City's Commission on Human Rights (CCHR) filed a lawsuit against Tumblr, emphasizing that the ban would have a disproportionate effect on Tumblr's LGBTQ communities (Robertson, 2022a). CCHR and Tumblr reached a settlement, forcing the latter to revise its processes for content moderation, including hiring an expert on sexual orientation and gender identity issues to assist with the revisions (Robertson, 2022a). Whereas Reddit seems to be expanding, news and media outlets have pointed out that Tumblr is downscaling as the platform failed to meet its growth targets of 2019 (Hindy, 2023; Rob-

ertson, 2023; Rosenberg, 2023), including moving Tumblr's backend to WordPress (Perez, 2024). Like Reddit, Tumblr has also made deals with the AI companies OpenAI and Midjourney, allowing them to use Tumblr data to train their AI models (Robertson, 2024a). On the other hand, Tumblr also launched an opt-out feature from AI data scraping (Robertson, 2024b). At the time of my writing in March 2025, Tumblr recently introduced a community feature, enabling Tumblr participants to make topic-based groups similar to subreddits (Sato, 2024b), and Tumblr plans on launching an experimental GIF feed (Davis, 2025).

Amidst these changes and developments, MCU fan communities are constantly shifting. They are not only influenced by changes in their infrastructural conditions but also by the evolving character of the fan communities themselves, whose composition and size fluctuate over time. Although the MCU franchise continues to churn out movies and TV shows, albeit at a slower pace, how do these twists and turns in the franchise's fluctuating popularity and changes in its form reflect fan engagement with the franchise? What do the continuous evolvements of the platforms entail for the fan communities? What does AI companies' access to data enabled through the platforms entail for future negotiations on information access, governance, and ownership? How will these AI collaborations shape the fans' information privacy rights? How these developments will unfold and shape MCU fandom, fan culture, and digital culture overall remains to be seen. In bewildering times of social acceleration and technological advancements, preserving traces of contemporary modes of digital cultural participation as they unfold through digital technologies is crucial to keeping alive the future memories of the present.

Svensk sammanfattning

Samtida fankultur, såsom den tar sig i uttryck på sociala medieplattformar skapar stora utmaningar för digitalt bevarande. Med fankultur menar jag gemenskaper som växer fram runt de kollektiv som hänger sig åt populärkultur (t.ex. tv-serier, filmer eller böcker) (Duffett, 2015; Jenkins, 2013 [1992]). För bevarande är det ytterst viktigt att fånga information om kontext, specifikt benämnt som *kontextinformation* [context information], för att möjliggöra framtida tillgång, användning och tolkning av det bevarade materialet (Faniel et al., 2019; Huvila, 2022; Huvila et al., 2021). Kontextinformation kan bidra till att förklara hur fans beter sig på sociala medieplattformar och hur informationen som de skapar, använder, delar och får tillgång till blir meningsfull i deras dagliga deltagande i fangemenskaperna. Dock är det svårt att synliggöra och identifiera kontextinformation på grund av plattformarnas dynamiska och föränderliga karaktär (Se även Acker & Kriesberg, 2017, 2020; Thomson, 2016). Utifrån en bibliotek- och informationsvetenskaplig ansats som tar avstamp i arkivvetenskaplig forskning undersöker denna avhandling dessa utmaningar. Avhandlingen syftar till att skapa en fördjupad förståelse för bevarande av digital fankultur utifrån en empirisk miljö som består av två fangemenskaper som kretsar kring mediefranchisen Marvel Cinematic Universe (MCU) på sociala medieplattformarna Reddit och Tumblr. Jag fokuserar på hur kontext definieras och avgränsas genom två centrala arkivprinciper: *proveniens* [provenance] som berör informationens ursprungskontext, samt *urval* [appraisal] som handlar om att identifiera vad som är värdefullt att bevara.

Bevarande av fankultur, i såväl fysisk som digital bemärkelse, genomförs av flera större och mindre bevarandeinitiativ, framför allt drivna av fans. Dessa initiativ fokuserar främst på kreativa verk (De Kosnik, 2016; Einwächter, 2015). Endast ett fåtal forskare har lyft fram betydelsen av att bev-

ara fankultur i en social och kunskapsmässig bemärkelse, det vill säga hur fans deltar i fangemenskaper, samt hur de dokumenterar kunskapen som finns bland fansen (e.g., Asokan, 2021; Drouin, 2021; Einwächter, 2015; Lothian, 2013). Vissa av dessa studier pekar på vikten av att inte enbart ta hänsyn till de positiva aspekterna av fangemenskaper, det vill säga deras sociala sammanhållning och kreativa produktivitet. Dessa studier menar att även negativa aspekter bör inkluderas, såsom konflikter och meningsskiljaktigheter som kan uppstå bland fans, för att skapa en nyanserad framtida bild av fankultur (Drouin, 2021; Lothian, 2013). Min studie bygger vidare på dessa studier. Jag argumenterar för att bevarande av fankultur även behöver omfatta hur fans engagerar sig i fangemenskaper i en vardaglig bemärkelse. Utifrån min förståelse av det nuvarande kunskapsläget gällande bevarande av kulturella fenomen såsom fangemenskaper menar jag att det finns en kunskapslucka i bevarande av fankultur. Forskare har uppmärksammat att fler insikter behövs gällande hur fansens vardagliga engagemang ska bevaras (Dym et al., 2023; Sköld, 2018). Eftersom samtida fans ofta befinner sig på sociala medieplattformar, är det av vikt att ta hänsyn till plattformarna och hur dessa påverkar hur och vad som kan bevaras.

Arkivprinciperna proveniens och urval har utvecklats i takt med den teknologiska utvecklingen och de medföljande krav på åtkomst och tillgång till information inom institutioner, organisationer och i samhället i stort (Bearman, 1995; McDonald, 1995). Begreppet proveniens har utvecklats från att fokusera på arkivbildaren (skaparen av handlingen) till att omfatta arkivbildningen i en bredare bemärkelse. Proveniensen innefattar numera fler perspektiv än skaparens, nämligen användarnas och andra som berörs av handlingen (Trace, 2020). Detsamma gäller för urval där värderingsprocessen har skiftat från arkivbildarens respektive arkivariens ansvar till att förstå handlingarnas värde utifrån användningen av olika aktörer och allmänheten i en större samhällelig bemärkelse (Cook, 2011).

Med framväxten av digital teknologi och sociala medieplattformar uppmärksammar forskare flera utmaningar med att applicera arkivprinciperna på informationen som skapas, används och delas på plattformarna (Acker & Kriesberg, 2020; Glassman, 2020; Lynch, 2017; Thomson, 2016). Plattformarnas dynamiska och föränderliga karaktär beror på att de ständigt utvecklas genom att ta bort eller implementera nya funktioner. Deras

policys och användaravtal uppdateras kontinuerligt, vilket förändrar åtkomsten till information—både för användarna på plattformarna och för tredjepartsaktörer som nyttjar användardata via plattformarnas applikationsprogrammeringsgränssnitt [application programming interface, förkortat API]. Amelia Acker och Adam Kriesberg (2017, p. 7) menar att information om kontext blir svår att fånga under dessa omständigheter, eftersom datan riskerar att enbart ge en ögonblicksbild när den tas ur plattformsmiljön. Samtidigt uppkommer svårigheter med att förstå informationens kontext eftersom användning sker av flera parter samtidigt—användarna och tredjepartsaktörerna, samt att mekanismerna som strukturerar och organiserar informationen hålls dolda i plattformsalgoritmerna (Glassman, 2020; Lynch, 2017). Dessa plattformsaspekter skapar betydande utmaningar för bevarandet av information från fangemenskaper på plattformarna och hur deras inlägg, kommentarer och användardata kan bevaras på sätt som möjliggör för tillgång, användning och tolkning i framtiden. Framför allt blir frågan om kontextinformation gällande hur fankultur tar sig i uttryck på plattformarna akut. Utifrån det nuvarande forskningsläget gällande utmaningarna med bevarandet av information från plattformarna menar jag att förståelsen för vad kontext inbegriper och hur det identifieras behöver utvecklas.

Förståelsen och konstruktionen av kontext har under senare år uppmärksammats av forskare som studerar datahantering och data-kurering inom forsknings- och kulturarvsmiljöer. Dessa forskare menar att hur kontext definieras och avgränsas genom arkivprincipen proveniens behöver utvecklas. Proveniens bör förstås baserat på de processer och praktiker som skapar och använder informationen (Bettivia et al., 2023; Faniel et al., 2019; Huvila, 2022; Niu, 2013). Bland annat lyfter Ixchel Faniel och kollegor (2019) fram vikten av att undersöka hur informationen blir meningsfull för sina användare och Isto Huvila (2022) betonar ett fokus på *hur* informationen är skapad och använd. Dock fokuserar dessa studier på preskriptiva och nominellt strukturerade domäner, exempelvis inom forskningsmiljöer och kulturarvssektorn där det finns tydliga rollfördelningar, arbetsuppgifter och mål. Min avhandling tar avstamp i dessa studiers förståelse och tillvägagångssätt för att identifiera kontextinformation. Vad min studie vidareutvecklar är en kontextförståelse av sociala och frit-

idsspecifika miljöer såsom fangemenskaper där roller, arbetsuppgifter och mål inte finns tydligt definierade. Att undersöka hur fans hanterar information och deltar i fangemenskaperna kan skapa en grund för förståelse för vilken typ av kontextinformation behövs för bevarande av samtida fankultur på plattformar.

Mot denna bakgrund tar jag an identifieringen av kontextinformation och konstruktionen av kontext genom att undersöka meningsskapande i *hur* fansen hanterar information och deltar i fangemenskaperna. Mer specifikt fokuserar jag på hur fansen skapar mening i sina *informationsaktiviteter*, det vill säga deras skapande, användande, tillgång till och delande av information. Min analys bygger på ett *sociomateriellt* perspektiv grundat på Karen Barad (2007), Silvia Gherardi (2016) och Lucas Intronas (2013) förståelse av praktiker. Jag tolkar de sociala och teknologiska aspekterna av fansens informationsaktiviteter som *förvecklade* [entangled]. Informationsaktiviteterna blir meningsfulla som en del av *fanpraktiker* där särskilda handlingsmönster växer fram. Fanpraktikerna formar en *infrastruktur* där olika aktörer, aktiviteter och inspelad information aktualiseras i fansens informationsaktiviteter (cf. Gherardi, 2019, p. 103). Jag förstår begreppet *aktör* i den sociomateriella bemärkelsen och låter begreppet omfatta plattformens teknologiska funktioner (till exempel algoritmer och data-generativa funktioner) och tredjepartsaktörer (till exempel tredjepartsutvecklare, applikationer och andra sociala medieplattformar). Infrastrukturen ömsesidigt producerar, reproducerar och främjar samt även motverkar fanpraktikerna. Fansens meningsskapande förstås ytterligare utifrån Jutta Haider och Olof Sundins (2019) begrepp *infrastrukturellt meningsskapande* [infrastructural mening-making] som syftar till att belysa hur människor begreppsliggör sitt agerande genom infrastrukturer som formas genom digital teknologi. Jag betonar att begreppet även inbegriper hur infrastrukturen upplevs, eller som Geoffrey Bowker och Susan Leigh Star (1999, p. 33) konstaterar—människors möte med infrastrukturen. Mer specifikt, menar jag att fanpraktikerna och infrastrukturen påverkar fans informationsaktiviteter på plattformarna, så att de känns meningsfulla och rimliga både i stunden och över tid.

Avhandlingen som skrivs i monografisk form har följande forskningsfråga:

Hur kan förståelse av kontexten för fans informationsaktiviteter på sociala medieplattformar bidra till att utveckla de arkivteoretiska begreppen proveniens och urval?

Studien använder ett etnografiskt metodologiskt förhållningssätt. Material har skapats genom deltagande observation, semi-strukturerade intervjuer och dokumentanalys. För att kunna besvara min forskningsfråga, vägleder de följande underforskningsfrågorna studiens empiriska undersökning, vilket gör det möjligt för mig att besvara den övergripande forskningsfrågan:

Hur blir fansens informationsaktiviteter meningsfulla som en del i deras engagemang som fans?

Hur skapar aktörer, utöver fans, förutsättningar för fansens informationsaktiviteter och hur påverkar dessa aktörer fansens engagemang?

Hur förändras förutsättningarna för fansens informationsaktiviteter över tid och på vilka sätt påverkas deras engagemang?

Med dessa frågor fokuserar jag på hur fansen genomför sina informationsaktiviteter och hur dessa aktiviteter blir meningsfulla för hur de identifierar sig som fans och som en del i fangemenskapen. Därefter identifierar jag kontextinformation som är viktig att inkludera vid bevarande av fankultur baserat på min förståelse av fansens informationsaktiviteter. Dessa insikter ligger till grund för vidareutveckling av arkivprinciperna proveniens och urval i linje med hur fansens meningsskapande tar sig i uttryck på plattformarna.

Underforskningsfrågorna ett till tre besvaras i avhandlingens empiriska kapitel (Kapitel 5 till 7) där jag uppmärksammar att fansens informationsaktiviteter är *situerade*, *relationella* och *temporala*. I kapitel fem belyser jag hur fansens informationsaktiviteter på plattformarna blir meningsfulla i en *situerad* bemärkelse. Med situerad menar jag hur fansen i deras dagliga aktiviteter gällande MCU-franchisen skapar mening av varierande och motstridig karaktär—fans förhåller sig olika till hur de förstår MCU-karak-

tärerna och handlingen. Jag lyfter även fram hur liknande informationsaktiviteter som genomförs betyder olika för olika fans. Jag exemplifierar aktiviteternas varierande genomförande och betydelse utifrån exempel såsom röstning [voting], taggning [tagging] och innehållsmoderering [content moderation]. Till exempel röstar fansen på Reddit inte enbart för att skapa mer synlighet för relevanta inlägg inom deras gemenskap, utan kan även rösta utifrån huruvida inlägget/kommentaren överensstämmer med deras individuella åsikter. Utifrån resultatet i Kapitel 5 lyfter jag fram att dessa variationer och diskrepanser i meningsskapande skapar implikationer för hur kontext konstrueras. I definitionen och avgränsningen av kontext behöver arkivprinciperna proveniens och urval ta hänsyn till informationsaktiviteternas situerade karaktär där variationer i deras genomförande vid vissa tillfällen behöver tas i beaktning.

I Kapitel 6 fokuserar jag på de aktörer som bidrar till att forma fansens engagemang. De aktörer jag identifierar är MCU-producenterna, annonsörer, tredjepartsutvecklare, tredjepartsapplikationer, andra plattformar och lagstiftande organ. Jag lyfter fram den relationella karaktären av fansens informationsaktiviteter, det vill säga hur aktörerna aktualiseras i deras aktiviteter genom infrastrukturen. Fans förhåller sig inte enbart till själva medieprodukterna utan även till deras producenter när de tolkar MCU-franchisen. Likaså präglas fansens informationsaktiviteter av hur regleringar, åtkomst och kontroll av information på plattformarna tar sig uttryck. För att exemplifiera detta utgår jag bland annat från Reddit API-kontroversen [the Reddit API controversy]. Reddit ändrade 2023 villkoren och monetiserade tredjepartsaktörers åtkomst till användardata, vilket påverkade tredjepartsapplikationer och innehållsmoderering, vilket påverkade hur fans och andra användare får tillgång till Reddit. Spänningarna som uppkommer vid förändring av plattformarna skapar *relationell dissonanser* [relational dissonances] i infrastrukturen. Med relationell dissonans menar jag att det som anses meningsfullt av fans, plattformar och andra aktörer kan skilja sig åt på sätt som gör att infrastrukturen skiftar i form, där den kan krympa eller expandera. Infrastrukturens skiftande form påverkar fansens tillgång, användning och kontroll över information. Utifrån resultaten i Kapitel 6 lyfter jag fram vikten av att kontextinformation vid bevarande av fansens engagemang behöver omfatta aktörerna som jag

har identifierat. Ytterligare betonar jag att konstruktionen av kontext behöver ta hänsyn till hur dessa aktörer är involverade i fansens informationsaktiviteter.

I Kapitel 7 fokuserar jag på att fansens informationsaktiviteter har olika syften och att de bidrar till olika ändamål. Aktiviteterna utvecklas kontinuerligt, kopplade till fansens upplevelser av vad som är teknologiskt möjligt eller begränsat av plattformarna, vilket jag exemplifierar med hur fansen förhåller sig till plattformarnas utveckling, algoritmer och informationssökning. I detta kapitel diskuterar jag *temporala spänningar* [temporal tensions] som uppkommer ur den situerade och relationella karaktären av fansens informationsaktiviteter. Bland annat lyfter jag fram att variationerna i fansens informationsaktiviteter skapar olika *temporala rytmer* [temporal rhythms] och *takter* [temporal pacing] där inläggen och kommentarernas synlighet inte enbart styrs av vad som är nyast eller viralt och populärt. Utifrån hur fansen använder och söker efter äldre information menar jag att deras aktiviteter etablerar långsammare temporaliteter där informationens synlighet följer ett återkommande och icke-linjärt mönster. Utifrån resultaten i Kapitel 7 uppmärksammar jag vikten av att förstå fansens engagemangets dynamiska och föränderliga karaktär i konstruktionen av kontext för bevarande av fansens engagemang där bevarandeakten behöver ske upprepade gånger.

Baserat på de empiriska kapitlens resultat besvarar jag min övergripande forskningsfråga i den konkluderande diskussionen i Kapitel 8. Med den förståelsen som jag har fått för hur fans skapar, använder, delar och får åtkomst till information på plattformarna utvecklar jag begreppen skära [cutting] och binda [binding] kontext. Inspirerat av Barads (2003, se även 2014) koncept *agential cut*, syftar begreppet skära kontext till att definiera avgränsningen och omfånget av kontextinformationen, det vill säga, vad som ska inkluderas och exkluderas. Den kontextuella avgränsning som görs genom skärandet är inte permanent utan betonar var det är meningsfullt att dra en gräns vid ett givet tillfälle, men är samtidigt öppen för att gränsen kan ändras på andra sätt vid andra tillfällen eller över tid.

Att skära kontext är tätt sammankopplat med att binda kontext, vilket jag har utvecklat baserat på Pernille Bjorns (2012) koncept *bindande praktiker* [binding practices]. Att binda kontext syftar till att identifiera vilka

sociomateriella *medbeståndsdelar* [co-constituents] som är nödvändiga för att en aktivitet ska realiseras i en meningsfull bemärkelse, och därmed behöver inkluderas i konstruktionen av kontext. Med medbeståndsdelar betonar jag vikten av att fans och plattformar ömsesidigt konstituerar fansens informationsaktiviteter.

Mitt förhållningssätt syftar också till att synliggöra att kontext konstrueras utifrån rörelse och förändring i omfattningen och uppbyggnaden av det bevarade fenomenet över tid. Utifrån denna förståelse av kontext argumenterar jag för att proveniensprincipen ska tillägnas en *skiftande* karaktär [shifting provenance] där proveniens bör följa hur engagemang bland fans utvecklas över tid. Urval, i sin tur bör förstås som *situerad* [situated appraisal] där besluten kring vad som är värdefullt att bevara ska vara förankrade i hur och på vilka sätt informationen blir meningsfull för fans. Avhandlingen bidrar till att stärka och utöka det nuvarande kunskapsläget gällande att utveckla begreppen arkivprinciperna proveniens och urval i bevarande av digital kultur liksom samtida fankultur tar sig i uttryck på sociala medieplattformar.

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Appendix 1

Reddit – r/Marvelstudios

Information letter at the beginning of the fieldwork

Title: A research project about preservation and MCU fandom! (post flair: other)

Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What does preservation mean in relation to online fan communities?
Challenges in preserving digital information arise because information is easy to distribute and edit, containing textual, visual, and moving media. This can be noted with content on social media sites. Due to the dynamic character of digital information and social media sites, expressions in digital fan culture risk becoming inaccessible soon.

My initial contact with the MCU franchise is the Guardians of the Galaxy movies, which I have enjoyed a lot. When starting this project, I wanted to learn more about fan communities I had not previously participated in. Thus, I found this subreddit interesting, as there is a lot of activity and content. I also want to explore how Reddit's fan communities differ from those on other social media platforms such as Tumblr.

As a previous fandom participant, I think it is crucial to document fan culture as it shows several ways to engage with culture, particularly the creativity and sense of community that can arise from fandom. Therefore, I would like to study your fan community surrounding the MCU franchise. Furthermore, it can help me identify what challenges there are for preservation. Would you like to be a part of this project?

How can you help with the project?
I will observe your fan community, its content and Reddit to better understand the preservation of fan culture. I would like to participate in the subreddit and join your discussions while observing them. I will take field notes during the observations.

Further, I would like to interview those of you who are over 18 years old and have been active in this subreddit and on Reddit for a minimum of 1 month. The interview will take approx. 60-90 min, focusing on your experiences of the community, the platform, and your thoughts on preservation. The interview will be conducted on *Zoom* or *Discord* via video call (with or without video) or real-time text messaging. The interview can also be conducted via mail. Text-based interviews are downloaded and saved locally. The interviews I conduct as video calls are recorded with a dictaphone and transcribed afterwards. The interview transcripts and field notes are pseudonymized and safely stored on Lund University's servers. This entails removing any personal information linked to the participants' physical identities and/or usernames.

Message me here on Reddit if you are interested in doing an interview!

Participation is voluntary! You are welcome to message me here on Reddit if you have any questions or want to opt out of the project entirely. I will not include information about you and your activities if you choose to opt out. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan

Thanks in advance, and I hope to hear from you soon!

Information letter after the interviews are completed

Title: A research project about preservation and MCU fandom! (post flair: other)
Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What does preservation mean in relation to online fan communities?
Challenges in preserving digital information arise because information is easy to distribute and edit, containing textual, visual, and moving media. This is also noted with content on social media sites. Due to the dynamic character of digital information and social media sites, expressions in fan culture risk becoming inaccessible soon. How can user-generated content and social media data be understood from a preservation perspective? What challenges do these types of information bring for preservation?

As a previous participant in fan communities, I think it is crucial to document fan culture as it highlights the creativity and sense of community arising from being a fan. Therefore, I would like to study your fan community in this subreddit and the Tumblr fan community surrounding the MCU franchise to see how communities within the same fandom look on different platforms. Furthermore, it can help me identify the preservation challenges of different social media platforms.

My study focuses on fan communities surrounding the MCU franchise. With this project, I want to learn more about fan communities that I had not previously participated in. Thus, I found the Marvel Studios subreddit interesting, as there is a lot of activity and content produced. My initial contact with the MCU franchise is the Guardians of the Galaxy movies. When starting this project in the fall of 2020, I decided to watch all the released Marvel movies and series to understand the topics discussed in MCU fandom. I would say that I got pretty caught up in the MCU universe after watching all the movies and series that have been released so far (it took a couple of months). I am very excited about the upcoming releases during phase four!

How is material collected?
During the second half of 2021 and the first half of 2022, I conducted field observations and 14 interviews with several participants in the subreddit, which gave me great insights into your community's activities and how Reddit is understood and utilized by its users. The current material collection will focus on observing while interacting with the community. I would like to continue participating in your subreddit and join your discussions while making observations and taking field notes. I plan to wrap up my fieldwork during May/June 2022.

The field notes are pseudonymized and safely stored on Lund University's servers. With pseudonymization, I am referring to removing any personal information linked to the participants' physical identities and/or usernames.

Participation is voluntary! You are welcome to message me here on Reddit if you have any questions or want to opt out of the project entirely. I will not include information about you if you choose to opt out of the study. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan

Thanks in advance!

Information letter after fieldwork is completed

Title: A PhD research project on preserving fan communities on social media – final stages!
Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What is the project about?
Social media have made accessing, creating, editing, and distributing information easier. There is a general assumption about information on the internet, specifically social media, where posts and websites made long ago can still be found online. On the contrary, archivists and researchers caution that the information risks becoming lost due to its changeable character. Aside from the possibility of editing and deleting, the information is easy to produce and distribute, travelling across different sites and platforms. This makes it challenging to track how and why information has been used. The potential consequence is that the information will not be understood in the future. Ultimately, we risk losing knowledge of the cultures and community expressions produced now, like fan culture. Thus, we must investigate the preservation of community information and how we can continue to make sense of it in the future.

I am interested in exploring the preservation challenges of social media related to the fandom sphere. As a previous participant in fan communities, I think it is crucial to preserve fan culture. Therefore, I would like to study MCU fan communities on Reddit and Tumblr to identify the challenges of preserving fan culture in different social media environments.

How is material collected?
From June 2021 to May/June 2022, I conducted field observations and 14 interviews, which gave me great insights into the community's activities and how its users understand and utilize Reddit.

The field notes and interview transcripts are pseudonymized and safely stored on Lund University's servers. With pseudonymization, I am referring to removing any personal information linked to the participants' physical identities and/or usernames.

How is the project going?
I am currently analysing the material and writing my thesis. I will focus on reviewing the field notes taken during the observations.

Participation is voluntary! You are welcome to message me here on Reddit if you have any questions or want to opt out of the project entirely. I will not include information about you if you choose to opt out of the study. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan

Thanks in advance!

Private message about an interview offer to Redditors

Hi! My name is Shirley, and I am a PhD student in Information Studies at Lund University in Sweden. I am researching content produced in online fan communities on social media and its implications for digital preservation, focusing on MCU fandom. There is a longer description of my project that you can find via my Reddit profile (the post is called "research project about preservation and MCU fandom!"). Would you be interested in participating in an interview about your thoughts on Reddit, the Marvel Studios subreddit, and preservation?

It would be interesting to hear about your experience as a Reddit user and member of the Marvel Studios subreddit! The interview takes between 60-90 min and is conducted by me. The interview is conducted on Zoom or Discord via video call or real-time instant messaging. The interview can also be conducted via email.

Tumblr – the MCU fan community

Information letter at the beginning of the fieldwork

Title: A research project about preservation and MCU fandom
Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What does preservation mean in relation to online fan communities?
Challenges in preserving digital information arise because information is easy to distribute and edit, containing textual, visual, and moving media. This is noted with content from social media sites. Due to the dynamic character of digital information and social media sites, expressions in fan culture risk becoming inaccessible soon.

My initial contact with the MCU franchise is the Guardians of the Galaxy movies, which I have enjoyed a lot. When starting this project, I wanted to learn more about fan communities I had not previously participated in. Thus, I found the MCU fan community here on Tumblr interesting since there is a lot of activity and content. I also want to explore how Tumblr's fan community differs from those on other social media platforms like Reddit.

As a previous fandom participant, I think it is crucial to document fan culture as it showcases the creativity and sense of community that can arise from fandom. Therefore, I would like to study your fan community surrounding the MCU franchise. Furthermore, it can help me identify what challenges there are for preservation. Would you like to be a part of this project?

How can you help with the project?
I will conduct observations in your community, on your content and Tumblr to better understand the preservation of fan culture. I would like to participate in your fan community via Marvel-related tags such as "Mar-

vel" or "MCU" and join your discussions while observing them. I will take field notes during the observations.

Further, I would like to interview those of you who are over 18 years old and have been active in the Marvel community on Tumblr for a minimum of 1 month. The interview will take approx. 60-90 min, focusing on your experiences of the community, the platform and your thoughts on preservation. It will be conducted on *Zoom* or *Discord* via video call (with or without video) or real-time text messaging. The interview can also be conducted via mail. Text-based interviews are downloaded and saved locally. The interviews I conduct as video calls are recorded with a dictaphone and transcribed afterwards. The interview transcripts and field notes are pseudonymized and safely stored on Lund University's servers. With pseudonymization, I am referring to removing any personal information linked to the participants' physical identities and/or usernames.

Message me here on Tumblr if you are interested in the interview offer!

Participation is voluntary! You are welcome to message me here on Tumblr if you have any questions or want to opt out of the project entirely. I will not include information about you if you choose to opt out of the study. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan

Thanks in advance, and I hope to hear from you soon!

Tags: #marvel #marvel comics #mcu #marvel cinematic universe #fandom #research project #digital preservation #digital archives #community archives

Information letter after the interviews are completed

Title: A research project about preservation and MCU fandom
Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What does preservation mean in relation to online fan communities?
Challenges in preserving digital information arise because information is easy to distribute and edit, containing textual, visual, and moving media. This is also noted with content on social media sites. Due to the dynamic character of digital information and social media sites, expressions in fan culture risk becoming inaccessible soon. How can the user-generated content and social media data be understood from a preservation perspective? What challenges do these types of information bring?

As a previous participant in fan communities, I think it is crucial to document fan culture as it showcases the creativity and sense of community arising from a being fan. Therefore, I would like to study fan communities on Tumblr and Reddit that surround the MCU franchise to see how communities within the same fandom look on different platforms. Furthermore, it can help me identify the challenges of preserving fan culture on different social media platforms.

My study focuses on fan communities surrounding the MCU franchise. With this project, I want to learn more about fan communities I had not previously participated in. Thus, I found your community surrounding the MCU franchise interesting because there is a lot of activity and content produced. My initial contact with the MCU franchise is the Guardians of the Galaxy movies. When starting this project back in the fall of 2020, I decided to watch all the Marvel movies and series in release order to understand the topics discussed in MCU fandom. I would say that I got pretty caught up in the Marvel universe after watching all the movies and series that have been released so far (it took a couple of months). I am very excited about the upcoming releases during phase four!

How is material collected?

During the second half of 2021 and the first half of 2022, I conducted field observations and 15 interviews with several participants of your community here on Tumblr, offering great insights into your community's activities and how Tumblr is understood and utilized by its users. With the current material collection, I will focus on observing while interacting with your community. I would like to continue participating in your community via marvel-related tags such as "Marvel" or "MCU", joining your discussions while observing them and taking field notes. I plan to wrap up my fieldwork at the end of May 2022.

The field notes are pseudonymized and safely stored on Lund University's servers. With pseudonymization, I am referring to removing any personal information linked to the participants' physical identities and/or usernames.

Participation is voluntary! You are welcome to message me here on Tumblr if you have any questions or want to opt out of the project entirely. I will not include information about you if you choose to opt out of the study. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan

Thanks in advance!

Tags: #marvel #marvel comics #mcu #marvel cinematic universe #fandom #research project #digital preservation #digital archives #community archives

Information letter after fieldwork is completed

Title: A PhD research project on preserving fan communities on social media – final stages!
Hi! My name is Shirley Chan, and I am a PhD student at Lund University in Sweden. My study focuses on how content is produced by online fan communities on social media platforms and its implications for preservation.

What is the project about?
Social media have made accessing, creating, editing, and distributing information easier. There is a general assumption of information on the internet, specifically social media, where posts and websites made long ago can still be found online. On the contrary, archivists and researchers caution that the information risks becoming lost due to its changeable character. Aside from the possibility to edit and delete, the information is easy to produce and distribute, travelling across different sites and platforms, making it challenging to track how and why information has been used. The potential consequence is that information will not be understood in the future. Ultimately, we risk losing knowledge of the cultures and community expressions produced now, like fan culture. Thus, we must investigate the preservation of community information and how we can continue to make sense of it in the future.

I am interested in exploring the preservation challenges of social media related to the fandom sphere. As a previous participant in fan communities, I think it is crucial to preserve fan culture. Therefore, I would like to study MCU fan communities on Reddit and Tumblr to identify the challenges of preserving fan culture in different social media environments.

How is material collected?
From June 2021 to May/June 2022, I conducted field observations and 15 interviews, offering great insights into your community's activities and how you understand and utilize Tumblr.

The field notes and interview transcripts are pseudonymized and safely stored on Lund University's servers. With pseudonymization, I am refer-

ring to removing any personal information linked to the participants' physical identities and/or usernames.

How is the project going?

I am currently analysing the material and writing on the thesis, focusing on reviewing the field notes taken during the observations.

Participation is voluntary! You are welcome to message me here on Tumblr if you have any questions or want to opt out of the project entirely. I will not include information about you if you choose to opt out of the study. There is a longer description of my thesis project via my Lund University website if you want to read more: https://www.kultur.lu.se/en/person/ShirleyChan/

Thanks in advance!

Tags: #marvel #marvel comics #mcu #marvel cinematic universe #fandom #research project #digital preservation #digital archives #community archives

Private message about an interview offer to Tumblr participants

Hi! My name is Shirley, and I am a PhD student in Information Studies at Lund University in Sweden. I am researching content produced in online fan communities on social media and its implications for digital preservation, focusing on MCU fandom. A longer description of my thesis project is in the pinned post on my Tumblr! Would you be interested in participating in an interview about your thoughts on Tumblr, MCU fandom on Tumblr, and preservation?

It would be interesting to hear about your experience as a Tumblr user and member of the MCU fan community on the platform! The interview takes between 60-90 min and is conducted by me. The interview is conducted on Zoom or Discord via video call or real-time instant messaging. The interview can also be conducted via email.

Appendix 2

 Letter of consent

Information regarding informed consent and interview participation

What is the project about?

The study aims to illuminate the challenges involved in preserving fan culture, and more precisely, those of fan communities online and, in a broader sense, understand the preservation of information created in the intertwinement of online sociality and technology. More specifically, the study investigates two MCU fan communities on Tumblr and Reddit and their implications for preservation.

A longer project description can be found via the following link: https://portal.research.lu.se/sv/persons/shirley-chan

How will the interview be conducted?

The interview will take approx. 60-90 min, focusing on your experiences of the community, the platform and your thoughts about preservation. It is conducted on *Zoom* or *Discord* via video call or real-time instant messaging. The interview can also be conducted via email. Interviews conducted as video calls (with or without video) are recorded with a dictaphone and transcribed afterwards. Text-based interviews are downloaded and saved locally. The interview transcripts and field notes are pseudonymized and safely stored on Lund University's servers. Personal data such as sound recordings, mail- or chat transcripts is created and collected.

How will the project handle the data and confidentiality?

The sound recording is transcribed and permanently erased after transcription. The mail or chat transcript is locally stored within Lund University's servers. All collected material, including interview recordings, transcripts, and field notes, is pseudonymized. With pseudonymization, I am referring to removing personal information about you. Processing of collected material and documentation of consent is in line with the General Data Protection Regulation (GDPR) in the EU and the Data Protection Act within Sweden. During the project, I place the collected material in a storage space on Lund University's servers, which only I can access. The study lasts for four years (September 2020- June 2024), resulting in a PhD thesis. Research findings are continuously presented at seminars, workshops, conferences, and for educational purposes. Personal identifying information of participants is excluded from all forms of reporting of results. After the project has concluded, contact me, the researcher Shirley Chan at shirley.chan@kultur.lu.se, if you want to take part in the thesis.

The research material consists of pseudonymized field notes, interview transcriptions and documentation of informed consent and is preserved for at least ten years at Lund University Library after the research results are published. These proceedings follow the current archival regulations for the Joint Faculties of Humanities and Theology and consultation with the Head of the Department of Arts and Cultural Sciences at Lund University.

Voluntary participation

The legal basis for processing your personal information in the sound recording, mail, or chat transcript is based upon your voluntary consent for interview participation. I will not share your information with third parties. The letter of consent is valid until further notice. You have the right to withdraw your consent at any time during the study. If you want to revoke your consent, contact me, the researcher, Shirley Chan, at shirley.chan@kultur.lu.se. I will cease to process the personal information that I have collected. It is important to note that the revoked consent will not affect the information included in already published results. Further, the material on which the published results are based will be archived following Swedish law.

The personal data collected during the interview will be handled and processed according to the project's purpose and in line with your consent for interview participation. You have the right to get inaccurate personal information about yourself corrected. If you have any complaints concerning our treatment of your personal information, contact our data protection officer via dataskyddsombud@lu.se. You also have the right to send in complaints to Datainspektionen, the supervisory authority for data protection, if you consider our treatment of your personal information to be inaccurate.

Contact details for the researcher:
Shirley Chan is the researcher responsible for the project and manages the personal data collected within the project.

Doctoral student at the Division for ALM (Archives, Libraries, and Museums) and Digital Cultures
Department of Arts and Cultural Sciences
The Joint Faculties of Humanities and Theology
Email: shirley.chan@kultur.lu.se

The responsible authority is Lund University, Box 117, 221 00 Lund Sweden, with organization number 202100-3211, responsible for managing personal data. You can read more about the privacy policy of Lund University at https://www.lunduniversity.lu.se/about-university/contact-us/processing-personal-data-lund-university

Consent to interview participation
Your consent to interview participation is provided to me, the researcher Shirley Chan, through responding to this email or message where you express your approval of the following premisses in writing:

I have been informed and provided with information about the project. I have been given the opportunity to ask questions about the study. I understand how the researcher and Lund University will process my personal information. I am also aware that my participation in the research proj-

ect is voluntary, and I have the right to revoke my consent at any time. I approve of participating in the interview and giving the researcher permission to collect and process my personal data, such as sound recording, mail- or chat transcript, according to the information stated above and in line with the project's purpose.

Appendix 3

Interview guide

Introduction and presentation
- I give my thanks to the informant for their participation
- I introduce myself and what the study is about
- I briefly explain what the interview is about, its length (60-90 minutes)
- I describe how I will process and store the interview material (transcribed, pseudonymized, and stored locally in a digital storage space within Lund University's IT environment)
- I remind the informant that participation is voluntary
- I ask how old the informant is (if necessary)
- I ask if the informant has any questions and that they are free to contact me if they have questions after the interview.

About the fan community
- What got you into MCU fandom and brought you to the MCU fan community on this platform?
- How would you describe the Marvel community and its content?
- What posts are popular/visible?
- What posts are overlooked?
- Are there types of content that you avoid or ignore?
- Do you experience any discussions on copyright/fair use in the community?
- Do you feel like you are part of the MCU fan community on this platform?

About the fan community participant
- Do you upload any content? How often?
- Do you ever delete or edit your posts/comments?
- How do you interact with others' content in the MCU fan community?
- Do you experience any instances of unspoken rules, conventions or norms established in the MCU fan community?

About the platform
- What do you think about the platform in general?
- Do you find the MCU fan community to reflect the general atmosphere on the platform?
- How do you access and navigate the platform? (Tumblr: dashboard, explore or via blogs, Reddit: the home feed or subreddit)?
- How do you find specific content in the fan community, alternatively, on the platform?
- Is it possible to identify and retrieve older content on the platform?
- What platform features do you often use, and which ones do you not use?

About preservation
- Do you consider the MCU fan community's content relevant for preservation?
- What types of content should be preserved? Is there any specific content that should be prioritized or alternatively avoided?
- Would you have acted another way if you knew beforehand that the community's content would be preserved?

Closing questions
- Is there anything that I forgot to mention in this interview?
- Do you know any members in the MCU fan community you would like to recommend for an interview?

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