Exploring the Expert Web

Understanding Interactions Between

Museums and Online Communities

Thesis submitted for the degree of

Doctor of Philosophy

at the University of Leicester

Blaire Melissa Moskowitz

School of Museum Studies

June, 2022

Abstract

Museums have experienced and interacted with the 'Expert Web', a distinct niche of online communities full of knowledgeable and passionate people who spend time talking about the subjects they love most. The communities are eclectic, the participants are well-informed, and, most importantly, they know all about museums dedicated to their interests.

The thesis first identifies the Expert Web: its value as an inherently social space, its distinct components (people, processes, and platforms), and its success with museums nearly three decades ago. Through a series of 'episodes' taken from a range of online communities, it evidences that some museums have recently recognised, acknowledged, and participated in these communities, but of these, only a few are confident in their interactions – and this confidence can wane depending on a variety of circumstances. The research illustrates how identities presented by the museum affect how online communities react and respond, platforms influence the type of person attracted to the conversation and resulting discourse, and that conversations can be categorised as exchanges of information or negotiations of control.

The research demonstrates how the sector will benefit from a new awareness and literacy when interacting with such communities in order to stay relevant online and that entering the Expert Web demands a cultural shift for museums. Ultimately, the thesis recommends that museums: become aware of the range of communities discussing their topics and why participants are attracted to them; recognise their options in communication style and identify who is best positioned to understand the discourse; and with this knowledge, decide if and how it is appropriate to join. The research also proposes that perceiving these individuals as fans of a subject matter (as opposed to 'audiences') might prove a more pertinent way to describe community members, enabling museums to re-evaluate how they perceive both the notion of community and the wider online world.

Acknowledgements

Four people have made the completion of this thesis possible, and no matter what I write on this page, my words will be inadequate in expressing my gratitude. Their intellectual and emotional support has been vital, as has their reassurances that no matter how arduous doctoral research felt at times, they had each finished their PhDs and were the shining role models waving me on to the end of a long journey.

Mom and Dad: To call you both the world's most supportive parents would be a massive understatement. To make a list of every way you have encouraged and supported me would be impossible as I would never finish it. To simply thank you in an acknowledgement section is grossly insufficient. You've been with me every step of the way, and I'm rather sure it's the only way this thing ever was completed. You were (and continued to be) encouraging when I surprised you with the idea of applying to Leicester and screamed with me in excitement when I received my acceptance email. You were (and continue to be) my great travel partners, indulging my desire to see beautiful places and the obscure rooms of museums throughout North America and Europe. You were (and continue to be) my greatest champions, memorising the dates of my upcoming supervision meetings and then calling me a few hours later to hear how each one went. And, of course, you were (and continue to be) proof readers extraordinaire, even when that required learning a different dialect of English. I could not have asked for, nor dreamed of, more wonderful and supportive people to raise me. Love you both, so very much.

Ross: As I write this, I'm reflecting on how ridiculously nervous I was to approach you during Museums and the Web. In the years prior, I had seen your scholarship cited more times than anyone else in the field and by the umpteenth time, I finally googled your name and discovered you were at a university I had never heard of before, in a country I had never visited. Then, a series of fortuitous job-related circumstances brought me first to the U.K. and then to Chicago, where I saw your name on the conference agenda. I remember walking over to your breakfast table, literally shaking with nerves, asking you what exactly a museum technology PhD involved, and you flipping the question back on me and asking what I would want to write about. I stammered something about having "half an idea" but somehow, you saw past my nerves and instructed me to meet you later that day with "the whole idea". Magically, a few hours and one conversation later, the premise of a museum-and-online-communities thesis had been sketched out and I had a plan to apply to the school that had once felt too unknown and too far away. A life-changing conversation to say the least! Your ability to motivate your students, extract the 'smart stuff' out of their rambles, and create a welcoming environment was evident from day one and has been apparent every day since. I have truly looked forward to each supervision, knowing that whatever thesis-related conundrum I had found myself in that month would be solved — from wrestling with confusing technical jargon to finding institutions to participate in unique fieldwork, or simply needing to know how to best anglicise my writing. And not only that you would solve such matters, but that after speaking with you, I would again be eager to continue working. Thank you.

Joel: It's giving me pause to think that my written appreciation of you is first destined for a PhD acknowledgements section. Swiping yes to the photo of you and your dissertation's calculations has led to the busiest summer of my life! There is no one else I would rather have study dates with and no one else I would rather ask to patiently explain spherical cows.

There is no one else who would first travel 314 miles (yes, that's precisely how far it was) every two weeks to visit and then, upon return to the East Coast, learn to cook with the motivation of making dinner when I was feeling overwhelmed with data. And, of course, there is no one else who would spend months meticulously planning and building me my very own museum with a marriage proposal as the final exhibit.

In addition to these four, there are others who I must thank:

Dr. Giasemi Vavoula, for your annual check-in and the final check as my second supervisor.

Dr. Juilee Decker, for your mentorship (including reading my Leicester application!) and always nudging me toward excellent career opportunities.

Valerie Bizzarro, for sharing your unparalleled knowledge of My Little Pony, your friendship during our European adventure during my second year of school, and countless texts that make me laugh.

Samantha Geffen, for being my virtual study buddy and neighbourhood walk study break partner during the last few very strange years.

Dr. Sonny Bleicher, for being the friend always willing to offer doctoral advice and for including me in his acknowledgement section.

Rebecca Strauss, for your general friendship, hosting me during two research trips to the Boston area, and turning those visits into fun vacations.

Scott Chamness, for discovering alongside me what it takes to run a museum-themed online community.

Erika Gould, for your general friendship and being the trustworthy writer friend proofreading this section.

And finally, to colleagues at Antenna, The New York Botanical Garden, American Museum of Natural History, and Frankly, Green + Webb who indulged me as I bounced ideas off them and posed seemingly absurd hypotheticals about interacting with online communities in their professional capacities.

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Conventions

This research makes use of the Web and the internet in ways that are uncommon in museological literature. Therefore, a series of conventions must be established:

In order to fully to preserve the authenticity of quotes taken directly from websites' comment sections, spelling mistakes and stylised writing have been included in direct quotes written in the text and in screenshots.

Spelling has been anglicised, with the exception of direct quotes from online communities, scholarly sources, and proper nouns.

The case study institutions and interviewees were all located in the United States. Many of the secondary sources were also publishing from within the United States. This may have some impact on the data but does not affect the overall meaning of the research.

To fully understand the character of each platform and in order to treat online community quotes as cultural artefacts, some quotes include language not often seen in doctoral research. Engaging with real-world conversations in public forums means encountering free speech, including profanity and racism. While some readers may find these portions difficult to read, these quotes are no less important than ones with milder language, as both contribute to a fuller understanding of Web culture.

Quoting from Web comment sections has particular challenges. In some cases, it is more ethical *not* to include a direct link if it is possible that a future reader may be inspired by harmful comments. In other cases, it is more polite *not* to include direct links for privacy reasons. Instead, links to the platforms and subsections have been used.

Research related to comment sections also has obstacles regarding preservation and long-term accessibility. In some cases, posts only exist for a limited amount of time; in this scenario, archives and screenshots from news articles have been used as sources for primary data. Other comment sections do not include an exact timestamp but instead the amount of time between the post and when one has viewed it as part of the post; this means that some posts include phrases such as "3 years ago". In this scenario, references have approximate dates.

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Chapter One

Introduction

1.1 Introduction

Imagine discovering that a few dozen, a few hundred, or even a few thousand people are online discussing the museum with which you are affiliated. You have found a sustained conversation that has taken place over several days about a specific aspect of a collections object that many people might consider minutiae. The participants in this conversation are passionate, knowledgeable, and engaged in a way that you have not seen with the institution's social media presence. You are intrigued by what you have found and spend the next few hours reading post after post, thinking about how you would have added to the conversation with your insider knowledge about the institution's decision-making process and why things are the way they are.

The next day, you attempt to explain your discovery to some colleagues. You try to explain it, but you cannot think of appropriate descriptors; 'social media' does not seem quite right, and 'online community' seems a little vague. You describe how these participants online are aware of the museum, but it is unclear if they have ever visited or plan to visit. It seems like the museum *could* participate in these conversations, but the museum's official presence did not appear to be there. One colleague replies that this seems risky, and that the museum already distributes its messages on social media anyway. Another colleague jumps in that they not only have seen this conversation, but they are also one of the participants. It seems the museum was partially present after all.

Welcome to the Expert Web, a distinct niche of online communities full of knowledgeable and passionate people who spend time talking about the subjects they love most. The communities are eclectic, ranging from children's toys and taxidermy to boats and video games. The participants, collectively, know nearly everything about their subject matter. And most importantly, they know all about your museum.

This thesis aims to understand how museums with diverse curatorial narratives have engaged with and even confronted online expert communities where people who are knowledgeable about specific topics come together to discuss their interests and even discuss these very institutions. It questions relationships among museums, their staff, and Web users in spaces in which the museums have considerably less (or no) control. The overarching question the research asks is: how are museums and online communities engaging with each other? More specifically, the research asks: how do these entities communicate with each other? And within this question, asks: how do the museums and communities situate themselves within these conversations? Where do these communities reside? And, where do their conversations occur?

In this thesis, these online spaces and communities will be identified and collectively named the 'Expert Web'. Through a series of 'episodes' taken from a range of online expert forums, it becomes evident that some museums recognise, acknowledge, and participate in these communities, but of these, only a few are confident in their interactions – and this confidence can wane depending on a variety of circumstances. The identification and articulation of these spaces and communities are the first two contributions stated in the concluding chapter.

The interpersonal and institutional relationships as well as the episodes make use of a newly developed method, necessitated by the uniqueness of this research and the fieldwork. A three-phase approach considers the perspective of the institution and its' staff through interviews, examines online communities through their written conversations and compares the evidence to form patterns. This methodology is the third contribution in the concluding chapter.

Throughout the thesis, the research evidences how: identities presented by the museum affect how online communities react and respond; platforms influence the type of person attracted to the conversation and resulting discourse. The end of the thesis demonstrates and concludes that conversations are typically either exchanges of information (transactional with the museum or dialogic about the museum) or negotiations of control (around people, process, place, intellectual property) in which participants attempt to control the parameters of the conversation.

The research demonstrates how the sector will benefit from a new awareness and literacy when interacting with such communities in order to stay relevant online and that entering the Expert Web demands a cultural shift for museums. Through the analysis (Chapter Nine), the thesis recommends that museums: become aware of the range of communities discussing their topics and why participants are attracted to them, recognise their options in communication style and identify who is best positioned to understand the discourse, and with this knowledge, decide if and how it is appropriate to join. These recommendations are included in the framework for how museums can assess Expert Web engagements going forward and establish a vocabulary to explain these interactions. The research proposes that

perceiving these individuals as 'fans' of a subject matter (as opposed to 'audiences') is a more pertinent way to describe community members and enables museums to re-evaluate how they perceive both the notion of community and the wider online world.

1.2 Research Context

As this research seeks to understand museums' interactions with the social Web, it is conceptually located at the intersection of various disciplines. While predominantly situated within the field of museum studies, it draws heavily from Web studies, substantially from linguistics, and occasionally from business theory.

There has been significant research at the intersection of museum technology and visitor studies. Notable in this work has been the scholarly response to changing audience needs, expectations and capabilities around technology. Scholarship in this area has, in recent years, included more nuanced and complex histories of 'the user' within museum technology (Parry, 2019), built a broader and differentiated landscape of user activity and online participation (Ridge, 2014), redirected institutional authority and dispersed curatorial agency (Dziekan & Proctor, 2020), and proposed open authority based on Wikipedia's model (Phillips, 2013). Yet, there has not been a sustained academic study about interactions with online niche and expert communities in the field of museum studies. For this, it is necessary to look to near-parallel situations and to literature outside of museum studies.

The theoretical frameworks on which this research is based are within Web studies and Web sociality. Internet theoreticians have provided the basis on which to understand social internet users, from group dynamics to the discrete actions of individuals in the social Web. Their

work, and how it contributes to the conceptual framework of this study, is further explored
in-depth in Chapter Two and Chapter Three and referred to throughout the thesis.

The work of influential scholar Manuel Castells on informational society provides our first
conceptual foundation. Examining the internet's history and broad trends, he identifies the
"virtual communitarian culture". This describes the habits and values of people who create
the patterned behaviour and social dimension of the Web. They post content but depend on
others to create the technological supports that enable sociability. They create their own
identities but have casual relationships with subjects they encounter online (Castells, 2001).
Also essential to this research is Clay Shirky's work on Web culture which has influenced
thinking and practice in the last decade. The content that the virtual communitarian culture
produces is what Shirky identifies as the "cognitive surplus". Specifically, he defines it as the
cumulative thoughts that are the result of the cumulative free time that people have and spend
on the Web to come together with either highly specific or a variety of skills for a common
cause. He ties the cognitive surplus to the spread of digital hobbies which were previously
ignored because pre-internet constraints made these interests appear too obscure and suspect
(Shirky, 2008; Shirky, 2010). When people come together in groups to form the cognitive
surplus, they need to navigate the experience and changing dynamics of working in groups.
Alongside Castells and Shirky, Mathieu O'Neil provides another component to the
framework of this study. He examines the authority and power in online communities,
ultimately choosing to settle upon the descriptive term "tribes" to describe online collectives
of people because it illustrates temporalities in collective identities, a sense of belonging, and
equal access to information (O'Neil, 2009). These tribes (as he chose to call them) and the
collective identities are made of individuals who are choosing which attributes they want to
share with the public. And so, where Castells provides the context of internet history and its

social structure, and Shirky equips us with the idea of cumulative free time spent online, and whereas O'Neil enables us to think about group identity in online space, it is Sherry Turkle that offers a psychological perspective with her assessment of how individuals behave online. Turkle recognises one's digital counterpart as a "second self" upon which users project consciousness and shape their own identities in their own vision, specifically noting that this may reveal personal interests that might not be accepted in the physical world (Turkle, 2012). The part of the Web that I have identified as the Expert Web works alongside all of these concepts; it is made of these second selves who reveal their true interests through online communities, is part of the virtual communitarian culture's social content creators, produces the cognitive surplus, and can be as temporal as tribes.

But as helpful as this scholarship is to understand online communities, none of this scholarship hones in specifically on the communities of people who are so knowledgeable and dedicated to specific topics that they tie their identity to it. Therefore, this study makes overt and conscious use of 'fan studies' as a conceptual framework to help museums notice and process the communities that are discussing them. The research is informed by vocabulary and concepts from fan studies, which is rarely incorporated into museum studies. This thesis places concepts from fan studies within the context of visitor studies and in doing so explores how fan studies might provide an alternative, more appropriate, and potentially more rewarding framework to conceptualise the Expert Web. The exploration of fan studies that follows is imperative in Chapter Two, which explores the Web's social history, evidenced in Chapter Six, in which some museum staff members demonstrate their devotion to their subject matter and exhibit fan-like behaviour, and in Chapters Seven and Eight, which scrutinize online fan communities and their participants as they discuss and engage with museums.

Typically, in recent years, museums have defined their visitors through segmentation types, among them by distance (local, regional, national, international), by frequency of visit (new or returning visitor), or by motivation (in scholarship by Black, 2005; Falk, 2009; Roppola, 2014; and agencies such as Morris Hargreaves McIntyre, the Audience Agency, and Frankly, Green + Webb). But none of these divisions directly address an individual's interest in the subject matter on display nor do they consider how online content makes moot points of distance, attendance frequency, and motivation to visit. The academic field which does examine individuals' interests and group dynamics is fan studies, which address how individuals form identities centred around objects, create communities centred around the objects, become creators of related objects, and negotiate control with the objects or their legal owners.

It is important to make a clear distinction between 'fans' and 'audiences', as the words are sometimes used interchangeably within fan studies, despite clear differences. Nancy Baym, communications scholar and co-founder of the Association of Internet Researchers, establishes a clear distinction between the two: audience members are people that attend an event (physically or virtually), but they may or may not be fans. For example, in Baym's analysis of the music industry, she asserts that most listeners are not fans (Baym, 2018). If her assessment is applied to museums, this would mean that most visitors are not fans.

While the first use of the word 'fan' was in the late 1800's – when a journalist abbreviated "fanatics" – and its usages as a colloquialism was common by 1930, the definition of the word is still not "entirely resolved among scholars" explains Baym. When attempting to define this nebulous word, most scholars agree that fans and fandom are connected to self-

discovery and social ties that centre on objects as identities (Baym, 2018). One of the reasons that fandom has been historically hard to define is because the fans and the academic studies about them have undergone major changes in the last four decades (Jenkins, 2006; Gray et al., 2017). Modern fans began as a minority of active consumers fighting for representation and against mass media. These minorities became embedded into existing social and cultural conditions, evolved into complex social and cultural hierarchies, and manifest social, cultural, and economic capital with their own practices, rituals, myths, and traditions. More recently, fandom is a common engagement model seen as part of discussion groups, fan websites, and social media, as well as in physical spaces. Fans focus on social, cultural, and economic transformations and will mobilise (often online) for a cause (Fuschillo, 2018; Sandvoss, 2017a). This wave of fan activism will parallel the rise of authority, agency, and tribalism (O'Neil, 2009) discussed in Chapter Three.

Scholars who have attempted to understand fandom have sought to define the text or object which is the focus of fan attention. Cornel Sandvoss defines fandom as "regular, emotionally involved consumption of a given popular narrative or text" but also admits that the definition of narrative or text is "uncertain". While in literary studies, a narrative or text is solitary, pristine, and autonomous, in fan studies, the meaning of a text can change in three ways (Sandvoss, 2017b). First, texts can change form as they are presented in a variety of media with some being narrative while others require active construction (like hypertext). Second, one can be a fan of a text that is authored and fictional but controlled by copyright and licenses or of an icon (i.e., celebrity) which is factual but less controllable because fans set boundaries on how they perceive said icon. Third, the 'field of gravity' for a fan object includes paratexts (surrounding texts created by the original author or by the fandom) that are developed around the 'epicenter' object. The people who use the texts within the fan object's

field of gravity can change based on which subset of the fandom is using them, what mass media they consume, and how each subset of the fandom reconciles the object with personal expectations, beliefs, and senses of self. Therefore, the object of fandom corresponds to the original object's entire field of gravity and how each piece in the field is presented rather than the original text itself. Therefore, fans can have different interpretations of what their fandom is about (Sandvoss, 2017b).

Determining how fans interact with their chosen objects also helps to identify them amongst audiences. Fans are unique in the way that they have strong feelings about and even relationships with the objects or texts and deep emotional convictions with an emotionality approaching a religious-like phenomena. They continue to describe the ways that people manifest these feelings as making meanings beyond what is directly offered by the objector expressed through recognition of style or creativity. These feelings and expressions of interest in an object or text are a component of how fans build their self-identities. These feelings, relationships, and associated self-identities are typically positive, but need not be exclusively positive. Anti-fans are emboldened by the ability to mask who they are and act as 'drive-by' insulters, making their dislike clear (Baym, 2018; Fuschillo, 2018).

One distinct and widely accepted hallmark of being considered a 'fan' is the social element. Fans are part of social groups with shared attachments and affection for their object (Baym, 2018). Since individual fans usually have unique interests, when they find each other and form groups, they achieve a sense of validation and believe that their own interests are more 'normal' (Tushnet, 2017). Baym explains that the pleasure of being part of a fandom comes from being connected and having relationships with people who have the same interests and she argues that the people may favour being connected to one another more than their love of

their fan object (Baym, 2018). Perhaps most notable for museologists and visitor studies is that being a fan "may be as important to one's community memberships as one's sense of self" (Sandvoss, 2017a: 11) and are, at times, more stable ways to describe individuals than traditional markers of identity (class, marriage, national belonging, age, religion, sexuality, and gender) (Gray et al., 2017).

Each fandom acts as an individual community and maintains a 'we-ness'. Fan studies scholar and professor of communications Henry Jenkins takes this one step further by saying that fandoms are extended families since they provide support and loyalty to each other. Each community has their own internal organisational structure with defined hierarchies based on experience and knowledge and develop their own culture with practices, internal norms of acceptable behaviour and hierarchies (Baym, 2018; Fuschillo, 2018). In addition to a hierarchical structure, Fuschillo divides fans by commitment, writing that there are full-time, hardcore committed fans and temporary soft-core members. Jenkins also adopts terms to describe the roles people take within fan communities: 'lead users' act as early adopters of the object and 'multipliers' use both the original object and text plus additional market-generated materials to gain meaning. For a community to survive, they need to welcome new members (or multipliers) who show a moral responsibility or sense of duty to the community, thereby becoming the hardcore committed fans (Fuschillo, 2018).

Pivotal to understanding fandoms is the recognition that fans are creators and that the internet contributed to the increasingly blurred line between producers and consumers as fans make their own interpretations of their fan objects (Fuschillo, 2018; Pearson, 2010). Fans participate in group activities and take the role of creators to remake and appropriate their fan objects. These "textual poachers" (according to Jenkins) rework and manipulate objects or

texts into their own creations and then turn their creations into inspiration for brand collaborators (influencers), professional emulators (bloggers), and entrepreneurs. The objects and capital which the fans produce define each community and provide them with their own cultural economies (Schulman, 2019) that are no longer dependent on mass consumerism.

Fan studies can also be looked at through the lens of consumer studies. From this perspective, it is considered a subculture of consumption, a brand community, or a consumer tribe (Fuschillo, 2018) and explores how fans interact with brands, corporations, and corporate interests. As fans gain status as producers and distributors within fandoms, corporate interests lose power and then fight to gain control of their intellectual property and distribution channels (Ito, 2017). Some fan activities can put fans at odds with corporations and media conglomerates regarding different motivations, holds on power, or general opposition to the dominant ideology of capitalism. Some scholars see this as a grey zone where fans focus on self-creation rather than capitalist motivations (Ito, 2017), but others describe the corporations and norms of capitalism as at odds with fans' culture and desire to be creators themselves (Baym, 2018; Schulman, 2019). While established fan studies research focuses on these fan-corporate relations, through this research it will become evident that fan-museum relations have both similar grey zones and at times are at odds with each other. Relationships with fans can befit the corporate world, and museums can once again turn to fan studies and past practices to see corporate methodologies and practices. When corporations want to influence interactions with fans, they can navigate the balance between control and access. Some corporations attempt to balance these relationships by creating fan communities (further muddling the fan-corporation relationships) (Pearson, 2010; Gilbert, 2017; Baym, 2018) while other corporations will insert themselves into an established fan community and adopt the customs they observe; if done well, they are a seamless addition to the conversation

but, if done poorly, "[creeping] into fannish spaces" can be a source of tension and intrinsic "weirdness" (McCullough & Minkel, 2019). We will see such complexities of museum-fan relationships through the episodes in Chapters Seven and Eight and these themes of control and access guide the analysis in Chapter Nine.

In this research, we first encounter fans as museum staff via interviews (in Chapter Six) and then as participants on the Expert Web via the written records they leave in comments and online conversations (in Chapters Seven and Eight). A series of linguists and theorists help us to understand these written records; the most prominent is Gretchen McCulloch, internet linguist and author of *Because Internet: Understanding the New Rules of Language*. She explains the deliberately stylized language used online, and especially in fan forums, as different from the language used elsewhere because fandom and its language developed alongside the internet and its language. While formal (non-internet language) is disembodied, informal fan writing is re-embodied and demonstrates that there is a specific person having real-time reactions, emotional expressions, and true, unfiltered, and sincere feelings about objects that the fans care deeply about. But informality should not be perceived as less complex; informal language can be a conscious choice to save one's reputation (a false naivety) or to establish one's place in a community. Informal writing can also be used to self-select a particular type of fan and demonstrate who belongs and does not belong in the community (McCulloch & Minkel, 2019).

1.3 Methodological Approach

All the research conducted for this thesis, including the interviews and observations, adhered to the standards and expectations set out by the University of Leicester as part of the Code of

Research Ethics. As part of the ethics requirements, an ethics application was submitted to the University's review committee on 18 September 2017 and approved on 17 October 2017. A monitoring form was also submitted and approved in 2019.

Desk-based documentation research began with a wide review of relevant literature across subject matters to fully understand the complexities of online communities. First, academic museum, technology, fan studies, and business literature were reviewed and provided the intellectual foundations. Second, a wider range of sources were considered and non-academic sources such as newspaper and online magazine articles were identified when researching distinct communities. Third, published information from the museums (annual reports, website 'about' sections) and unpublished documents provided by the museums about internal policies provided insight into the institutional mindset.

The fieldwork used a three-phase approach to capture a holistic view of each museum and online community.

Phase One sought to understand institutional perspectives through staff interviews at the case study institutions. Semi-structured interviews with thirty staff members' perspectives and a wealth of information not captured in the desk-based documentation research. The interviewees were selected based on their involvement in online communities in their professional and personal capacities and were from multiple departments and administrative levels. This was intended to diversify the answers but proved to demonstrate trends across institutions; these interviews are the basis of Chapter Six.

Phase Two sought to understand online community perspectives through a thorough review of the communities' recorded conversations. Conversations that mention the museum, their staff, and exhibitions were collected, and through the dialogue, narratives were constructed. The 'episodes' were reviewed using a series of techniques including online discourse analysis, studies of online social behaviours and new media norms, and language. These episodes then provided the basis of the analysis in Chapters Seven and Eight.

Phase Three of the fieldwork then compared the information generated in the interviews and through the online conversations, to find patterns and determine trends. This analysis became the basis for the synthesis in Chapter Nine and contributed to the overall conclusions and recommendations framed in Chapter Ten.

1.4 Structure of the Thesis

The thesis is divided into three main parts: a literature review and analysis of historic records; case studies and evidence; and analysis and a framework to work with similar communities in the future.

The thesis begins in Chapter Two by considering the social history of digital, internet and Web communities as well as the history of fandom. It concludes by suggesting that 'online' is everywhere, everybody, and everything and that the Expert Web is a result of the social internet and is made of people sharing information about niche topics who found each other online. Chapter Three sets out to investigate authority building in online communities by examining the people who participate, how they construct identities and interact with each other. The research draws heavily upon media and communications scholarship. Chapter

Four uses archival materials such as Bulletin Board System records and industry newsletters to propound that museums participated in online communities during the 1980s but pivoted to focus on professional development communities and broadcasting visitor-facing information, ultimately revealing that people in online communities filled the void when museums left these spaces.

In Chapter Five, readers are introduced to the institutions through accounts of their history and collections. These institutions were selected because of their variety, array of contexts, and distinct vantage points which allow for a wider examination of the intricacies of the Expert Web in the later chapters. The institutions are: The New York Botanical Garden as an example of a museum of living things with research and public divisions of the institution; The MIT Museum and The Strong Museum of Play as examples of social history museums whose identities are constantly reconsidered and often changing; The Museum of the Moving Image as an example of an art museum which evaluates what it means to be part of visual culture; and The Field Museum as an example of a classic natural history museum which reconsiders what it means to advocate for natural history collections. Each of these are leaders in their curatorial foci. Interviews with institutional staff provide histories of how the museums have used the internet, Web, and social Web to connect with visitors.

Chapter Six presents in-depth interviews with members of the staff about their departments and personal use of the Expert Web, revealing trends by department and motivation. Chapters Seven and Eight present a series of episodes where online communities come in contact with the case study institutions, demonstrating the Expert Web's community awareness of the institutions and proving that they are part of the communities' memory. The analysis in this

chapter reviews the impact of the platform type as well as the language used in the online community conversations.

The concluding part of the thesis establishes the trends seen in the episodes and offers the sector a path for understanding similar situations. Chapter Nine evaluates the patterns seen in the nine episodes and introduces a systematic characterization of the episodes. Chapter Ten then brings the thesis to a conclusion: the research with a clear description of the Expert Web based on the evidence presented throughout the thesis, introduces the concept of relational labour regarding the museum staff already engaging with the Expert Web, and reiterates the need to use fan studies as an ongoing participant-describing framework going forward.

1.5 Approach for the Methodology

This research included examinations of case study institutions, interviews with institution staff members, and close analysis of an array of online communities. The selection of each data source was carefully considered, and each made a valuable contribution to the research. The following details the selection criteria, the rationale for various choices, and the scope of the investigation.

There are three types of considerations used in selecting the episodes used in this research. The first is considerations chosen based on the museums used as case study institutions. The second is considerations dependent upon the platforms used as data sources. The third is considerations invoked due to research practicalities.

The museological considerations have three criteria. The first is disciplinary array, meaning that this research is not directly tied to nor dependent upon any academic subject (art, history, science, etc.). The ability to use multiple types of institutions is a benefit for the research and demonstrates a range of applicability. The second criterion is varying points on each institution's digital journey. Each institution has a digital presence, but their experiences online differ in duration and depth, with some having historical and deep ties to Web-culture. The third criterion is recognition as an authority in their specific disciplines. Each institution is respected, has gravitas in their specialization, and is accepted for being reputable. In this research, the niche-subject-based online communities take notice of these institutions because they are important within each discipline.

The platform and Web-based considerations reflect the platforms where the museums are mentioned or engaging; there are two criteria here. The first criterion is the existence and prominence of relevant online communities. The research requires prominent online forums and platforms that are vibrant places to study with multiple participants, complex and lengthy dialogues, and mentions of external influences (museums). The second criterion is platform array (to parallel disciplinary array). By demonstrating that interactions with the Expert Web occurs across many platforms and are not dependent on a specific user-experience or interface, the research is proven to be widely applicable.

The third type of consideration invokes research feasibility. The first criteria was geographic; choosing institutions in The United States established a tight geographic area bound by similar cultural norms and professional behaviour and makes comparisons among diverse institutions easier. Yet the participants on the online forums may not be bound by these same geographic means; the research can only be sure that they are typically conversing in

American English. The second criteria was chosen to reflect the practicalities of doctoral-level research conducted by a single researcher. The institutions where interviews were conducted were gracious in providing their staffs' time during business hours and the platforms are public spaces on the Web that can be read at any time. Additionally, the researcher's knowledge of and professional connections with the museological field provided ease while speaking with acquaintances and colleagues during congenial interviews. Knowledge of museological happenings through industry news and informal communications helped find relevant 'episodes'.

The researcher sought interviews with individuals who could shed light on interactions with online niche communities. They embedded themself in the organization and built multiple lines of trust amongst the staff.

At each of the case study institutions, a prominent staff member was identified whom the researcher suspected may have or had seen evidence of interactions with niche online communities from preliminary research and online activity analysis. This individual would become the researcher's main contact. As mentioned above in the considerations, some of these initially contacted people reflected professional connections (colleagues, Twitter 'mutuals', etc.) whereas others were 'cold calls' or 'cold emails' which established the researcher as both a colleague-at-large and acquaintance via the museological conference network and a doctoral level researcher. These individuals would then put the researcher in contact with a more senior colleague or assist themselves (see 'gatekeepers' below). Ultimately, thirty staff members were interviewed across the five institutions for both research-related and pragmatic reasons.

To gain the widest variety of perspectives, individuals were interviewed across multiple departments (see Chapter Six for analysis by department). This was aided by 'gatekeeper recommendations' and 'snowballing' (King et al., 2019) which provided the researcher with individuals' contact information for phone and video interviews and offices and conference rooms for in-person interviews. The size and structure of each institution also affected data collection. Some smaller institutions had more collaborative practices where interviewees were aware of their colleagues' practices; this led to more 'snowballing'. In contrast, some larger institutions had fewer collaborative practices in which departments tended to work on their own projects and resulted in fewer 'gatekeeper recommendations'.

While the main factor for the 'gatekeeper recommendations' and 'snowballing' was research applicability and staff members' willingness (and often excitement) to engage with the research topic, staff capacity was also a factor. The capacity of individuals and permissions from line managers demonstrated institutional priorities. The researcher was privy to some of these discussions, but others were internal discussions and decisions of which the researcher was told to whom they could have access.

Additionally, over the course of the research, the need to speak with different people changed. A variety of factors contribute to this change in practice. Earlier research was more widely spread across departments whereas later research pinpointed certain individuals to answer more specific questions. All institutions had at least two interviews to compare and contrast data.

The 'archives' used in this research are the records of online communities. They are at once the platforms that host the communities and the repositories of communications found on

technologies that are no longer supported by the current web. It is the conversations found in these locations that would become the data utilized in Chapters Four, Seven, and Eight.

Chapter Four examines early online communities and their relationships with museums, using text from Bulletin Board Systems to provide examples of posts and summarise long narratives found in these sources. The 'TextFiles' archive is a trustworthy and established source commonly used for Web studies research; its primary focus is the collection of Web documents from 1980 to 1995. The website has a directory powered by Google which provided rich sources when searching for the keywords "museum", "museums", and "museo". While mentions of museums (and variations of the word) are spasmodic across the archives as a whole, individual documents with records of conversation threads had enough conversation and context to determine circumstances and to understand linear narratives. This resource was used extensively in Chapter Four. Fortuitously, as Chapter Four was written, The New Museum released their archive of The Thing, a bulletin board for cheeky artists and writers spread across New York and Europe. Their version utilises modern Web design to create a visually appealing and searchable database of posts. The keywords "museum", "museums", and "museo" provided similarly rich content which is used throughout Chapter Four. As Chapter Four was written concurrent to the public re-release of 'The Thing', this research is likely the first writing to make use of the archive (though unlikely to be the first writing about it completed).

The Web platforms used in each 'episode' (Chapters Seven and Eight) and their conversation threads act as archives, just as conversation transcripts or even diaries would be considered reliable primary sources in archival research. The Web platforms used throughout Chapters Seven and Eight are the places-of-record for these online communities. The ways in which

the text is analysed is detailed in Chapter Seven which describes the scholarly influences (Baym, McCullough, Page, and Reagle) and textual analysis in detail alongside the exemplars.

Using Web studies as the basis for a methodology in museological research is, perhaps, novel but innovation furthers intellectual development and challenges paradigms. In this research, introducing new methods to the establishment sometimes presented a challenge but the widening of scholarly perspectives and the introduction of an adjacent vantage point are benefits unto themselves.

Consider, for example, the use of non-academic sources; in academic museology this is, perhaps, uncommon. Sources such as Textfiles are not maintained by an academic institution and the authorship of individual threads can usually be traced to only usernames. But the perception of these sources and the resulting methodology as disadvantages would limit the field of museology to only sanctioned, official Web-based communications and that is not how visitors, perspective visitors, nor Web participants communicate. With a critical eye gained through professional experience and an informed manner gained through an examination of Web studies methodologies, these non-traditional sources and resulting methodology bring museological research to the wider Web. These spaces are where the data can be found and represent the learnings which museum staff need to reflect upon and the strides that museological research should take to reach the diverse audiences that they proclaim to seek.

The research also made use of more typical data-gathering methods such as semi-structure interviews. In order to mitigate risks (such as the presence and influence of the interviewer)

the researcher prepared and briefed each participant, sought permissions from line managers (as appropriate), and gave each person an environment to speak, adapting the questions depending on the mood during the interview. This resulted in more conversational and frank discussions, with individuals pleased that their behind-the-scenes work (see relational labour in Chapter Ten) was noticed and valued by the researcher.

The Web-platforms explored in each episode are vast in quantity of posts and duration of time. Some of the platforms have nearly two decades of conversation threads, and the platforms with briefer durations have thousands of topic-based subsections; not every subsection, thread, or post is relevant to this research. We can consider these platforms to be full archives of these communities, with a volume of materials to rival most archives. Instead, determining a smaller subset of materials to read demonstrates targeted research and maturity on the part of the researcher. Therefore, a Web researcher often relies on how well the Web currently indexes content through internal search mechanisms. This powerful way of extracting content meant searching for various museum terms, the proper names of specific museums, common misnomers of various institutions, and subdivisions of specific institutions (see Chapters Seven and Eight for further and more detailed explanations).

Using internal search filters, hundreds of threads and thousands of pages of data were found, downloaded, and printed to preserve the versions found (as opposed to the possibility of later edited versions). In each of these relevant threads, the researcher carefully read every thread and made judgments and selections to create a satisfactory sample of threads and a fixed array of evidence for each episode. From there, exemplar posts were drawn and annotated with marginalia. These posts where analysed using a series of questions determined by the researcher and formed the narrative basis of the episodes in Chapters Seven and Eight.

As is the case with much of the Web, it is impossible to know if these posts are appearing exactly as they were initially written or entirely in the context in which they were first written. On some platforms, posts are time-bound and disappear after set periods; on other platforms, there is an ability to delete posts and profiles. Therefore, a reader must recognize that a thorough researcher has read everything that has been available and possible.

The research is bound by the timeframe in which the internet and Web has existed. The first mention of a museum taking notice of the internet is in a 1987 industry publication and the first evidence of direct museum-online community interaction is in 1990 (both detailed in Chapter Four). The episodes in the case studies extend through the end of 2020, when one of the episode's museum-produced projects officially ended, though participants are still able to watch and comment, making the community potentially still active.

It should also be noted how some online communities mark time and resist typical formatting – instead of noting specific dates or years, it is common to write how many years prior to viewing the community that the comment was made. For example, data collected (and printed) for this research might note that a post was made "3 years ago"; upon research publication, this might become four or five years. Additionally, some of the episodes have events that happened over multiple years (such as The Strong Museum of Play and The Field Museum) whereas other episodes have events that occurred over multiple days (such as The Museum of the Moving Image).

This research takes primarily an Anglo-American perspective (due to the nationality of the researcher and location of the case study institutions), though the general anglophone perspective should be noted (due to the location of the university).

The research takes an American perspective from the onset of the writing, in part because the development of the internet was the result of a collaboration between the American government in Washington DC and the engineers in California. Later developments, such as the Web, 'dotcom boom', and social media revolution, also put the United States at the centre of these communication tools (Castells, 2001) and American English as the lingua franca. As a result, and despite other nations and cultures now having their own rich online spaces, online archives and Web forums are predominantly in English.

The research attempts to include non-American elements: Chapter Four utilises a BBS that was split between The United States and Germany as well as threads discussing visits to a museum in Japan. And the research based in The United States extends beyond the classic "White-Anglo-American" experience with details about the history of African American museums online (Chapter Four) and the contemporary Jewish experience encountering online antisemitism (Chapter Eight).

Every one of the individual posts quoted in this research is public. They are publicly posted online for anyone to see – there are no fees to pay nor memberships to gain. These posts are on the open internet because the post's writers want to converse with others who share their interests, and for that publicly available comments are necessary. Thus, these 'archives' become a public record, available to continue conversation and for research. In this research, the researcher has opted to screenshot relevant posts to show the text in some

contextualisation and for museum staff and readers to visually see the user experience of these forums (as opposed to a more sanitized version with the text extracted) because this is of value to the museological community and challenges the assumptions of what museum communications can be.

Using these posts responsibly does mean that the researcher had to consider author and reader safety in their citations. For posts that might cause reader distress (racist, xenophobic, etc.) or could inspire people to act in unethical ways (as seen in an episode about The Museum of the Moving Image), it became necessary to cite the source in general and not the individual posts, which may lead people to even more nefarious places online. This technique has been borrowed from journalists who must carefully consider retracting online source materials (Witschge, 2016).

Chapter Two

Sociality of the Web: Everything, Everywhere, Everyone

2.1 Introducing & Situating the Expert Web

This thesis proposes that museums and the field of museum studies recognise the conglomerate of online communities (both the online spaces and participants) that have topic-specific, knowledgeable, and complex conversations about museums' objects and collections; what this research has named the "Expert Web". These communities come into contact with museums, but individual institutional knowledge of them varies widely, as will be discussed in later chapters. To understand and locate the Expert Web, and to further make sense of this space where museums are spoke about, it becomes pertinent to understand the original intent of the internet and how this history fostered conversations. The establishment of the internet and the creation of today's online social spaces are inextricably linked. Thus, this chapter tells the social history of digital, internet, and Web communities, ultimately placing the Expert Web in a long history of digital sociality; it situates the Expert Web alongside fans and within fandoms; it evidences the pervasive nature of the internet, Web, and fandom; and recognises the connection that exists between museums, the Expert Web and everyday life.

Herein, we can also return to our research questions as we consider the history of the social internet. How museums and online communities engage and communicate with each other is a direct reflection of the social norms that developed alongside the technical advancements. The ways that institutions situate themselves is introduced later in the chapter, as more people and institutions came to recognise the Web as important. Where communities opt to

reside is introduced towards the end of the chapter as we see easy-to-use social media emerge in virtual space. While the case studies and episodes are not introduced until later, it is this social history of the internet and the Web that answer why things are the way they are in our digital society.

The internet changed the world by providing a unique space and unprecedented opportunity for individuals to communicate with each other. Yet, this change was not solely because of technological advances. Instead, cultural elements enabled the communications technologies to become technologies of relationships. The common thread of these relationships can be seen throughout the internet and Web's entire evolution and becomes increasingly prevalent as the volume of users increases over time. Kevin Driscoll, professor of media studies and an expert on the virtual communities known as Bulletin Board Systems, writes that lay people today think of the internet not as a technology but as a communications medium, which contrasts with most academic perspectives that remain focused on technological innovations. Instead, he suggests that understanding the internet includes widening the view to include hobbyists in the 1970s and 1980s, when the technical structures and cultural practices that would become social media, were developed (2016). Similarly, renowned internet sociologist Manuel Castells dives deep into the technical and business development of the internet stating that it is,

> [A]n extraordinary human adventure. It highlights people's capacity to transcend institutional goals, overcome bureaucratic barriers, and subvert established values in the process of ushering in a new world. (Castells, 2001: 9)

But he does not diminish the importance of the cultural and social elements, also stating, "The cultural sources of the Internet cannot be reduced, however, to the values of technological innovators," continuing to explain that online communities were the sources of values, patterned behaviour, and social organisation (Castells, 2001: 52).

Intertwined in this history of 'online' is the history of fandom, as it was early technologists with counter-culture fan tendencies who created the internet in the first place. It must first be acknowledged that defining 'fan' is not easy, and even fan scholars have not entirely agreed. For the purposes of this thesis, this nebulous word will use the common agreement described by Nancy Baym, communications scholar and co-founder of the Association of Internet Researchers. She summarizes the complexities (previously detailed in Chapter One) by saying that fans and fandom are connected to self-discovery and social ties which centre on objects as identities (Baym, 2018). As evidenced throughout this thesis, the object-focused conversations of the Expert Web are strikingly similar to how fans identify with and speak about their objects, and thus understanding fan studies becomes critical to this research.

What follows, therefore, is an historical look at the social evolution of the internet and Web, aiming to provide a frame of reference for later contextual chapters (Chapter Three's online community building and Chapter Four's past participation of museums online), as well as for the thesis' main case study analysis (Chapters Five through Nine). It is, after all, only through these earlier histories, and this long view, that the identity and importance of the Expert Web can be understood.

2.2 Rise of Fandom, Early Computing, & Underpinnings of the Internet

Technology drove the evolution of fandom. In the 1800s, for many communities around the world, audio recordings enabled music to be thought of as a tangible and purchasable product (Cavicchi, 2017) and in the later part of the century, this commodification of experience would develop into the desire to buy concert tickets. The social experience of being part of the mass audiences at organized, touring performances throughout the United States was a primary motivation for the attendees who were uniquely engaged with the performances and focused on individual performers and would, in retrospect, be categorized as fans (Cavicchi, 2017; Baym, 2018; Schulman, 2019). One of the first organizers of touring performances and a proponent of the fan movement was P.T. Barnum, who was later known as the sensationalist attraction proprietor and *American Museum* founder (Maher, n.d.). In the late 1800s and early 1900s, commodification met mass consumerism as popular culture clubs were founded and developed with their own media, letter campaigns, newspapers, and archives. These clubs were socially driven, and the members would travel to meet each other as part of national conventions (Schulman, 2019). Many of the early clubs were male-dominated or male only, which motivated women in the second half of the 20th century to create their own fan clubs about media which they had access to in the home – the television – and to create and share television-related domestic talents with other fans (Baym, 2018). The evolution of fandoms would continue to follow technological advances, intertwining with the soon to be developed digital world.

The earliest models of the internet were conceptualised in the 1930s and 1940s by theorists Vannevar Bush and Louis Borges. They both envisioned media that, to them, made people smarter by collectively amalgamating the world's knowledge and storing and sharing it in

ways that replicated natural, nonlinear thoughts. Their fantastical concepts were revolutionary at the time, explains Janet H. Murray, in her introduction to *The New Media Reader*:

> We see the scientific culture articulating a medium that "augments" our humanity, that makes us smarter by pooling our thinking and organizing it at a higher level, and even by facilitating new ways of thinking that are more synthetic and have more power to master complex operations and ideas. (2003: 5)

Even when the technological capabilities were not yet invented to make this happen, Bush and Borges' motivations were culturally and socially driven (Leiner et al., 1997).

2.3: The Social History of PLATO, the First Digital Community

The first digital duplication of a physical experience was the 1960s pedagogical environment PLATO. While the system was meant to teach university students, the enduring and noteworthy feature is a messaging system which allowed users to alert technicians to software bugs and for technicians to reply through chained conversations. These chained conversations evolved into the first social computing community (now what we would call 'chat rooms') with multiple, simultaneous users on an offshoot system called *Talkomatic*, released in 1973 (Department Of Physics at The U Of I, n.d.; Hochfelder, 1999). *Talkomatic* was divided into topic-based groups about books, movies, religion, music, and science fiction, and had private messaging (said to be used primarily for student romances) and users were given hierarchical access levels (director, read/write, read/respond, read-only, write-only, no access). This platform is also significant because its users articulated their desires

(chat features, games, graffiti walls, newspapers) and the technicians would build it, though this does not mean that anyone had a clear vision for PLATO or *Talkamatic*'s use. Creator David R. Woolley explains, "Nobody on PLATO had ever experienced an online community before, so there was a lot of fumbling in the dark as social norms were established" (1994).

2.4 Technical & Social History of the First Internet

In 1969, under the direction of the US Defense Department's Advanced Research Project Agency and in an effort to mobilize research resources, a project called ARPANET was developed to enable governmental computers to speak directly with each other. On one hand, Castells contends that ARPANET was created to build technological military superiority over the Soviet Union, which meant that the prospect of the Cold War provided a high level of public support for such projects as well as increased funding for the development of military communications. But on the other hand, Castells explains that the project was assigned to a team of highly computer-literate university academics in California, Massachusetts (both states that tend to be liberal) and Utah, who were influenced by the surrounding counterculture that asserted individual freedoms and community centred ideals of the 1960s and 1970s, such as scientific pursuit that emphasized the pure joy of discovery. The team was able to construct the goals of the experimental project in their vision with near autonomous judgement in part because the governmental body overseeing their work never truly understood the project they had assigned. Combined, the military motivation, the secure environment, and the ability to innovate created a unique structure that could only be developed with these specific circumstances and hence the academics were able to create a structure fit for military use but decidedly in their vision (Castells, 2001). The ARPANET team emphasized efficiency through community and resource sharing (Leiner et al., 1997)

and decided the internet project would adhere to three basic principles: decentralized network structure, distributed power, and functions to minimize disconnection (Castells, 2001). These ideas that shaped the first iteration of the internet's communication architecture have influenced its content well beyond its original inception.

The earliest stages of the internet were a coming of age for free communication and personal fulfilment in the emerging internet communities. Without government interference, those working on the project had relaxed security on the new systems, which enabled the development of a separate area of ARPANET where personal conversations could take place among team members. Chats about niche pop culture interests and fan practices were built into the internet's core and thrived in its freedom and congeniality, in ways that it had not in the physical world (Castells, 2001; Baym, 2018). The first time the internet was used socially was in 1979, related to science fiction fandom. Using the then-recently developed electronic mail system, someone sent a message titled "SF-LOVERS" to all users asking for their favourite science fiction authors. Other chain emails followed, for local restaurants, wine, and human-centred research, and the forums soon shifted back to discuss pop culture news, notably rumours about Star Trek television and movies (Brooking & Singer, 2018). One surprising but common thread through the history of virtual communities is the rock band The Grateful Dead and their fan community known as Deadheads. During the 1960s and 1970s, the Deadheads that were developing the internet at Stanford connected with the Deadheads at MIT using ARPANET, trading setlists and tapes (Jarnow, 2015). What these examples help to illustrate is the way that from the very beginning, the internet enabled individual participation in fandom to be an everyday practice, so much so that it would later almost become banal (Baym, 2018).

These casual communications, born out of a convenient way to communicate and gather information, were the foundation of internet culture, Castells explains. The culture of the producers of the internet shaped the medium, affirming, "The Internet is, above all else, a cultural creation." (Castells, 2001: 33).

2.5 Introducing the Internet & Computers to the Public

'Community Memory' was the name given to the first public computer-based bulletin board system. The first terminal was a single computer located in a Berkeley, California record store (Baym affirms it was clearly a platform aimed at music fans), positioned adjacent to a popular traditional bulletin board filled with music flyers and classified ads. It cost 25 cents (USD) to post a message but was free to read. Eventually, more terminals appeared around the city. Its creators wanted to make a useful and appealing medium that people would repeatedly use and would create a "communal family" but, they still expected the local population to be hostile to it. Yet, to their surprise, the locals instead adopted using it and adapted it for their needs, using it as a platform for art, literature, and self-promotion. They even added topics to include politics, housing, services for hire, women's advocacy groups, and technology (Slaton, 2001; Doub, 2016).

The posts on Community Memory would be a preview of what the internet - and even the Expert Web – could be. While posts could be humorous, inquiries would be returned with information and even kindness; one article from a local San Francisco newspaper even recounts a story of someone offering to teach a specific skill set (bagel making). Posts could also document events and emotions in real time, in ways that print media had not quite been

able to capture. An unspecified person recalled reading a deeply personal, first-person account of experiencing an earthquake:

> That immediacy, the personal nature of the message, the look into someone's life – it was so exciting and amazing to me, and it was something I knew I could never hear in any other medium. (Slaton, 2001)

As this first communal message board was open to anyone, we start to see online communities become inclusive of (nearly) everyone and, since that terminal was in a public setting, be accessible everywhere.

Like any other act of cultural production, the new structure called a Bulletin Board System (BBS) was culturally contingent and a product of its time. For the BBS, key to the context were the communal feelings that emerged after a series of 1960s failed counterculture experiments in the physical world. Online, the emerging BBS communities could have the diversity and free speech that they craved as self-governing, non-hierarchical, collaborative communities. Furthermore, the BBSs were more accessible than past systems since they only needed some technical but no programming knowledge (Castells, 2001). This pivoted the internet and moved it in a direction that would later lead to the social networks of today.

The first Bulletin Board System (BBS) was made in 1978 by members of the Chicago Area Computer Hobbyist Exchange, who in the hobbyist tradition of sharing information (similarly, fans give or 'gift' information and objects), published a report in a popular computer magazine and invited readers to try it. Then, in 1983, a DIY electronics guide company published a book about creating one's own BBS. When described to the public, a

BBS was introduced as the electronic version of the community bulletin boards seen in public places. This resonated and there were soon over 100,000 BBSs. Since BBS used home phone numbers, most people dialled into local numbers and avoided expensive long-distance calling, resulting in most online community participants living locally who could then reinforce their loose ties with in-person meetings. Later, in the 1990s, the barriers of participation further decreased as the price of home computers fell, computers with modems became standards and more people logged onto BBSs. As the diversity of participants grew, the BBSs became increasingly "wacky and weird" (Driscoll, 2016). Organized by topic, they covered wide interests and communities, among them antique clocks, cutting edge AIDs health information and social support, Batman, baseball, Deadheads, feminism, firefighters, gamers, LGBT, politics, religious groups, sexual exploits, and television shows (Castells, 2001; Driscoll, 2016).

One of the most famous BBSs was "The WELL", founded in 1985. The Whole Earth 'Lectronic Link (WELL) marks the coining of the term and entry of the 'virtual community' in widespread public use (Turner, 2005). Unlike other BBSs, this one was an experiment coupled with a business proposition to charge a monthly fee, with an hourly rate plus an extra fee if one wanted to participate in their electronic mail system (Hafner, 1997; Turner, 2005). Their experimental and business goals were at odds and would ultimately lead to the product's demise decades later (Hafner, 1997).

The WELL was specifically aimed at "interesting people" so that they could stay in continuous communication with each other. Participants were allowed to post about anything and to enter each other's "conference topics", which varied widely (newborns, the Gulf War and other breaking news, European cars, books, cooking and gardening) while remaining of a

high quality (Hafner, 1997; Turner, 2005). By sharing information on these topics, people were able to merge knowledge, social capital, and communication in smaller, time sensitive pieces (Turner, 2005). And, like Community Memory, Deadheads (the Grateful Dead fans) were active participants (Hafner, 1997; Baym, 2018) who would learn about The WELL from ads on a local radio station, convincing fans that everyone could join, not just the technically advanced: "If you want to interact with other Deadheads, join The WELL. You don't have to be a computer person, just a person with a computer." (Hafner, 1997). There are also accounts of how The WELL was useful. Here research librarian Reva Basch shares:

> Although it doesn't host any of the formal databases that I use for research, The WELL is the online hangout of choice for an incredible array of experts: multimedia artists, musicians, newspaper columnists, neurobiologists, radio producers, futurists, computer junkies. I can contact any of them directly, through email, or post pleas for information in a public conference and more often than not, be deluged with insights and informed opinions. Most compellingly, the conferences devoted to non-work issues and to fun and nonsense give me a chance to get to know these folks better, and vice versa. (Turner, 2005)

The WELL is influential in the history of online communities for three reasons. First, this was the first space where anyone could sign up, not just researchers or corporate executives. Second, people were responsible for what they wrote because their online persona would list their real name, blurring the public with the private (Hafner, 1997; Turner, 2005). Third, it attracted people who were later impactful, such as AOL founder Steve Case, Craigslist founder Craig Newmark (Rheingold, 2012), as well as journalists who were given free access in order to write articles about it.

The WELL was also notable for the connections it made. Howard Rheingold, virtual community thinker and author, used the WELL to define a new form of technologically enabled social life, the 'virtual community'. He explained that the WELL was meant to "recapture the sense of cooperative spirit that so many people seemed to lose when we gained all this technology" (Turner, 2005) while bringing attention to the available technical support for a different but not inferior sociability (Castells, 2001).

"WELLbeings" were more diverse than those in previous online communities; they were political activists, women, educators, those from varying socioeconomic backgrounds (Rheingold, 2012), though a 1997 *Wired* article disagrees, explaining that the WELL instead attracted "baby boomers in their late 30s and early 40s, smart and left-leaning without being self-consciously PC, mostly male, many with postgraduate degrees" (Hafner, 1997) and Castells claims that many of them had previously tried to live in rural communities (Castells, 2001). Despite who it was, the connections among people were intense and the participants thought of themselves as a community, so much so that people would meet in real life (Hafner, 1997) even attending each others' lifecycle events (Rheingold, 2012), thereby challenging what it meant to be an "online" community.

The written records of The WELL are important documentation, sharing a collective consciousness (Turner, 2005). These posts also demonstrated that posting successfully was an art in which users could demonstrate charisma and personality within their online persona. The 1997 *Wired* article notes:

It took a particular type of person to feel at ease with the medium. Facility with language helped. Fast typists had an edge. And there was an art to posting. The best posts were neither long-winded nor so brief as to be cryptic. One of McClure's guidelines was to keep posts to 22 lines, or no more than a screenful. (Hafner, 1997)

The BBSs remained popular through the year 2000 when a popular BBS network called FIDONET claimed as many as three million users (Castells, 2001).

Most histories of computers and the internet focus on technical advances. But a careful review allows us to see something less familiar, namely that the story of this world-changing technology is most notably not about technology – but about people, their communities, and the evolution of their relationships.

A few years later, in 1983, computers became more mainstream when they permeated pop culture and were introduced into the home. Computers became popular for multiple uses, including increasingly complex social gaming environments such as Habitat. In particular, this game was more successful as a player-driven platform for communication (Morningstar & Farmer, 2003).

The introduction of the home computer also popularized real time chat programs. It was part of the larger CompuServe platform which offered dial-up information services, articles from 10 major newspapers, stock quotes, and weather reports. The most successful aspect was the first real time chat program, CB Simulator. The service had 40 'channels' and is where many people were introduced to the concept of online personalities and fake names (Tweney, 2009). One channel, for example, was conducted entirely in Old English and people would

roleplay as various members of the courts while other channels were dedicated to "soul-baring honesty" (Tweney, 2009; Dewey, 2014). In addition to the channels, clubs also formed by meeting regularly on the same channel at a prescheduled time. Some clubs were focused on owning specific types of computer hardware while others had more general themes, such as aviation. The success of these themed channels would prompt CompuServe, which was initially reluctant to release CB Simulator at all, to create topic-specific special interest groups, or SIGs. But the name 'SIGs' was not user friendly, and the name changed to forums, which is a term still used today. Each forum would have a place to post information, a file-uploading area, a member directory, and a chat function. The service changed the habits of its users: people started to stay on their computers longer and later into the night since they were speaking to multiple people at once and they became accustomed to paying high prices for online services (Banks, 2008). It would gain thousands and then millions of subscribers by the mid 1990s, making it the most popular online service in the United States at that time (Tweney, 2009).

Also in the 1980s, Usenet developed, and remarkably is still in use today. This service was decentralized, making connections across further distances possible (and users no longer at the mercy of local calling) and introduced many now common features such as threaded conversations and general topics that would be further divided into smaller discussion groups. The general topics were computers, humanities, miscellaneous, news, recreation, science, social, controversial subjects and 'alternate' – all of these demonstrate the breadth of what could be spoken about online (Banks, 2008).

But another new technology would begin to rise in the mid 1990s and would usurp the BBSs and lead to the demise of BBS and other chat programs (Driscoll, 2016). Around the same

time, as the internet was widely used in government and academic circles, the United States government recognised its potential for growth and granted permission for commercial involvement. The first commercial email package was released as an experiment and its early success would be a telling sign of promise for the private sector (Hochfelder, 1999) and demonstrated "the utility of broad-based electronic communications between people" (Leiner et al., 1997).

2.6 Transition to the Web & its Conceptual Framework

Computerized networks had enabled coordination and management through "inherent flexibility and adaptability, critical features in order to survive and prosper in a fast-changing environment" and "an unprecedented combination of flexibility and task performance, of coordinated decision-making and decentralized execution, of individualized expression and global, horizontal communication, which provide a superior organizational form for human action" (Castells, 2001: 1-2). Yet there still was no way to easily navigate the internet or to share information and it remained a highly specialised place ("History of The Web", no date). Recognising this issue and wanting to simplify the communication of the worldwide community of physicists, Tim Berners-Lee used an emerging medium called hypertext to build upon the conceptual models that linked nonlinear information (Castells, 2001) and created viewable documents known as web pages, which together formed the World Wide Web. It would launch privately in 1990 and publicly a year later (History Of The Web, n.d.).

For the Web to reach the potential that he thought possible, Berners-Lee created a series of rules. He explained, "[h]ad the technology been proprietary, and in my total control, it would probably not have taken off. You can't propose that something be a universal space and at the

same time keep control of it" (History Of The Web, n.d.). Therefore, to guide the Web's future development, he identified five major tenets:

1. Decentralization: Posting does not require permission from a central authority, thereby implying freedom from censorship and surveillance.

2. Non-discrimination: Connecting to the internet enables users access to all content and communications, despite the quality of service being paid for (commonly known as Net Neutrality).

3. Bottom-up design: Code is developed in full view of everyone, encouraging participation and experimentation.

4. Universality: Regardless of the type or location of the computer, all computers speak the same languages, allowing for communication and technological diversity.

5. Consensus: Standards are created through a transparent, participatory process at World Wide Web Consortium (W3C) and followed by all users. (History Of The Web, n.d.)

The Web would make the internet accessible and usable to the general public, as even more people were buying home computers. Soon, people would be using commercial browsers and creating personal web pages, compiling and linking world knowledge through a single medium and broadcasting it to the entire (computer-using) world (Murray, 2003).

It was a challenge to explain what exactly the Web was and what people could do with it. A 1993 article in *Time* magazine introduced the internet and the Web to its vast contingent of readers,

Suddenly the Internet is the place to be. College students are queuing up outside computing centers to get online. Executives are ordering new business cards that show off their Internet addresses. Millions of people around the world are logging on to tap into libraries, call up satellite weather photos, download free computer programs and participate in discussion groups with everyone from lawyers to physicists to sadomasochists. Even the President and Vice President have their own Internet accounts (although they aren't very good at answering their mail). (Elmer-DeWitt, 1993)

The breadth of topics on the Web was vast, and the article tried to convey that, from bungee jumping to particle physics. The end of the article even lists some places that might be of interest to its readers, outlining what type of person might be interested in the new web places: "Supreme Court rulings, White House press releases, NIH grants, census data, the CIA World Factbook", "DNA sequences, geologic-fault maps, asteroid databases, taxonomy news, conversational Esperanto", and "Moby Dick, rap lyrics, windsurfing news, directions to nude beaches." (Elmer-DeWitt, 1993)

On one hand, this article and others piqued curiosity and lowered the barrier for entry, but on the other hand, the technical barriers remained quite high (for instance, the address system was new and idiosyncratic, and there was no easy way to find anything until search engines were created years later). As a result, millions of new global users had to learn the internet's social cues and jargon along the way (Elmer-DeWitt, 1993; Raymond, n.d.). Harkening back to the academics who had created the internet and Web and the experience of encountering

new students who lacked knowledge at the beginning of the semester, established users dubbed the period "eternal September".

With more people joining the Web, what had once been hidden in private spaces as acts of resistance became visible and accessible, which, in turn, had an impact as power in the media shifted from professionals to audiences and fandoms. The fandoms created on the early internet (ARPANET through BBSs) were replaced by the second wave of fandoms that were accessible on the Web (Baym, 2018). These second wave digital fandoms were about increasingly diverse topics and inclusive of increasingly diverse people: for instance, popular American television shows like the *X-Files* and *Buffy the Vampire Slayer* attracted women who wanted to discuss the characters' romances (Schulman, 2019).

Music fans, according to Baym, continued to act as frontrunners for digital fandom. In the late 1990s, music fans shared music files, discussed music, and read about musicians, in turn becoming powerful influencers. Individual participants coalesced into online music fandoms and established their presence, organized communities, devised their own social norms, established hierarchies, and gained power, at times causing internal conflict as they grew. During this development of digital fandom, the music industry ignored what was happening, missed opportunities, and years later, finally realized that they could have been communicating directly with fans all along had they been directly involved themselves. Then, the musicians and their record labels were forced to hire the people running these fan communities to run their musicians' online presences (Baym, 2018). Baym's account of the music industry portends the story of the museum industry in Chapters Four, Six, Seven, and Eight.

The early 1990s saw the start of internet service providers and by the mid-1990s, commercial browsers privatized the Web. While this was an ideological departure from the past internet and Web models, commercial browsers enabled and encouraged society at large to use the Web (Castells, 2001) and think of it as a 'place' to visit (Turkle, 2012). Netscape was the commercial browser and as Brian McCullough, author of *How the Internet Happened: From Netscape to the iPhone* and host of the *Internet History* podcast, argues, marks the beginning of the modern technology era. He explains that Netscape was not only the first company to create a popular Web browser, it also moved society into a time when internet products could be run on top of a layer of software, such as dotcom corporations. Furthermore, he says, Netscape also created the concepts of internet speed and iterative online product releases (Pethokoukis, 2019).

One of the most popular browsers was America Online (AOL), which like most other things of the era, was tied to a BBS. In the 1980s, a BBS and a phone-based gaming service were reborn and renamed America Online and shortly thereafter the company introduced commercial email addresses, a Windows version of their services, and access to the internet for its users. They gained widespread use when, in 1996, they switched their dial-up internet fees from hourly to flat monthly pricing and launched one of the most aggressive and well known direct-marketing campaigns with millions of free trial CDs[1] regularly sent to homes across the United States. They were so successful that their existing modems could not handle the volume. By 2000, AOL was the United States' largest internet provider and by 2002, it had 34 million global members and spawned multiple cultural touch-points (Lumb, 2015; Rothman, 2015).

AOL was the first platform not to limit their target audience to businesspeople or professionals but instead to say their service was for everyone. Their strategic partnerships reinforced this, from the American Association of Retired Persons to MTV and a range of news sources. Yet, the focus of AOL's content was not the information itself, but the ability to talk to others, and build communities about the content, via email, forums, and chatrooms (Nollinger, 1995).

America Online grew because of their friendly and welcoming environment and "emphasized the notion of contained communities within which people could interact" and "an enforced metaphor of 'neighborhoods'" (Cormode & Krishnamurthy, 2008). In AOL's chatroom product, People Connection, where people could enter rooms based on their interests, such as genealogy or strategy games, participants learned about the various rooms from "Network News" a virtual community newsletter that would alert people to special guests or discussion topics. The first chat rooms were small, with a maximum of just 23 people, but as people began to participate, word of mouth meant more users and the variety of rooms increased. When AOL switched to their monthly unlimited plan, not only did more people join, but they could stay in the rooms for hours without worrying about an hourly charge (Wagstaff, 2012). The chatrooms were also a destination for celebrity interactions with fans; they hosted dozens of A-list actors, politicians, and musicians, (Smith, 2016), including Michael Jackson, who drew a record breaking 25,000 participants with a session jointly hosted by AOL and their media competitors, CompuServe and Prodigy, which MTV hosted at New York City's Museum of Television and Radio (Richter, 1995).

Another one of AOL's products was AOL Instant Messenger (AIM), a popular free chat feature which was created by AOL's engineers without company permission, paralleling

ARPANET's lack of permission for their chat feature. AIM was forward thinking: it created the "Buddy List" to tell users who else was available and had customizable icons and profiles. AIM also introduced millions to web culture such as basic internet abbreviations and away messages (which would later evolve into status updates and tweets on later platforms). When AOL resisted the shift to mobile and the emerging popularity of text messages, AIM quickly decreased in popularity (Abbruzzese, 2014; Panko, 2017).

2.7 Shifting to Web 2.0 & Social Media

With the rise of the Web, the 1990s experienced a dotcom economic boom which saw many companies given high valuation and then quickly descend into bankruptcy. At the end of this boom, Tim O'Reilly, author of *What Is Web 2.0?*, realised that the companies who survived the "bust" each were collaborative, participatory, and had publishing abilities. He also identified that they exhibited unprecedented and radical online trust, included easy to create blogs on single platforms, tracked users and clicks of individuals, made use of organisational systems with tagging and folksonomies and employed decentralised file downloading systems. Together, these features harnessed the collective intelligence of their users and enabled people to add and control their own information. To describe them, he popularized the term Web 2.0. (O'Reilly, 2005).

Part of the shift to Web 2.0 was the pivot to connections between people with social networking sites (SNS). Danah boyd, researcher and president of the Data and Society Research Institute and Professor Nicole B. Ellison explain this shift thusly:

The rise of SNSs indicates a shift in the organization of online communities. While websites dedicated to communities of interest still exist and prosper, SNSs are primarily organized around people, not interests. Early public online communities such as Usenet and public discussion forums were structured by topics or according to topical hierarchies, but social network sites are structured as personal (or "egocentric") networks, with the individual at the center of their own community. This more accurately mirrors unmediated social structures, where "the world is composed of networks, not groups" (Wellman, 1988, p. 37). The introduction of SNS features has introduced a new organizational framework for online communities, and with it, a vibrant new research context. (boyd & Ellison, 2007)

These social networking sites existed in the hundreds and continue to be popular to this day. Boyd and Ellison explain that social networking sites mainly support maintaining or extending pre-existing social networks and uniquely "enable users to articulate and make visible their social networks". Furthermore, they are distinct in that they "allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." But even though these networks can be joined by most anyone, they attract homogeneous populations segregated by nationality, age, and educational level (boyd & Ellison, 2007).

The shift to Web 2.0 social networking sites was a boon for fandoms. Fans could share user generated content, remixes, reposts, and embedded content (Sandvoss et al., 2017a). Furthermore, musicians realized that their fans had been on the internet all along and began

connecting with them using their social networking accounts (predominantly MySpace) (Baym, 2018).

Although not very well known, the first social networking site was TheGlobe.com, founded in either 1994 or 1995 depending on the source (Mieszkowski, 2001; Beller, 2011; Adams, 2015;). TheGlobe was a "'community hosting' Web Company" which had chat, home pages, gaming, and e-commerce (Mieszkowski, 2001) and earned 20 million users at a time when there were only a couple hundred million users on the entire internet. Today, its legacy is as a quintessential story of the dotcom bust: investors who probably had never even used the internet saw an opportunity to make money, their shares jumped in value, and the company was gone by 2001 (Beller, 2011; Adams, 2015).

SixDegrees.com is often recognized as the first social networking site, launched in 1997 (boyd, 2004). This website was predicated on the idea that the internet could replicate successful in-person networking and that every person was at most six links from anyone else. Therefore, each person who signed up submitted the email addresses of ten people they know, who would be their first degree and then those ten people would be asked to join. This would build a constantly expanding circle of links. Each user would have 1. Their own page where only their first-degree connections could communicate with them and 2. An internal search to find people with similar interests (Bedell, 1998). Despite attracting millions of users at a time when people were joining the internet, most people did not have networks of friends that were online and could not replace their in-person social ties. As a result, the service closed in 2000 (boyd, 2004).

In the next decade, hundreds of social networking sites were created with various features and networking intentions. These sites built communities on shared values and around specific criteria, which, while idiosyncratic, demonstrate that the act of going onto the Web was no longer unique to a specific type of individual. Identity driven sites included Facebook (before it opened to everyone, discussed below) BlackPlant, AsianAvenue, and MyChurch; personal and dating sites included MiGente, Match.com, and Classmates.com; social blogging was introduced with LiveJournal and Xenga, and a blurring of personal and professional sites included Ryze, Tribe.net, LinkedIn, Visible Path, and Xing (boyd, 2004). A variety of "passion-centric" social networking sites were developed to connect strangers based on shared interests -– Dogster for dog lovers, Care2 for activists, and Couchsurfing for budget travellers – but these never gained popular attention. Focus continued to be on mainstream social networking sites (boyd and Ellison, 2007).

Friendster, launched in 2002, was built on the popularity of chatting programs and the emergence of social networks. While it was created for dating by using the premise that friends of friends would make good partners, it also was meant for physical-world friends to join. The result of this odd combination was social tension since one was to publicly show their connections to enable private interactions. The added physical-world friends were necessary to achieve the desired results of compatible dating, but with all the other, non-romantic connections on the site, boyd points out that individuals made profiles that were socially appropriate for friends and potential partners but were not always truthful. Additionally, its success was somewhat limited by the fact that people wanting romantic encounters do not always want there to be mutual connections, or for the mutual connections to know of the romance (boyd, 2004).

Other sites mixed social networks with passion-centric motivations and the then-new user-generated content phenomena – Flickr for photo sharing, Last.fm for music listeners and YouTube for video sharing. MySpace was the most successful of these platforms since it became adaptable, embracing not only teenagers but also the musicians and music lovers who had found themselves unwanted by other sites. Promoters and fans found each other on MySpace, continuing the tradition of using new technology for fandom and its social ties (boyd & Ellison, 2007).

The people online today, participating in the online world and interacting with each other, are no longer just the technologists that developed the internet, nor just the groups that found each other through the early Web, nor just those who discovered the Web 2.0 publishing platforms. Online social networks are imperative to the way life is lived today, intertwining with one's everyday lives as an extension or even as part of the real world. Castells explains that as a result of networks, people connect in online worlds and in real life situations:

> The key to success is not anonymity, but on the contrary, self-presentation of a real person connecting to real people (in some cases people are excluded from the SNS when they fake their identity). So, it is a self-constructed society by networking connecting to other networks. But this is not a virtual society. There is a close connection between virtual networks and networks in life at large. This is a hybrid world, a real world, not a virtual world or a segregated world. (Castells, 2014)

He explains that more types of sociability are facilitated and dynamised by constant online connections and networking on the Web, even adding that the virtual life is now more social than just a physical life (Castells, 2014).

This can be attributed to the shift to mobile computing which means the internet, the Web, all its connections, networks, communities, and passion-centric groups are with people all the time, on their phone only as far away as their pocket, purse, or backpack. Messaging tools with instant communication enable communications to be at the speed of being in the same place, but without actually occupying the same space, therefore allowing us to be *everywhere*, simultaneously. Sherry Turkle, professor of the social studies of science and technology, interprets the change to mobile to have redrawn "the boundaries between intimacy and solitude." (Turkle, 2012: 11). But Turkle does not view this as a positive. "Technologies live in complex ecologies," she explains, because devices are capable of many actions, we need to choose which device to use to perform an action (Turkle, 2012: 188). She points to the changing use of a "phone", which was for talking but now is viewed as demanding and confrontational and the shift to texting and emails, whose brevity lacks depth of content (Turkle, 2012). The concept of everywhere can also be coupled with the concept of time because through multitasking, people can now layer multiple activities on top of each other; therefore, we can be both everywhere and "everywhen". With this framing, when a conversation via text occurs simultaneously with another conversation, only partial attention is given. Turkle sees this as negative as it objectifies people because they are not making real connections with each other. With so much information and content happening at once, individuals must fight for relevancy and interest when there is so much to be consumed.

The shift in the organisation of online communities, changes in intimacy and solitude, and the existence of a hybrid world can all be seen through an examination of the largest social media site to ever be developed. Facebook changed social networking when it was created in 2004. It was initially intended to be a digital student directory, but it became one of the most powerful communications platforms in the world (Lapowsky, 2019). Now, the astronomically large Facebook audience can be quantified in relation to the world population: according to social media management company Sprout Social, in 2020, 2.45 billion people are daily active users, or about a third of the global population. This is the largest percentage of people using a SNS ever, and its ubiquity across industries make it extend to and affect everyone.

Facebook has quite literally shifted expectations of social networks and human behaviours. The "poke" demanded on-demand attention and the "like" made online rating systems a ubiquitous, cravable, and quantifiable virtual currency and validation system, used by individuals and corporate decision makers. The "Newsfeed" similarly demanded attention with its centralised and highly visible stream of updates, of which users have become accustomed. They also included and advanced some of their predecessors' features, such as the private messaging "Inbox" and "Messenger" chat feature (Lapowsky, 2019; Martineau & Matsakis, 2019). Additionally, the shift to mobile meant that the social network and all its features remained available to its users at all times.

Communications and knowledge substantively changed with Facebook. Following in the tradition of community bulletin boards, Facebook made their platform into a source of all types of information and nearly half of Americans now get their news there, without ever leaving the Facebook platform. An article in *Wired* speculated that Facebook is "the largest

repository of personal information about humankind to ever exist", documenting everyone's lifecycle through status updates and photos and videos (one can upload an unlimited amount), alongside other more banal occurrences. People are also able to plan their time via the events and calendar features. The introduction of "Facebook Safety Check" to alert one's friends that they are well during disasters, is quite literally a matter of conveying life or death (Martineau & Matsakis, 2019).

Facebook's reach across industries cannot be overstated. To support all these advances, Facebook changed computing as it built new hardware and software tools. While all platforms have their own code, the extent to which Facebook has ventured into technology is almost unparalleled. They created programming languages and software to manage the massive amounts of data they had collected, which has now become industry standard (Finley, 2019). They developed hardware that brings Facebook permanently into the home with Facebook Portal, and into one's pocket with their smartphone. They developed technologies tangentially related to the original notion of a social network including virtual reality headsets, satellites, and VPNs and machine learning such as chatbots, facial recognition algorithms, offending comment detectors, and suspected suicide risk. They launched Internet.org, bringing affordable internet to the developing world and making Facebook synonymous with the internet in these locations. Facebook's financial impact has also dictated entire markets. It purchased social network competitors and technology corporations, among them Friendster, Instagram, WhatsApp, and Oculus which together give them a hold on younger, international, and futuristic user segments. Additionally, Facebook impacts other industries by creating new business models with Facebook Ads and Pages for Brands, collecting donations for non-profits, as well as a second-hand marketplace for non-business users. And Facebook also changed how leaders on the global stage gain power. The

litmus test for politicians is tied to likes and Facebook has been host to state-sponsored cyberwars, violent rally recruitment, sold ads to adversaries, manipulating elections, allowed state-sponsored propaganda, promoted fake news, and harvested user data from tens of millions of people without their knowledge (Lapowsky, 2019; Martineau & Matsakis, 2019; Jankowicz & Otis, 2020).

With these novel platforms, new features and expectations, advanced technologies, and unparalleled reach and influence on society, one of the most interesting parts of Facebook is the prevailing topic-based Facebook Groups and threads. These are the continued evolution of ARPANET's listservs, individual BBSs, and AOL's chatrooms. In 2012, AOL's longest-running employee and then chief-architect was asked by *Time* magazine if the chatroom was dead. He replied,

> I don't think people have necessarily stopped using them – there are just different ways of expressing the same concept now," says Schober. "Now people on Facebook will start a thread on someone's Timeline and really start interacting with one another. It's a different visual format, it's organized differently, but it's really the same concept we had around the chat room. (Wagstaff, 2012)

The Facebook group, a collection of like-minded people in a semi-private or private section of the SNS, has been at once helpful and problematic, which is complicated by its vast scale. Social media management company Hootsuite states that 1.4 billion people are in more than 10 million Facebook groups, making them more ubiquitous than any other topic-based space online previously. Some groups have positive intentions and results: groups for schools act as third spaces between the classroom and the home, groups about health and medicine provide

support to those who are ill, groups for minorities enable disenfranchised voices to be amplified, and countless more. But concurrently, Facebook can also exacerbate problems. Democracy, technology and cybersecurity experts Nina Jankowicz and Cindy Otis explained in a *Wired* article that users are sharing vast amounts of misinformation in Facebook groups that were promoted as trusted spaces about shared interests but instead are populated by foreign and domestic adversaries sent to spread falsehoods and conspiracies. This, they say, is because 1. Those in the groups are seen as reliable sources, 2. Groups with false information can be given innocent-appearing categories such as cuisine or just for fun to avoid scrutiny, 3. Algorithmic suggestions can lead users deeper into conspiracy-related groups and 4. The private settings of some groups do not allow accurate information to enter or be voiced. Facebook has admitted that they know most of this to be true (Jankowicz & Otis, 2020). This single platform has penetrated nearly every aspect of our lives, in many cases without its users even being aware of its reach.

The rise of social media expanded an existing type of digital work and popularised two new careers: the social media manager and the influencer. The social media manager oversees the online communications on social networks for a company or organisation and is usually responsible for multiple areas of responsibility, acting as copywriter, photographer, designer, editor, media and data analyst, and customer service representative. The second career is the influencer, who as their name implies, are able to influence the behaviours of those who follow them. These individuals first gather large followings by interacting their publics, achieve high levels of trust, and then often monetise their success through 'brand partnerships' (more commonly known as ads) and those who have achieved the most success are courted by talent agents and create their own media companies to support their work. While these roles were not taken seriously as they were developed, they are now highly

sought after and related job postings have had exponential growth in the last decade. Each of these digital roles – the social media manager, the influencer – are expected to respond to the needs of their followers which can mean being available at all hours of the day, performing constant surveillance, and responding to both their organisation's communications needs and fast-moving internet trends.

While most official communications from a company or organisation are from social media managers, we must also consider the online communications work ('labour') done by unofficial individuals who may not have reached the strata of 'influencer'. Herein we find relational labour, coined by Baym (2019), which is the performative work that goes into building ongoing connections with groups of people in online settings. In the context of this research, relational labour is the unofficial and often unrecognised work done by individuals interacting with museums' public online. These people may take on similar tasks to those who are official social media managers and might have deep impacts in small to moderately sized communities without reaching the breadth of those categorised as influencers. We will continue this discussion of relational labour in Chapter Three (discussing how communities are built and the role of moderation), Chapter Five (introducing the communications professionals at each museum), Chapters Six (understanding these individuals' perspectives), throughout Chapters Seven and Eight (where their actions affect online community dynamics), and again in Chapter Ten (which synthesises all of this data into the concept of "relational labour", introduced above).

2.8 The Web as Everyday Life: Everyone, Everywhere, Everything

By tracing the history of casual conversation and group dynamics online from the 1960s (PLATO) onward, and in conjunction with the history of fandom, we can see that the desire to casually communicate online has been a constant. What has changed though, has been the audience and their technological ability, from highly skilled programmers at ARPANET, to those with technical ability on BBSs and limited technical knowledge using the first browsers, and ultimately to those who need not understand any technological backend on modern, user friendly, graphical user interfaces on social media today. This evolving ease of use has encouraged and enabled increasing numbers of people to enter and use the online world. Becoming increasingly and almost entirely connected online creates online relationships and networks bound by social capital affinity. They become communities of like-interest casual connections, regardless of their connections in the real world. The affinity among these people can be explained through interest in each other's online presence and content and the occasional communications that are then generated. Castells notes that there is,

> [S]ubstantial evidence of reciprocal supportiveness on the Net, even between users with weak ties to each other. In fact, online communication fosters uninhibited discussion, thus allowing sincerity in the process. (Barker et al., 2013)

The diminishing size of the technologies – from the large computers kept at universities, to the terminals placed in a California music store, the introduction of home computers, and the switch to mobile computing – have made being online both multimodal and available in any location. It is now an assumption that people will have the online world available to them

immediately because presently, the online world can exist in any device. Since the internet

and the Web have become so commonplace – for good and for bad – it is undeniably a part of

our daily lives. Every day, the integration becomes more deeply rooted and by having

technologies within our reach, we seamlessly transition from digital to analogue

communication. Manuel Castells writes that:

> Since our practice is based on communication, and the Internet transforms the way in
> which we communicate, our lives are deeply affected by this new communication
> technology. On the other hand, by doing many things with the Internet, we transform
> the Internet iself [*sic*]. A new socio-technical pattern emerges from this interaction.
> (Castells, 2001: 5)

The integration of all elements of daily life into a digital form did not create a parallel, digital

world but as Castells says, a hybrid one. The Internet Society's Web page explains the

internet, "as much a collection of communities as a collection of technologies, and its success

is largely attributable to both satisfying basic community needs as well as utilizing the

community in an effective way to push the infrastructure forward." (Leiner et al., 1997)

These basic community needs are vast as online users are increasingly accustomed to the

multi-textuality and multi-dimensionality of the Web, and the fact that all facets of life are

moving towards digital integration. This builds upon the diversity of topics that are discussed

on the web – seen through that very first SF-LOVERS listserv, the Deadheads who

shepherded music into the internet and Web, critical information shared on private BBSs as

the AIDS epidemic grew, and political organization seen galvanizing United States elections

today. Internet sociality is about everything.

It is here, in this social internet, that fandom has blossomed. The fandoms that kept in touch through newsletters and clubs before the internet was even conceived and the hobbies that Shirky explained had been hidden, found each other online in topic-based groups. Over time, the casual conversations and the online relationships became less dependent on who had enough technical skills to navigate the internet and less dependent on where someone was located, while the increase in people and their diverse interests online have meant that any or all fandoms can and do have a place online.

Furthering this line of thought, the Expert Web is located within this evolution of the internet, developing alongside the social aspects, the sharing of knowledge, and the people with niche topics who against all odds found each other in the world's largest communications platform to ever exist.

As useful as it is to acknowledge the history of sociality of these digital, internet and Web communities, it is also vital for this research to acknowledge complexities regarding online groups formation and behaviour. This is because, once again, the social internet and Web act very similar to the Expert Web. And, therefore, it is to the subject of community building and authority to which this research now turns.

Chapter Three

Building Community Online: People, Processes, & Platform

3.1 Introduction

Chapter Two demonstrated that the internet and Web are inherently social technologies. Now, Chapter Three turns to the characteristics of online communities. This chapter explains how online communities are made of: people who exchange knowledge; have processes to aid authority and power; and are made of platforms to execute control. It is these components – within the context of this research – that become the definition of online community. By reflecting on these concepts, the complexities of online communities are revealed, and we can further hone what makes the Expert Web, a specific type of online community, distinct. It will be these concepts of 'people', 'processes' and 'platforms', that will inform the methodological approach in Chapter Five. Likewise, it will be these themes of 'knowledge', 'authority' and 'control' which will prove key to the patterns and characteristics that emerge subsequently in Chapter Nine.

To understand people, processes, and platforms, it must first be established that in one regard, the building blocks of online communities are no different than of physical communities: the formation of any community and its continued existence is dependent upon the relationships that its members form. But while in a traditional community, these connections are based on established norms, expected social cues, and unspoken protocol, the internet and Web significantly changed both the group formation paradigm and the very nature of

communities. Without in-person, face-to-face interaction, one's social cues and surroundings changed, and an entirely new set of norms were created.

3.2 People: Identity & Knowledge

The most important part of online communities and, in turn, the Expert Web are the participants who convene and join the communities. These participants are diverse, but their involvement can be segmented, their identities can be categorised, and the ways in which they help construct knowledge can be analysed. Manuel Castells divides the cultural structure and users of the internet into four layers dependent upon each other to form an ideological freedom that is widespread throughout the internet: 1. Techno-elites are the scholars who believe in technological advancement, 2. Hackers are loosely coordinated groups of programmers who upgrade the internet and fight to preserve freedom, 3. Entrepreneurs are the business people who drive commercialisation and expansion and 4. Virtual Communitarian Culture are the users who create the patterned behaviour and social dimension of the Web. It is this fourth layer which is the most relevant for this research as it describes the people in online communities. The Virtual Communitarian Culture values horizontal free communications and self-directed networking with the capacity for users to find their own destinations. The participants are diverse, creating their own identities but lacking unity. They can post content but depend on others to create the technological supports that enable sociability (Castells, 2001). Typical participants within the layer of Virtual Communitarian Culture usually have casual relationships with subjects they encounter online. As they encounter various subjects or media, these typical participants are called "the audience", which is a term both familiar to performing arts and museum studies. Using Nancy Baym's definition of the audience – people that physically or virtually attend an

event (Baym, 2018) – we can see that being part of the audience does not necessarily demonstrate higher levels of commitment or reengagement.

The earliest members of the Virtual Communitarian Culture can be traced to the pedagogical environment PLATO, which embodied a new type of online freedom that enabled people to create entertaining online personalities for the amusement of their peers (Woolley, 1994). These online personalities became an important component of online culture as people created online accounts and set out to explore the emerging online world. Sherry Turkle, professor of the social studies of science and technology, explains that individuals create digital counterparts upon which they project consciousness. Calling these counterparts the "second self", people can disconnect from the physical world and instead connect with thousands of people online, shape their own idealised identity and change their own identifiers, such as physical appearance, gender role, race, and age as well as new homes, jobs, and romances. But Turkle also argues that these second selves do not form communities, as communities require physical proximity, shared concerns, and are responsible for each other (Turkle, 2012).

For the purpose of looking for the niche communities that form the Expert Web, the ability for second selves to reveal personal interests is particularly relevant. While personal interests were not accepted via the primary self in the physical world, they have often been more acceptable online, which then makes the online world more satisfying for the individual (Turkle, 2012). Clay Shirky, theorist and professor of the social and economic effects of internet technologies, explains, "The spread of digital hobbies hardly seems significant, [because] we've learned to regard amateur interests as faintly ridiculous, if not actively suspect" (Shirky, 2010: 87). With this in mind, it becomes evident *why* these

people and their activities are often ignored: they are hidden and when exposed, not taken seriously. Taking this line of thought one step further, if these people are hiding their preferred identities and personal interests, what keeps them motivated? Shirky explains that those engaging with activities in relative obscurity were thought to be amateurs with intrinsic motivations while, in reality, it was old pre-internet constraints that made these interests appear obscure. Today, social media (and the Web at large), is the appropriate environment to act upon and connect with those who also have niche interests (Shirky, 2010). Both the second selves who find their unique interests accepted online as well as Shirky's hobbyists are more committed to their subject matter than typical members of the Virtual Communitarian Culture.

Researching those who have a committed interest and form an identity around said interest returns this research once again to fandom. To begin, fans identify with a specific object of interest and have "regular, emotionally involved consumption of [the object]" (Sandvoss, 2017b: 32). This object most likely has a "field of gravity" which includes surrounding paratexts and related objects. Together, the object and the field of gravity form the 'fandom'. Fans are unique in the way that they have strong feelings about and even relationships with their objects and deep emotional convictions with an emotionality approaching a religious-like phenomena. Fans manifest these feelings as making meanings beyond what is directly offered by the object or expressed through recognition of style or creativity. These feelings and expressions of interest in an object are a component of how fans build their self-identities (Baym, 2018; Fuschillo, 2018).

With this understanding of how fans act towards their object, this research can now turn to fans' sociality and individuals' relations to each other. Fans are part of social groups with

shared attachments and affection for their object (Baym, 2018) and the importance of these social ties and their relation to identity cannot be overstated. Sandvoss, Grey, and Harrington explain:

> [B]eing a fan may be as important to one's community memberships as one's sense of self. In an era in which traditional markers of identity in high modernity such as employment, class, marriage and (national) belonging, but also age, religion, sexuality, and gender are increasingly instable, fluid, and on occasion ephemeral, the imagined but voluntary communities we join through fan attachments are as important as the self-identity that is constructed and narrated by fans individually. (Sandvoss et al., 2017a: 11)

When individual fans with unique interests find each other and form groups, they achieve a sense of validation and believe that their own interests are more 'normal' (Tushnet, 2017). Within these fan groups, Gregorio Fuschillo, Professor of Marketing and Sociology of Consumption who studies fandoms, divides fans by commitment, writing that there are full time, hardcore committed fans and temporary soft-core members; whereas Jenkins adopts the terms 'lead users' to describe early adopters of the object and 'multipliers' to describe those who make use of the object and paratexts to gain meaning. Each fandom acts as an individual community and maintains a "we-ness" with their own internal organisational structure of defined hierarchies based on their own culture, experience, and knowledge (Fuschillo, 2018; Baym, 2018).

The second selves, virtual communitarians, and fans each shape the social dimension of the Web through their identities, devotion to their objects and relationships with their

counterparts. As this research begins to hone in on an understanding of the Expert Web, connections and identities begin to form: The Expert Web is part of the Virtual Communitarian Culture because it is social. The Expert Web is made of second selves who reveal their true interests through online communities. The Expert Web is made of fans who identify with their object. But what makes the individuals who are part of the Expert Web more than dedicated fans is their depth of knowledge regarding their object.

Now having considered how fandom and the Web intersect, another aspect to consider is how these individuals and their groups exchange knowledge. Judith Simon, professor of ethics in information technology, defines knowledge as "a success term labelling epistemic content that has survived critical scrutiny from multiple agents and satisfies communal standards". Within the study of epistemology, one of the debated contributors of trust is testimony (acquiring knowledge through words of others) because first-hand accounts need more justification. Simon explains that epistemological vigilance depends on what is at stake in the situation and, therefore, those who gain knowledge through dubious testimony are taking responsibility for granting authority to a source that may not be accurate (2010). Sharing knowledge is a form of participation and a contribution that can be seen across the Web and helps to ensure the success of a group's existence (Kraut and Resnick, 2011). Online communities where knowledge is exchanged encourages interaction and conversation while attracting additional knowledge.

Historically, those who created the internet (Castell's 'Techno-elites') shared their knowledge and buttressed their assertions with information. Today, the internet continues to follow this tradition, as anyone can publicly demonstrate a skill set and gain expertise (O'Neil, 2009). Online, the Web is an "enormous conglomeration of epistemic content of

varying quality" (Simon, 2010) and there need to be critical methods to extract valuable content, taking into account that the volume of information does not allow for verification of everything and users need to use trust through either human (users) or nonhuman (algorithmic) epistemic agents (Simon, 2010). Instead, by understanding the format and structure of typical online communities, we can assess the contributions by analysing the ways that people position themselves in these online environments. Expertise networks evaluate the quantity of posts and replies, whereas both 'authority claims' and 'alignment moves' evaluate the way that the original poster (known as the "OP") positions themselves within the question or reply. In both, these exchanges start with a threaded discussion and an individual posting a topic or question, called an original post (also known as the "OP"), to which others can respond (Bender et al., 2011).

To evaluate a thread within an expertise network, one analyses how the other users embark on a complex social process where, using pseudonyms (Turkle's second self), they can clarify, discuss, or answer the original post based on the content in the post. The replies to the original post mean that responders had superior information to the original poster. While few people will claim that they are experts, many will self-identify as having expertise in some area and can contribute to forum discussions. The distribution of expertise, known as a community expertise network, can be evaluated by looking at the quantity and positioning of the replies to the original post through "indegree" (how many people a user replied to) and "outdegree" (how many people replied to a user) posts. The expertise ranking can be weighted by looking to see whether someone has answered another high-ranking person, and therefore knowing more than someone with expertise (Zhang et al., 2007).

It is these second selves who position themselves within the online communities to build conversations about their digital hobbies (fandoms) through the sharing and discussion of information and demonstrations of their expertise. Specific to this research, it is essential to understand second selves as it is these people who discuss their hobbies and participate in the 'episodes' that are be explored in Chapters Seven and Eight. Their ways of sharing and discussing information and their demonstrations of expertise are the basis for the analysis in Chapter Nine.

3.3 Process: Authority, Power, & Trust

While participatory cooperation is the basis for the Web's independent media, knowledge, and code (O'Neil, 2019), the Web's hierarchical structures influence user behaviour. Through processes, participants can learn to cooperate and trust each other, ultimately working towards specific goals.

Mathieu O'Neil, in his book *Cyber Chiefs: Autonomy and Authority in Online Tribes*, demonstrates that authority is prevalent online and exposes the falsehoods of the perceived idealization of internet autonomy. By having participants responsible for establishing quality control, determining who is reliable, and what contributions are pertinent and reinforced, creating a hierarchy of knowledge and trust avoids an "incoherent Babble" (O'Neil, 2009: 1-2).

Historically, functioning and peer-approved code increased the author's status, which cemented the value of learned and expert authority online. Uniquely, these early experts and peers were also the administrators online, meaning they also had administrative authority[3]

(these are typically different groups of people). Peer production and cooperative work (the hallmarks of Web 2.0) also play a part in learned and expert authority as thousands of people come together to contribute to online projects. These peer production models and direct communications created an alternate to typical hierarchical model offline (O'Neil, 2009).

To understand authority and power, and how they exist online, O'Neil examines types of online communities. He explains that various models of internet communities do not capture the full extent of collaboration, collectivism, and working to a common goal (O'Neil, 2009). He proposes two models which approach accuracy, but neither address content quality:

1. Communities of practice: "a group of people who share an interest in a domain of human endeavour, and engage in a process of collective learning that creates bonds between them" with the ability to learn through shared experience (O'Neil, 2009: 25).
2. Epistemic communities: "networks of knowledge-based experts who share the same world views such as principled beliefs, notions of validity, and a common policy enterprise" (O'Neil, 2009: 25).

O'Neil ultimately settles on the term tribes, which "illustrate the temporal nature of collective identities in modern consumer society as individuals continually move between different sites of collective expression and reconstruct themselves accordingly", convey a sense of belonging for the members, and resembles village members who have equal access to information (O'Neil, 2009: 26-27).

But group structure cannot determine if information is truthful. Therefore, it becomes necessary to understand the process of trust in relation to power and authority online to generate conversations. Yet, trust is difficult to define, especially in virtual environments.

First, trust is difficult to define because it is identified through qualities bestowed upon an object or situation by people. It is necessary to identify the positive qualities that contribute to an expectation of trust; scholars do this by creating frameworks, defining roles (trustor and trustee), and determining norms. For individuals, trust rests on the merits (intentions, motivations, interests, and reasons (Nissenbaum, 2001)) or qualities (ability, benevolence, and integrity (Wu et al., 2010; Ridings et al., 2002)) of participants. Alternatively, by identifying trustor and trustee roles, the process of trusting relies on the trustor as trust reliant and the trustee as trustworthy.

Second, assessing trust online presents a different set of challenges than assessing trust offline. The internet and Web, as demonstrated in Chapter Two, are ever evolving, continuously novel, and repeatedly unfamiliar and halt the ability to use traditional in-person assessments such as interpersonal relationships and shared context. Online, the context (space, time or even values) in which one person is communicating could be vastly different than the context of the person with whom they are communicating. Jessen and Jørgensen, human-computer interaction researchers, point out that the current structure of the Web no longer fits the previous paradigm because so much of Web 2.0 content is detached from credentials and authority cues. Instead, they suggest updating online credibility to include online social dynamics (Jessen & Jørgensen, 2011).

Trust in online communities can be examined by assessing individuals and by assessing groups. Regarding individuals, without in person cues to show authenticity and transparency between individuals, online users must rely on their perceptions and ability to evaluate behaviour. In an online community, this is historically and typically text-based exchanges with questions, answers, and comments. Within text-based exchanges, there are a series of cues to determine competency, which in turn builds trust, reputation, and authority (Ridings et al., 2002; Nissenbaum, 2011).

These cues are varied. The frequency of replies and exchanges of useful information affirms value, builds a belief in ability, demonstrates integrity, and displays benevolence. Individuals who confide personal information in online communities demonstrate that they trust other members of the community and make themselves appear as more than a stranger. In turn, this encourages more people to trust them, which leads to all members being more inclined to help and request in a cooperative information exchange (Ridings et al., 2002). Consistent methods of identification, such as usernames, create a reputation. But the last of these cues – usernames – is imperfect as it can obscure someone's true identity. Helen Nissenbaum, professor of information science and law, explains why a lack of physical-world counterparts complicates online trust:

> Even with roles that appear equivalent to offline counterparts, for example, 'shopkeeper,' we lack the explicit framework of assurances that support them. For the roles that have emerged in cyberspace (like 'sysops,' avatars, bulletin board moderators, and so on) that do not have obvious counterparts offline, their duties and responsibilities are even less defined and understood. (2001: 114)

This possibility of obscured or missing identities allows for the possibility of eschewed motivations and questionable actions. The result is a situation in which it becomes harder for a trustor to place trust in a trustee and for potential trustors to reciprocate and create sustained relationships.

Despite lacking credibility and identification of the individual contributors, social validation in online voting mechanisms (likes and upvotes) enables the perceived credibility. In these circumstances, distribution plays a key role because responsibility of the steps is decentralised and collaboration among contributors eliminates individuals from dominance (Jessen & Jørgensen, 2011; O'Neil, 2009). Aggregated trustworthiness asserts that the process of establishing collective judgment in an online environment creates perceived credibility. Multiple streams of trustworthy cues in web platforms – including voting, likes, and ratings – provide a broader spectrum of validation than these same cues would provide offline. By using multiple social cues, the risk of being misled spreads. But still, quantity metrics such as the number of likes or shares does not replace critical analysis of online factual information (Jessen & Jørgensen, 2011). And, by having enough participants, peer review and statistical averages can also control bad assessments if individuals make mistakes or contribute outliers to data (O'Neil, 2009).

Recommender systems are a common method based on the influence and perceived expertise of many individuals at once and places the perceived trust into the collective's wisdom and opinion. The system pools the opinions of multiple people at once with a single value, which is easy to understand at a glance. But the information from peers can be more complex than a single value implies. First, results are likely to be similar because the like-minded peers are within the same online community. Second, recommendation systems with high quantities of

users can result in more generic and less meaningful reviews. Third, inexpert peers in large volume can outweigh and undermine expert opinions (Sundar et al., 2009).

Returning to the notion of epistemic communities, trust has an underpinning of epistemology because it is about the believability of the knowledge being conveyed. This is especially relevant when discussing the actions and expectations of the Expert Web. Trust can be a method of handling information proposed as options. For example, if people were forced to calculate all possible outcomes of a situation, they would freeze in indecision instead of taking action. But if there is trust in a complex situation, uncertainty is reduced when the trustee can classify options. Positive actions that lead to rewards establish trust and create insurances that the trustee follows through, whereas negatives such as betrayal can be publicized and induce punishment. Nissenbaum explained,

> If a climate of trust can be established on the Net, if attitudes of trust toward partners in electronically mediated transactions can be achieved, then the online world will thrive, it will attract information, it will be lively with interaction, transaction and association. This will attract further investment of all kinds, which in turn will fuel participation, and so on. Conversely, if people do not trust interactions mediated electronically, they will minimize them; they will be cautious and suspicious in their dealings, they will not place information and creative works on the web, they will not engage in E-commerce, they will not indulge in MUDS, MOOS, C-lists, Bboards, Listservs, chatrooms, buddy lists, electronic banking, and more. A great resource will be wasted. (2001)

Furthermore, trust motivates members to contribute to online communities thereby expanding them. Ridings, Gefen, and Arinze, professors of management information science, explain that virtual communities form around a *common topic* where the sharing of information is the common goal. One can either get information – defined as simply reading ongoing conversations and soliciting information through posting questions or comments – or give information – defined as posting conversation, either in direct response to another's post or by starting a new conversation topic (giving information has greater active participation and exposure) (2002). By contrast, Zhang et al. define online community formation through a *motivation*, such as seeking advice and sharing expertise about shared professions, interests, or products with specific goals for their own gain – feelings of altruism, reputation enhancing benefits, expectation of reciprocity, and direct learning benefits (Zhang et al., 2007).

In short, by looking at processes, we notice the importance of collective identities in tribes and participation amongst individuals as well as the role of trust and social dynamics to gain power and authority. These are key conceptual tools for our consideration of museum relationships with the Expert Web which will be helpful to recall throughout the interviews in Chapter Six and the episodes in Chapter Seven.

3.4 Platform: A Means of Control

So far, we have considered the people who participate and the processes which these people engage to build online communities. Alongside these is a third characteristic of online communities for consideration: the platform.

Online communities are made of platforms that exercise control over users and shape the way power and authority are implemented in online processes. The trust in technical systems contributed to the underpinnings of early computing and the internet which unequivocally trusted the equality of contributing nodes and technical code. This algorithmic authority is still a guiding force in some online systems. Generally speaking, sets of abstract instructions (the logic) and possibilities for action (the control) are the inputs to the computer and the output impacts what information is considered truthful and, in turn, influences individual and societal behaviour. Shirky explains that this can be a three-part process. First, unvetted sources are combined without human intervention; second, users see what they believe to be quality results; and third, users decide to trust the tool and the system (Shirky, 2009; Simon, 2010; Lustig & Nardi, 2015;).

Trusting a platform puts faith in the perception of an idealized technical and automatic world. Many users assume that technology and automation can be blindly trusted since they appear devoid of a human influence, even going so far as believing that websites are more legitimate (Lustig & Nardi, 2015). That is understandable, given that many users are unaware of how platforms control their experiences. Nissenbaum identifies why this perception continues, describing that participants trust and assume that the internet will work as they believe it was intended – with minimal security risks and functionally doing what the users instruct the hardware to do (2001). That, plus a lack of traditional trust mechanisms such as social cues can make websites difficult to assess.

Online communities are built using behind-the-scenes software and protocols which organise, categorise, and control user actions. The technological capabilities and affordances of an online community platform can help the community begin, grow, and develop, while also

affecting the nature of a community and shape its communications while existing "below the surface (from the user's point of view)" (Owens, 2015: 17-18). Therefore, this research deduces that part of understanding the Expert Web is dependent on being able to identify technological platforms' features, affordances, and influences (Owens, 2015; Kraut & Resnick, 2011).

Trevor Owens, author of *Designing Online Communities: How Designers, Developers, Community Managers, and Software Structure Discourse and Knowledge Production on the Web*, studied online community software manuals and how online community design impacts user experience and achieves stakeholder objectives. While many other online community researchers are focused on the social dynamics of participants – and indeed the previous sections about individuals and processes have this focus as well – Owens' research (as well as Kraut and Resnik, below) examines participation from the point of view of the platforms' creators. His research includes BBSs (Bulletin Board Systems) as well as late 1990s and early 2000s forums, many of which remain in use today, including: Invision Power Board, Phorum, phpBB, Ultimate Bulletin Board System, vBulletin and Vanilla Forums. Owens traces the changes in the values of online communities from utopias to owned properties with specific goals. This is most prominent when the communities are, in fact, owned by corporations who add online community software to their commercial websites to increase web traffic and 'stickiness'. When created and managed with corporate objectives, online communities are no longer in the utopian vision that was a hallmark of the BBSs. Instead, they can be managed as dictatorships that want to extract value from their users while providing the illusion to participants that control is in their hands (Owens, 2015).

While an uninformed user may believe platforms are purely digital and devoid of human intervention, this is untrue. The range of people and their positions which can influence a platform is vast. These people can input their own ideologies, shape tactics, and imbed biases, and are also in positions to negotiate what is available (Owens, 2015,). Creators, developers, and designers conceive of communities, decide upon the structures that enable functionality, and provide the framework for permissions and controls. Administrators, community managers, moderators, and system operators (sysops) are provided with the platform and can enforce or push behaviours and award privileges.

The people on the back end of online communities have unprecedented oversight and power over the behaviours and relationships of community participants and can be "as much a form of social engineering as they are technical" (Owens, 2015: 112). Their control can be divided into three areas of focus relevant to this research:

1. Design and information architecture prompt particular kinds of people to particular behaviours through visual signals. These signals can act as invitations or filters and thereby create particular kinds of discourse and dialogue

2. Moderation tools arbitrate participants' interactions through a series of tools. These tools allow the human or automated administrator(s) to filter, prune, hide, reorganise, and even edit content

3. Reputation systems are incentivised rewards for participants; while this is a process, the design of the platform enables a process in which participants surface quality behaviours and the platform can measure and move posts (Owens, 2015)

Robert E. Kraut and Paul Resnik, authors of *Building Successful Online Communities Evidence Based Social Design*, also recognise that online communities have these influences at play. They categorise the goals of owners, managers, or members through functional and aesthetic features called levers of change that can be "deliberately or strategically chosen" (Kraut & Resnick, 2011:6). They classify both the technical and social levers into eight categories of "design alternatives" or "design options". Their eight categories are as follows (Kraut & Resnick, 2011: 6-8):

1. Community structure: size of community, homogeneity of members, subgroup structure and recruitment.

2. Content, tasks, and activities: content from outside source(s) or generated by members; social experiences and tasks.

3. Selecting, sorting, and highlighting: highlighting or removing content, filtering, and recommendations.

4. External communications: content from other communities and inviting outsiders.

5. Feedback and rewards: sharing reactions (ratings or likes) to participation.

6. Roles, rules, policies, and behaviours: hierarchy with rules and guidelines dictate behaviour and conflict resolution.

7. Access controls: limiting participation, moderation, and permissions for members.

8. Presentation and framing: describing the community.

Through these categories, the opportunity to manipulate users is evident and can be used to design environments which elicit individual behaviour, which they admit seems morally repugnant. But they say there is a moral imperative to create communities that work well and that there are advantages in making communities attractive and productive for their members.

They also outline dozens of "design claims" that can influence behaviour, explaining that under certain observable conditions, certain outcomes can be expected (Kraut & Resnik, 2011: 6-12). They outline patterns in which a feature helps, hinders, or is more effective than another option in achieving a goal under certain conditions. Of their many options, four categories are relevant to this research:

1. Contributions: determining motivations, tools to make content more or less prominent, persuasion, feedback

2. Commitment: encouraging people to stay and contribute, keeping content fresh, clever selections

3. Regulations: creating roles, rules, and policies, limiting actions if norms are violated, clarifying guidelines

4. Newcomers: communicating with outside communities, recruiting, selecting, retaining, and socializing

With all these assertions about the influence of platforms, it should be recognized that even with specific functions and features, a platform has limited direct control over participants and cannot dictate that the community grows or acts in certain ways. Therefore, the key people in an online community remain the individuals. In that regard, Kraut and Resnik introduce an idea regarding commitment to platforms, which is most relevant to the museum community:

"Both offline and online, people who are more committed to an organization tend to be more satisfied, are less likely to look for alternatives, are less likely to leave, and tend to perform better and contribute more" (Kraut & Resnick, 2011: 4)

Applying this to museum communities, it can be deduced that fans committed to an online fan community – or an Expert Web – who are satisfied with their experience are less likely to look for an alternative community such as one hosted by a museum on their platform. And thus, it is relevant for museums to understand where online and on what platform their Expert Web resides.

3.5 Conclusion

Museum studies, and specifically museum technology, has not had a standard, workable model for online communities, so the discussion presented in this chapter is both context necessary to understand the subsequent chapters to follow, as well as an attempt to contribute to the wider scholarship and practice.

This model for understanding online communities (which also acts as the research's definition of online communities) has three components – people, processes, and platforms – which are based on the established norms of physical communities but adapted for the norms created in online environments which has diametrically different social clues and surroundings. The people who participate are able to immerse themselves in conversation about their digital hobbies, in some cases, for the first time in a semi-public environment. These people form collective identities and engage in processes to cooperate and trust each other to work towards specific goals of their "tribes". Yet, ultimately, the platforms shape the user experience.

This clarity provides a framework to look at how museums have historically engaged with online communities (Chapter Four) and is applicable for the in-depth analysis of recent engagement in Chapters Five through Nine.

Chapter Four

Museums & Early Online Communities

4.1 Museums, Artists & Visitors in Early Online Communities

With an understanding of how the internet and Web evolved (explored in Chapter Two), and a familiarity with the components of an online community (set in Chapter Three), this chapter now turns to the circumstances and locations in which museums participated in online communities. The promise of home computers providing a new publicly accessible means of communications in the 1980s led technologically inclined, forward-thinking museum personnel to begin to imagine how computers and the internet could be used at cultural institutions. This chapter explores their realisations of a wider, electronically connected world and demonstrates a museum community open to diversity and free speech through self-governing, non-hierarchical, collaborative communities. We initially see the museums, the internet, and the Web evolving alongside each other and even in dialogues with the Expert Web. Yet soon after, the museums pivot to an emphasis on broadcasting content rather than participating in online communities of expertise.

The first mentions of Bulletin Board Systems (BBSs) in museological literature were in the advertisement section of the quarterly *Archives & Museum Informatics Newsletter*. The 1987 edition included an advertisement for a software update which encouraged users to share new content with colleagues via bulletin boards (Archives & Museum Informatics, 1987). The Newsletter's software section would continue to include BBSs in advertisements for the subsequent six years (Archives & Museum Informatics, 1992b).

Next, BBSs were mentioned in articles and listings with information about professional organizations. Together, the American Alliance of Museums (AAM), Telecommunications Cooperative Network (TCN), and Museum Computer Network (MCN) explored "the potential of some museum oriented electronic bulletin boards, mail, conferences, and data interchanges" (Archives & Museum Informatics, 1989). A "Special Interest Group" devoted to "Museum Bulletin Boards & E-Mail" was established at MCN's 1989 conference. The Photographic Conservation Association Ltd. bulletin board invited preservationists at museums to join and "[exchange] ideas, knowledge and information within the preservation community" (Archives & Museum Informatics, 1990a). The Committee on Computer Interchange of Museum Information, seeking to continue discussions from its first meeting and include more people, began using an "electronic conferencing system" where "Interested participants will be able to join the discussions at any time and be able to browse all the discussions that have already taken place" (Archives & Museum Informatics, 1990b).

Interest in BBSs continued to grow in society at large and specific BBSs were increasing in popularity. Early museum technology thought-leader David Bearman (editor of *Archives & Museum Informatics*) must have realized their expanding potential for museums as he penned the first feature article about The WELL (see Chapter Two) in the Winter 1991 edition. After a lengthy description of how to navigate The WELL, Bearman writes about two "conferences" of interest to the readership. The first was the Electronic Frontier Foundation Conference which included technical news and legal discussions. The second was Art Com Electronic Network. Here, Bearman describes finding current and back issues of then in-print art magazines, a digitally native art magazine made specifically for this Bulletin Board System (BBS), electronic art galleries, software reviews, conference announcements and

book reviews. He also shares his observations about 660 discussion topics including: virtual

reality, image quality, censorship, virtual exhibit spaces, concrete poetry/ANSI art,

individuals' reflections on specific art exhibitions. At the end of the article, Bearman asserts

that Art Com was "a mixed bag in intent and quality," though he also admits to having

"downloaded about 100 pages of material I would probably not have had access to otherwise.

Not a bad day" (Archives & Museum Informatics, 1991b). While he does not explain how

readers should apply this information to their own practice as museum professionals,

devoting significant column inches to The WELL demonstrates his perspective on its

potential.

These mentions and articles can be categorised as a period in which museum staff were

finding, observing, and learning about early online communities and the Expert Web. The

subsequent course of action would be for museums to feel comfortable enough to participate.

And the year 1990 marks this critical point in museum staff using – and actually interacting –

with individuals in online communities.

The best documented instance of someone interested in museums using BBSs is a report

submitted to the U.S. Department of Education's Office of Educational Research and

Improvement. The report is a first-person account of college student Anneliese Sessa's visits

to the Metropolitan Museum of Art and the artistic neighbourhoods of Tri-Beca [sic], Soho,

Battery Park City and Wall Street and also traces her experience writing about these visits on

multiple BBSs. Her interactions on the BBSs demonstrate that there were users interested in

and actively taking part in discussions about art and local tourism. Her post on the

"NYCNET-The New York City Educational Network" yielded reply messages about others'

visits to nearby museums and cultural sites along with those visitors' opinions (The Isamu

Noguchi Museum was disliked while the Metropolitan Museum of Art, Brooklyn Bridge

Station art installation and the New York Hall of Science were each liked). Her post on

ECHO, a private BBS popular with highly educated people in New York City, evolved into a

discussion of the work of artist Francis Bacon and fauvism and a side discussion about

meeting at the Metropolitan Museum of Art "for drinks and then touring the exhibits

together." (Sessa, 1990)

Critically, Ms. Sessa's report also provides concrete evidence that museums were starting to

use online resources for outreach and education. This earliest known interaction between a

museum staff member and a member of the public was on August 15, 1990. In reply to

Sessa's post on Learning Link, Donna Mann, Production Coordinator of Interactive

Technologies in Education Media at the National Gallery of Art (National Gallery of Art,

1990), wrote in a private reply message:

> From – Donna Mann, National Gallery of ART; [sic]
>
> Date-Aug. 15, 1990 at 1:58 pm;
>
> Your report was fascinating! We are at the National Gallery of Art demonstrating a
>
> new LEARNING LINK Forum which is being developed in cooperation with the
>
> National Gallery. We were talking about how a discussion might be useful so I went
>
> to demonstrate a discussion and found your topics. It really helped emphasize our
>
> point. Watch for the forum which should be mounted in the early fall on this
>
> LEARNING LINK service. (Textfiles.com. n.d.)

In her report, Sessa explained that Learning Link was an educational board used by teachers,

school librarians, and students. This board included a section for culture which listed local

museums suitable for field trips and provided lesson plans and activities for teachers to use.
She was under the impression that the National Gallery of Art would be added in the Fall and
would include a discussion area in addition to teacher resources.

The year 1990 was also when a museum first put content on a commercial online services
provider. The Smithsonian Institution Office of Photographic Services had "mounted about
80 images on COMPUSERVE, in an "Art Gallery Forum" (Library 11)" which yielded 3,500
downloads, despite the images being of "relatively low quality" and "without any
advertising" (Archives & Museum Informatics, 1991a). From this information, it can be
deduced that this specific department at the Smithsonian recognized the value and potential
to interact with online communities, but the lack of marketing demonstrates that the
institution was not ready to allocate funds to something so experimental. Sessa (of the BBS
posts above) also mentions using CompuServe in her report. She explains that she "found a
special ART GALLERY that had several graphic pictures by well-known artists that could be
"downloaded" or transferred right to my disk at home over the phone lines." She elected to
download Escher's *Waterfall,* a painting by Cezanne, and a series of prints by Nagel. She
also viewed the gallery's discussion area where the conversation was about the ability to
download images rather than a discussion of the visuals in the images (Textfiles.com. n.d.).
While Sessa does not reveal the original uploader of these images, it is possible, and perhaps
even probable, that they were found in the same forum where the Smithsonian had uploaded
the 80 images. Determining if her downloads were originally from the Smithsonian would be
too circumspect. Thus, it can be confidently said that some museums were gaining a
relatively good understanding of online community participation and were able to do it
successfully.

African American art and culture organisations were particular successful in their mission to share content online. In 1994, CompuServe opened an African American Arts and Culture Forum called GO AFRO, which was sponsored by the African American Museums Association and its publication, American Visions Magazine. The portal had message boards on topics such as food, travel, health, sports, politics, music, and film and hosted prominent Black people in American culture. American Visions Magazine, which had years of articles and a plethora of content already written, included their content in the portal and most notably, for the purposes of this research, CompuServe included an online "Museum Without Walls" which was promoted by the CompuServe platform. Similarly, AOL's portal with an African American focus was called African American Mosaic and featured one exhibit – a comparatively small amount of content–- from the Library of Congress (Blacksoftware.com, n.d.; Putt & Valdes-Dapena, 1995; McKee, 1996; Gwinn, 1994; McIlwain, 2020).

In the early 1990s, a series of artist-led BBSs appeared. Sessa mentions Design Line BBS, which was used by commercial artists for professional networking. Multiple BBSs were dedicated to the new artistic style "ANSI art" and the underground "artscene", which utilized 256 keyboard characters to produce the digital version of murals. The most germane BBS was "The Thing", which was founded by artist Wolfgang Staehle in New York City in 1991 and focused on contemporary art and cultural theory. Staehle considered "The Thing" to be a "social sculpture" and the enthusiastic artists and their friends who participated took full advantage of its experimental nature with an anonymised chatroom, experimental writing, and uploaded images, audio, and video. These creations would be organised into exhibitions which would raise the profile of the net artists, overcoming what the artists believed to be the hierarchies and institutions which had rejected their medium as inferior. These artists would publicly comment about the perceived corruption and deceit on The Thing:

Msg#: 7773 *ART WORLD*

04-26-93 22:36:04

From: CHARLES WARREN

To: DANIEL PINCHBECK (Rcvd)

Subj: REPLY TO MSG# 7587 (CLOSED READINGS)

Artists should be passive in the face of the ebb and flow of their livelyhood? I'm not confused. In each case, the producer of the work gets to take a crack at its meaning in the world. Again, its meaning is also defined by its hammer price. I don't like it either, but for many, that is THE primary organizing piece of information about a work that would find itself in such a situation. The whole gallery/Museum/Collector/Auction House axis is bankrupt and should be ignored by anyone who really thinks. Call me a hypocrite. (Rhizome.org, 2020)

Msg#: 7871 *ART WORLD*

04-28-93 02:29:47

From: BLACKHAWK

To: ALL

Subj: CLOSED READINGS

I'm not saying otherwise, though allow me to be ingenuous for a moment, can anyone describe what the "Gallery/Museum/Collector/Auction House Axis" would look be if it were NOT corrupt, or if impossible, what else could there be which wouldn't be corrupt or be liable to corruption or even defensible *against* corruption. Truly! I'm regressing here, being the naive art world infant I once literally was... can anyone answer this? At present, I can't. (Rhizome.org, 2020)

Msg#: 6524 *ART WORLD*

04-09-93 21:19:48

From: BLACKHAWK

To: DANIEL PINCHBECK (Rcvd)

Subj: REPLY TO MSG# 6502 (NO, NO, NO!)

If this is being "pilloried and ignored" then the work of artists who have "lost it"

being relegated to ratty, out-of-the-way museums and being the boring blue-chip

items in their (usually very large) galleries is as well. (Rhizome.org, 2020)

Putting aside their personal treatment, two artists went as far as stating how they did not even

like the interpretation or experience of being in museums:

Msg#: 2153 *ART WORLD*

09-20-92 19:24:00

From: SCHAEFER

To: BENJAMIN WEIL (Rcvd)

Subj: REPLY TO MSG# 2152 (RE: ART WORLD ORDERS)

reminding me a bit of those forgotten dusty museum didactic plates nobody can be

bothered to read. (Rhizome.org, 2020)

Msg#: 7777 *INTERSHOP*

04-26-93 23:49:40

From: DAVID PLATZKER

To: MORGAN GARWOOD (Rcvd)

Subj: REPLY TO MSG# 7497 (TEXT & ART)

Should the art industry fall to waste throug the result of tedium so be it. Rid us of

museums,   book stores with glossy magazines and tacky calendars, (not to mention

the torture that is MUSEUM BOOKSTORES). I think the world would be a better

place if we just close the doors, light a fire, and start from scratch. Who's loss would

it be if the great works -- so called -- were reduced to memories? Wouldn't that give

us a honest starting point from which "art" could be made? (Rhizome.org, 2020)

Juxtaposingly, artists viewed The Thing positively because it was independently owned and

undermined the mainstream New York City art world. Staehle explained, "It's outside of the

gallery system and the museums, feeling pretty free and all that in our little cyber cave".

At least one museum and one gallerist did attempt to use The Thing. Unfortunately, The

Thing community did not appreciate their attempts. Dragan Espenschied, the Preservation

Director of Rhizome, which is working to reconstruct The Thing explained: "sometimes

sysops complained that museum people would not dial into the BBS and publish

announcements themselves but sent faxes or press release letters instead." This frustrated the

artists, who would explain the situation to the other participating artists with disgust:

[Message 1]

We are going to have a little scandal: --- is planning a gallery file, where artist talk about their experience with gallerists. The problem: she said something on her former gallerist --- from Dusseldorf, what was transmitted (Rhizome.org, 2020)

[Message 2]

As to the fax request of ***, well fuck them, let them buy a subscribtion (for Galleries $300/year). That's my opinion! (Rhizome.org, 2020)

Msg#: 1956 *ARTS*

09-03-92 18:37:36

From: VALET

To: ALL

Subj: CALL FOR PROPOSALS

** Message forwarded by VALET at 18:42:40 on 09-03-92 **

We received a request by Alice Yang from the New Museum to post the following text and we gladly comply. However, in the future, dear Alice, I would appreciate if you would sign up and post your announcements yourself instead of wasting paper, postage, and my precious time. I am an underpayed, underappreciated underdog in this damn thing. Yours truly, Valet. (Rhizome.org, 2020)

The National Gallery of Art, The Smithsonian, and (arguably) The New Museum each demonstrated a general understanding of the potential for BBSs and their audiences. They established a connection to these online communities and had a better understanding at that time than they did for many years after. Subsequently, museums would take two other paths

into the online world, both of which would limit their communications and participation with outside online communities.

4.2 Setting their Direction to Broadcasting & Professional Development

In 1992, museums' use of BBSs and web portals pivoted to professional development. An article in that year's summer edition of *Archives and Museum Informatics* explained how museums in North America and Europe were connecting to each other through the electronic communications network. In Canada, software called TRILLIUM enabled users to read and post messages and notices, upload and download files, and search databases. The topics discussed included current events, job postings, exhibition openings, and collections management and they had planned to expand to include longer articles, research findings, and educational materials. The article's authors, Richard Gerrard and Jim Leonard, speaking of the successful TRILLIUM implementation in Canada, explained that the new system was "Narrowing the barriers of distance and isolation between museums in a large province," and

> [H]as the potential for putting museum workers in contact with the finest minds in the most famous museums in Ontario, Canada and the World. As a communications tool it will continue to change the way curators, collections managers, and researchers do their jobs. It will create (if properly encouraged) an electronic community of people with common interests and goals, by facilitating data gathering and exchange, collaborative research and writing, and the dissemination of new information arising from this symbiotic relationship. (Archives and Museum Informatics, 1992a).

In 1994, the prioritisation of professional development continued. Listservs, described as "discussion forums which revolve around a particular topic" were introduced to the museum technology community with the goal of "communicating with professional peers." These, and specifically Museum-L and the Archives listservs, proved to be very popular (110 messages in a 10-day span are noted) and "valuable and extremely useful -- where else can one post a plea for advice which will be read by hundreds of professional peers within 24 hours?". The topics of these conversations were those which remain of interest to museum professionals even today: announcements of exhibits, conferences, employment opportunities and databases; exhibit labelling; user fees and funding; access issues; new publications; software implementation; collections and curatorship; cultural attitudes and representation in exhibitions. Two other topics, which are noteworthy regarding this research's case studies, are the discussions of taxidermy courses and herbaria (relevant for the discussions in Chapters Seven and Eight). While on one hand, then-contributing editor David Wallace seemed impressed with the diversity and usefulness of conversations, he also notes that the majority of discussions on the archives list are not from leaders in the profession but from museology students who "can often become rather acrimonious, at times bordering on the juvenile." Furthermore, Wallace alludes to some controversy surrounding the listservs. "Despite the claims of some," he begins, listservs would not replace print journals as the messages were much shorter than articles and were about museologists' day-to-day activities (Archives and Museum Informatics, 1994). In the following year, the International Council of Museums (ICOM) adopted Resolution Number Five regarding emerging use of the internet, which resulted in an increased interest among museum professionals in the "practical implication of web forums in order to reinforce solidarity between the worldwide museum community" (Bernier & Bowen, 2003).

When the Web came into existence and websites became popular in the early to mid 1990s, they appeared to be the next way to connect with the online community of the internet. But, for museums, they presented multiple paths. One option was to continue interacting on platforms that enabled conversations (BBSs, portals) while a second option was to purchase a website and define their own space, where the museums could both broadcast and control the message. A third option was a hybrid of the first two. Museums would primarily choose the second, claiming their URLs, and focus on providing the information needed for an in-person visitor experience and later creating a digital visitor experience, both revolving around the museum as a destination. Put simply, the museums diverged from the expert communities.

The earliest museum websites were created in the early 1990s. Two institutions were, in fact, both so early creating their own site that it is difficult to determine who was actually first. Interestingly, it was the social element of t–he Web - a "[fascination] with early online message boards among scientists and academics" – that prompted Ron Hipschman to start the Exploratorium's first website; he registered their name in 1992 (Exploratorium.edu), when the top-level domain ".org" did not yet exist. (Gnatek, 2006). The Museum of Paleontology at the University of California, Berkeley (known as UCMP) launched their searchable collections database in 1992 (a proto-website of sorts) and then their actual website in 1993. Then-graduate student Dave Polly, was put in charge and explained:

> You downloaded source, configured it, then compiled. The [web] world was small
> enough that you worked with the authors of the [algorithm/application] packages to
> debug. I recall corresponding with Tim Berners-Lee [founder of the World Wide
> Web] about the configuration. The first pages weren't much. (Smith, 2019)

Judy Scotchmoor, who was put in charge of "museum relations" to "formalize UCMP's outreach and professional development programs," determined that the website could be used for museum education (Smith, 2019).

Subsequent websites were "for many, a revelation," complete with news releases, admissions information, collections index, and virtual tours (Archives and Museum Informatics, 1995a). A 1995 edition of the Archives and Museum Informatics Newsletter included an extensive article by David Wallace reviewing sixteen museum websites, which demonstrated that despite different intentions, they were all focused on the visitor experience. The Metropolitan Museum of Art's website, for instance, aimed to "encourage more people to visit the Museum itself" and "to motivate and inform visitors so that they can make the best use of their time when they come to view the works of this vast institution." Whereas, the trend for natural history and science museums was instead to have virtual visits and not to specifically encourage people to visit in person. The focus on physical and digital visitation was noticeable, as was the lack of outreach:

> Museums WWW sites should probably place greater emphasis in viewing their own sites as opportunities for outreach, rather than simply mechanisms for delivering assorted items and text from their holdings. Better use could be made of online solicitation of members and volunteers […] Better outreach could also be enabled through the inclusion of detailed staff directories. […] As for educational offerings, while listings of educational programs are always welcome, innovative uses of the distributed network environment to actually deliver educational programs instead of information about them is a truly exciting possibility that far too few have realized. (Archives and Museum Informatics, 1995b).

By 1999, museum webpages were well established and the focus on having an experience similar, comparable, or about the physical museum continued. A paper published in the proceedings of that year's Museum and the Web conference explained that the focus was on "shaping interactions between people and virtual objects, between people and others visiting virtual spaces, between people and systems responding to their non-algorithmic curiosity." They continued to work towards

> [D]eveloping virtual spaces in which visitors can experience the sights, sounds and ultimately the feel of cultural artifacts, and interact with each other and with experts as they come to understand and appreciate that culture. They will be creating spaces in which members of that society can give back experiences, information and the pleasure of discovery, and in which the museum can form on-going relationship [sic] with remote visitors. (Bearman & Trant, 1999)

This is the direction the majority of museum websites have continued to follow.

4.3 Museum-Related Online Communities Persist

While the museums were building their own online spaces, people using forums, themed sites, and mailing lists continued to talk about museums away from the museum websites. Evidence that museums were in the zeitgeist is found in archived conversations, forums, BBSs, newsgroups, and 'zines; many museum were suggested destinations for travellers with specific interests or needs. For example, an uploaded edition of The Braille Monitor suggested the Movieland Wax Museum, Hobby City Doll Museum, Ripley's Believe It or Not, and the Richard Nixon Presidential Library and Museum to their 1996 conference

attendees. And a forum devoted to drugs included a European travel guide, and suggested "the cannabis museum which is small but cheap enough to be worth a visit" in Amsterdam and if waiting for a narcotics dealer in Zurich, "the national museum for an hour (the only reason you'd want to waste time in there)". There are also mentions of being in museums, including an account in Telecom Digest (1999) in which a technician's work brought him to an unnamed trolley museum, an account from a person who walked across the United States and categorised an installation at the Cadillac Ranch Museum as one of the "craziest" things they saw during their travels, and an announcement of the public program at the Guggenheim which featured a "fictitious courtroom drama based on several disputes involving cyberetiquette, gender identity, and the hazy line between fantasy vs. reality" (Textfiles.com, n.d.).

Some of the more extensive conversations about museums can be found in the online communities dedicated to UFOs. These conversations demonstrate the vastness of both the Web and interest in museums as they span two continents with an inquiry originating in Port Elizabeth, South Africa about a UFO museum in Japan. The inquiry was then reposted on BBSs in Tokyo, which yielded information regarding a forthcoming UFO museum in Hakui City. Subsequently, people began to pass judgement on who the museum had hired and how they were marketing the attraction:

> **From:** Legion@werple.net.au (John xxxxxx)
>
> The prime mover behind the Museum is a municipal employee of the Hakui City Council, Johsen Takano. Curiously, Colin Andrews - and Dr. Boylan - have referred to him as a "senior Japanese Government minister". As you'll see, from the appended UPI news article, Takano works for the Hakui municipality."

Just why Takano, and what now looks to be a tourist attraction, should be hailed as an official Japanese Government plan to "uncover" the truth about UFO's is a mystery. One can only surmise that such claims will generate a lot of publicity and interest, which is precisely what a new tourist attraction requires. It is, however, misleading, and not at all an "honest" way to promote a "Museum" which will incorporate a convention center, planetarium, and a theme park. (Textfiles.com, n.d.)

Various updates were posted until a final thread relayed news that, in actuality, the museum was going to be a science centre with a space theme. The people posting the messages from South Africa appear to be disappointed as they planned to travel to Japan upon the museum's opening, demonstrating the potential efficacy of forums for word-of-mouth marketing regarding cultural tourism:

Well, the kind folks who were signed on as expedition members for this planned Japan expedition just decided to go on our cropcircles and UFOs of Scotland trip instead (Textfiles.com, n.d.)

Concurrently, professional communities continued forming their own expert communities, as they had begun in the mid 1990s. The type of museum online forums that continued to gain popularity were the ones for museum professionals to discuss museum professions; museum-themed online communities provided networking and knowledge opportunities through pooled expertise including resources with practical experience, research capabilities, bibliographic tools, and information about trends. The larger forums also had sustained

conversations - averaging 95 posts per month - which fostered the first genuine international museum community. The users' main objective was to seek information, but they also wanted to communicate and remain in touch with colleagues, exchange ideas, get professional assistance, educate themselves, increase their knowledge, find career opportunities, and stay informed of museum trends, current events, and topics. Research into these communities reveals interesting information about who was participating. Half of participants were from the United States where the internet was more familiar and accessible. Those engaging in research found the internet more helpful than administrators, which correlates with the departmental percentages of users: 22% worked in collections, 18% in research, 18% in education, 14% in management, 8% in information systems, 5% in visitor services, and 5% in archives (Bernier & Bowen, 2004). Over sixteen years (1987-2003), there were over 100 web-based forums (Bulletin Boards, mailing lists, chatrooms and calendars were included in Bernier and Bowen's research) which was inclusive of a wide array of museum topics: conservation, children and teen museums, computer technology, international museums, museum security, documentary heritage, interactive science, museum education, moving image and audio archivists, and accessibility. A survey of what topics were most interesting to participants were, in descending order: collections, professions and opportunities, education, publication, and information technology (Bernier & Bowen, 2003).

But the idea of extending museum forums to the general public remained sceptical. Some professionals were unsure of their "actual purpose for a general audience" while others encouraged their use as: 1. an educational tool to discuss exhibitions and themes; 2. a market research tool to learn about the public's favourite artists; or 3. a method of providing links to well-known art institutions or membership programs (Bernier & Bowen, 2004). Five museums and museum-related organizations did have moderate success hosting curatorial-

themed online communities on their own platforms. The first was in 1994 when The Whitney Museum of American Art hosted a conference which encouraged attendees to join a corresponding online conversation (Archives and Museum Informatics, 1995b). The most well-known was in 2002, when Tate Britain hosted a public online discussion forum about that year's Turner Prize. They offered six questions as prompts, received 464 messages across 71 threads, written by a combination of staff and public. The forum closed after two months, shortly after the prize was awarded. In the same year, the Kew Bridge Steam Museum utilised commercially available bulletin board software on their website to discuss museum news and curatorially-related topics but a year later, it had "yet to really take off in practice in terms of participation." Similarly, the UK Art Fund added commercially made boards in 2001 but did not have enough active contributors for an ongoing discussion. None of these platforms created long-term online communities for virtual visitors. Other museums at the time might have believed that their websites' virtual visitors were a type of online community. However, being on a collections website at the same time as others was (and continues to be) a solitary experience devoid of interactions with other users, which is a necessary component of an online community (Bowen, et al., 2003).

Museum-themed online communities focusing on professional development and day-to-day issues of museum workers continue to be popular in the late 2010s and 2020s. This includes the forums on the websites of the American Alliance of Museums (AAM) and International Council of Museums (ICOM) as well as self-organized forums, such as the Museum Social Media Managers Group on Facebook and MuseumPros on Reddit[1].

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[1] In full disclosure, I founded this community in 2013 (three years prior to beginning this PhD) and have moderated it since then alongside curator Scott Chamness. Together, we have fostered a community of more than 15 thousand people.

4.4 Crowdsourcing & Social Media as Tools

As we explore the past and present interactions of museums and online communities, readers may draw upon two parallel histories to situate the Expert Web in a museological chronology. The first is museum's use of social media and the second is crowdsourcing, both of which developed in the mid-2000s and have matured in the 2010s and 2020s.

Social media in the museum context has been widely discussed and is often framed within the idea of the 'distributed' museum, in which the museum produces content that is displayed on multiple platforms online and offline (Dziekan and Proctor, 2020). This reflects Web 2.0 trends and the invention of social media platforms in the mid 2000s and came at a time when museums were looking to create digital participatory spaces. These trends were evident in the museum community, with panels at Museums and the Web which introduced social media and asked if it was "possible – or desirable" to have the museums establish their presence there (Archives & Museum Informatics, 2007) and trend forecasting reports which predicting that social media would enter the museum mainstream by 2011 (The Horizon Report, 2010; Dawson et al, 2008).

In these years, major American museums joined social media and their presence, along with that of mid and small museums, became commonplace on these third-party platforms. Yet, most museums retained the same style of writing as on their website, with formal, informative 'broadcast' style writing that had become common on their websites. Some museums attempted experimental projects, notably the Brooklyn Museum's 1stfans interactive, socially networked membership program which connected staff and members through standard social networking websites (BKM Tech, 2008).

With nearly five years of intense museum-social media experiments, the mid-2010s began a time of self-reflection for museums' digital communications sector. Evaluations of digital maturity and efficacy regarding social media transformed notions of success in the museum-communications community (Vargas, 2020; Villaespesa, 2013).

Since then, social media has become commonplace in the museological world – with followers and likes tabulated in annual reports, social media becoming the predominant conversation at museum-technology conferences, and the main method of museum-audience communication during the COVID-19 pandemic. Yet, even with social media as a norm, these museum-controlled spaces exist independently from the Expert Web and this research.

The second adjacent conversation that one might say needs to be acknowledged, is about crowdsourcing in the public sector and in museums. 'Crowdsourcing', as identified in 2006, was defined as "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call" (Howe, 2006). The concept was also used in the public sector and was explained as something that occurs when an organization with traditional top-down hierarchical management identifies a task and looks to the online community to volunteer to find a solution. Crowdsourcing itself, Daren Brabham, professor of strategic communication says, is the process or production model with a bottom-up process that "leverages the collective intelligence or energy of an online community to serve an organizational goal". The performance of the task has benefits for both the participants and organisation and control is split amongst the involved parties (Brabham, 2015: 5).

From the perspective of museological studies, Mia Ridge, author of *Crowdsourcing Our Cultural Heritage*, noted that in the cultural industry, crowdsourcing was designed with the purpose of audience participation to achieve a certain goal. While seemingly similar to Howe (solve a problem for business) and Brabham (solve a problem for the public sector), the subtle difference here is focusing on the audience which shifts the participants from the source of the solution to a focus of the main objective. She also identifies a 'goal', which determines an intentional end point but not necessarily the measure of success. For museums, crowdsourcing seemed to be an appropriate solution to the multitude of challenges that museums face; they would gain content and benefit the institution while communicating with their audiences. Concurrently, the museums benefit from the ability to complete tasks that cannot be done automatically, though Ridge also recognises that the process can be an accomplishment itself with the crowdsourced information being a by-product of audience engagement. Crowdsourcing was beneficial to museums for more than just labour. It brought attention to the breadth and variety of collections, especially to little-known objects in the collection. But even if crowdsourcing increased participation and helped to create meaningful engagement, crowdsourcing is typically superficial learning for the visitor. The projects fall short of meaningful exchange because there is no true dialogue past submitting content and minor interactions with the project manager to whom the work is submitted. Furthermore, when museums with crowdsourcing projects recruit their audience, they engage in 'crowdsifting' (Ridge, 2014). Ridge explains the effect "operates as individuals unable to acquire the necessary attributes fallout from the pool of potential participants," resulting in a smaller number of individuals with the skills, desire, and time to regularly participate (2014: 4). While using the public in participatory ways and in crowdsourcing did mean that the museums were in contact with knowledgeable individuals, the museums did so on their own

terms, on platforms they created or determined and thereby set the rules. The people who had established their own topical online communities were not included and thereby ignored.

The sector has acknowledged a series of truths, namely that 1. museums need to be an authority but not authoritarian, 2. museums should foster conversation with communities, and 3. crowdsourcing had limitations. Lori Byrd-McDevitt (previously published as Phillips) recognised the need to advance and proposed a working model of "open authority" in a museological context, defining it as remaining active players in the collaborative world while bringing expertise and context to user-generated content. To do this, museums need to take part of online culture and embrace the Open Web to reconcile their established and resolute authority with the expectations of web users (Phillips, 2003). This leads us in the right direction and into the Expert Web.

4.5 Conclusion

The Archives & Museum Informatics Newsletter offers a glimpse into the then-cutting edge of museum technology, as it was shared with museums personnel. A deep mining of archived records of 1980s and 1990s bulletin boards demonstrates how the public was using emerging technology to discuss their interests and values. Glimpses of adventurous museums encountering their publics illustrate that the Expert Web has been there all along. These examples, when viewed together, begin to help us build a narrative in which museums had initial confidence and gave attention to online expert communities. But these instances became increasingly eclipsed by new priorities that emerged in the mid-1990s, which emphasised sharing information about exhibitions and collections. Yet, continued interest in

museum-profession themed communities reveal that museum personnel are knowledgeable about and can perform in the context of online communities.

A historical review of museums' relationships with online expert communities (which has not been studied in other research literature) reveals an increasingly devalued connection and underused capacity, despite evidence that museums know what to do and how to do it. It is these lost connections that this research attempts to confront and address, exploring where museums have relearned and reintroduced themselves as participants on the Expert Web.

Chapter Five:

Online Contexts & Histories of the Case Study Museums

5.1 Introduction

The past three chapters have provided background on the histories and functions of the internet and Web, and how museums have historically interacted specifically with the Expert Web. Now, we turn to look at more recent histories of museums' online interactions with these expert communities and sites. This chapter, and the five that follow it, focus on five exemplar museums which demonstrate the ways in which museums have found themselves interacting with online expert communities – both knowingly and unknowingly. What will emerge will be a picture not just of museums attempting to insert themselves into digital spaces but also insight and evidence of museums being called into digital public spaces and the need to understand the scenes in which they find themselves.

These five case institutions were selected because of their variety the array of different contexts to which they take us, and vantage points they allow us to take on the Expert Web: one is a museum of living things; two are social history museums (with very different collections); another is an art museum; and the final is a classic natural history collection. As well as offering this disciplinary and subject variety, they also range in size and structure. All, however, are leaders in their curatorial foci, and as such not only have a high frequency of activity with which to engage, but the means to record and reflect upon this provision. This range was intentional from the earliest stages of the research, with an objective to consider

variety in the analysis and to enable considerations of how museum interactions with the Expert Web may not be limited to a specific size, type, or governance of organisation.

In preparation for this systematic analysis, this prelude chapter serves as an introduction to the museums used in each of the case study chapters to follow (Chapters Six to Ten). Consequently, it presents information relevant to understanding how staff at each museum describes the identity of their institutions, speaks to how the museums are organised, and lays a foundation to understand why certain individuals and departments are interacting with the Social Web. The characteristics and histories included give context, identify qualities, and reveal capabilities, often specifically around their digital programmes and confidence; it frames them for the subsequent analysis. In most instances, the relevant information was recounted by their staff, demonstrating the mindsets of the people working in the institutions and the context they identify as they recalled times they had navigated online communities.

The intention here is not, therefore, to provide full histories of the institutions, nor information about operating budgets and other metrics. Instead, this chapter focuses on the digital journeys of these institutions and their previous relationships with the Web. After all, in online spaces, an institution large in size can have a small digital footprint and an intuition small in stature can have a vast digital impact. Furthermore, none of the institutions discussed here had a comprehensive, multi-department digital community strategy. In the instances where there was a strategy, it was contained by one department or a solitary individual; in the instances where the institutions found themselves in new circumstances with online communities, institutional involvement became ad hoc and did not reflect the intuitions' philanthropic particulars.

This chapter presents the following: The New York Botanical Garden as an institution that advocated for plants but keeps its research separate from its public face; The Strong Museum of Play as in institution that had undergone significant change and was once again searching for its place in the annuls of museology, the minds of its visitors, and its footprint online; The Museum of the Moving Image as a driver of change and a forward thinker in digital culture; The MIT Museum as a segment of a larger and more famous institution; and The Field Museum as an institution with a digital department that had a clear digital strategy but must also work alongside an intentionally siloed second digital department.

5.2 The Strong Museum of Play

The Strong Museum of Play is a unique combination of social history museum, educational research centre, and interactive space for children to explore and learn. This extraordinary combination means that its collection of play items attracted a wide array of people, namely researchers, parents looking to occupy their children, and nostalgic adults who remember the toys of their youth. For this research, the museum offered both tangible objects and digital games which attracted the interest – and eventually wrath - of online communities of nostalgic adults (explored in Chapters Six, Seven, and Eight).

Figure 5.1 Exterior of The Strong Museum of Play. Photo courtesy of The Strong, Rochester, New York.

The Strong Museum of Play in Rochester, New York, has undergone four major transformations within the past thirty-three years. The institution began as a decorative arts museum, transitioned to a family history centre, transformed into an interactive history environment, and ultimately, in 2002, the National Museum of Play (Bensch, 2018, 01:27 - 02:05). The uniqueness of the collection (including toys and dolls, digital and analogue games, toy company artwork and ephemera, trade catalogues, 'play generated map and document archive', and a legacy collection of housewares) is positioned as an advantage over other museums as "we have very approachable, very familiar items that resonate with people's lives" (Bensch, 2018, 07:55 - 08:01; Novakovic, 2018). Yet this familiarity also put the museum on the defence and needing to justify their existence:

"There aren't a lot of places that claim to be toy history museums. There are a lot, a lot of people out there who think that their basement full of video games is a history museum. So, we have to sort of work harder to be like no, no this is... we're different. This is actually an accredited official institution." (Symonds, 2018: 28:50 - 29:16)

But The Strong Museum of Play is not all fun and games. The staff is comprised of serious play researchers who document the study and artifacts of play as well as a rapidly growing administrative and institutional advancement team that reflects plans for a growing physical footprint. Together, their work attracts the interest of toy companies, designers, psychologists, educators, and sociologists (Bensch, 2018; Novakovic, 2018).

One of the newer collections that attracts significant interest is the collection of electronic games (estimated to include 60,000 objects in 2017) which is rapidly growing via the curatorial team's work with donors and game vendors (Symonds, 2018; Novakovic, 2018):

"definitely the most utilized are the archives collections related to video and electronic gaming; it's huge. I think that's what [researchers] mostly come here to access [...] we're getting email inquiries about [the Atari corporate archives], form inquiries about it, and a lot of people on site are accessing these materials too." (Novakovic, 2018: 9:29 - 10:42)

The collection of electronic games are a crucial entry point for visitors' interest to the museum and its collections (as demonstrated in Chapter Seven). When the museum acquired the archives of Carol Shaw, the first female video game designer, the library department shared a preview on their Tumblr. These posts directly inspired in-person visitation and the

images shown inspired research on that collection (Novakovic, 2018). Acknowledging interest in these types of materials, the museum hired its first curator of digital games, Andrew Borman, in 2017 (Bensch, 2018). Borman's responsibilities included collecting and physically preserving physical and digital-only copies of digital games and their related materials, documenting how the games work, developing exhibitions, and contributing to the annual Game of The Year event (Borman, 2018).

Figure 5.2 Video Game Lab at The Strong Museum of Play. Photo courtesy of The Strong, Rochester, New York.

The Strong's online presence helps alleviate the challenge of being located far from major toy and technology industry hubs (Symonds, 2018). While the museum's website targets the museum's local audience (their main visitors), there are research and collections components, including an online collection. While Bensch assures that the museum is a "boundary-less organization" (Bensch, 2018: 14:25-14:28), it is the responsibility of the marketing

department to write content and review submissions from other departments to post on the main digital channels. The marketing department also has oversight for social media channels run by individuals within their job capacity. Curator Shannon Symonds illustrated what this means for her job capacity:

> While I'm technically free to post mostly what I want on Facebook, there's always the overarching […] if I have a question about something, I'm going to go to marketing or if they see something that they don't like, they can take it down or ask me to take it down, they have access to the page as well. So, I think overall that the social media perspective is definitely more than anything a marketing tool because we want, the goal is to use social media to get our name out there. (Symonds, 2018: 13:42- 14:22)

The freedom for curators to post on their own accounts, even if overseen by the marketing department, marks a distinct move away from a more managed approach to social media production, where all online content was to be formal paragraphs of scholarly opinions. Engagement with online audiences and social media influencers does occasionally happen across the social media channels. When the library-specific social channels post images asking for the public to help identify objects, there are accurate replies. Unfortunately, the need for time and a lack of resources has meant that entirely crowdsourced projects have not been realised, "But I think there is definitely room for that to happen," Julia Novakovic, Archivist, (Novakovic, 2018: 18:45-18:48) adds. This parallels an internal drive for digital-friendly change from the digitally advanced departments. The electronic games department, for example, was the only department with its own Facebook page, which meant that it attracted more digital engagement than other departments (though, this could also be

attributed to the nature of the collection). Yet, the engagement on this platform was typically limited to likes and sharing, with an occasional comment:

> There's not a lot of, sort of, direct back and forth. And I think part of that is, obviously, if someone asks us a question, we'll respond but […] it's rare that I will respond as myself on a Facebook entry, it's usually [authored by the museum's International Center for the History of Electronic Games]. I think we [have] a policy where we try to keep things, maybe, a little bit more formal. So, because of that, there's not a lot of interpersonal reaction. (Symonds, 2018: 12:13-13:02)

The staff also recognizes the existence of non-local digital visitors, even though most in-person visitors reside within western New York.

> We are constantly working to broaden our audience by engaging with people who aren't necessarily physically proximate. Our ultimate hope is that at least a subsection of those people engage with us digitally might have reason to come here. (Bensch, 2018: 12:09 - 12:30)

Correspondingly, archivist Julia Novakovic refers to "long-distance patrons" who submit queries to the research staff through a form on the website and receive scanned archive materials (Novakovic, 2018: 3:56 - 5:05).

When discussing digital outreach, both Novakovic and Borman refer casually and unprompted to the people who are interested in specific parts of the collection as fans,

confirming that in the context of the research on this social history museum, using fandoms is an appropriate theoretical framework (Chapters One and Two).

I'm definitely more likely to do a video game-related post on Tumblr rather than a doll from the 1930s because I know there are people out there that will come and see this post that are part of a specific group or fan group or things like that. (Novakovic, 2018: 28:01-28:20)

That's definitely a part of the outreach of trying to get a different community that can't necessarily come to the museum to visit to see what we have, […] this is the video game fan audience, […] just trying to build a worldwide audience that really recognizes that we're not just a museum, but we have all these research and archival materials. I think that's an audience that is kind of hard to reach sometimes. (Borman, 2018: 7:20 - 8:00)

Even Bensch recognises these groups and their "specialist knowledge" webpages, complete with essays and conversations (forums) for usefulness in curatorial and collections matters, "I think in a lot of instances we are more consumers than contributors to those expert online conversations" explains Bensch (Bensch, 2018: 16:28-16:40), later providing a circumstance in which one of these websites would be helpful, "As a historian, I'm about half an inch deep and 20 miles wide. [Sometimes], I need to know Barbie's middle name." (Bensch, 2018: 18:18-18:26).

The Strong, as an institution, has historically been reticent to interact with and to contribute to the wider Web.

> We have also been institutionally unwilling, to be frank, to share expertise or to acknowledge external experts. […] And that may be something that continues to evolve and to share that sense of authority and expertise. That's been something as we've consolidated [our identity] to present ourselves as having a unique authority in that territory and to not blur into anyone else's expertise. (Bensch, 2018: 25:50-26:38)

That is not to say that there have not been conversations or attempts to interact with the Web; years prior, an online encyclopaedia called the "Play-o-Pedia" was considered but limited capacity and no clear return on the investment put these plans on hold (Bensch, 2018). As mentioned above, Julia Novakovic had been given the autonomy to post a few photos each month on the library's Tumblr account (Novakovic, 2018). Some staff members articulate that they want the institution to be more engaging online.

> We definitely want to be one of those places that people come to when they have questions or when they want information. We definitely want people to come to us. We want to be seen as an authority on matters related to play […] But no, we don't engage people. (Symonds, 2018: 21:21-21:54).

There has been some external pushback when the museum has ventured into a more experimental role online which resulted in internal tension. Symonds mentioned curating a women-in-games exhibition and her awareness of the sexism and misogyny that she had encountered:

Obviously, we see it. But [we, the museum] basically just have this policy we're not

going to engage in any way, shape, or form with that kind of comment… we can't

engage that on a social media level… It's been decided institutionally. (Symonds,

2018: 22:26-23:05)

Add to this a reluctance to engage in the commercial trends of the toy industry and a feeling

that their role is to be documenting and collecting instead of trendspotting. Together, we see

a museum whose collection is comprised of everyday object but an institution reticent to

engage with the 'everyday' internet-connected places where some of its target audience

spend their time.

5.3 The Museum of the Moving Image

The Museum of the Moving Image is an unconventional museum that disrupts a variety of

industry norms; this uniqueness is embraced by both its staff and the neighbourhood that

surrounds it. The museum's eccentricities have been lauded by the media as a "the coolest

museum ever" (Lascala, 2013) and a "Hidden Gem" (Anthony, 2018) but its relatively small

size of 50 full-time and 20 part-time staff members (Kawamoto, 2019) is overshadowed by

larger and more famous institutions in the same city. In this research, the museum's openness

to non-traditional exhibitions and 'say yes' attitude acts first as a proof of concept but later

turns into a lesson in caution (considered in Chapters Six, Seven, Eight and Nine).

Figure 5.3 Hearst Lobby at The Museum of the Moving Image by Peter Aaron/Esto. Courtesy of The Museum of the Moving Image

The Museum of the Moving Image is located in the most diverse borough of New York City, Queens County, and is situated adjacent to one of the largest television and film studios in the United States. It is the largest and most comprehensive museum in the United States to be dedicated to the moving image and its mission states,

> [The museum] advances the understanding, enjoyment, and appreciation of the art, history, technique, and technology of film, television, and digital media by presenting exhibitions, education programs, significant moving-image works, and interpretive programs, and collecting and preserving moving-image related artifacts. (The Museum of the Moving Image, n.d.)

But this statement does not nearly capture the playfulness of the visitor experience, where one can use a zoetrope, see Robin Williams' costume as "Mork from Ork", and meet Jim Henson's muppets. Former Curator of Digital Media, Jason Eppink, hypothesized that local New Yorkers would describe the museum as "A weird museum in Queens where you can see old movies, cameras, and games, and internet stuff" (2019, 58:48-58:53) while executive director, Carl Goodman, has trouble finding the right words to describe it: "We are not an art museum, but we're not *not* an art museum" (Goodman, 2018: 47:38-47:40).

Figure 5.4 Early projectors in *Behind the Screen*, The Museum of the Moving Image's core exhibition. Photo by Peter Aaron/Esto and courtesy of The Museum of the Moving Image.

Figure 5.5 Licensed merchandise in *Behind the Screen*, The Museum of the Moving Image's core exhibition. Photo by Peter Aaron/Esto and courtesy of The Museum of the Moving Image.

The museum has always aimed to collect and exhibit reflections of the intersection of physical and screen-based hybrid experiences; this has predominantly taken the form of film and television production, but its continued interest in digital media and culture has set them apart as few other museums were recognising this type of work as it developed. In the context of this research, this example of contemporary collecting and exhibiting is key in understanding the events in Chapters Seven, Eight, and Nine.

Goodman was initially hired in 1992, just four years after the museum's opening, as the first Curator of Digital Media. During his time in this role, he established a focus on the internet, Web and Net Art as subject matters, proposing and developing related exhibitions and

making the museum "the hotbed of experimentation regarding interactive and digital experiences" (Goodman, 2018: 10:39-10:43). He guided the institution in digital preservation and prioritised relationships with technologists and commercial entities, eschewing museum associations and trends to be, what he viewed as, a reflection of cutting-edge technology and trends.

To Goodman's surprise, through this work, he encountered his first digital community. The museum had collected, digitised, and hosted a collection of presidential television commercials on the Web, long before other entities were collecting Web-based media. They also created digital interpretive media to accompany the videos. These commercials captured the attention of millions of educators who began to develop curriculums around them. The educators formed an online community that engaged directly with each other when trading lesson plans. Goodman described how he and the museum learned from this experience:

> But what didn't catch us by surprise but was extremely instructive was that these communities, […] like-minded individuals from around the world who all were doing something with the website began to do things together, even without us, although we were providing a kind of platform for interaction among people who may be otherwise very different but are connected through their interest and use of the site. (Goodman, 2018: 18:00-18:35)

As executive director, Goodman continued to centre the focus on digital media by hiring his curatorial replacement, Jason Eppink. He, in turn, focused on how artists were creating digital media and "organized exhibitions about art, play and participation, and that sort of culture," rooting his exhibitions in scholarship and academia, rather than industry and

entertainment (Eppink, 2018: 1:58-1:59; Goodman, 2018). Together, their advocacy for digital culture as a type of art has encouraged "scholars studying this in school [to consider these things] canon" even when the cultural significance of the Web "does not seem readily apparent to the casual or non-user" (Goodman, 2018: 47:54-51:43). Their acceptance of the internet as a source of exhibition-worthy content has raised popular and obscure websites to a level of legitimacy they would not have had otherwise.

Here we see an institution that has experience charting their own path and interacting with people online who have been previously overlooked. They are less timid than the more traditional Strong Museum of Play, but their bravery and willingness to experiment risks brazenness, as seen in the Chapters Seven and Eight episodes.

5.4 The MIT Museum

The MIT Museum is a unique case study within this thesis as it is a university museum with two goals - to communicate science and technology and to advance the goals of the university, including the education of the student body. For this research, the museum's technology-themed artwork offers a jumping off point for online communities to discuss related topics and online collection becomes a resource for a related online community (investigated in Chapters Six, Seven, and Eight).

Figure 5.6 Exterior of The MIT Museum building where the case study exhibitions took place; the museum has since relocated and is projected to open closer to the university's main campus in Fall of 2022. Photo by author.

The MIT Museum in Cambridge, Massachusetts (outside of Boston) is dedicated to advancing an understanding of science, technology, engineering, and math ("STEM") subjects. The museum's mission statement explains this in relation to its community commitment.

> The MIT Museum engages the wider community with MIT's science, technology, and other areas of scholarship in ways that will best serve the nation and the world in the 21st century […]. (MIT Museum, n.d.)

The staff, many of whom were interviewed for this research, each took this mission to heart and described both the museum's mission and their personal missions in similar terms, with phrases such as "expressing MIT to the world" (David Nunez, 2018: 23:58-24:00). Yet, complex obligations to the university with which it is affiliated means that there is also a focus on encouraging faculty to make the museum part of the curriculum and to engage

students, which can relegate the general public to a secondary focus. The complicated museum-university relationship is even more complex as the museum staff is not considered faculty and were previously even forbidden from teaching at the university lest the classroom distract them from their commitments to the collection (this policy, while still intact in 2017, has exceptions for teaching annual seminars and teaching students in the galleries). Looming large in the minds of its staff is the museum's move to a dedicated space in a prominent location near the university's academic centre. Virtues of this new location include opportunities for larger exhibitions and the proximity to the campus which enables the museum to better serve both visitors and the campus community (Van Zante, 2018). Even with the museum-university dynamic and the approaching move, the structure of the organisation is traditional. Curators who are "a credible authoritarian voice that's dominant" are tasked with developing collections and organising exhibitions (Van Zante, 2018: 07:11 – 07:15). The responsibilities of staff are in service to the curators and their mission to connect with the university and community.

Figure 5.7. *Robots and Beyond: Exploring Artificial Intelligence at MIT*, an exhibition about the university. Photo by author.

Despite cutting-edge technologies and scientific research developed at the university, the

MIT Museum's digital strategy has lagged behind other museums; for years, there was no

digital strategy at all. By 2017, the museum was attempting to speed up digital strategy and

close the gap that left them behind other institutions (Van Zante, 2018). As a result, the

digital strategy became museum-wide and is led by David Nunez, the Director of Technology

and Digital Strategy; his broad responsibilities, contributing to all places where the museum

intersects with digital technologies, can be divided into three areas: first, communications

which use customer relationship management software and effect audience segmentation;

second, digital experiences in the physical galleries; and third, digital access to collections

items. This last point was a major focus of his work at the time this research was conducted

(crucial to the MIT Museum "episode" in Chapter Eight), and includes the creation and

launch of a publicly accessible collections portal. Nunez anticipated that this portal would be

transformational for the institution as it would redistribute staff labour, shifting the multitude

of public requests for information from the curators onto the digital visitors who would now have the tools to search through the collections themselves. Nunez explained its potential, "Hopefully this will enable expert users to be able to explore and investigate" (Nunez, 2018: 04:14-4:21).

As the museum navigates a complex relationship with the university, it also must clarify its position to the public, who are often unsure what the museum represents or have divergent expectations:

> They come here thinking this is a science museum. Well, it's not a science museum. It's not the average university museum either. It's not an art museum. It's a lot of things it isn't. Nobody quite knows what it is. We haven't quite, I think, really formally articulated that […] There's a little bit of photography and art over here, there's some technology over there [...] the tourists, I think, generally do know why they're here and they want to see [the university] but they didn't know quite what to expect [here]. (Van Zante, 2018: 32:46 – 33:43)

On a surface level, the marketing channels of Facebook and Twitter attempt to clarify this confusion. But deeper and more substantive conversations are not held with the institutional social media accounts, but instead with individual curators and collections staff who communicate on their own platforms (described in detail in Chapter Six) or try to give brief, simple explanations for use on the museum's social channels.

The affiliation with the university, and the authority that comes with that, is a double-edged sword. On one side, being part of the premiere university in the United States for science and

technology provides authority and credence, which the museum uses to their advantage when interpreting content. But on the other side, this makes it more challenging to officially recognise the expertise of people outside of the university community, even if the individual staff members are open to external contributions.

The curatorial team has had formal input from outsiders such as a crowdsourced tagging project for the photo collection; while some of the information gathered was interesting, the majority was "a mess" and the museum removed the tagging and comment section from the collections resource (Weinberg, 2018).

Perhaps more successful is the curators' use of information found in online in informal online settings and away from institutional platforms. Curator Gary Van Zante admits to frequently reading and even using the content produced on websites by those he refers to as amateurs, collectors, and enthusiasts, and describes the content as useful,

> There is often extremely specialised expertise in those communities […] I'm extremely grateful as a historian that they are out there doing what they do […] they are entirely individual approaches to the [topic] and I've actually found those quite useful in framing my own arguments. So, things like that, I think, those are enormously important resources. (Van Zante, 2018: 17:58 – 20:18)

But he notes that that the content produced there is not of the same calibre as the museum, "What's lacking, of course, is for them is the contextualization, the broad context that they haven't been able to even learn about," concluding that "There's a need for both. [The wider web] is an important resource." (Van Zante, 2018: 18:37 – 19:01)

The MIT Museum has a distinctive relationship its university and with the concept of 'expertise' which can complicate its relationship with online communities. Unlike the Strong Museum of Play and the Museum of the Moving Image, its name alone provides esteem which by default give it credentials in online spaces.

5.5 The Field Museum

The Field Museum of Natural History, in Chicago Illinois, is a large institution that houses substantial permanent and research collections, hosts temporary exhibitions, and supports a global research programme. With forty million specimens and hundreds of employees, the museum supports the education of local school children, visiting tourists, and digital visitors stating "Science is for everyone. And we can't wait to share it with you" (Field Museum, n.d.). For this research, two departments demonstrate their approaches to interacting with and forming online communities.

Figure 5.8. The Field Museum North Entrance. Photo by Lucy Hewett, © 2018 Field Museum.

The structure of The Field Museum's public-facing, attendance-driving, and revenue-generating departments which include press relations, guest relations, exhibitions, and web and digital engagement, all report to the Chief Marketing Officer. The subdepartment of The Department of Web and Digital Engagement includes a staff of strategy and content creators, developers, and designers who put social media and web communication "at its core" and extends to include other digital initiatives and projects as well (Dunn, 2019: 04:48-04:51). The digital approach is a content-first strategy which reflects the content that resonates with the museum's audience, not the content that is most advantageous to the institution (Brad, 11:00). Brad Dunn, department director, shares,

> It's about content and people's consumption patterns. Like our audiences' consumption patterns and their behaviours and how are they accessing things. [...]

what drives our decision making is really user driven consideration and content strategy. (Dunn, 2019: 6:25-6:55)

While the targeted audience for the purpose of advertising is defined by the marketing department, Dunn explains that his department has worked to define their online users, including their visitorship and touchpoints with the institution,

It definitely includes people who won't visit the museum maybe ever, but they interact [with us] online and we consider that still, in Digital, we still consider that part the audience. (Dunn, 2019: 7:48 – 8:01)

Therefore, target audiences that the marketing department provides are given "...further definition based on online behaviour and use cases. How are people consuming content? […] What devices do they use?" (Dunn, 2019: 8:18 – 8:32) This information is then used in the department content strategy.

There are numerous ways for digital visitors to have contact with The Field Museum, its curatorial departments, and its staff of scientists. A variety of these touchpoints have developed a following with foci on specific curatorial interests:

When I first started here, I was caught off guard constantly [...] I had no idea there was a group of people that are so into watching our peregrine falcon bird cam and just sit there and watch the mother tend the egg, I had no idea there was a whole birding community. [...] And, of course, over time you learn about those but there are always things popping up. [...] I don't think I can know them all. (Dunn, 2019: 11:53 - 12:45)

When the institution's scientific staff is a source of information (i.e., the bird cam), institutional confidence grows and the museum will enter into the conversations. For example, social media campaigns have been jointly developed with museum palaeontologists on research trips, reflecting the "whole generation of [staff] who are really great communicators online" (Dunn, 2019: 15:06-15:10).

Dunn believes that the success of his department's content strategy and the museum's communicators outside his department is because they are sharing knowledge in a friendly and non-academic way for a "mainstream audience" (Dunn, 2019: 16:26-16:27),

> I think those are the conversations we're comfortable going into because the people on my team are not curators, they're not PhDs, they've acquired a ton of knowledge but because the work is not the thing, the online community that we find we can venture or not, the communities that are breaking the science of not just 'hey this thing is cute'. But they're not going down the academic research paper route, at least not on Twitter or at least not in the conversations we are able to get into. (Dunn, 2019: 16:27-16:53)

The museum is also affiliated with two non-institutional online accounts with which it interacts with the wider public. The first is the SUE the T. rex Twitter account and the second is The Brain Scoop – discussed and analysed at length in Chapters Seven and Eight.

Specimen FMNH PR 2081is a well-known dinosaur fossil (commonly referred to as SUE the T. rex), which, anthropomorphised, was given a Twitter account without curatorial

supervision. While the origins of SUE's Twitter account are not publicised, it has been made clear that the writer is a staff member not on the communications team. Yet, SUE has been granted the ability to enter conversations not directly about nor promoting the institution, as long as they follow a set of guidelines of approved and unapproved topics provided by the communications team; the range of approved topics have included scientific content, a video game she was playing (which made inroads with the Twitter gaming community), and her infatuation with *Jurassic Park* actor Jeff Goldblum. But, without a communications professional behind the account, not everyone agreed with the autonomy that SUE has been granted (Dunn, 2019). Despite some apprehension, the SUE writer's broad latitude provided more opportunities for outreach with Twitter communities (even if there was a possibility of a misstep). This freedom and the trust that resulted between the SUE account and the digital content team meant that the writer did not need to be micromanaged, and the SUE account has found immense success.

> We don't go out looking for specific communities to jump in and be involved in. It's that over time, what we've learned is that when we find something we want to dive into, there's basically freedom. They don't have to come to me for approval, they don't come to me and say can we do this? Sometimes they do, still. And sometimes I say yes but be careful. (Dunn, 2019: 30:48-31:12)

The second non-institutional online account is the YouTube series The Brain Scoop, which operated entirely independently of the digital department, despite the digital department overseeing web content strategy. This interdepartmental relationship and the separate institutional digital strategy are examined in full in Chapters Six, Seven, and Eight.

As with the New York Botanical Garden, at the Field Museum, we see both communication between departments and a clear division between them.

5.6 The New York Botanical Garden

The New York Botanical Garden is a living museum of plants and an oasis in the middle of the New York City metropolis. While most in-person visitors are there to experience the annual exhibitions (summer art installations, winter model train show), children's gardening activities, or to see the flowers and trees blooming in Spring, the institution also enables individuals to participate in research through data collecting (discussed in Chapters Six, Seven, and Eight). Within the context of this research, the institution was initially intended to be a pilot study with exploratory data. Yet, the data yielded about staff participation in online communities was so valuable that it is used extensively in Chapter Six and an exploration of the research division's citizen science and data collection projects in relation to online communities is included in Chapters Seven and Eight.

Figure 5.9. The Perennial Garden and Enid A. Haupt Conservatory at The New York Botanical Garden. Photo by author.

The New York Botanical Garden is located in the Bronx borough of New York City. At 250 acres, it is the largest garden of its kind in the United States and includes thematic gardens and landscapes, the largest uncut forest in New York City, a climate-controlled plant conservatory, schools of horticulture for adults and farming for children, a library with one of the world's largest collections of botany texts, herbarium and reference seed collection, and the International Plant Science Center, which conducts research worldwide about biodiversity. The institution states that it "is an advocate for the plant world" (New York Botanical Garden, n.d.).

The intuition's website and social media accounts are overseen by the marketing department. While there is coordination with the horticulture division and its exhibitions sub-department, as well as some input from staff scientists, the institution's public facing divisions operate separately from its research arm which it proudly states that it includes "100 Ph.D.-level

scientists [who] are engaged in 250 international collaborations in 49 countries" (New York Botanical Garden, n.d.).

The scientific division has multiple centres for research, many of which incorporate citizen science into their work. The museum's plant research and conservation division explain that its volunteers:

> [A]re part of several ongoing research, data collection, and Herbarium transcription and digitization projects critical to The New York Botanical Garden's mission. Participants are trained by experts on proper procedures for the project(s) they choose, and have the opportunity to learn aspects of plant biology, ecology, and Herbarium/Living Plant collection management. (New York Botanical Garden, n.d.)

Some of the projects ask the volunteers to collect local specimens, digitize historic physical records, and transcribe botanists' notes.

At this institution, we see the research division and the public facing division communicating with each other but at the same time, they are dissonant.

5.7 Conclusion

This chapter has attempted to lay out the diversity of museums that will be explored in Chapters Six, Seven, Eight, and Nine. The intention here has been to highlight how they vary in curatorial topic, structure and size, and familiarity and comfortability with Web culture. Yet all of them are exemplar institutions when discussing interactions with online

communities, as their curatorial subjects are part of many peoples' everyday lives. Recalling back to the discussion of digital hobbies in Chapter Three, and looking forward to the visitor interactions in Chapters Seven and Eight, these institutions together demonstrate that interactions with the Expert Web are wide-reaching.

Chapter Six

Museum Staff Engagement with the Expect Web

6.1 Introduction

Now that Chapter Five has set our stage by introducing the museums considered in this research, the next three chapters explore, with respect to each of these institutions and their online provisions and activity, the three components of online communities detailed in Chapter Three, namely: the people involved; the processes that occur; and the platforms where the events take place. This chapter, specifically, focuses on the people employed at the case study museums. It drew upon thirty interviews from staff members who spanned a range of departments, had a variety of responsibilities, and approached online participation in diverse ways. Their perspectives and their choices affected how the museums' official online accounts responded to different online communities. These interviews were crucial in understanding how museums operate online, as well as trends across the institutions.

The data were reviewed in three distinct ways, which together construct an understanding of how choices and differing perspectives affect institutions' outlooks and policies. First, the chapter examines individual departments and how roles and responsibilities affect perspectives about the Expert Web. Second, it reviews how institutional affiliation and identity affect perception and policies. Finally, motivation is considered in relation to how individuals' act online.

6.2 Departments

This section first organises the interviews systematically by department type: curatorial, communications, education and outreach, archiving and library, leadership, and technology. The research, when looked at this way, ultimately determined that knowledge and familiarity with the Expert Web is mostly consistent within each department; individuals within a department act similarly, regardless of their institution and despite their institutional foci. Simply put, and as will be demonstrated below, curators act similarly to each other regardless of the collection they are tasked with researching, be it plants, toys, or boats. Yet it should also be noted that these departmental types reflect job functions and the interviewees' portrayals of their roles. This reflects the reality of institutions of varying size and history having very different structures.

6.2.1 Curatorial

Curatorial departments (at least in the cases of these museums studied here) each hold the institutions' subject matter expertise. The curators' educational training, experience conducting research, and writing about their respective topics made them comfortable and confident communicating information about their respective disciplines. Their subject matter expertise not only enabled them to perform their job responsibilities at their institutions but, as this research revealed, they are also adept at interacting with online communities on the Expert Web.

Nearly all the curators interviewed were aware of the online communities that correlate to their subject matter, having found these communities as references in their reading or by

word-of-mouth from others in their fields (Weinberg, 2018). But awareness had significant variability, from those regularly using the online forums to those who had heard of such online spaces but never had even seen them.

Andrew Borman, Curator of Digital Games at The Strong Museum of Play, is an example of an individual with the most in-depth knowledge (relative to colleagues) about the Expert Web because prior to his curatorial position, he rose to prominence in the game preservation online community through his own YouTube channel. Since joining the museum, he hosted one of the institutional YouTube accounts (discussed at length in Chapter Seven). Regarding how he saw the content on each channel, he shared:

> That goes back to being yourself; I don't feel like I'm any different, or not significantly different, than who I am on my own versus at the museum […] I think that goes a long way. You want to be seen as a person and not as this building that they can't relate to. (Borman, 2018: 44:00-44:30)

Borman's confidence was also a reflection of the trust the institution had in him and his colleague, Shannon Symonds, Curator of Electronic Games; the institution granted them permission to have their own departmental Facebook presence, where they were empowered to post but not to interact with commenters (Symonds, 2018). Borman was then given "free reign" to talk to people online as long as he kept the interests of the museum in mind and presented himself professionally (as explored in Chapter Seven's episode about the platform Twitch). And so far, that had worked, "They don't want to feel like they're reigning me in and losing part of what made my stuff before the museum so successful" (Borman, 2018: 12:04-12:12).

Other curators were highly aware of the Expert Web not by starting their own channels but by participating on forums. For example, Christian Primeau, Manager, Enid A. Haupt Conservatory at the New York Botanical Garden, regularly used Facebook groups such as "Plant Idents 101" and "Plant Identification" to help people identify and diagnose problems with their gardens (Primeau, 2017). Similarly, Ariel Weinberg, Curatorial Associate, Science and Technology at the MIT Museum, used AskMetaFilter and became a resource for identifying scientific tools. She recalled,

> Somebody said […] 'I found this thing in my attic' and I happened to have seen one on our shelves while doing inventory shortly before that. And I knew this is an object for teaching some solid geometry and I had a number of links; I was able to answer that with museum specific knowledge. (Weinberg, 2018: 14:03-:14:30)

But being a known resource also can have its drawbacks as she became inundated with demands, "I am the curator, I'm not your curator" (Weinberg, 2018: 17:20-17:22), she emphatically added. But their awareness of the Expert Web juxtaposed with other curators who were aware of "chatter" in online spaces and were unable to name specific communities or speak to them specifically (Hasselbalch, 2018).

The Expert Web communities that were identified by curators have a range of findability and accessibility online. While Primeau's plant communities were all findable on Facebook, some were entirely public while others required users to complete a short questionnaire to gain membership. These communities appeared to mainly attract hobbyists, making individuals with curatorial pedigree, such as Primeau, a highly knowledgeable and

particularly valued asset to the community. Other communities attracted professionals and had much less of a public presence. The MIT Museum's Curator of Science and Technology, Debbie Douglas, noted that the list-servs she engaged with were practically concealed outside of the respective communities of practice:

> I don't know how you would know they existed […] Some of them, you might find a Website or a reference or a name somewhere and then you call. You know, you write to them and you can get subscribed to a list. (2018: 16:28-16:51).

Douglas and Weinberg used these list-servs to connect with practitioners, academics, and engineers; they specifically engaged with *Apollo Knots* for MIT instrumentation lab retirees, the *Society for the History of Technology*, and *Oughtred Society* for slide rule enthusiasts (Douglas, 2018; Weinberg, 2018).

Knowledge of and access to these communities assisted the curatorial teams in their research. Access to knowledgeable pools of people can help the curators engage with research more efficiently, especially when they are unsure where to begin with specific inquiries. Douglas used this method when her research extended beyond her specific expertise:

> You tap into them as you, kind of, need them. My job title as Curator of Science and Technology is both sublime and ridiculous. I am supposed to know all things about all aspects of science and all aspects of technology. So, what that translates [into] is that any given project or time, you tap into the communities that are expert in them. […] I take part in [the Expert Web] as appropriate (2018: 10:42-14:48)

The value of tapping into these communities as research aids also revealed how specialised their knowledge can be. MIT Museum Curator of Architecture and Design Gary Van Zante not only acknowledged his use of photographic history communities but also voiced his appreciation for their work:

> There is often extremely specialized expertise in those communities [...] And I'm extremely grateful as a historian that they are out there doing what they do. [...] I rely a lot on local historians who know that territory, dug into archives over many, many years and know the facts. […] [The Expert Web can be] quite useful in framing my own arguments. So, things like that, I think, those are enormously important resources. (2018: 17:58-20:12)

The specialisation of these communities can also mean that the knowledge learned on the Expert Web might not be what one expects to find. Curator of Digital Media Jason Eppink was researching the history of a specific GIF (discussed in Chapter Seven) when the Expert Web informed him there were better versions with higher resolution, something that he was entirely unaware despite being deep in his exhibition's research phase (Eppink, 2018a). He appreciated that the Expert Web can be as knowledgeable – and sometimes more knowledgeable – than him on specific facts, "I think that there is a democratic something that's like we're on the same level here… that, for me, is enough authority" (Eppink 2018a, 14:56-15:23).

Just as the curators explained that the expert communities are useful to them in their research, they also explained how their expertise and authority is valued by the communities in which they interact. Curatorial authority can be seen via both traditional trust methods and web-

based trust methods (as explored in Chapter Three). The traditional trust methods rely on real-world trust cues such as name recognition and employer pedigree. For example, Douglas is a well-known, sought-after contributor who received Expert Web inquiries about items in the MIT Museum's collection. On the other hand, curators who repeatedly posted quality information earned their trust via web-based methods. Primeau and Karen Daubmann, Associate Vice President for Exhibitions and Public Engagement at the New York Botanical Garden, might not have had the name recognition of Douglas but by identifying plants on the Expert Web, they gained trust in their respective online communities (Daubmann, 2017; Douglas, 2018). In both cases, and despite the multitude of cognitive surplus generated by the Expert Web, online community participants respect the information posted by the curators and appear to view museums as authoritative. Curators who have become active participants in the Expert Web can even gain considerable followings; within these niche communities, they have the ability to raise their profile to be akin to a social media 'influencer'.

The evidence from across these institutions would suggest that as a group, curators are, relative to other groups in the institution comfortable and confident in their Expert Web interactions, which may reflect the volume and depth of their knowledge and correlates with their ability and willingness to talk about their subject matter offline (by contrast, this chapter later explores communications' staff members lack of comfortability and confidence in these same spaces).

Equally, these curators were comfortable admitting when something was outside of their expertise and readily stated that they would not offer uninformed comments to such online communities. Douglas humbly explained that precision and knowledge are put before her ego and in instances in which she was not an expert, "I don't feel obliged to contribute to that

kind of conversation" (Douglas, 2018: 20:21-20:26). In these scenarios, the curators deferred to colleagues and qualified staff members within their curatorial departments. Joanna Groarke, Library Exhibitions Curator and Director of Public Engagement at the New York Botanical Garden, routed botanical questions to colleagues who specifically have horticulture training. Similarly, her colleague Daubmann (who did have expert level horticultural training) routed questions to people who she felts are even more knowledgeable. She felt comfortable answering most questions and then added a reference to someone who knew even more than her, "this person I know is the true guru on cranberries and try and channel [the question asker] into the real guru" (Daubmann, 2017: 19:13-19:20). By directing people to the "real guru" we see evidence that the curators are aware of each other on their respective Expert Web and know who they can tag for participation. While awareness of who else was in these groups seemed to be happenstance, it is not surprising that these very niche groups would attract multiple professionals, just as an academic conference or professional organisation might.

And yet, while the curators were comfortable and confident interacting with the Expert Web and directing their colleagues to various inquiries, they were not always comfortable and confident using the information found there. Van Zante pointed out that these niche groups lack contextualisation and broad context which is needed for historical perspective and museum scholarship (Van Zante, 2018). Furthermore, the passionate discussions about minute details, while often accurate, does not mean that the information is useful. Conversations can easily get derailed – Douglas alluded to, for instance, a "huge controversy over the invention of email" (2018: 18:11-18:16) on a computer history Expert Web and "people of every temperament" (2018: 54:21-54:23) in aerospace communities, who did not

always align with the curators' research goals. Weinberg explained her frustration with fiery

conversations:

> On small fora, there's a tendency to get very fight-y about very small things, which
>
> can be detrimental to getting anything done. So, a conversation that gets bogged down
>
> in the details of what year was this thing patented - is it 1787 or 1788 - is not going to
>
> be particularly productive if that's not what we're looking for. Or if we are not
>
> explicitly trying to verify a date. At some point, I had to unsubscribe from the
>
> Oughtred Slide Rule mailing list because it was just too fight-y... not enough actual
>
> information coming through […] they have in-group things to differentiate them from
>
> the mechanical calculator collectors who they say collect boat anchors. (2018: 17:49 -
>
> 19:47)

The cases considered in this study show that the curators did not want to be involved in

combative conversations and would exit when such conversations veered in that direction.

"[I] don't get involved in that kind of thing because I don't have time to be in online

arguments, you know what I mean?" offered Primeau (2017: 14:23-14:30).

6.2.2 Communications

While our examination of curators demonstrated that they are aware of and, mostly,

comfortable using the Expert Web, members of communications departments had a different

story. As we turn to an analysis of the communications staff, we see that their familiarity and

comfortability marketing their institutions on traditional social networking platforms (as

defined by boyd and Ellison in Chapter Two) does not extend to content-based discussions in

niche online communities. This lack of familiarity and comfortability appears to contribute to the reasoning for institutional accounts not participating in the Expert Web.

To understand the communications departments, it is crucial to acknowledge the aim of their departmental portfolios. As seen in Chapter Three, museums' use of the internet pivoted by the mid 1990s as digital marketing developed, websites became sources for visitor information, and email and social media became a way to keep in touch with audiences. The goal of communications departments is, generally, to have the institution's voice and perspective in the media and to keep visitors informed. Their responsibilities also extend to understanding the feedback of their visitors, such as using social listening services which amalgamate online reviews and feedback on the institutions based on keywords that the communications staff identifies (museum name, exhibition title, promoted hashtags, etc) (Davis, 2018; McGrath, 2018;). Tomoko Kawamoto, Director of Public Information at The Museum of The Moving Image, explained,

> My focus is just from necessity because we are pretty short-staffed […] It really is very much focused on informing people about what's happening […] it's often just making sure people are aware [of events] when they're happening. (2019: 2:20-4:32).

Thus, with limited resources, participating in public discourse online is, simply, not their goal and therefore, the research uncovered that the communications staff was often not familiar with niche online communities at all.

Once the communications professionals understood the concept of the Expert Web, they offered a variety of reasons why they would not be comfortable entering into these

conversations, from a lack of topical knowledge to an almost self-conscious awareness that they were not invited to be there. Admitting that they were not subject matter experts appeared to be the primary reason for communications staff using institutional accounts to not participate in the Expert Web (most have a background in arts and arts marketing, not their museums' topics). But this sacrificed the ability to have an institutional account as an authoritative content resource, as the institutions position themselves in their physical buildings and on the content sections of their webpages. As Communications Officer at the MIT Museum, Martha Davis, noted:

> Personally, I'm not aware [of the Expert Web]. But I would assume that the curators especially the ones that oversee particular collections would be very aware [...] I would say also that's more the curators, the experts, the collection people, versus because-I-just-happen-to-be-marketing-officer. (2018: 14:00-36:06)

Davis stated that she "just happen to be marketing officer" which spoke to the larger point about job responsibilities and expectations when museums are hiring personnel. The marketing directors and communications staff in general are not expected to be scholars of the museums' curatorial foci and even with years of experience at their respective institutions, they may not have topic-specific knowledge of a diverse collection. The communications personnel were self-aware of their skillset and expertise. They described themselves as compliers of content (McGrath) or middlemen (Newman) and relied on their unique skillsets to craft communications (Davis). Or, when they did have baseline knowledge, they recognised that it might not be enough to participate with online experts. For instance, Allison McGrath, Director of Digital Media Services at The Strong Museum of Play, noted that participating with their Expert Web would require both a comprehensive

knowledge of their evolving collection as well as multiple corresponding online communities. She was aware that such communities exist but "to pay attention to that it can be difficult […] We try to keep our eye on it, but I don't think we engage with those communities very often" (McGrath, 2018: 9:47-10:19). The communications staff, despite being the face of the institutions online, recognised their limits and could appropriately anticipate the consequences that this has for sustained, in-depth engagement with expert groups. In their own words, they shared that they would "not be comfortable playing the expert", "not the ideal voice for translating the [subject matter]" and "don't have a [topic] background, so I went to communications school" and therefore are "not engaging on a regular basis or presenting myself as an expert from the museum" (Newman, 2017: 27:54-35:40; McCarthy, 2018: 29:19-30:20). Being cognizant of lack of subject-matter expertise not only affected their museums' institutional online presence but also spoke to their decisions not to write about these topics on their personal social media and online accounts (McCarthy, 2018; Kawamoto, 2019). At some institutions, lacking expert-level knowledge in combination with professional competition meant that it was best to just opt out of anything that could be perceived as factually incorrect (Kawamoto, 2019).

While they might not have sought the Expert Web, there were instances when the communications departments suddenly became aware of it. Some of these situations were fortuitous while other situations were detrimental (Chapter Seven and Eight's episodes demonstrate this range). When communications staff become aware of an interaction with the Expert Web, they might be alerted to it through an increase in traffic to their website or web referrals from niche online community platforms. Some of these links can be a shock, especially if the destination on the museum's website was not previously popular. Ariel Handelman, Director of Marketing at The New York Botanical Garden, recounted an

instance in which a mildly popular photo filter interactive suddenly had an increase in web traffic thanks to a community on the topic-based forum website Reddit. But, despite the popularity of their old exhibition microsite content, they chose not to reply (Handelman, 2017).

> We're afraid of [Reddit] […] We have been advised by some of our staff that Reddit has to be very, very authentic and we have to ensure that we are not using it as another platform for marketing and sales gains. And even if we attempt or say that we're doing that, the Reddit audience will be able to see through it quite quickly, if it's being written and or generated by the quote unquote marketing department.
> (Handelman, 2017: 8:25-8:59)

Both Handelman and Matthew Newman, Content Manager of The New York Botanical Garden, were aware of the horticulture Expert Web, but any involvement would have had to be on a case-by-case basis rather than any institutional or departmental policy, "You don't want to come off as someone who's being opportunist" (Newman, 2017: 6:59-7:02).

Communications staff seemed unsure of how to treat the Expert Web; they were wary of entering conversations where they have not been invited, while aware that current digital strategy and institutional goals could be "stale, in terms of today's social expectations" (Newman, 2017: 28:49-28:52). They were tasked with protecting and promoting a brand but could only protect and promote in specific ways. When their responsibilities included being watchful and mindful of staffs' private social media accounts (to ensure the staff is aligned with the brand), they also recognised that the curatorial team may be better positioned in these spaces. At times, they purposefully overlooked what their curatorial colleagues were

doing and saying, in favour of a non-existent digital strategy that allowed for interactions with the Expert Web (Handelman, 2017; McGrath, 2018).

Social web policies for staff were overseen by the communications departments as part of their responsibilities overseeing institutional identity and tracking reputation. But it was not often clear how far this oversight extended, especially when communications staffs' comfortability was with social media and not the Expert Web. It was unclear if a social media policy for employees extended to social media only (and what exactly constitutes social media) and if such policies meant that institutions could have or thought they had oversight of employees posting in private Web spaces such as Facebook Groups or Discords.

These communications professionals generally understood the potential for outreach and were able to hypothesize how this could be done:

> I would definitely get into more Facebook groups where we could be a relevant voice
> […] I would be putting our experts out there a lot more. (Newman, 2017: 24:32-26:28)

But an uncertainty about their standing in these communities, admission of a lack of topic-specific knowledge, and lack of confidence in their ability to be effective meant that these departments question whether their institutions had the "level of bravery that needs to be maintained", the "quick and responsive" nature and the mentality for risk-taking that limited them and caused them to revert to traditional models in which they are the measured, institutional voice with the final word (McCurdy, 2018: 22:40-23:12).

6.2.3 Education & Outreach

Education and outreach staff were uniquely able to converse with the Expert Web as they have both topic-specific knowledge and Web-based communications skills. They were aware of and used the Expert Web, positioning themselves in this capacity alongside the curators as subject matter experts. Their subject matter knowledge was often from professional training and their personal interest was the catalyst for finding communities of like-minded people.

Because they were intrinsically motivated (personal interest) rather than exclusively extrinsically motivated (job responsibilities or professional research goals) to find such online communities, their ability to use the Expert Web took them to unexpected, decentralised places across a variety of platforms. Charles Zimmerman, Herbarium Collections and Outreach Administrator at the New York Botanical Garden, tried to participate in a wide array of science Expert Web projects to "get a sense of what kind of workflows […] is being shared. So, you're not working in a vacuum" (2017: 36:22-36:35). By seeing their Expert Web spaces wholistically, education and outreach staff identified trends and community behaviour shifts (Graslie, 2018). Emily Graslie, Curiosity Correspondent for the Field Museum of Natural History's online show The Brain Scoop explained that her Expert Web started on Tumblr, "but nobody uses Tumblr anymore." Instead, she identified her audience as scattered globally and virtually, "everywhere but they're nowhere" (Graslie, 2018: 12:10-12:35).

Professionals in education and outreach positions were particularly skilled in interacting with and responding to the public on topic-specific matters in ways that the communications staff cannot (Alexander et al., 2017: 281-307). Their depth of knowledge and effective

communication style offline translated well to virtual spaces, evidenced by their ability to become important – and even famous – individuals on the Expert Web. Emily Graslie is one of the world's most famous museum persons and was host of her own museum-affiliated YouTube series The Brain Scoop (discussed fully in Chapter Seven). For Graslie, the outrageous success of her YouTube series meant that people online often turned to her for information, voiced their admiration, and shared scientific information (Graslie, 2018). The friendly, personable demeanour in her videos coupled with some personal posts meant that her audience felt personally connected to her. As a result, she was sometimes tagged in science content, which she greatly enjoyed,

> "I also like the interaction where if someone thought 'cool bug' [...] I'm glad that I can be front of mind when it's being gross taxidermy or a cool bug, they want to share it with someone, that they had this curious experience in their everyday life." (Graslie, 2018: 22:04-22:35).

But the constant interaction each day became overwhelming and exhausting, and as a result, Graslie decided to set boundaries and limitations on her communications with the Expert Web. As The Brain Scoop rose in popularity, she learned that the most "fruitful conversation and feedback on a video is going to come within the first day" and that afterwards people stop checking the replies and fail to keep up any meaningful dialogue; this has enabled her to "fostering a digital audience [that had] real humans" (Graslie, 2018: 21:23-33:31).

While not everyone can become a bona fide celebrity, Julie Fooshee, Science Festival Alliance Coordinator at The MIT Museum, has also seen an Expert Web form around her.

"I know everybody in [my Dungeons and Dragons gaming guild] knows that I work [at the MIT Museum with] science in some capacity. So, it's like if anybody has science questions, for some reason, I'm the first person they ask […] But I think in that way there's that sustained engagement of 'oh you're a point person for a thing to ask' like you're a person we can refer people to." (Fooshee, 2018: 31:18-31:57)

By interacting on her own time on the Expert Web, she was also able to cater to her audience and discuss interesting museum collections in ways that a communications teams' official marketing plan might not allow. When she mentioned to her gaming guild that the MIT Museum has a collection of risqué holograms, "all conversations just ground to a halt" (Fooshee, 2018: 30:48-30:50).

6.2.4 Archive & Library

The archivists and librarians were aware of the Expert Web through the research they helped to conduct. Therefore, their awareness of these spaces was similar to that of the curators, but their knowledge was not as deep. Esther Jackson, Librarian at The New York Botanical Garden, explained that she was highly aware of a range of plant and mycological groups online, including the plant identification Facebook groups (of which curator Primeau contributed) but chose not to use them. Yet Jackson did contribute to the Expert Web through the "ask an expert" widget on The Garden's webpage. Using her research and librarianship skills, she had enough knowledge to answer questions and, when needed, find answers in scholarly materials or ask horticulturalists at the institution (Jackson, 2017). "I'm not an expert in those areas as compared to the botanical staff […] I'm not a go-to person, which is totally fine. That's how it should be," she admitted (Jackson, 2017: 13:35-13:45). Similarly,

Julia Novakovic, archivist at The Strong Museum of Play, was primarily responsible for answering reference questions sent by "long-distance patrons". Yet, she also shared her projects on the archive's informal Tumblr account and on her personal Instagram (Novakovic, 2018). These posts, she explained, highlighted the work being done but specifically did not include long scholarly narratives which would be more appropriate if written by curatorial experts. Sharing in this manner kept to the ethical standards that Jackson described as part of librarianship: people working in this capacity should not be sending content to people without their consent or an established relationship beforehand as their services should not be confused with promoting or marketing an institution (Jackson, 2017). If archivists and librarians were going to use the Expert Web within their professional capacity, they would need to be mindful of such limitations and, as a result, make the judgement call not to discuss their subject matter on any online communities.

6.2.5 Leadership

The leadership interviewed at each institution had risen through the ranks of the curatorial and collecting departments and thus had subject matter expertise. But despite their potential to participate on the Expert Web, they did not actively engage with that part of the internet.

When Carl Goodman, Executive Director of the Museum of the Moving Image, was a curator, he led his institution through explorations of digital culture (as explained in Chapter Five). But as director, his role was primarily administrative. Instead, he took a high level perspective on how his institution interacted with the Expert Web, only becoming involved in online communities when he needed to help steer his institution out of confrontations (as seen in Chapter Eight). By contrast, Christopher Bensch, Vice President of Collections at The

Strong Museum of Play was an example of a member of staff who continued to conduct research at the institution, even with his administrative responsibilities. His use of the Expert Web, like curator Gary Van Zante, was for "specialist knowledge that I don't have at my fingertips otherwise" and historical context which he "can use more broadly" (at the time of the interview he was "constantly accessing 'Boardgame Geek' and 'RPG Geek'") (Bensch, 2018: 19:43-20:09). In both examples, they acknowledged their awareness of the Expert Web and have encountered these spaces. But at this point, and due to other responsibilities, they were deferring direct interactions to other staff members.

6.2.6 Technology

While technology departments are akin to the communications departments in lacking their museums' subject matter expertise, the evidence suggested that they are interested in their museums' foci. Both technologists who were interviewed spent time reading about their museums' topics; David Nunez, Director of Technology at The MIT Museum, even has a graduate level degree from MIT in a related subject and spent time reading and discussing computer history on the Expert Web (Nunez, 2018). Yet, neither he nor Brad Dunn, Web and Digital Engagement Director at The Field Museum, made conscious decisions not to participate in collections-related conversations for fear of contributing to places that they feel would be more appropriate to find a curator. Dunn described his reasoning for rarely posting science content as a "conscious decision":

> "I think most of the time I know what I don't know […] I've always been concerned that if, all of a sudden, I'm just like science all the time, it's kind of disingenuous because that's not who I was before I came to the medium. And, as you said, I do find I have been

in a couple of conversations here at the museum where people find that perhaps I should be talking more about science and I'm sort of like, well, that's not my expertise. My expertise is function and strategy and content creation and creative production. Now I love it and that's why I'm here. You know, I actually 'geek out' over space and the oceans but, it's all important and I love being here, and I'm not going to try and pretend to be something I'm not." (Dunn, 2019: 11:49-18:06)

The examination of these six department divisions (curatorial, communications, education and outreach, archiving and library, leadership, and technology) present one method to examine the people who contribute to the Expert Web. These individuals and the expertise that they bring from their professional experience demonstrate how critical it is to consider the 'people' as part of online communities, as discussed in Chapter Three's components of online communities, and are the source of the content shared, as will be discussed in the case studies and synthesised in the resulting analysis.

6.3 Affiliation & Identity

In addition to understanding how museum staff viewed the Expert Web through a departmental analysis, the data can also be reviewed through the lens of affiliation and identity, which refer to how closely the staff members are linked with their institutions on the Social Web. We see attention to affiliation and identity across all the case study museums and can recognise that including one's affiliation is highly considered and calculated. The interviews evidenced that choosing to (or not to) affiliate and identify as a staff member can directly affect the staff members' behaviour online.

We can first look to people who closely align themselves with their institutions online by including their institutions' names in their bio and their posts. By tying one's identity to their museum, they could bolster their status in online communities and could potentially increase peoples' trust in the content they are posting (as described in Chapter Three). But, if one lists their institutional affiliation, they could equally be perceived as a representative of the institution and risk the ire of their superiors and communications departments. It is worth noting that, in some cases, these alignments may have been influenced by career trajectory; early to mid-career museum professionals seeking prominence in their disciplines may see advantages in leveraging their affiliations and gaining credibility in a competitive job market (Jackson, 2017; Graslie, 2018).

Emily Grasile, Curiosity Correspondent for The Brain Scoop, included The Field Museum on her social media and Expert Web profiles to define herself. She leveraged the credibility of a famous and beloved, scientific institution, promoting her posts beyond her name recognition alone (Graslie, 2018). Similarly, Esther Jackson, Librarian at the New York Botanical Garden, used her institution's name in online book reviews to position herself as a professional in the field of library science (as opposed to portrayal as a horticulturalist) (Jackson, 2017). In both cases, they became emissaries of their museums, and their behaviours and actions represented their employers. In contrast, Andrew Borman previously gained a reputation on game preservation forums and already had established relationships with those communities, so when he added Digital Games Curator at The Strong Museum of Play to his profiles, he was leveraging his own clout for the benefit of his employer (Borman, 2018). Yet, all three people were informed users of the Expert Web; they used their own names to still have autonomy and understood that leveraging their institutions on their personal accounts blended their personal and professional lives.

Furthermore, an individual with an affiliation may be more trusted by other museum staff since being a representative of an institution provides the writer with credibility. In the Curatorial Department section of this chapter, Gary Van Zante, Curator of Architecture and Design at the MIT Museum, shared that he used the Expert Web as a research tool. While he mainly 'lurked' on the Expert Web, he believed that seeing institutional affiliation provided authenticity and a method of verification, especially in the wake of false information online (Van Zante, 2018):

> "If you have people [posting information] anonymously, then you don't know whether that's a trained person, knowledgeable person, or a crackpot. I mean you just don't know. [...] By identifying myself, people can accept it or not. They may not think I'm qualified to answer something but at least my credentials are there." (Van Zante, 2018: 27:29-27:58)

But opting not to closely affiliate oneself with their employer was not indicative of someone trying to obscure their identity. Some members of this study simply did not find their employer to be a particularly relevant part of their identity. Jennifer Novotney, Public Programs Coordinator at the MIT Museum, and Julie Fooshee, Science Festival Alliance Coordinator at the MIT Museum, conveyed how their institutional affiliation were not necessarily relevant when posting online, especially when one is not directly working with an institution's collection. Instead, they opted to add affiliation when it was contextually relevant (Fooshee 2018; Novotney, 2018;). Others felt that naming their institution could overshadow the content they were posting or could take attention from the individual writing

the information, such as Primeau who offered that his contributions were "something I'm doing [for] me" (Primeau, 2017: 6:56-6:58).

Some people chose not to affiliate themselves with their museum because doing so would not be beneficial and instead, they preferred to keep their perceived autonomy (as introduced in Chapter Three). Publicly affiliating with an employer potentially gives a museum an opportunity to attempt to exert control over the staff member's account and their content, especially if it is perceived as conflicting with brand guidelines. Therefore, some staff preferred to keep their own identity online rather than navigate the written and unwritten rules of social media usage. Some institutions attempted to exert influence on their staffs' use of social media (Handelman, 2017; Primeau, 2017) while other institutions had neither a social media policy nor unwritten influence (McCarthy, 2018). At The New York Botanical Garden, the staff was aware of significant institutional influence regarding staff on social media and the Expert Web. Primeau explained that he constantly considered the "rules of The Garden" and was "painfully aware of the rules that exist for The Garden, so I don't represent myself as anything [affiliated with the institution]" (Primeau, 2017: 6:59-7:21). When offering horticultural advice, he said:

> "I would have to be very diplomatic and thoughtful about it because I don't want to, in that case, say anything as a representative of The Garden. [...] I've thought about this a lot because I know I've spoken with [senior staff] about this and I know how this could be turned into something that I would not want. Something fun could turn into a problem at work. That's something I'm painfully aware of. [...] [There are instances where the Expert Web can] get argumentative or difficult and that's

something that I don't get involved in. The Garden probably doesn't want to be involved in." (2017: 11:05-17:05).

Reticence to identify and affiliate with one's employer can also reflect an institution's social media choices. The New York Botanical Garden's social strategy, for example, was meant to keep the institution's reputation safe through a consistent voice with "even keel of content", but not to seek a personality nor feature individuals (Handelman, 2017), which means that "the executives [are not] quite comfortable with putting faces up there," (Newman, 2017: 4:05-4:09). The decision not to highlight individual staff members or their voices demoralised staff and discouraged them from listing their institution:

> "You feel like you're going to get in trouble for putting your name on anything associated with The Garden… [Yet] our [images] are used all the time, […] but we're not allowed to get credit for them […] That makes you feel like you're not an expert [and when we do things,] its attributed to the organisation" (Daubmann, 2017: 21:56-21:59)

This was echoed across other institutions as well, "I try not to speak for The Museum of Play just because there is.... I don't need to get in trouble for anything." (Borman, 2018: 23:44-23:50).

Institutional social media policies can also have unintended consequences, such as impeding sanctioned projects. Charles Zimmerman was the point person for The New York Botanical Garden's citizen science project (discussed in Chapter Eight); he felt limited in his ability to conduct outreach:

"I'd say that it feels limiting to have a constrained social media identity in terms of…

I can imagine [citizen science' projects] having its own identity online and it's

challenging […] because we have a social media policy that is very focused." (2017:

27:36-27:01)

While there was more freedom for employees to post at the MIT Museum, Tina McCarthy,

Digital Communications Coordinator, explained that her institution did not want any

individual staff member "publicly standing out as a primary resource" with their own posts

(McCarthy, 2018: 10:51-10:59).

In one case, there was a far more unsettling reason not to post publicly as an affiliate of the

museum. Shannon Symonds, Electronic Games Curator of the Strong Museum of Play, had

been researching women's contributions to electronic games for an exhibition. Her research

coincided with a large-scale, industry-wide sexist, online harassment campaign known as

'Gamergate'. The museum decided to remain true to its communications strategy of limiting

interactions by focusing on marketing communications with play scholars, "we basically just

have this policy we're not going to engage in any way shape or form with that kind of

comment," Symonds offered (2018, 22:30-22:39). As a result, it was best for her to comment

in private game communities online and to minimize her public, online institutional

affiliation (Symonds, 2018).

Some staff members have attempted to solve this challenge of affiliation, identity, and

autonomy through individual departmental accounts. These accounts can focus on specific

topics (such as The Strong Museum's International Center for the History of Electronic

Games social media presence) and cater to interested parties, while interfacing with the main institutional accounts through sharing and retweets (Borman, 2018). But this, too, can conflict with institutional branding. At The New York Botanical Garden and The Field Museum, conflicting messaging and inconsistent engagement risked the institution holding onto strategic control. At both, the communications departments suggested more department specific content on their main channels, but whether this captured the same niche audience could not be confirmed (Dunn, 2019; Handelman, 2017).

Affiliation and identity in this context use the relationship between the people and the place (components of online communities identified in Chapter Three) to understand the Expert Web. This then reappears throughout the case studies where responses and replies that identify one's self and one's institution are highly calculated and considered and affect the replies that the museums opt to (or not to) write.

6.4 Motivation

While the departmental categories gave us insight into comfortability discussing curatorial topics and ones' affiliation and identity offered insight into how staff members interacted with their institutions, considering staff members' motivation provides an understanding as to why people may or may not feel comfortable being on the Expert Web. Here, we can learn why some people chose to participate if they perceive personal benefits in doing so. The information that follows begins with motivations to participate (networking, responsibility, personal fulfilment) and ends with motivations not to participate (privacy, other interests).

As initially explored above in Affiliation and Identity, using an institution to leverage credibility can help to create an individual's public persona which can help bolster a career. Through the interviews, there was evidence that some motivation to participate was because of networking and projecting a professional presence. Those who were seeking attention and were motivated in this way perceived their actions as strategic professional development for career advancement and networking, as opposed to attention-grabbing or fame-seeking (Jackson, 2017; Douglas, 2018; McCurdy, 2018).

Personal fulfilment can manifest as a motivation to disseminate information, to educate, and to share excitement with people who may be outside of the staff's typical contacts. The staff members who cited this as a motivation describe the exchanges of information as "fun" (Primeau, 2017: 7:45) and done with "very generous spirit" (Weinberg, 2018: 22:54). They shared that they "like to be among people that share the same interests and comment on things" (Daubmann, 2017: 11:53-11:59) and would share information about their curatorial topic as it related to their work and personal lives. This was evident in Daubmann's Instagram account which sometimes featured images at The New York Botanical Garden but more often included images of her personal property and extensive personal garden. Such personal fulfilment motivations were also recognised by colleagues who may not have shared this motivation; for example, Brad Dunn described Emily Graslie, both of The Field Museum, as "super genuine [...] She genuinely lives and breathes science" (Dunn, 2019: 18:08-18:22).

Some staff members were motivated by a responsibility to share information and converse with online expert communities. For these individuals, they have a calling to their professions

that compelled them to contribute to the analysis and interpretation of information and responsibilities as historians and representatives of their museum to share information on traditional and non-traditional platforms (Douglas, 2018). Others offered that they were motivated by their responsibility to make certain statements about their subject matter, even if not officially on behalf of their institutions. As Emily Graslie explained, "[If something I said] resonated with 245 people who commented on it, I felt pretty cool" (Graslie, 2018: 47:55-48:01).

Yet, just as there were motivations to participate on the Expert Web, the data showed that privacy is a major deterrent. Some staff members described themselves as private people who simply prefer not to broadcast their lives or be "a self-promoter" (Daubmann, 2017: 8:40-8:42; Newman, 2017; Kawamoto, 2019). Others self-described as "a terrible millennial" in this age of social media (McCurdy, 2018: 15:15) and explained a generational barrier and opposition to publicly sharing one's life:

> I just am not part of a generation that... I never have participated in online
>
> communities other than email communication [...] I don't participate in any [social
>
> media]. I just personally don't. (Hasselbalch, 2018: 14:28-15:35)

Just as personal fulfilment was a reason for some staff members to participate online when talking about relevant curatorial topics, other staff members founded personal fulfilment through other subjects. In some instances, the staff members found personal fulfilment reflected their education and helped to develop their individual brand. This was the case for two marketing staff members who had other interests and centred their personal brands on what they know and like best, such as visual arts (Davis, Handelman).

Discussing motivation with staff members builds upon the process discussion in Chapter Three, as the reasoning for an individual's participation reflects choices made within their career and personal life. We will also see motivation return in the case studies and as a foundational element of the model developed in the analysis section.

6.5 Conclusion

This chapter has demonstrated that many factors appear to matter when museum staff members are deciding if they want to participate on social media and the Expert Web.

We first reviewed how one's department and responsibilities have the most prevalent impact, then we examined how affiliation and identity contribute to staff members' choices, and finally, we saw how personal motivation can influence contributions online. From here we can extrapolate that depth of knowledge matters as it determines confidence; identity and motivation can influence how staff reacts online. From this information, we have learned that these factors affect staff member's online interactions.

In the next two chapters, we will see how these perspectives and choices have consequences in respect to how online communities react and respond to cultural institutions. Together, these three chapters attempt to understand how museums communicate and who is best positioned to represent museums on the Expert Web.

Chapter Seven

Engaging With Museums on Popular Platforms

7.1 Introduction

Across the Web, we find online communities discussing and interacting with museums in significant ways. This chapter, and the subsequent one, share - in a series of 'episodes' - the range of these discussions and interactions which occur when the museums' curatorial foci are aligned with the topic of the community and, sometimes, even in spite of that focus. Some episodes demonstrate that the communities have a sustained interest in the museums through complex and analytical conversations while other episodes are made of mere mentions repeated over time. In each, the mention of the museums and the framing of the discussions indicate that there is community awareness of these institutions, and, furthermore, that museums are part of the community's memory.

These episodes are categorized by the type of platform on which they appear. This structure is one of many ways in which the data could be spliced; one could also organize the episodes by institution or chronology. But the examination of platform embeds us into the perspective of the user, who has chosen to engage in each type of platform, with their respective affordances and structural influences. While the previous chapter took the perspective of museum staff, this chapter and the one after place us alongside the user in the centre of the activity.

Through five types of platforms (social news, video sites, web portals, forums, and imageboards), and our episodes' museum connections (or lack of connection) with each, Chapters Seven and Eight tell the stories of how each community interacted with museums. The differences in the encounters are nothing short of remarkable: one museum demonstrated that it can cordially collaborate and create positive relationships with online communities, while only a few years later and in different circumstances, that same institution encountered a perfect storm for utter havoc. Two other museums proved that online communities are highly dedicated to museum-related causes, willing to contribute financially or through personal time and effort. As with much else in the past two chapters, it is a variety worth noting.

Three scholars of digital culture and sociolinguistics provide a roadmap for analysing the conversations found in these communities. Fundamental to the approach are Joseph Reagle Jr. and Gretchen McCullogh, while Ruth Page adds useful ways to frame the research. Joseph Reagle Jr.'s methodology of "reading the comments" provides insight into how to read these types of web-based communications. Reagle recognizes James Surowiecki's and Clay Shirky's wisdom of crowds and collective intelligence and asks people to recognize how "the bottom of the web" fits into this larger context. He explains that what is found there is an entire genre of communication: the comment.

> [C]omment is *communication*, it is social, it is meant to be seen by others, and it is *reactive*: it follows or is in response to something and appears below [the main content]. Although comment is reactive, it is not always responsive or substantively engaging. (Reagle, 2015: 2)

Comments can achieve a few different objectives: they can inform, improve, manipulate, alienate, and shape. Reagle continues to explain that these comments are ubiquitous online, but often ignored, and include everything from the click of a button (a 'like') through single sentences or a couple of paragraphs and are asynchronous as they can be a reaction made seconds, hours, or days after the original source or post. They are worthy of consideration because they are a sample of what people are thinking and should not be avoided or ignored, as most people (ironically) comment. Reagle continues to explain that individual comments should be looked at alongside and within their source context. Because they are reactionary, comments are inherently contextual yet asynchronous, and the ability to separate and transport them away from their source or intended audience (i.e., a retweet) can obscure an author's intent (Reagle, 2015).

Just as Reagle said that the comment format is a genre of writing, Page posits that stories, including those in social media, are a genre of writing. She examines the personal element of telling stories in online communities, with attention to the contributions of multiple people, resulting narrative structure, and what makes these stories worth telling in the larger online context (Page, 2012). While the online communities and their museum interactions discussed in this chapter are not single narratives, this framework is useful in understanding how multiple people contribute to and influence conversations.

To undertake this analysis, McCulloch uses an internet linguistics model to examine the day-to-day language found online. This distinct genre of writing is a stylised vernacular which tends to be more approachable than offline writing, conveys emotion in novel ways, and is nuanced and idiosyncratic. While informal language previously existed, writing has historically been formal. But the internet and its real-time conversations necessitated a new

type of language that combined formal writing with informal speech. The process of internet writing is also different from what came before it; it is without drafts and revisions and is "unselfconscious". Some of these changes are due to technological affordances and limitations; for example, platforms with character limits force people to be concise and pithy, while also needing to support text-based, keyboard-enabled emotion and emphasis (McCulloch, 2019).

Examining written communications online demonstrates that the language used varies from community to community. Both variances and shared vocabulary can be explained through networks and ties. In the physical world, networks are often regional, but online, they are based on the websites in which people spend their time; simply put, people now learn language from their in-network internet-friends. The more exposure people have online to phrases or abbreviations, the more they start using them and conform to the online community's societal norms. One challenge, though, of learning and using internet language is the speed at which it changes. These linguistic innovations can be explained by the proliferation of weak ties on websites like Twitter, where everyone at once seems to be using the same words, or less so on Facebook, where language is more static because the connections are based on physical-world friendships and strong ties (McCulloch, 2019).

What makes this research and (most) of these instances of museum and online community interactions distinct from past museological scholarship about social networking is that these episodes and their communities have been formulated independently from museums, retained their autonomy, and exist on their own; their members do not appear to participate on museum-controlled platforms, and so this research establishes them as distinct from the audiences that museums typically identify and include in audience segmentation analysis.

We begin, in this chapter, with two types of familiar, well-established, popular environments known as social news and video sites. It is on these sites that people go to generally occupy their time and 'hang out' online. While an individual may seek out a particular type of content, these websites have multiple sections and host material about nearly anything imaginable. By contrast, the platforms in Chapter Eight are structured specifically around a single theme and their structure is heavily influenced by their respective communities. Our discussion begins with an introduction to each platform. Then, before turning to each specific episode, there is an explanation of the history and members of each community and a consideration of the ways that these groups of people have formed fan and 'fannish' identities to provide necessary context. These descriptions offer an understanding of each community, usually from the perspective of fan studies scholars or journalists who have delved deep into their respective ethos. Only with this understanding can we later understand the users' intents and their choice of language when discussing or interacting with museums. Finally, the interactions with each museum are recounted.

7.2 Platform: Social News

Social news sites are crowdsourced websites where users can post media of their choice and then viewers rank the content using embedded voting systems and offer their opinions in comment sections, which can grow to be quite extensive. This type of site recalls the bulletin board structure of the early internet and remains popular, even though graphic-heavy social networking sites are often perceived as more important. The social news site Reddit is a popular website where users post links, articles, text, images and comments in niche, topic-based communities known as "subreddits". In this research, we see multiple episodes that use

Reddit. In the first episode, we see a community of mathematically inclined people admire and joke about artworks exhibited at The MIT Museum. After that, we turn to two episodes affiliated with The Museum of the Moving Image: first, a modern, 'memified' version of the surrealist game 'Exquisite Corpse' has a community of people take turns altering a GIF and second, is the development of a curatorial narrative about the history of GIFs.

7.2.1 Community of Mathematics & Engineering on Reddit's Mechanical_GIFs

People with niche interests and hobbies tend to find each and, on the internet, this communication dynamic has become more prevalent over time. In this episode, we see that what was once a love of a mathematics eventually evolved into formalized professional societies (with strong network ties), and, as this research proposes, has returned to a love of the subject matter (with very loose network ties) with the help of the internet. We can attribute some of this return to the modern ease of communication and the structure of social news sites. Shirky explains that group communication has been propelled by the "many-to-many communications" and the internet's ability to remove communication obstacles (Shirky, 2008: 157-160). In the episode that follows, the website Reddit played a critical role in helping like-minded people have labyrinthine conversations.

Being a fan does not need to be limited to a physical or pop culture object. While being a fan of an academic subject might have sparse scholarship, there are allusions to academic fandom. Daniel Cavicchi, in *Fandom Before "Fan": Shaping the History of Enthusiastic Audiences* referenced fans of subject matters in bygone eras, notably for this research, a "rosy glow":

The complex part of historicizing fandom as a general concept is expanding it to compare and connect a range of "fan entities" with one another and then, in turn, exploring the relationship of past practices of cultural engagement to those in the present. An 1873 Galaxy Magazine article, for instance, outlined a wide range of cultural enthusiasms going back to ancient Greece, many of which are lost to us now, including 'a rosy glow' about mathematics [….] We may see some of these as short-lived social 'fads' rather than more significant forms of fanlike enthusiasm, but recognizing that distinction has itself helped shape the broader concept of 'fandom.' (2014)

In this model, we can say that the Greeks laid the groundwork for being fans of mathematics.

There are further parallels between engineering, mathematics, and fan communities. At roughly the same time that fan communities were emerging, professional clubs for civil and mining engineering emerged (1852 and 1871, respectively). And while the Electric Club of New York (founded 1887) was open to anyone in an electric profession, their publications were read by over 17,000 readers who formed a community through by reading articles and social news and submitting editorial comments to form an "arena of discussion":

The casual tone and location of this material, at the interstices of the straight-laced technical and professional documents which announced that electricians were busily engaged in their calling, made it ideal for expressions of the concerns closest to their hearts. (Marvin, 1990: 11)

While these journals officially said their aim was professional standards, "[w]ithout exception, these journals subscribed to the argument that electrical experts were entitled to greater social position and respect" (Marvin, 1990: 11). Hence, we see the formation of a social community with a social structure (the club) in the same years that fan communities were organizing, in which the participants were self-identifying (and often not high-end professionals), socially talking about their topic of choice and creating topic-adjacent materials or paratexts.

This research argues that today, those who enjoy discussing mathematics and engineering are fans, and the subject matter is the fan object with which they identify. We can affirm that people with these interests identify with the academic fan-object by self-proclaiming that they are 'nerds' and 'geeks' or put a career-minded spin on it as 'mathematicians' or 'techies'. Modern scholars of fan studies even recognize this; Will Brooker in justifying 'aca-fans' (academic fans), alluded to this:

> I suspect most math scholars love mathematics. So, on one level, I would suggest that many or most academics are also aca-fans, studying something they are deeply and personally invested in, and balancing that investment with a scholarly objectivity. (2020, Chapter Seven)

It is this scholarship that helps us to see how people who spend time discussing such topics online can be viewed as fans of these subjects; furthermore, clues suggest that visitors to the MIT Museum (housed at an institution synonymous with knowledge about mathematics, science, and engineering) are fans of this knowledge as well. The MIT Museum has been mentioned in a multitude of online communities, across curatorial interests. As outlined in

Chapter Six, the museum's curatorial and outreach staff tend to be aware of these interactions

and mentions and are humoured by their unpredictability. The occasions that have sustained

ongoing conversation, such as the episode below, have caught the museum staff by surprise.

The MIT Museum's exhibition of Arthur Gansen's kinetic sculptures caught the attention of

a visitor who took a short video of one sculpture which has a series of gears that turn at the

rate of the age of the universe. In July 2017, this visitor posted the video using their Reddit

pseudonym *RespectMyAuthoriteh* in Reddit's Mechanical GIF subcommunity under the title

"The final gear in this gear train takes 13.7 billion years to complete one rotation". This post

gained 18.1 thousand "upvotes" and 910 comments which discussed the mechanical elements

and detailed the mathematical equations which support the mechanics and its movements.

The popularity of the post earned it a space of high esteem in the day's top 50 posts across all

of Reddit's subforums.
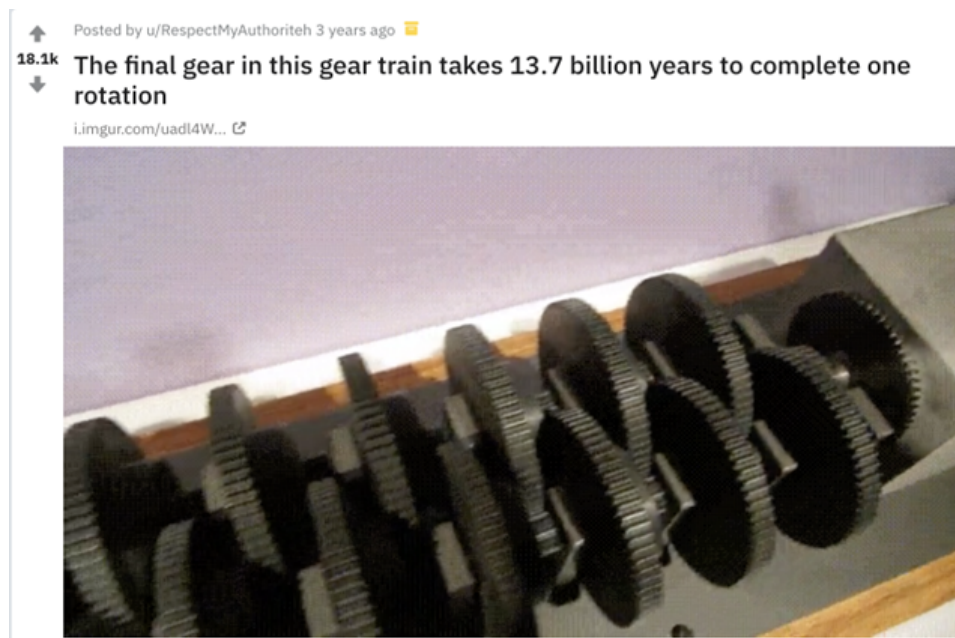
Figure 7.1 Original Post about Arthur Gansen's kinetic sculpture on Reddit

Ben Wiehe, Manager of the Science Festival Alliance (an outreach event overseen by The

MIT Museum) explained that another staff member found the post and shared it, "And then,

you know, Reddit did what Reddit does" which both demonstrated that some staff at the

museum were aware of this episode and that they understood the dynamics and power that

can occur when posts become popular on Reddit (2018, 1:32-1:36). Wiehe described the post

as a "rabbit hole" and recounted his impression of the conversation, specifically remembering

that some people jokingly called the artwork a hoax because viewers could not see the

movement and that other users discussed the materials that were used to make the gears.

While it is clear that the post was not placed there by a museum employee, the staff regarded

its popularity as positive, with Wiehe reminiscing, "How about that… look at that… that's

wild!" (2018, 2:46-2:48).

The threaded conversation that can be found in the 910 threaded comments can be grouped

into five categories: 1. clever math, 2. clever jokes, 3. mathematical explanations, 4. close-

looking, and 5. identification.

The top reply to the initial 'seed' or original post, from user *sasanga*, called for a popular

Reddit time-based bot to alert the user to revisit the post in 13.7 billion years; within Reddit

culture, this bot is invoked as a joke since it is unreasonable to expect the bot to send an alert

that far into the future to someone who is alive today. We can classify this thread of the

conversation as a clever mathematical joke because dozens of users proceed to debate the

bot's ability to support calculations this far into the future and users even looked at the bot's

code to confirm its impossibility. Another thread of intense conversation began when a user

suggested reversing the placement of the motor, which would invert the gear's movement

and, when calculated, would make the gear at the other end of the axle move at the speed of light. This idea was supported by users attempting to figure out the inverted calculations (excerpt below). While some conversations were inspired by the artwork, they veered quickly away from the art itself; one long chain of conversation, for instance, asked if these gears could spin the earth.

> [deleted] 3 years ago
> Now put the motor on the other end!!!
> ⬆ **1.2k** ⬇ Share Report Save
>
> JackCamp4815 3 years ago · edited 3 years ago
> You can correct me if I'm wrong, but I plugged the ratio into a calculator and got a speed of ~4.32×10^{16} rotations per second, if the final gear has a circumference of about 10 cm (I'm rounding) that would mean that it's would move about ~4.32×10^{15} meters per second. That is, with a motor of high enough torque (it would have to have infinite torque, actually), we could make the last gear turn at over a million times the speed of light.
>
> Edit: Circumference, not diameter.
> ⬆ **1.2k** ⬇ Give Award Share Report Save
>
> Comment deleted by user 3 years ago
>
>> KittehDragoon 3 years ago
>> In practice, the stress on the gears would simply destroy them no matter how nicely you ask them to break physics for you, but sure, why not.
>> ⬆ **559** ⬇ Give Award Share Report Save
>>
>>> snkns 3 years ago
>>> And in practice, that motor ain't gonna run for 13.7 billion years without disintegrating first, so what's the difference?
>>> ⬆ **321** ⬇ Give Award Share Report Save
>>>
>>>> julian88888888 3 years ago
>>>> Theoretically one works, practically both don't work.
>>>> ⬆ **277** ⬇ Give Award Share Report Save
>>>>
>>>>> estebu 3 years ago
>>>>> Mathematically, both work. Theoretically, one works. Practically, nothing works.
>>>>> ⬆ **363** ⬇ Give Award Share Report Save

Figure 7.2 Conversation about gear's movement on Reddit

The second category of comments were jokes that required an understanding of math, physics, or engineering but are not supported by written formulas. The first comments below alluded to a popular joke about a "spherical cow" and theoretical physicists creating "simplified scientific models of complex real life phenomena".
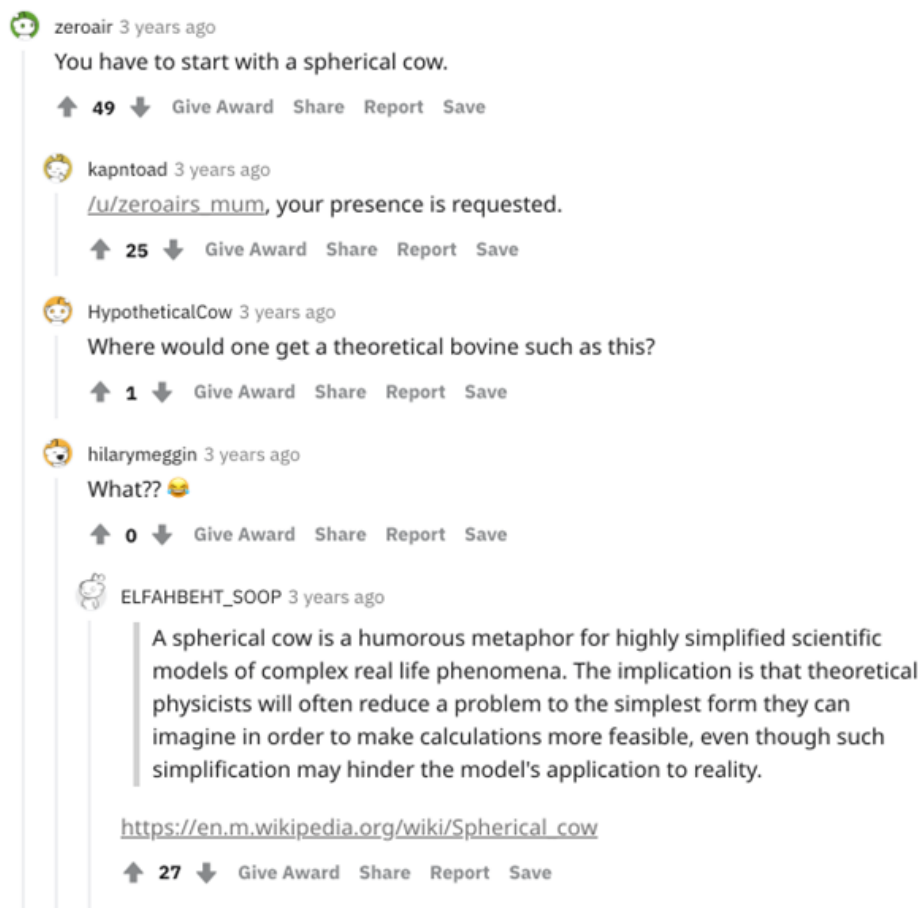
Figure 7.3 Conversation about physics joke regarding a "spherical cow" on Reddit

Similarly, the image below used wordplay with the word torque, which also described how the sculpture moved. In both the first and second categories (clever math and clever jokes), McCullogh would probably explain this type of joke-making as a social method to build solidarity online; the user employed an in-group method of manipulating a technical tool (the bot) amongst an audience (the subscribers) that would understand the clever in-group internet

language. The joke only landed because the writer puts trust into the community and assumed that they would understand, which they did. (McCullogh, 2019).
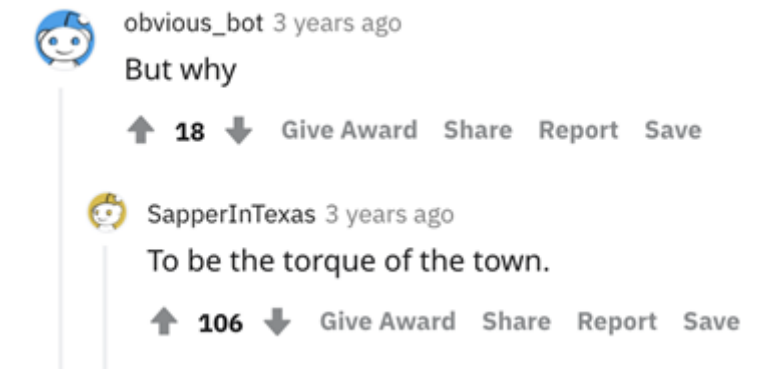
Figure 7.4 Conversation about physics joke regarding a torque on Reddit

The third category had users asking for clarity regarding the mathematics supporting both the artwork and the conversations. With formulas written out and embedded links to knowledge-hubs like Wikipedia, we see that this community was interested in both sharing knowledge (the original GIF that was posted) and helping each other build knowledge (the explanations). We can also assume, through the calculations written in long form, that the writers had technical knowledge and understanding, and were mathematically inclined.

Redditor_on_LSD 3 years ago

That is, with a motor of high enough torque (it would have to have infinite torque, actually), we could make the last gear turn at over a million times the speed of light.

Maybe I'm missing something here, but isn't that kind of a moot point because if you had a motor with infinite torque, couldn't it spin anything a million times the speed of light?

⬆ 36 ⬇ Give Award Share Report Save

AnonymousWritings 3 years ago

> million times the speed of light?

No you can't even with infinite force. The speed of light is an absolute limit. What would happen in the "very high force" situation is that the speed of the gear / object would get approach the speed of light very closely, and it's kinetic energy and momentum would balloon upwards towards infinity.

You may be used to thinking of force as F = m a, mass times acceleration. It's actually F = dp/dt, rate of change of momentum, which is a distinction that matters at high speeds where relativity is important. In relativistic systems, momentum is no longer p = m v, but rather p = gamma m v, where gamma = 1 /square root (1- v^2 / c^2). If v << c, it's essentially one and doesn't matter. If as v --> c it approaches infinity.

There's no way the gear survives approaching light speed though. Screwy things would happen with a rotating object approaching light speed in special relativity. See the Ehrenfest paradox. Really, you have to drop to general relativity because this isn't an inertial reference frame, and I'm not going to touch that.

⬆ 52 ⬇ Give Award Share Report Save

WikiTextBot 3 years ago

Ehrenfest paradox

The Ehrenfest paradox concerns the rotation of a "rigid" disc in the theory of relativity.

In its original formulation as presented by Paul Ehrenfest 1909 in relation to the concept of Born rigidity within special relativity, it discusses an ideally rigid cylinder that is made to rotate about its axis of symmetry. The radius R as seen in the laboratory frame is always perpendicular to its motion and should therefore be equal to its value R0 when stationary. However, the circumference (2πR) should appear Lorentz-contracted to a smaller value than at rest, by the usual factor γ.

[^PM | Exclude ^me | Exclude from ^subreddit | FAQ / ^Information | ^Source] Downvote to remove | v0.24

⬆ 21 ⬇ Give Award Share Report Save

destrovel_H 3 years ago

> This indicates that geometry is non-Euclidean for rotating observers, and was important for Einstein's development of general relativity.

Damn that's a mind fuck

⬆ 18 ⬇ Give Award Share Report Save

searingsky 3 years ago

Yeah. When you orbit the earth at 100000km altitude and go fast enough, you can circumnavigate it fully by moving 1 meter, but still be 100000km away from it

⬆ 5 ⬇ Give Award Share Report Save

Figure 7.5 Conversation about physics calculations on Reddit

In some replies, the users gave hints as to their occupation and educational background; there were multiple jokes about being professional civil and mechanical engineers and scientists. In one instance, it can be deduced that a user had not yet entered university or career training as they reference being "younger" and looking towards mechanical engineering as a career choice.
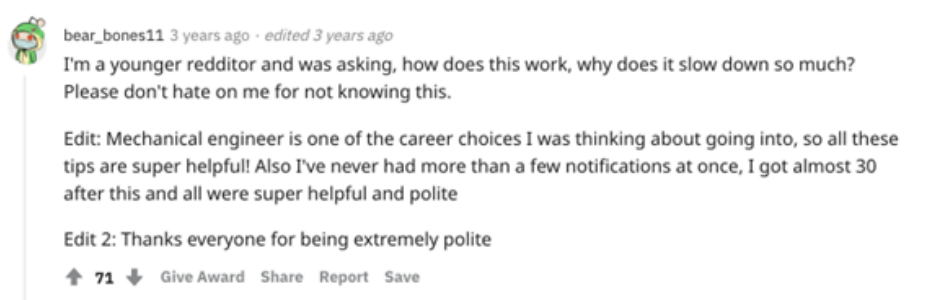
Figure 7.6 Conversation from "younger redditor" on Reddit

Using Reagle's analysis of comments, we see that the function of these replies was to inform and share thoughts for the benefit of others (in this case, either the person who asked the question or any reader who had taken the time to read the answers). The users who replied with mathematical explanations were addressing information asymmetry in the thread (Reagle, 2015). Concurrently, the typographical tone of voice changed. The answers were longer (necessary to convey the complex information), the sentence structure was more formal, and the line breaks structured the conversation as a teacher would in explaining a complex topic into smaller, more manageable parts (McCullogh, 2019).

The fourth and fifth categories of comments - close looking and identification - are less mathematically inclined, they aligned closer to typical museum education and visitor studies

as a whole. Questions and comments that asked specific questions about the GIF utilized

close looking techniques that were familiar to those teaching in museums of art and visual

culture. User *spankinhank* asks:

spankinhank 3 years ago
Why didn't they mark the top tooth of each gear so you could actually see how much each has moved?
931 Give Award Share Report Save
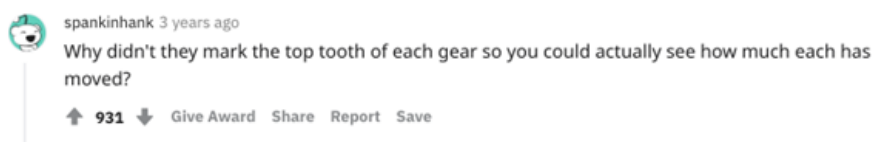
Figure 7.7 Conversation about gears and close looking

While this "why" question could not be answered by anyone other than the artist himself, it

showed user *spankinhank* took time to examine the GIF in detail and noticed intricacies about

the artwork. A few posts later, user *SgtDefective2* enquired about the materials used, which

led to a more artistically inclined conversation:

SgtDefective2 3 years ago
But why is it in concrete?
42 Give Award Share Report Save

SleepingLesson 3 years ago
To demonstrate that it is moving so incredibly slowly that for all intents and purposes it is stationary.
142 Give Award Share Report Save
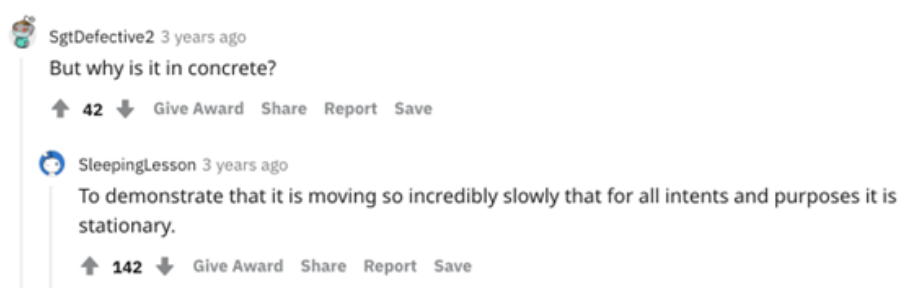
Figure 7.8 Conversation about materials on Reddit

Yet other posts expressed a desire for more information about the artwork itself. One user

asked when the final gear will begin moving (another user said it already is, albeit very

slowly whereas others replied it has not yet or is unable to due to the concrete block).

The very first (per the "top sort") mention of the MIT Museum in this thread came as a reply to user *WillBBC* who asked, "Can somebody explain this for me?" The highest ranked replies to this were brief and simplified descriptions of the artwork, and the lowest rank reply was the direct link to the artwork on the MIT collections website. On Reddit, answers from individuals are what start conversations. In general, links do not. But what we see here is awareness that the artwork came from the MIT Museum, despite the original poster (OP) omitting this information. The first substantive mention of the MIT Museum is about two-thirds into the conversation, where a user asked for confirmation of the artwork's location. Eleven replies followed with most confirming the location and expressing a true love of the museum.

Charles-the-Cat 3 years ago

Was this at the MIT museum?

⬆ 21 ⬇   Give Award   Share   Report   Save

Rockperson 3 years ago

Probably. This is an Arthur Ganson sculpture and he is (or at least was for some time) MIT's resident artist.

⬆ 8 ⬇   Give Award   Share   Report   Save

prototypicalDave 3 years ago

I'll never forget that exhibit. Never been moved to tears by wire till I saw the piece that was this hugely complex set of mechanical interactions, the output of which was to turn a tiny dudes head. Cried like a baby when I realized what it was doing. I love his art very much

⬆ 6 ⬇   Give Award   Share   Report   Save

bbctol 3 years ago

No, but there's a similar piece there.

⬆ 4 ⬇   Give Award   Share   Report   Save

dahditdit 3 years ago

How do you know?

⬆ 7 ⬇   Give Award   Share   Report   Save

bbctol 3 years ago

Because I've seen it, and it doesn't look like this.

⬆ 5 ⬇   Give Award   Share   Report   Save

dahditdit 3 years ago

I was there today. It looked just like this. Idk I'm not saying I know for sure but it looks like the one in this video that was taken at MIT.

⬆ 6 ⬇   Give Award   Share   Report   Save

otterom 3 years ago

Went to MIT

⬆ 1 ⬇   Give Award   Share   Report   Save

mac_question 3 years ago

...This looks identical to the one there

⬆ 1 ⬇   Give Award   Share   Report   Save

wesc23 3 years ago

There's one at the SF Exploratorium.

⬆ 2 ⬇   Give Award   Share   Report   Save

zblanco 3 years ago

Yes! I just saw it there last week :)

⬆ 1 ⬇   Give Award   Share   Report   Save

CydeWeys 3 years ago

Yes. I saw it there in person a looong time ago (like a decade and a half ago).

The MIT Museum is awesome. There's a huge amount of stuff like this. It's kind of like a science museum for adults. I'd highly recommend it to anyone of the STEM persuasion who happens to visit Boston/Cambridge.

⬆ 1 ⬇   Give Award   Share   Report   Save

Figure 7.9 First conversation identifying The MIT Museum on Reddit

We see many exchanges like this and can deduce that users who participated in this thread as well as members of this community were truly interested in the artwork as they were explicitly asking for more information. In many instances, the replies were accurate and correctly identified its title, its location, and its artist. Some users confirmed that they had personally visited the exhibition, recalling details such as the year. In one instance, a user recalled that the motor was replaced in the artwork. One of the longer exchanges is included here:
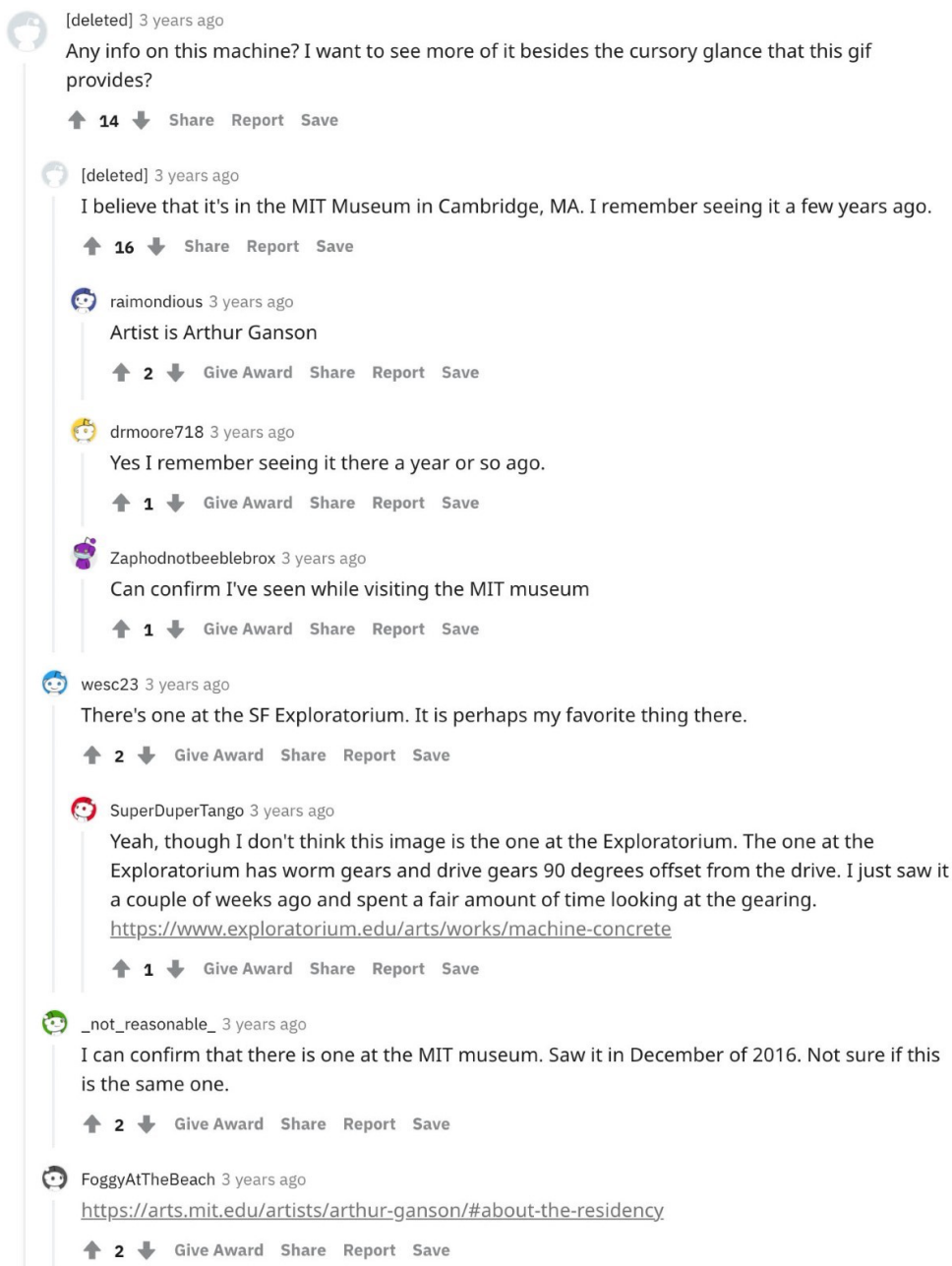
Figure 7.10 Second conversation identifying The MIT Museum on Reddit

This community was clearly aware of The MIT Museum and was comfortable talking about it. And they viewed the museum favourably, with one user declaring it an "awesome place". There were a handful of posts that incorrectly identified the location of the work of art - instead believing it to be part of the collection at the Exploratorium in San Francisco,

California (3,000 miles away). While the MIT Museum might be disheartened by this confusion, the inclusion of a second museum in this thread demonstrates that members of the Mechanical GIF community were, in fact, a museum-going community.

Around the same time, a second post from the same exhibition of Arthur Gansen's kinetic sculptures at the MIT Museum also became popular on Reddit's Mechanical GIF subforum. This post, titled "Rolling Chain and Sprocket Art", by user *SlimJones123* was even more popular with 20.8 thousand votes (93% positive "upvotes") but only yielded 153 comments.
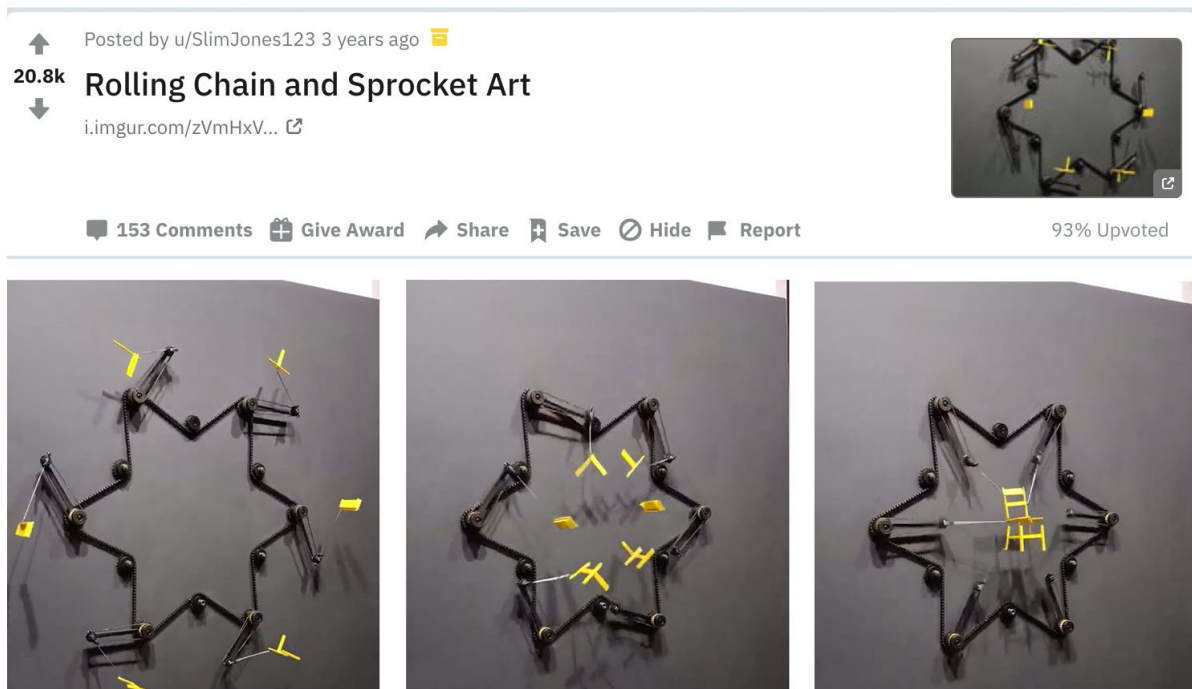
Figure 7.11 Original post about "Rolling Chain and Sprocket Art" on Reddit

We can use the same five comment categories to understand how The community members discussed the artwork (1. clever math; 2. clever jokes; 3. mathematical explanations; 4. close-looking; and 5. identification) but must reorder them based on the popularity of the comments. Here, the top comment is an identification.

Samo_422 3 years ago

Did you see this at the MIT museum? They have something that looks identical to it in one of their galleries.

↑ 821 ↓   Give Award   Share   Report   Save

mac_question 3 years ago

Yes it is!! One of my favorite things.

↑ 215 ↓   Give Award   Share   Report   Save

Samo_422 3 years ago

That was a very cool gallery, the chair bouncing over the cat was by far my favorite. So simple but entertaining

↑ 65 ↓   Give Award   Share   Report   Save

spodykody 3 years ago

Did you see the gears that will take X amount of millions of years to rotate?

↑ 13 ↓   Give Award   Share   Report   Save

mac_question 3 years ago

Yup :) IIRC, the last gear is held in place by cement while the first gear spins at a pretty appreciable rate of speed. Pretty cool to watch.

↑ 9 ↓   Give Award   Share   Report   Save

amalgam_reynolds 3 years ago

Artist is Arthur Ganson. Here's a YouTube channel with videos of all his sculptures:

https://youtube.com/user/dreamingmachines

The throwing knife machine, faster!, and machine with ball chain are among my favorites, other than Cory's yellow chair.

↑ 64 ↓   Give Award   Share   Report   Save

cloudhacker 3 years ago

My favorite is his series of 12 gear reductions. According to a documentary I watched about his work, the last gear in the series would take over a trillion years to make a full rotation, so he "encased it in concrete, because it doesn't matter". Fucking gold.

↑ 22 ↓   Give Award   Share   Report   Save

reconbot 3 years ago

I got to see a video or something of this... I guess a photo would do for the same reasons as the concrete

↑ 7 ↓   Give Award   Share   Report   Save

alllitupagain 3 years ago

https://youtu.be/5q-BH-tvxEg

↑ 9 ↓   Give Award   Share   Report   Save

reconbot 3 years ago

Holy fuck that's better than expected

↑ 4 ↓   Give Award   Share   Report   Save

nofucksgibbons 3 years ago

The one at the MIT museum is different though. Similar concept but different arrangement of the gears

↑ 2 ↓   Give Award   Share   Report   Save
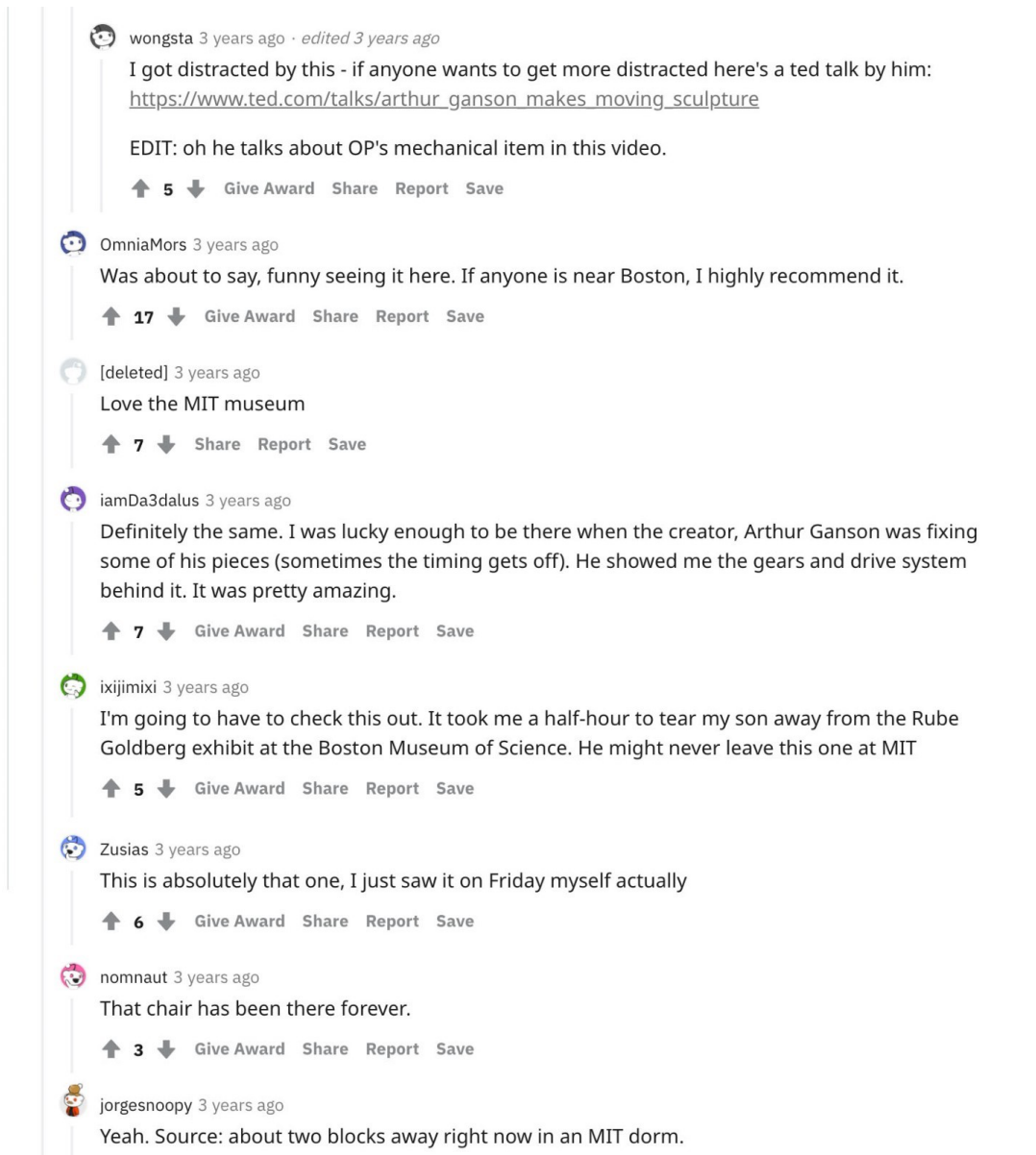
Figure 7.12 MIT Museum identification for "Rolling Chain and Sprocket Art" on Reddit

Again, we see the correct identification of the MIT Museum, the correct identification of the artist, and a link to learn more about Gansen from user *mac_question*. This user's link was masked by the text "Yes it is!!" which utilized the double exclamation mark - McCullogh would call this expressive lengthening - to be especially emotional, in this case with excitement. While this could have also been a typo, this same user utilized a smile emoticon a

few replies down, as a way to show social behaviour and reinforce joy, and thus we can assume that both the double exclamation and smile emoticon were genuine expressions of emotion (McCullogh, 2019). The language in the rest of this thread oscillated between the formal and the informal.

This thread also reveals that the users were making connections with Gansen's other works of art - among them the "gears that will take X amount of millions of years to rotate" as explained by user *spodykody*. Alongside these identifications, we also see the users spoke very favourably about the exhibition, using such phrases as "One of my favorite things". As seen later in the forum section of Chapter Eight, regarding a different episode at the Hart Nautical Collection at The MIT Museum (and also at The Strong Museum of Play), we see here that the name of the institution was not always precise. User *Zusias* (who also explained that they recently visited the museum) referred to it as the "MIT Robotics Museum in Boston" (the institution is not exclusively known for robotics, and is close to, but not in, Boston).

Some of the comments showed that the users have again engaged in close looking or at least they watched the full clip as it was only at the end when the rotating pieces align to form a miniature chair. Some users expressed that they would have preferred a more interesting conclusion, suggesting everything from bicycles and risqué humanoid characters popular on the internet, to a menorah (since the mechanics form a six-pointed star). Other users offered explanations for why they suspect a chair might have been chosen, informing others and exchanging information such as the cliche chair design assignment common in design education.
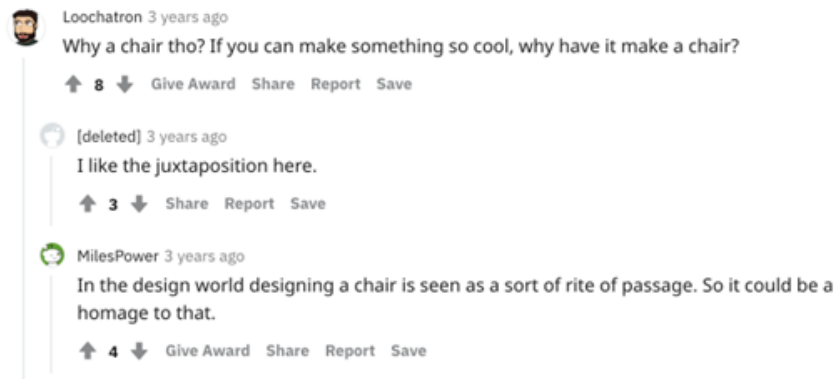
Figure 7.13 Conversation questioning chair shape on Reddit

We can also add a sixth category of comment to this thread - visiting The MIT Museum. Herein, commenters described their experience visiting The MIT Museum - the comments were as short as "I just saw it on Friday myself actually" from user *Zusias* to the details of an experience "I was lucky enough to be there when the creator, Arthur Ganson was fixing some of his pieces (sometimes the timing gets off). He showed me the gears and drive system behind it." by user *iamDa3dalus*. Other users also displayed intent to visit (a common comment in various episodes).
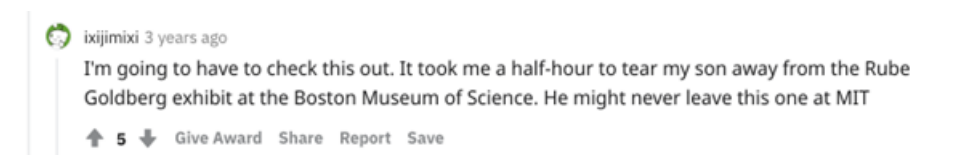
Figure 7.14 Conversation about potentially visiting The MIT Museum on Reddit
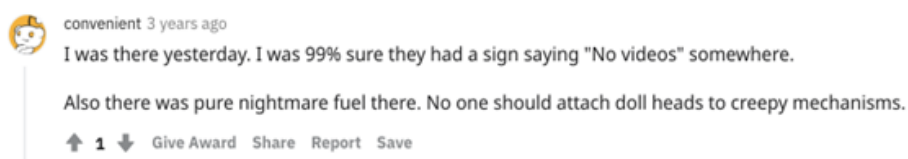
Figure 7.15 Conversation about visiting The MIT Museum "yesterday" on Reddit

While the other post (regarding the gears) had primarily a mathematical discussion, the mathematical comments in this thread were less frequent and less popular.

From these two episodes involving Ganson's works, it becomes evident that Reddit's Mechanical GIF community was interested in the artwork. This is evidenced by the length of the conversations, the threads which discussed the artwork in detail, and the high number of people who "upvoted" the links (18,100 and 20,800 each). The conversations also provide us with an archetype of a person participating in these conversations. They are mathematically inclined, and informal in their writing, given the jokes and typographic style. Two characteristics that are not often aligned with art exhibitions. Furthermore, a community dedicated to mechanical GIFs might not be where a museum (despite the subject matter) might assume they would be discussed in such great length with "close looking". Where the Expert Web starts discussions about artwork and museums can be unexpected.

7.2.2 Community for GIFs on Something Awful & Reddit's GIFs

In this episode, we see a community that likes short video clips known as GIFs. This popular file format is easy to manipulate and communities of artists and animation hobbyists have become known for this type of work. In this episode, we see The Museum of the Moving Image take notice of this community and the development of a positive working relationship.

The GIF began in 1987 as a file type that enabled short looping video clips and became common in the mid 1990s as browsers developed (notable GIF websites included animated dancing babies and hamsters). As technical capabilities evolved, GIFs became viewed as

garish and less popular but rose again in popularity with the advent of smartphones in the mid 2000s which required an easy way to display images and video clips. Solidifying its popularity with the advent of YouTube in 2005, the rise of social media in the mid to late 2000s, and the resulting "meme culture", GIF became Oxford Dictionaries' 2012 USA Word of The Year. GIFs are seen across online media, in casual conversations (the GIF keyboard in Apple's iMessage), the workplace (Slack messenger service supports them) and in highbrow art museums (Tate Britain animated works from its 1840s collection using GIFs). The format has endured due to 1. their dynamic movement makes them more attractive, memorable, and emotional and 2. their small size and embeddedness makes them easy to use and does not mean they incur additional data fees (Bakhshi et al., 2016; Haider, 2017; Romano, 2017).

GIF users are comfortable with internet culture and can range in age (part of the appeal of the video clips is that they can be decades old or from that day's news cycle) (Haider, 2017). The commonality is that users want the GIFs to be communication devices and mass-sharing experiences (Romano, 2017) in which the clips can be used "in response to, and often in lieu of, text in online forums and comment threads" and thereby "entered a common lexicon after being regularly reposted in online communities" (Museum of the Moving Image, 2016). This makes them a community-oriented format and popular in social groups (Bakhshi et al., 2016). It is important to note that GIFs are created within the context of communities and knowledge of the GIF's touchpoints, or lack thereof, and can create in-group and out-group boundaries. The act of selecting a GIF is in itself a performance of cultural knowledge of the source material and shows that the selector and the recipient are having an exchange around choice and common ground. This forms distinctions not unlike the delineation of general audience and specific fan (Miltner & Highfield, 2017; Jiang et al., 2018).

Here again, fan studies becomes a useful lens for GIF users, as the shared references demonstrate community and the dedication to using and discussing the medium proves devotion to a file format. For this episode, we turn to a community of GIF users on Reddit, where "entire subforums arose that were devoted to sharing the perfect reaction GIF or the perfect video moment in GIF form" (Romano, 2017). In these niche communities, GIFs are fetishized (Miltner & Highfield, 2017) and called "the most beloved image file extension on the internet" (Romano, 2017). These subforum subscribers exhibited 'fannish' behaviour; the fans acted as creators by making interpretations and remakes of their chosen GIFs (the fan objects) as cultural capital for the fan community. Making the GIFs is also a performance of cultural knowledge, just as selecting and sending GIFs is a performance. Yet, much of the research about creating GIFS - and frankly much of the creation of GIFs themselves - are as paratexts for other fandoms. It is these actions that interested curator Jason Eppink at The Museum of the Moving Image to create an entire exhibit around such behaviours, building on his willingness to interact with online communities, as seen in Chapter Six and the museum's openness to new technologies, demonstrated in Chapter Five.

Building on the Museum of The Moving Image's connections to the internet, Curator of Digital Media Jason Eppink had developed a series of installations that utilized internet created content. The first in this series was *We Tripped El Hadji Diouf: The Story of a Photoshop Thread* in Spring 2014 that showed a single thread from the internet culture website *Something Awful* in which a video clip of the famous Senegalese football player tripping over an opponent was altered to depict him tripping over other objects (Eppink, 2018a). The thread was an internet-version of the Surrealist game Exquisite Corpse. Curator Eppink explained,

"It illustrated what it means to serve as an expert to these technologies and the most interesting to me how visual media[...] was maybe something a little different, it can be jokes or performance. Just really interested in how this mobilized really fast others, like in the community around this. (Eppink, 2018a: 6:00-6:32)

In order to host this exhibition - and to earn the goodwill of the community - Eppink contacted the forum's moderator and asked for the "network to be activated", which yielded more community as well as higher quality GIFs. When Eppink spoke about these contributions that he received, he used the word "genius" repeatedly and treated the GIFs as art, and gave them the same respect when a fine art curator would discuss fine art masterpieces. "I'm in a privileged position where people were really psyched that I care," he concluded (Eppink, 2018a: 12:49-12:54). For the museum, this exhibition was a proof-of-concept and laid the groundwork for future internet-themed explorations.

Eppink's second foray into curating internet culture at The Museum of the Moving Image was an installation called *The Reaction GIF: Moving Image as Gesture* (Summer 2014). As GIFs became increasingly popular and easily acceptable, Eppink wanted to explore the short, animated clips, their strong emotions, cultural clout, and emerging canon. One of the installation's focal points was to be community authorship, the "enduring ethos of the commons", and the cultural shift from thinking that reusing GIFs was rude to becoming a compliment when they are reused. So, Eppink decided to go to the de facto authority of GIFs, the Reddit subforum known as r/GIFs. There, he posted two threads asking for community input (Owens, 2014) which he described as follows:

I needed community [...] that understands the rules and collaboratively we can sketch out canonical reaction gifs. […] and Reddit is a really important place on the internet, but I also had to make a decision, a distinction, between [types of GIFs that would get into the exhibition] [...] What are the things I think really importantly to me to have other people to define them, so I wasn't the one defining the whole thing. (Eppink, 2018a: 24:20 - 27:37)

After speaking with the community's moderator, he posed a question on the forum and asked for the community to source the GIFs (Eppink, 2018a; Eppink, 2018b). The thread began with a question in the title which gave the community authority (previously discussed in Chapter Three) "Hey Reddit, want to help curate a museum exhibition about reaction gifs? (details in comments)". Eppink clearly identified himself by using his real name as his username, and uses polite typography (longer message, formal capitalization, and punctuation) (McCullogh, 2019).

Figure 7.16 Original Post about reaction GIF exhibition on Reddit

The post included a range of replies; there were links to GIFs, descriptions of how the GIFs were used, conversations about terminology, and comments about the institution. These comments served as a type of feedback, which distinguished itself from other types of comments through its intention to help achieve a goal (Reagle, 2015). In this circumstance, the feedback helped to clarify the exhibition themes and contributed content. For example, we see user *catinhat123* offered two links to GIFs and explanations of their use cases.
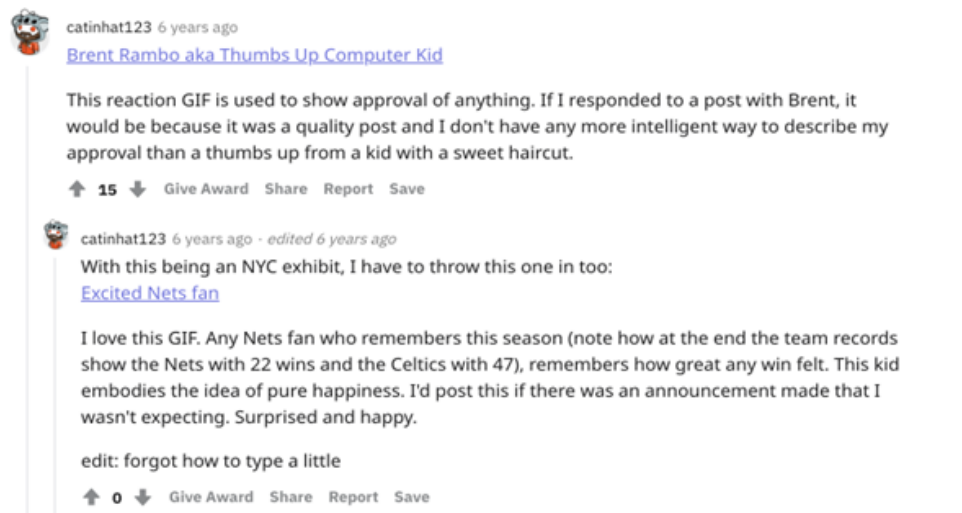
Figure 7.17 Conversation suggesting two reaction GIFs from same user on Reddit

While Eppink sought the participation and involvement of the expert community, he also found the originator of at least one GIF. Below, user *GeneralWarts* claimed that they were the creator of a specific GIF and encountered a fan of that GIF.
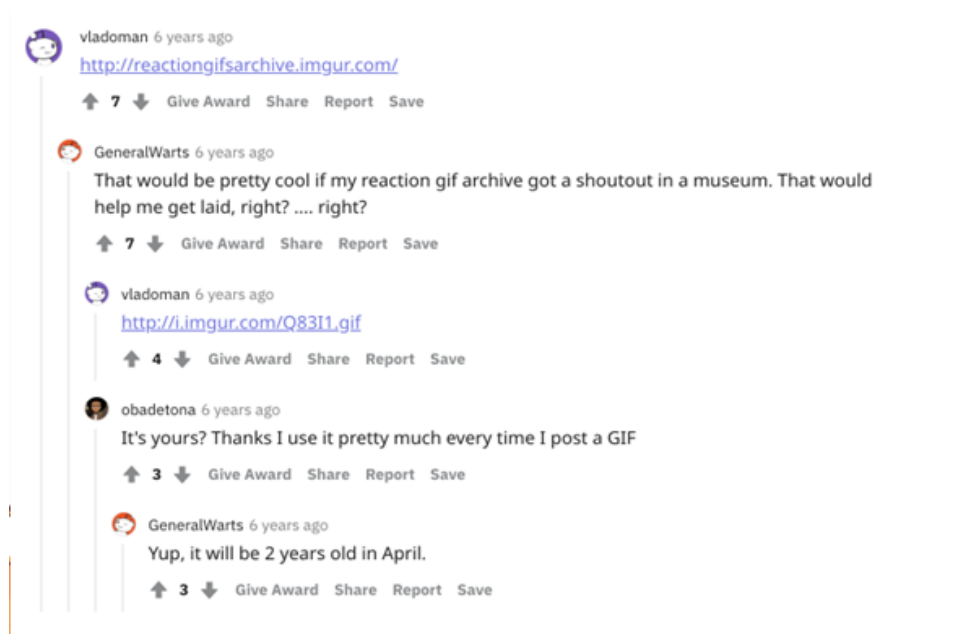
Figure 7.18 Conversation from creator of a specific GIF on Reddit

Eppink explained that the reason he reached out to these communities (both on Reddit and Something Awful) was "because they're experts and have something to offer and they're excited. [...] it has to come from wanting to know something and having this humility to acknowledge that [you don't know yourself and don't have the resources to do it traditionally]" (Eppink 2018a; 1:01:16-1:02:59). Eppink's recognition of the community ingratiated him into their community and they even casually referred to him as a "friend" in some replies and offered their thanks. He, in turn, replied with a GIF of a famous American comedian taking a bow, which both served as a gesture that could not otherwise be conveyed in text-only communication and displayed a "linguistic trust fall" (McCulloch, 2019: 148).
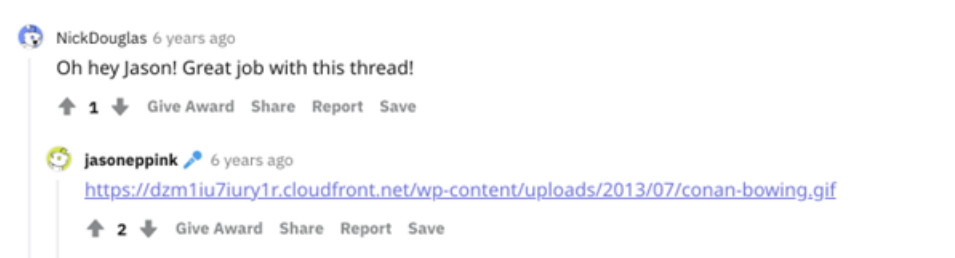
Figure 7.18 Conversation from creator of a specific GIF on Reddit

As in the other museums and their Expert Webs, the conversation eventually turned to the participants asking or offering information about the museum itself. Here, a user casually (using "lazy" lowercase text) asked where the museum is located; both Eppink and a museum member responded, using links to support their replies.
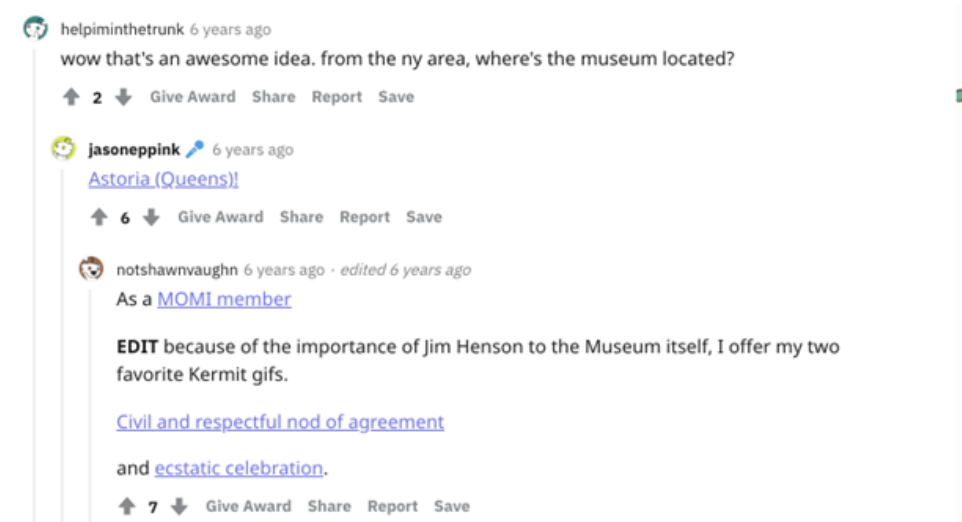
Figure 7.19 Inquiry about the location of The Museum of the Moving Image on Reddit

Months later, when the exhibition opened, Eppink invited participants from r/GIFs to attend and some of them did. Executive Director Carl Goodman saw this interaction strategically. He knew that these communications were "a form of outreach and [marketing]." He continued, "And if we had a failing there, it's that we left the subreddit after we seduced and abandoned them […] we should have maintained those connections" (Goodman, 2018: 1:21:49-1:22:33). Both installations built upon the museum's desired focus on experiences in their physical building while including the participatory process, and constituents to make the institution better and more inclusive. Because this project was so unique and well received, during Eppink's tenure as Digital Media Curator, the museum became known for embracing internet culture. And having two successful participatory internet culture installations gave the museum the confidence to have other participatory installations, as explored in Chapter Eight.

7.3 Platform: Video Sites

Video websites primarily broadcast video content either as live streams (in the case of Twitch) or as video sharing (in the case of YouTube). These sites allow users to stream or upload content, and then viewers can rate and comment on the media and subscribe to the various channels. The comments posted about two different museum-hosted video channels in the episodes below – Twitch at The Strong Museum of Play and YouTube at The Field Museum – reveal admiration for the video hosts and interest in long-form content as communities develop.

As the technology that supports home-made and amateur video became less expensive, more easily transportable, and required less technological specialization, video hosting platforms become increasingly popular. The early adopters of these platforms were given an opportunity to experiment with how the media could be used and to create opportunities to fit their needs. We see this with *The Brain Scoop* on YouTube, one of the first educational channels on the platform and with The Strong Museum of Play's Twitch channel, which began as a low-stakes experiment on an emerging platform.

7.3.1 Community for Natural History on YouTube's The Brain Scoop

United States culture has historically venerated the study of nature and exploration. It has intertwined its nation-building and expansion with scientific expeditions, the desire for discovery, and the establishment of institutions and museums. These ideas - despite how we reconsider them today - are embedded into American society. We can look at the story of natural history in America, from the founding of the United States and westward expansion through contemporary movies using natural history as a plot point. Thus, this research makes

the case that American culture uniquely incorporates a form of natural history fandom within one version of American identity.

We can trace interest in natural history to 1. Government appointed and sponsored explorers who were sent west to survey newly purchased lands that they believed belonged to the United States, 2. Army men instructed to collect objects 'found' while building the transcontinental railroad, and 3. Scientists and artists who accompanied exploratory voyages to the South Pacific. They were all tasked with collecting and documenting objects and specimens and bringing them back for the American people. Naturalists and explorers were enshrined in American lore and an almost mythic status surrounded hunter-naturalist President Theodore Roosevelt who served as a proxy for American masculinity and bravery in popular culture (Gillespie, n.d.; Holzmeyer, 2012;).

The specimens collected during their trips formed the basis for American museum collections, transforming the wilderness into (so-called) order and knowledge. The first museum in America placed such items amongst portraiture of American elites positioning the objects as a national good. The museum was positioned as an aspirational place with uplifting morals and practical knowledge for the average American, ideas that would embed into the national psyche (Holzmeyer, 2012; Masarik, 2018). Subsequent museums, such as the Smithsonian, were founded around these collections as well. Specifically, the Smithsonian initially drew upon the specimens taken from the South Pacific and during the building of the transcontinental railroad (Philbrick, 2004; Masarik, 2018).

Each time exploration shifted its sights to another place, American popular interest would follow. After national interest in westward expansion waned, there was curiosity about "the

frontier of the sea" when explorers ventured abroad. Then, when gold was discovered in California, Americans again delighted in the western culture of mountain men, pioneers, cowboys, and indigenous peoples. Popular interest in these subjects was reflected in museum exhibitions across the country and the people who would flock to them. As a result of financial struggles, some natural history museums sold objects to P.T. Barnum who displayed them at his sensationalist attraction; 82 million people went to see these displays, enshrining the institution in American culture (Masarik, 2018; Britannica, 2019). In Washington, D.C., the "Collection of the Exploring Expedition" of South Pacific artefacts "became wildly popular" and the exhibit welcomed more than a hundred thousand people in a decade (Philbrick, 2004; Masarik, 2018). By the early 1900s, natural history museums were at the height of their popularity and due to a variety of factors had shifted their attention to display and public education, further introducing everyday Americans to the discoveries and conquests of explorers and continuing to embed these stories into an American identity (Rader & Cain, 2008). From this history, we can see the mythic status of expeditions, natural history, and anthropology secured in the eyes of the American public.

Then, in the second half of the twentieth century, a series of children's books and movies were set behind-the-scenes in museums. Hallowed institutions became both more magical and more accessible. *From the Mixed-Up Files of Mrs. Basil E. Frankweiler* (1967) introduced children to provenance mysteries and *Don't Eat the Pictures: Sesame Street at the Metropolitan Museum of Art* (Stone, 1983) suggested that anthropological artefacts can become alive. Then, in 1993, the children's book "The Night at the Museum" was published, which would be adapted into a major motion picture trilogy "Night at the Museum" which featured animals and artefacts coming alive in museums across the United States and England (Levy, 2006; Levy, 2009; Levy 2014). These popular culture books and films, and

the exhibitions before them, serve as iconic touchstones to natural history and anthropological collections. The Night at the Museum film trilogy became "a catalyst for an interest in history and museums" according to Director Shawn Levy and helped the museum see a twenty percent increase in attendance the year the first film was released (King, 2009).

Popular media, and especially the movie trilogy, used the premise of behind-the-scenes or "peak-behind-the-curtain" to appear to have let the audience in on secrets, which has been a popular and common strategy for film since the early 1900s. By doing this, audiences perceive the institutions as more human and show the personality of the institutional brands; it can also create trust with an audience. Specifically for science-based content, "behind-the-scenes" content appeals to "high science-curious individuals" and increases the perception of authenticity which increases engagement and, in turn, may help the media producers maintain their audience (Richards et al., 2021).

We can see connections, therefore, and a common thread spanning the historic interests of the American public through the famed movie trilogy. Exploration of the frontier and exploration of natural history institutions resonate with the American public. Americans are fans of natural history museums and the fandom "field of gravity" that surrounds them, including the objects, the institutions, and the persons associated with them. The people who visit natural history museums because of popular media are modern travellers who seek to engage with their fandom and wish to establish an identity based on the media they consume (discussed further in Chapter Ten). Visiting (either in person or digitally) can be an immersion into a fictional world while enabling them to interact with other fans and be part of a physical and digital fan community (Reichenberger, 2019).

In the following episode, we see a group of people interested in natural history museums, continuing the desire to understand the natural world that is part of American discovery, folklore, and tourism. The episode occurred at the Field Museum in Chicago, which opened to the public in 1894. Its collection drew upon anthropological artefacts and geological and botanical specimens acquired from the 1893 World's Columbian Exposition. Like other institutions, the museum expanded its collection through a global programme of expeditions (Field Museum, n.d.). The video series, of which the episode revolves, is hosted by Emily Graslie, who at once became the welcoming face of the behind-the-scenes of the museum while serving as the foil to past hunter-naturalists.

In 2011, Emily Graslie started a photography blog about her undergraduate job at her university's museum on the then-popular platform *Tumblr*, where she quickly gained a following. She soon connected with two natural history bloggers at other institutions, became a feature story on Tumblr's frontpage, and connected with prominent and early internet vlogger Hank Green. It was Green who proposed that the blog become a video series with his assistance as a producer; it launched in January 2013 as one of the first series of educational content on YouTube. (Graslie, 2018) Graslie's YouTube series, The Brain Scoop, continued the theme of her Tumblr, showing a behind-the-scenes view of The Phillip L. Wright Zoological Museum. The first episode featured Graslie explaining preparatory areas and freezers, taxidermy animals, and the dermestid colony.
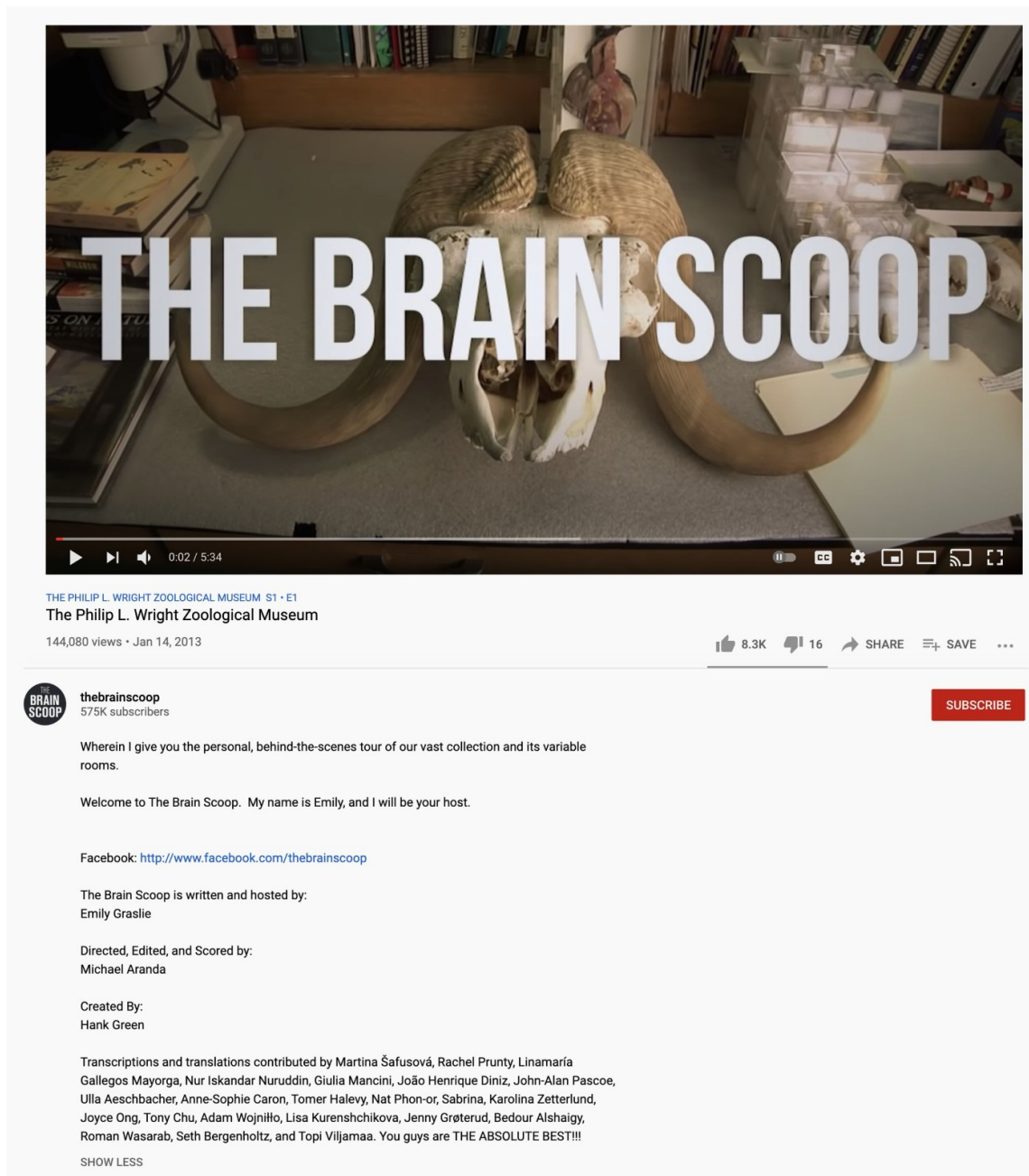
Figure 7.20 Season One Episode One of The Brain Scoop "The Philip L. Wright Zoological Museum" (2013)

This combination of macabre objects and tools had hit a key niche of YouTube viewers who quickly subscribed to Graslie's channel and shared their love of the channel in the comments. She also was able to utilize a level of freedom in content afforded to her because the channel was her own and not owned by the museum.

The comments that viewers left on that very first video, while many of them funny and somewhat glib, praised Graslie's delivery style, commented on the scientific content in the videos, and prompted discussions of basic museology. Within these comments, we can see the informal internet writing that is popular on YouTube, utilizing frequent and repeated exclamation marks to show sincerity and excitement and expressive lengthening to show emotion and the written manifestation of exaggerated speech (McCullogh, 2019).
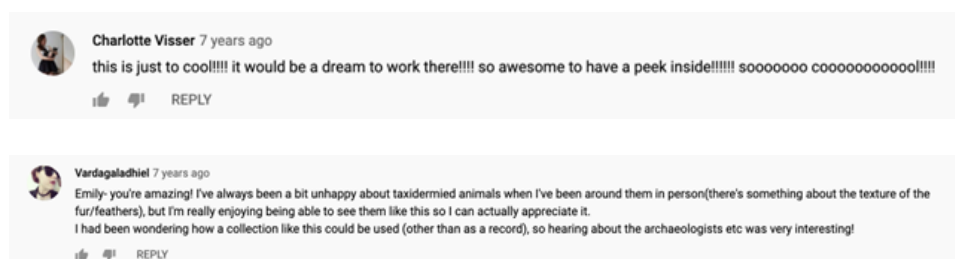
Figure 7.21 Informal writing in The Brain Scoop's comment section on YouTube

These conversations also demonstrate people's excitement for museums which are local to them and demonstrate how a YouTube channel in one place can affect visitation in another (and complicate an individual museum's return on investment). Here, user *Josie* shares that she is excited to visit the Grant Museum of Zoology (approximately 4,400 miles away) and repeatedly used the smile emoticon, one of the most trustworthy facial expressions which conveys happiness, which would have been the emotion shown on their face, had their actual face been seen. We can therefore deduce that there is genuine enthusiasm (and intent) for the visitor to see this other institution.
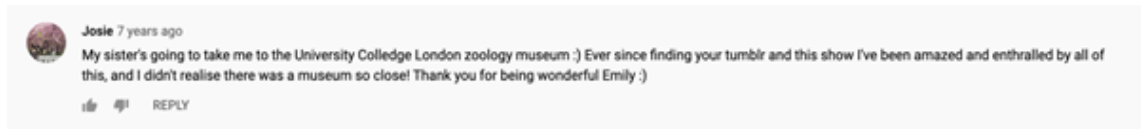
Figure 7.22 Enthusiasm in The Brain Scoop's comment section on YouTube

Two months after launching the YouTube series, Graslie was invited to film an event at the Field Museum and, as a direct result, was offered the full-time position of "Chief Curiosity Correspondent" where she continued The Brain Scoop with The Field Museum as its base (Graslie, 2018).

As Graslie's profile and channel grew, she developed a few distinct groups of people who followed her work. The largest category was her YouTube subscribers. It is for this group that she targeted most of her content, though she noted that she attempted to have a universal appeal as only 55 percent of viewers live inside the United States. Graslie described the content as "liberating" and explained that the series "therefore can have a greater mission and a greater goal" and not act as a communications or marketing department tool (Graslie 7:19-7:22). It is here that we can see part of the reason for the channel's success with online communities: her digital outreach was entirely devoted to content that supports, celebrates, and explores the research and collection work of natural history museums everywhere. While this audience was interacting with a museum-owned channel, its origin and initial links were not The Field Museum, and thus it can be considered distinct from the museum's other forms of digital outreach.

To understand this community, we can examine comments on the taxidermy themed videos on The Brain Scoop. One of the most popular taxidermy videos on The Brain Scoop's YouTube channel is titled *Is Taxidermy ART*? Of note, Graslie did not consider herself a

taxidermist, though in this video we see her interview many people who are taxidermists

(also discussed in the forum section of Chapter Eight).

Figure 7.23 The Brain Scoop episode "Is Taxidermy ART?" (2017)

The video title and the pinned comment that follows by The Brain Scoop channel acted as a two-part seed message which asked a question to the community. The 24 replies that followed were thoughtful and addressed the question (seen below). The top post by user *fidelio* was short but matter of fact, with lowercase letters showing an air of casualness but the use of the formal punctuation showed a definitive perspective. The other replies had a length and complexity that was uncommon for YouTube videos. We also see that Graslie was referred to by her first name, Emily. In these videos, Graslie presented herself as being of the people, and is purposefully casual, but calling her by her first name showed both perceived familiarity and boldness from the commenters who did not know her personally (This will also be seen in Chapter Eight's forum section where an MIT Museum curator was repeatedly called only by his first name, "Kurt").
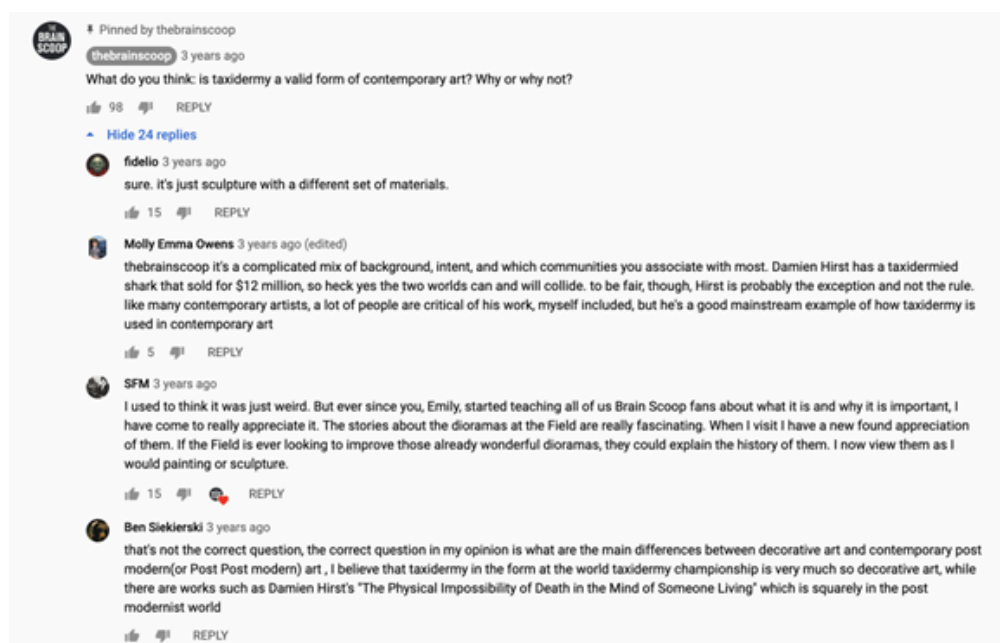
Figure 7.24 First name usage in The Brain Scoop's comment section on YouTube

Brad Dunn, Web and Digital Engagement Director at The Field Museum, believed that The Brain Scoop and other science communicators at the museum were successfully interacting with online communities because they were not using overly academic language and were "very friendly for a mainstream audience" (Dunn 16:25-16:27).

We also see that people who felt that they were part of The Brain Scoop community came together with common goals. Graslie explained that The Brain Scoop's community existed online as well as in the physical world, demonstrating that the premise of digital dualism was eroding (also seen in the imageboard episode about 4chan and the Museum of Moving Image, later in Chapter Eight). When Graslie announced The Brain Scoop's crowdsourced fundraiser to restore a hyena diorama, the community raised $155,000 from 1,800 donors worldwide. Many of the donors had never visited the museum, though some flew to Chicago from all over the United States, to see the diorama on its opening day.[4] Similarly, Graslie had arranged for "meetup events" at the Field Museum and hosted a one-time special appearance at the Museum für Naturkunde (Natural History) in Berlin, Germany which attracted people from all over Europe: Portugal, Netherlands, Belgium, Poland, Switzerland and northern Sweden (Graslie, 2018). We see here that these groups are motivated to participate in group activities (Shirky, 2010) and, similarly, that fan groups will engage in collective strategies for a common cause (Baym, 2018).

While the focus of the hyena diorama video is the funding, the comment section showed that the viewers have freedom to ask questions about museological subjects. For example, user *Jessica Bonomo*, enquired about the standard museum display method - a diorama - and asked using very casual internet language. They used the social (non-technical) acronym "WTH" ('what the hell') demonstrating an intersection of informal writing and spoken

language (McCullogh, 2019) as well as the scream emoticon to convey the writer's frustration with the to-them unfamiliar term "diorama". The two replies understood both the questioner's language and Graslie's terms and provided the relevant information (viewer exchanges of knowledge are discussed further in Chapter Nine).
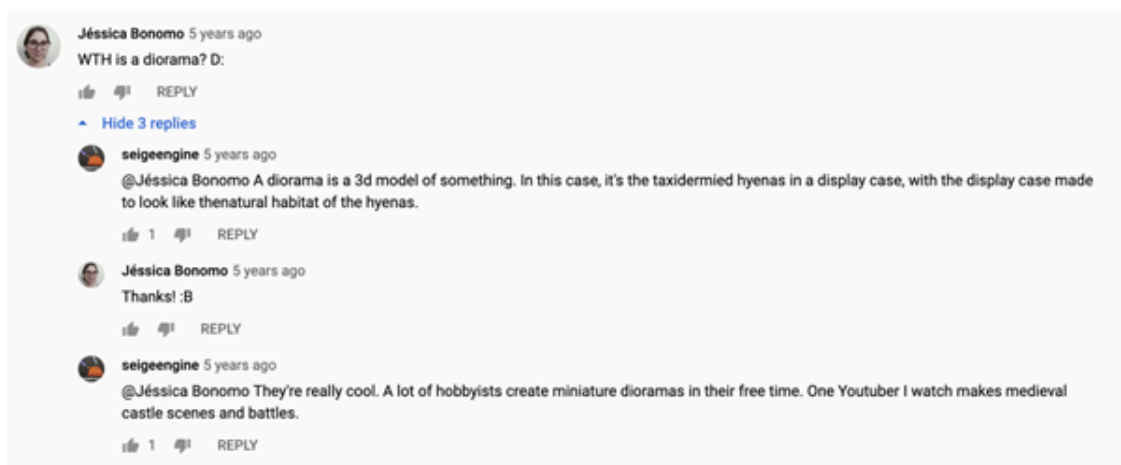

Figure 7.25 Participant question in The Brain Scoop's comment section on YouTube

As in the other episodes, we see serious inquiries in the comments of these videos, with people eager to share what they know and to learn more about museum practice from an accessible source.

Figure 7.26 Preparedness question in The Brain Scoop's comment section on YouTube
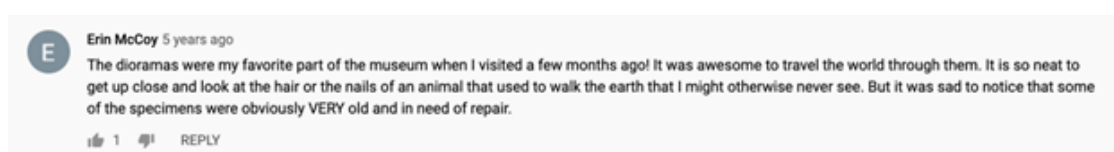
Figure 7.27 Exhibition longevity comment in The Brain Scoop's comment section on YouTube

These questions are somewhat more formal than other YouTube comments and their capitalization and punctuation show that these users have respect for both Graslie and the institution. Yet, the informality of internet writing is still there, demonstrated through emphasis on certain words using capitalization, colloquialisms ("to get up close") and hyperbole ("zombie apocalypse"). Regardless of how the comments are worded, we again see commenters contemplating significant questions of museology, about safeguarding the collection and remorse about the need for restoration.

Another common goal was supporting Graslie. While the majority of Graslie's interactions with these online communities had been positive, she also received ongoing comments about her appearance and presence as a woman on a science-based channel. These comments tended to appear when the videos were widely viewed, rather than only viewed by a core audience, which was consistent with the growth of online communities and the trouble with becoming successful. When Graslie replied in a response video about receiving online harassment and unwanted attention, the response by her core audience was to come to her defense in other videos. This fortification of the comments (Reagle, 2015) was not carried out by a moderation team or administrator, but, remarkably by the community itself.

> Honestly, the nature of my audience changed pretty dramatically after that, in terms of like, the community members really feeling a sense of ownership for controlling the tone and the language that was used in places online that had anything to do with Brain Scoop. So, the comment section on my video got so much better and, you know, it was amazing, it was like someone would post something like "well I know it's not the point of the video but, you're really cute" and someone would respond to

that and be like "hey you know you're right that's not the point of the video so maybe

you just don't say stuff like that" and I appreciate it. As someone who has read

through hundreds to thousands of social media messages, it's really easy to get

derailed by like one person who says or does something you know mean and to see

another person stand up on my behalf and call that person out for it, it's something

that I appreciate. (Graslie 30:55 - 31:54)

From this episode, we see a channel begin as a small project and grow rapidly until it caught

the attention of a large, well-known museum. When the museum purchased the channel, we

see the power that the institution had, yet all the while, the host was able to maintain personal

connections with the audience and enabled the audience to relate to her and the institution.

Next, we will look at a similar video-based platform that was hoping to follow in The Brain

Scoop's footsteps.

7.3.2 Community for Historic Gaming on Twitch's MuseumOfPlay

Twitch is a live-streaming service in which anyone can become a broadcaster of video

gameplay or related content. The platform's digital infrastructure allows for broadcasters to

screenshare their game, to show their own faces as they play, to keep tabs on a running

commentary section where viewers can interact with the broadcaster and each other, and to

respond to comments and feedback to build community. The functionality differs from other

platforms because it is both synchronous and multimodal (Hsu, 2019). For successful Twitch

engagement, the experience is twofold: 1. The broadcaster speaking and creating experiences

and 2. The viewers participating in the comments section. Broadcasters who stream

frequently and interact heavily with their commenters in the chat can get to know their fans

and change what would be a passive viewer experience into a modern, participatory, social experience for viewers.

With the popularity of this platform, we can once again see similarities with fandoms and fan communities. Twitch fandom has three layers: fans of the games, fans of the broadcasters, and fans of the platforms. By recognizing these layers, we can determine that the fan object is the game and the sphere of gravity, and the fandom include the broadcasters and platform. Calling the entirety of Twitch a fandom is supported by Tiffany Hsu's writing in the New York Times, in which she called people who broadcast "stars", discussed the annual TwitchCon event, shared that some attendees have Twitch tattoos (quite literally giving these individuals a branded identity), and mentioned the company's community driven slogan "You're already one of us" (Hsu, 2019). As seen in the fandoms mentioned throughout this chapter and in the fan studies description in Chapter One, fandoms are very much socially driven. For viewers, the social aspect of Twitch is a powerful motivator for participation and the viewers who comment in the chat actively create a co-experience. Researcher James Dux explains this through uses and gratifications theory, which specifies how personal motivations for using media range from passive to participatory social use (Dux, 2018).

While many broadcasters aim for large channels with monetized videos (as demonstrated by Twitch's multitude of influencers), smaller audiences enable broadcasters to form intimate relationships with their viewers (Borman, 2018; Borman 2019); once such type of smaller audience is people interested in game preservation, which formed independently from the Twitch community. Game preservation is a type of digital preservation which enables video games to be accessible and usable even after their technological elements become obsolete. The practice of creating functional copies of digital games typically requires multiple

elements of the game to be collected including the physical hardware to run the game, the software and code to make the game playable, and servers to host content and updates (Alexandra, 2017; Ore, 2017; McGlynn, 2020). Game preservation also includes saving the surrounding "paratexts". Some preservationists attempt to save records of the game-specific knowledge, stories about the play experience, and culture developed by players (Hartup, 2015). Journalist Phil Hartup explains, "It is one thing for example to get a fully functioning server up for a dead MMORPG, but without knowledge of the games themselves, their communities, their tactics and the ambitions of the player-base, what remains would be of considerably diminished value." (2015).

The work preserving digital games and their fandom is often at odds with the game industry which enforces strict non-disclosure agreements for new releases and updates. But there is some legal grey area regarding the recording of past work and game preservation (Alexandra, 2017; Ore, 2017; Williams, 2018). Heather Alexandra explains how this affects preservation work, even at museums:

> The fight to protect games is made even messier due to a lack of strict support from major developers. The Entertainment Software Association is an organization dedicated to the interest of game makers and publishers. Last year, they attempted to persuade the US Copyright Office to crack down on the preservation efforts of museums, claiming that the process involved illegal hacking. A major organization dedicated to "serving the business and public affairs needs of companies" actively tried to hamper legal preservation. Only the non-profit Electronic Frontier Foundation pushed back. (Alexandra, 2017)

But legal action does not stop the relatively small community of game preservationists from trying. Known as pirates and hackers, archivists and hobbyists, and most often as fans, loose networks of preservationists are committed to bring their favourite games to a wider audience (Alexandra, 2017). The fans organize in online communities and believe that it is up to them to do this type of work, "the only people who care enough to preserve games are, well, us" (Hartup, 2015). Even though most preservation efforts are piecemeal and voluntary, the ones that are the most well-known are organized efforts with multiple people coming together.

These two communities (the Twitch broadcasters and the game preservationists) overlap only occasionally because most Twitch content is about playing contemporary games. The Strong Museum of Play's Digital Games Curator Andrew Borman recognized this, "There's not a whole lot of people sharing [game preservation continent], there's not really a Twitch community or a YouTube channel to really comment on [historic video games]" (2018: 20:25-20:36), Like many niche audiences online, the game preservation community is not very big, but it is an audience "that really is dedicated to the type of things that I was interested in covering" he explained (Borman, 2018: 9:55-10:00). In an effort to reach the Twitch audience and to expand knowledge of The Strong Museum of Play, Borman and the museum decided to create their own Twitch channel.

The Strong Museum of Play's World Video Game Hall of Fame had already created a Twitch channel, but it had only been used for the once-a-year induction ceremony. This event, coordinated by the museum's marketing and social media team, had been featured on Twitch's homepage and attracted some members of the game developer community (Borman, 2018; Symonds, 2018). So, when Borman started his position at the museum, he

recognized Twitch's potential and offered to create content about game preservation and soon began streaming new content.

Since Borman had taken the lead on the Twitch channel, he was given the ability to shape the content according to his interests and expertise and to reflect the interest of his audience, all of which was in line with the work and success that he had from his own game preservation work (Borman, 2018). Part of the initial success of the channel was dependent on Borman remaining "authentic in the sense that it's still me [...] I still have the same or very similar conversations that I would have had prior to being at the museum. And that also, of course, helps you keep the audience" (Borman, 2018: 17:06-17:28). He later explained, "I'm of that community, [which] makes it a lot easier than somebody coming out and basically self-advertising" (Borman, 2019: 12:25-12:32). With Strong's channel, Borman was given "free reign" to "just [talk] to people online", which kept his live streams aligned with other creators' content on the platform, "It's definitely not a [formal] strategy. And honestly, part of that is on purpose" (Borman 2018, 11:15-12:05).
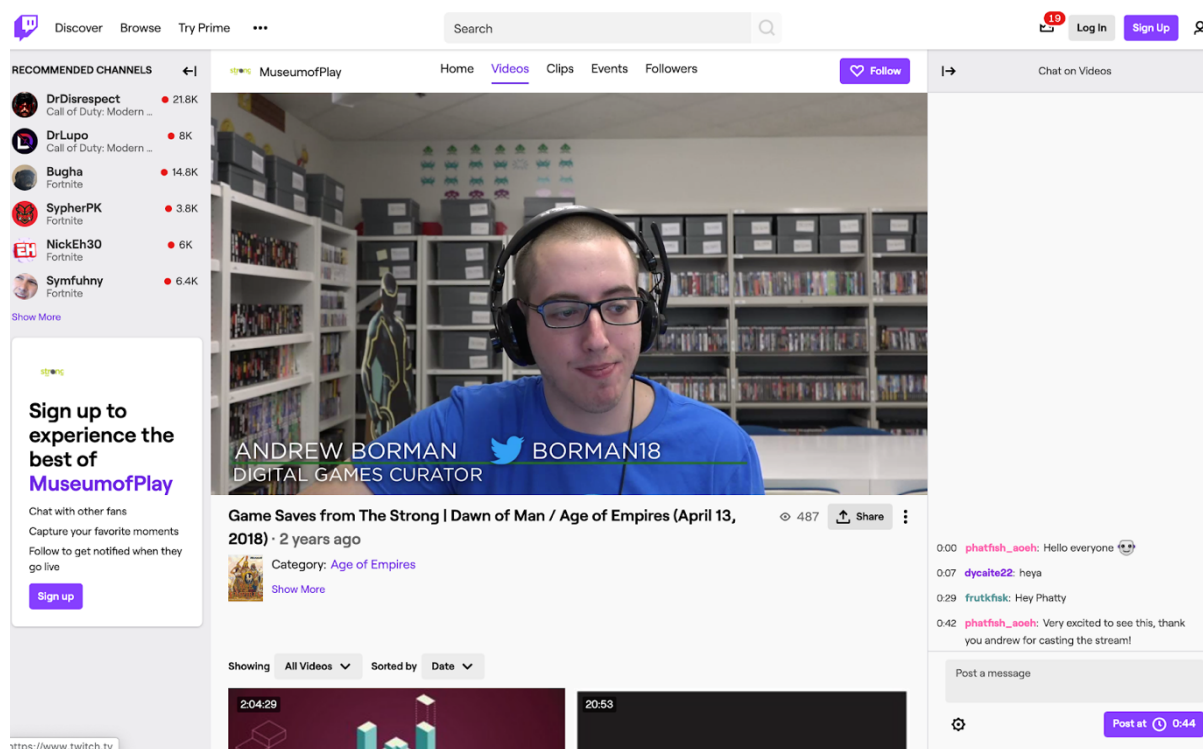
Figure 7.28 "Game Saves" livestream from The Strong Museum of Play on Twitch

This informality was a reflection of the way that the community spoke to each other online. The first few comments of a live stream about 'Dawn of Man / Age of Empires' began with user *phatfish_aeoh* saying "Hello everyone" with a playful robot emoji; they continued to thank Andrew for "casting the steam" (again, using the same informal first name style that was seen for Graslie at The Field Museum and in the next chapter for the MIT Museum's curator "Kurt"). As Borman played and narrated his actions, viewers commented on his actions. The replies follow much of the same internet tropes, with expressive lengthening ("yussss" for an emphatic yes), a lack of formal punctuation ("so basic wow"), and capitalisation for emphasis ("THIS GAME IS GREAT") (McCulloch, 2019). As long as Borman kept his own professional demeanour and used language that the community would approve, the viewers were allowed to write how they pleased, "Twitch can get a little tricky interacting with communities, just based on people can say things whether it's cursing that the museum maybe would frown upon" (Borman, 2018: 21:33-21:45).

After nearly 54 minutes of discussion about the gameplay, user *TigerionDono* asked a question about acquisition policies, "How does Strong tend to acquire early versions of video games?" to which another viewer quickly replied "donations". The conversation then shifted to a viewer who expressed their desire to visit Borman, and another viewer added comments about specific regional foods, which implied that not only do the viewers know that The Strong is a public place they can visit, but also that they know where in New York the museum is located. After one hour and with over 110 comments amongst the eight people watching live in the middle of a weekday, the stream ended. This number is likely equal to the number of participants on a small, daytime in-person gallery tour.

While a smaller audience might not be what the museum desired, there are benefits to an audience of this size. When communities grow, social scale begins to be a problem; known-to-the-community individuals, 'easy cadence' (which Reagle calls "the magic"), and intimacy can be replaced by new, unknown people, and there can be an increased need for moderation (Reagle, 2015). Yet, their goal was to initially keep their game preservation community interested and eventually grow into a "worldwide audience that really recognizes that we're not just a museum but we have all these research and archival materials" (Borman, 2018: 7:19-8:34).

Growing the audience in an institutionally approved way meant transitioning from Borman's own work as an influencer to an institutional voice and keeping the museum at the forefront of the dialogue (Borman, 2018). In addition to the actual live gameplay, Borman had made a point to show game-related documents and objects in the collection as he streamed so that the community saw and understood the breadth and depth of the digital games collection.

Additionally, he promoted museum programming, such as the World Video Game Hall of Fame competition (below) and reiterated that anyone who was interested could visit and request to see these objects, "That was something that really positively received by a lot of people because a lot of people feel like you can't go and do research at a museum if you don't have some sort of certification or something like that" (Borman 2019, 08:17-09:56).
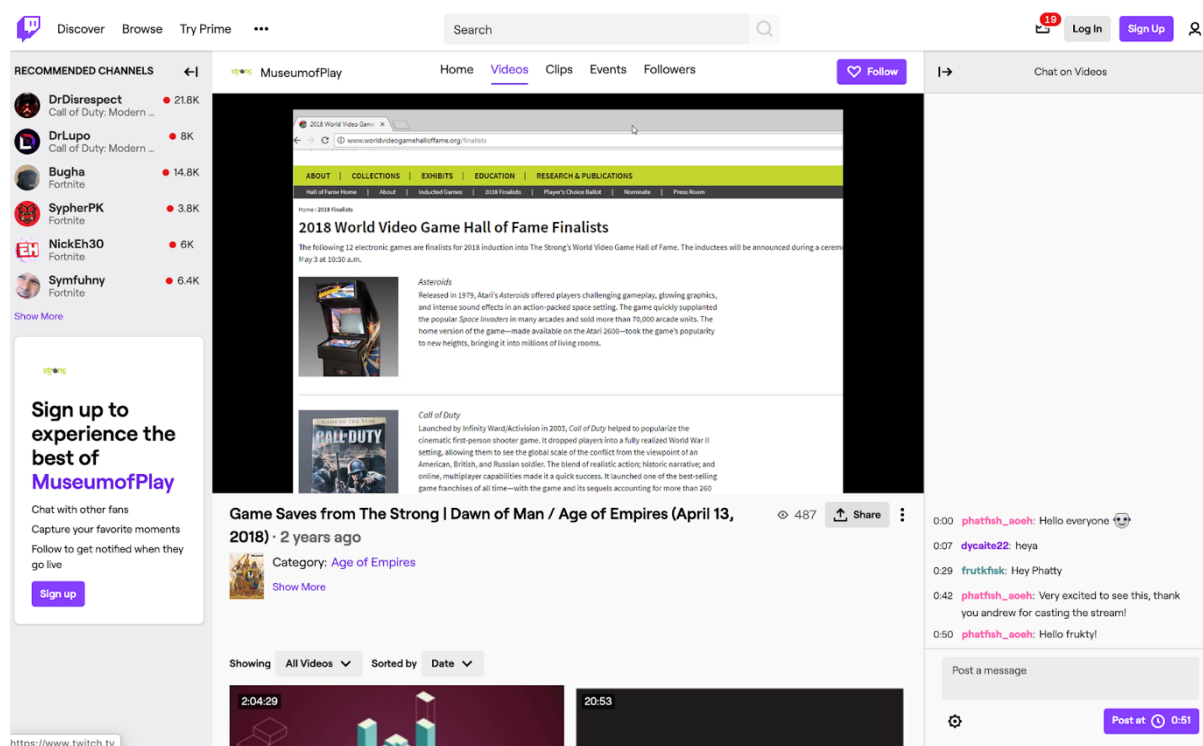

Figure 7.29 Promoting the World Video Game Hall of Fame at The Strong Museum of Play on Twitch

As an official, institutional channel, The Strong's staff at large had demonstrated both curiosity and internal support, demonstrating that internal stakeholders understand its value as a way to gain credibility. One such instance was a plan for the marketing department to leverage some connections with Twitch's corporate representatives and to make a larger marketing strategy (Borman, 2018).

The Strong Museum successfully attracts both families and researchers, but Borman wanted to connect with general gaming fans. He believed that there is an information gap among gamers who either did not know about the museum or did not know that there are materials of interest in the gaming collection. He described an instance in which an online community of gamers asked why no museums did game preservation work and why the responsibility was left to the fans. As a result, Borman tried to shift his audience to these people, and he spent more time on community blogs reaching out and suggesting this community watch the Twitch channel. Borman wanted people to say "'[this object] should be in the Strong Museum' and that's how I want it to go. I want us to be that leader in our conversation. I want us to have that name recognition" (Borman, 2019: 11:54-12:03).

Posting consistently for nine months, the channel established a "dedicated fan base that I've slowly been building, which I think is interesting," Borman explained (2019: 01:08-01:12). Four regular viewers became fifteen regular viewers and once he realized which games would boost the number of viewers to upwards of forty people, he focused on content with a wider appeal. While these numbers were all relatively small, that was acceptable, "[not everyone was going to be] interested in everything else I do" (Borman, 2019: 01:20-01:25). Borman was pivotal to the Twitch channel as he was at once the content developer, the host, and a member of the game preservation community. Therefore, when he took paternity leave, all progress on the channel ceased (Borman, 2019). When Borman returned to his role at The Strong and restarted the channel without any advertising or announcement of his return, he automatically saw that ten to fifteen people returned as a consistent, core audience (Borman, 2019) (See relational labour in Chapter Ten).

When asked how his established community had responded to him joining an institution, Borman affirmed that he still felt that he was a game preservation "community member" and that "a lot of the people in the community are excited that I'm in an institution now" (Borman 2018, 15:26-17:06). He cited a variety of interactions to demonstrate the channel's success. In one instance, he shared that viewers asked to see additional materials during the livestream:

> I had somebody who was like 'oh, you know, could you show this other thing'. So I turned the camera around having not planned on it but was able to show something kind of organically, which I thought was really exciting. I think in terms of getting resources out there, it's been really successful. (Borman, 2019: 03:19-03:38)

And in other instances, Borman was tagged online by game preservationists which demonstrated a growing awareness of his work at the museum (as opposed to his work prior to his affiliation with The Strong Museum of Play). Plus, The Strong's Twitch channel also caught the attention of one of the biggest gaming publication, *Game Informer* (Borman, 2019).

7.4 Conclusion

What we begin to see emerge here is that the platform affects the type of community, and the type of person that is attracted to each topic. We see that social news produces longer, more substantive conversations, while video sites have shorter but no less profound conversations. These conversations can happen on a range of popular platforms, as seen by our examples across social news and video. In the next chapter, we turn to platforms that are entirely

dedicated to specific communities and topical niches where we will see that platform choice and discussion topic affect group actions and discourse.

Chapter Eight

Engaging With Museums on Community-Created Platforms

8.1 Introduction

In this chapter, we continue with our episodes, but we pivot to platforms that have been heavily influenced and even made by the online communities that populate them. Web portals, imageboards, and topic-specific forums have each been structured to reflect the specific needs of their communities, including technological capabilities and social affordances. On these sites, an individual seeks a particular themed content that can only be found in these spaces. As with Chapter Seven, the episodes are organised by platform, continuing to embed us into the perspective of the user and placing us alongside the user in the centre of activity. This discussion begins with an introduction to each platform, continues on to a history of the fan community and 'fannish' identity, and culminates with the interactions with each museum. The analysis continues to make use of our three scholars of digital culture and sociolinguists: Joseph Reagle Jr., Ruth Page, and Gretchen McCullogh.

8.2 Platform: Web Portals

The first platform we explore is Web portals which are specially designed websites that provide access to specifically designed content. Some of the most familiar portals act as points of access for services (government, web browsing, workplace) while in the cultural sector, portals gained popularity as online exhibitions and collections databases. The web

portal *Zooniverse* is a popular portal connecting citizen scientists with science institutions around the world, and, in this research, the features of the online community within the portal used by The New York Botanical Garden are examined.

8.2.1 Community for Horticulture & Botany on Zooniverse

Plant and gardening fandoms have a wide scope of interests, diverse motivations, and utilise an array of platforms. Older online plant communities self-describe as communities of practice, whereas more recent and less formal plant-themed groups casually use vocabulary borrowed from traditional fandoms; but neither type of group appears to have been studied formally by fan studies scholars, despite having clear parallels. While these groups did not self-identify as fans, they have fannish tendencies: their crops are the fan object around which they form their identities as farmers, and they discuss their practices and products in social settings.

The online plant and gardening fandom that is evident today has historical precedent in gardening organisations founded in the 1800-1900s which coincided with the establishment of other topic-based clubs; they were all proto-fandoms which established their members and their knowledge as a minority of active consumers. These clubs evolved into professional gardening communities of practice (COP), and master growing organizations in the 1990s, just as the internet was introduced (Attaway, 2012; Hummel et al., 2012; Bereznak, 2018). These online gardening communities were introduced to hobbyists as a way of introducing the merits of the new "on-line". A 1996 Harvard Business Review article explains:

Communities of Interest bring together participants who interact extensively with one another on specific topics. These communities involve a higher degree of interpersonal communication than do communities of transaction. One community of interest is GardenWeb, where visitors can share ideas with other gardeners through GardenWeb forums; post requests for seeds and other items on the garden exchange; and post queries on electronic bulletin boards. GardenWeb also provides direct electronic links to other internet gardening resources, including directories of sites related to gardening. Participants communicate and carry out transactions with one another, but their interactions are limited to gardening. They do not discuss topics such as car care or parenting - topics would bring together people in other communities of interest. Nor do they share intensely personal information. (Armstrong, 1996)

The internet's development had continued to directly correlate with plant fandom. In the 2000s and 2010s, master gardener organisations would utilise the internet to attract younger, more digitally savvy members (VanDerZaden, 2003; Attaway, 2012; Hummel et al., 2012). Then, the general public became captivated by succulents first when they decorated "dotcom boom" offices and again in the mid 2000s when a drought coincided with the release of the Instagram platform. This new app lowered the barriers for community entry by simply uploading and viewing photographs with relevant hashtags (Bereznak, 2018) and created social and cultural traditions as a form of fan ritual reinterpreted. Now, "plantstagram" is an everyday fan practice in which people post plant photos and videos online (Brooke, 2019) that inspired a rise in "20- and 30-somethings who have become smitten with succulents through social media like Facebook and especially Instagram" to attend plant conferences (Marantos, 2019).

The link between plant fandom and technology means that community formation and fandom use online processes to maintain their informal groups. They form identities as "plant parents", coordinate using plant hashtags, and follow plant influencers who create fandom fields of gravity (people are fans of both the influencers and the plants they own). These actions demonstrate the "we-ness" mentality of the fan group, which is also evident in the community hierarchy; in these online communities, knowledgeable "plant liaisons" offer advice and direction (Primeau from Chapter Six would take this role) (Bereznak, 2018).

In addition, plants are spoken about with same emotional and fannish language (as identified by McCulloch) that is used in fan culture (Minkel, 2019). Trendspotting articles borrow superhero media fandom terminology to describe plants as the "unlikely heroes" and "central characters in a new gardening movement", and "collector's item" (Bereznak, 2018). Journalists quote fans describing their plants as a "flower that just took our hearts away" (Bereznak, 2018), growing plants as "pure sense of joy" (Brooke, 2019), as "my [little] baby" (Van Syckle, 2022), and explain that fans consider plant buying a deeply personal experience. The communities self-describe as a "design happy cult of plantstagram" and "the plants adoring fans"; a botanical garden curator called succulent growing a "craze" (Bereznak, 2018), and a journalist described "a well-established community of buyers who say they connect to their plants emotionally" (Van Syckle, 2022), both of which are reminiscent of fan studies scholar Mark Duffet's (2017) description of fans' sentiments and his description of them as emotional screamers. Seen in the context of communities of practice and 'clubs', accounting for the rise of online communities, and viewed alongside fan-based language, plants constitute an established fandom. This modern near-obsession almost echoes 17th-century Holland's tulip fever.

Yet, while plant online communities are well established, there was a disconnect with The

New York Botanical Garden, one of the largest botanical gardens in the world, as they did

not appear to be spoken of in any of these plant online communities. This is consistent with

the interviews discussed in Chapter Six, where staff explained that they did not speak about

their employer in online communities, even when they were discussing plant related topics

(e.g., identifications or growing techniques). It was also unknown why online community

members who are not Garden staff do not mention them. What appeared to be the only site

where the Garden was discussed and actively participating was the third-party website

Zooniverse, where one member of the staff ran citizen science projects and attempted to

foster a relevant online community of plant fans using tools provided by the Zooniverse

platform.

The New York Botanical Garden (NYBG) used a third-party citizen science platform called

Zooniverse and a subsection called *Notes on Nature* (specifically designed for the needs of

botanical and zoological specimen transcription) for a project to digitise images and text from

their physical herbarium. These inputs contributed to a global digital herbarium, which was a

collaborative initiative with other scientific institutions and utilised contributions from

professional scientists, botanical garden staff, and digital volunteers. Participation in *Notes on

Nature* was the primary method in which the Garden (as an institution, not individual staff

members) had sustained interactions with an online community of people interested in

botanical topics (Zimmerman, 2017).

This project had interested and attracted the ready-made online community on *Zooniverse*

because, as project lead Charles Zimmerman described, the community found this work "an

intrinsically interesting activity" and within the *Zooniverse* community "there are plenty of

people out there that are fascinated enough by biodiversity and the historic nature of these collections" to "care to spend time observing the specimen itself and trying to understand, interpret, and record information about it" (Zimmerman, 2017: 7:13-7:38). The identification and recognition of this community by Zimmerman demonstrates that there are people with which the Garden could engage (corroborated by Handelman in Chapter Six) and also hints that the Garden is aware of this community's goals – to further their horticultural awareness and knowledge (which aligns with the Garden's goal of providing educational programming).

Because these digitisation projects could be done individually, Zimmerman put effort into creating a feeling of community and connection to the gardens at NYBG's physical location in New York City. Participants were found via the *Zooniverse* website, as well as through blog posts he wrote on NYBG's website and via their standard volunteering recruitment, which provided an option to participate virtually. He tried to have these volunteers and the ones who found the project on the Zooniverse platform merge into one cohesive online community though an onboarding phase.

One method used to foster a sense of community was for volunteers who have dedicated a "reasonable commitment of hours" (ten hours) receive the same benefits that are provided to in-person NYBG volunteers (Zimmerman, 2017: 11:56-11:58). But providing in-person benefits to a digital community limited the appeal to those who were physically far from NYBG, unable to travel there, or chosen to work on these projects specifically *because* the plants were different from what was found locally. This might also explain the prevalence of anonymous contributions to NYBG's projects and further explain the disparity between the number of participants who make their identity known and the quantity of contributions to the projects (Zimmerman, 2017). Or conversely, it may not be the reason at all – Zimmerman

admitted that many participants have opted to keep their distance from the Garden and speculated that their goal might be to contribute widely rather than to connect more deeply with any place in particular. Given the limited amount of time he could afford to this project (alongside his other responsibilities), he had not prioritised delving more deeply into participant motivations.

A second method of engaging with the *Notes on Nature* participants was using the portal's forums and enabling participants to "interact with scientists more regularly" and thereby feel like scientists themselves (Zimmerman, 2017: 33:13-33:17). It is here that volunteers and data managers communicated with each other about specimens and transcriptions, discussed questions, challenges, and potential revisions in a timely manner. Zimmerman engaged with the participants by adding anecdotes to increase interest in projects and by observing user comments and replies, he noticed where patterns emerged in the discussions. He noticed a correlation that participants who were very active in the forums also "do a tremendous amount of the actual overall output" and went above-and-beyond the initial activity descriptions (Zimmerman, 2017: 20:57-20:52). These observations demonstrate that Zimmerman, as community manager, was trying to be in tune with his community's needs by following the interests that they articulated.

Involvement on *Zooniverse* was the closest that NYBG as an institution came to recognizing or confronting the existence of online fan communities. This is significant because The New York Botanical Garden has a conservative public image and formalities around its public voice, and thus, the staff generally felt uncomfortable discussing their employer by name in casual online spaces, and people in online communities did not evoke the Garden on their own either. It is also important the recognise that Zimmerman is the only individual at the

entire Garden who works with this community, and it is one of two projects to which he contributes. Ergo, even with access to a readymade online community that is actively contributing to the Garden's work, the institution has opted to only dedicate a limited number of hours to this part of the Expert Web.

Like the other episodes shared in this research, *Zooniverse* is a third-party site with comment sections and a growing community, but as the projects were run by Zimmerman in his official capacity, the community's emergence was not organic in the same way that other communities had surfaced independent of an institution. For a community that formed and was grown on its own and has discussed a specific museum of its own volition, we delve into episodes taking place on individual forums.

8.3 Platform: Forums

The next platform is the 'forum', which is most reminiscent of the classic message boards introduced to the museum community decades ago, as detailed in Chapter Three. Forums are unique in that they are discrete websites that focus on a single niche topic through extensive conversations organised into topics, posts, and comments (unlike the other sites which are part of wider platforms) and not commonly known about by those outside of relevant parties (one only knows about them if they are part of the community). In this section we see three episodes with vastly different subjects: passion for building wooden boats, collecting My Little Pony toys, and creating taxidermy. In each, we see very dedicated fans who have devoted their lives to their fan objects, become experts on the creation of their fan-objects, and understand how their fan-objects fit into the wider world. They discuss this within their respective communities at length and over years. But they also believe that their opinions of

their respective fan-objects are unequivocally correct. Each episode that follows

demonstrates the community's passion and voices their demand that their object is prioritised

by the museums which they mention (access to curators and planning documents, winners of

contests, and recognition by the wider public).

8.3.1 Community for Wooden Boats on The Wooden Boat Forum

Wooden boat building enthusiasts have brought an old skill from a common heritage into the

present day by creating an "emancipatory uchronia". Wooden boat building is a performative

skill (or many accumulated skills), which practitioners aim to master through engaging in

building projects and developing expertise. When building, the practitioners enter states of

flow, a concept also referenced in fan studies. They use this mentality to claim a personality

centred around the wooden boats and invest significant amounts of time into their practice.

This dedication at once makes their fandom an everyday practice and concurrently

demonstrates their priorities in which the "artistry of slowness implies an inseparable mix of

pleasures and duties" (Jalas, 2006).

Mikko Jalas, Professor of Sustainable Consumption and researcher of the practice of

everyday life, has researched this practice and identified object-driven, social, and

performative practices developed around completing the task of building wooden boats. His

choice of words drew strong parallels with fan studies, from "object-oriented practice" to the

description that the fan objects (the boats) are valued, built with love, "appreciated and

worked on" and he explained that the enthusiasts use emotional language when discussing

their object (2006). While Jalas refered to the practitioners as enthusiasts, they could have

just as easily been called fans since they are dedicated to their specific object, believe they

have distinctive skills, and are committed to their duties as craftsmen. Furthermore, the desire for the wooden boat community to be a unique culture harkens back to the first wave of fan studies in which fans think of themselves as a minority of active consumers (Sandvoss, et al, 2017; Fuschillo, 2018).

Wooden boatbuilders are also fans because of their sociality - they engage in their practice socially, create shared understandings of their craft through discussions, learning sessions and disputes and organize themselves hierarchically, with the most skilled celebrated as master craftsmen (Jalas, 2006).

Online fan forums dedicated to wooden boat building at once contribute to the sociality of the community and have influenced the fandom and its practice. Jalas explains the influence of the internet on the fandom,

> The internet has changed the way the practice is available to outsiders and the way the practitioners interact among themselves. First, the private internet pages document and represent the hobby in such minute and subjective detail that one can claim that the practice is indeed also performed on the web pages. Thus, the competence of the practitioners is increasingly evaluated on the basis of the web pages. Second, the community of practitioners of wooden boating is now interactive not only at the physical sites of practising, but through issue - or problem oriented discussions on the web. The dedicated internet discussion page has over 3500 clustered messages from the two years that the forum has been available. In other words, the infrastructure of discussing the efficient and the proper has extended its scope and scale. (2006)

The people with these interests and exhibiting these same qualities are similar to those who have displayed interest in The MIT Museum's nautical collection.

At MIT, The Hart Nautical Collection was initially created to teach the university students naval architecture and engineering. The collection became the Hart Nautical Museum in the 1920s with its own dedicated space on campus (the first purpose-built space at MIT for a museum) known as the Hart Gallery. Today, the collection is part of The MIT Museum's collection and includes nautical photographs, designs, plans and technical documents, archival materials from businesses, and marine art and models (Hasselbalch, 2018). Beginning in the 1930s and 1940s, the collection was opened to people unaffiliated with the university. Over decades, the reputation of the collection grew among the nautical community and the growing number of requests to see the collection created a need for "servicing that demand" (Hasselbalch, 2018: 9:07-9:10). In 2017 and 2018, a digital collections portal was developed (launched in 2019 after fieldwork was completed) (Hasselbalch, 2018).

Figure 8.1 The Hart Nautical Collection at MIT. Photo by author.

The collection's curator, Kurt Hasselbalch, described those interested in the collection not as hobbyists but artisans, craftspeople, and artists who were very serious about maritime preservation and historic vessels, building new versions of classic and historic vessels, and model building, and who wanted to work from and be inspired by primary materials. While amateurs may have stumbled upon the collection, the information might be "over their head" (Hasselbalch, 2018: 11:34-11:35). This community, Hasselbalch believed, has transitioned from reading nautical magazines to using the internet:

> Countless nautical magazines that exist [transformed] to the digital world. [They
> have] blogs or things like that. So, I would say there's probably a huge number of
> those specialists, sort of niche communities that are communicating in an electronic
> form. (Hasselbalch, 2018:16:07-16:38)

But Hasselbalch, while he uses the internet for work, admitted that he is mostly "ignorant" of these online communities and that he is not even sure that it's the museum's place to be involved there, online. Instead, his interactions with the artisans were largely inquiries served remotely, where requesters called or emailed with an interest, and then the Hart Collection staff (sometimes Hasselbalch himself) retrieves the information, duplicated it, and sent it by post or electronically (Hasselbalch, 2018).

While Hasselbalch and the marketing department might not have been connected to the Expert Web of boat building, an online community called The Wooden Boat Forum was absolutely aware of the museum and its staff. Like some other instances of museums being discussed in online communities, mentions of museums on The Wooden Boat Forum were not linear. They happen across threads and span multiple years, inconsistently but frequently. We can look towards the context in which they are embedded, how the participants project context, and the purpose of the website (Page, 2012) to further understand this episode. The mentions can be categorized in three ways: information seeking, information linking, and contact information.

Within these mentions, it became clear that the community knew The MIT Museum by a few different names, which reflected both the long and complicated name (the Hart Nautical Collection at the MIT Museum) as well as the evolution of this collection. In this community, names for the Hart Nautical Collection at The MIT Museum included: "Hart Nautical at MIT", "MIT" (with no differentiation from the university), "MIT Hart Nautical Museum archives", "hart nautical collection at MIT", "herreshoff museum at MIT", "Hart collection at M.I.T.", "The Hart Nautical Collection at the MIT Museum", "heart" [sic], "MIT library

archives in Cambridge Massachusetts", "Massachusetts Institute of Technology museum" (Forum.WoodenBoat.com, n.d.).

Allusions to the collection could also be deduced using context clues in situations where the museum itself is not mentioned: "Mr. Nathaniel Herschoff's specs (with the blessing of MIT)." (August 2004, reply to *Art Read*). With this variety of names and spelling conventions for the museum, it would be nearly impossible for social media software or staff members not well versed in these communities to find these conversations.

The typographical variations here can be difficult to interpret. In some contexts, lowercase text is simply easier, but in other contexts, it denotes an attitude or self-deprecating joke (McCullogh, 2019). Given the context of these messages as well as the complexity of the proper name, we can assume it was simply easier to type.

In addition to mentioning the institution by name, the users on this forum directly mentioned Curator Kurt Hasselbalch. In some of these instances, his professional contact information - including full name, title, collection, phone number, fax number, email and mailing address - was provided when some participants on the forum were unable to answer questions and instead suggested asking Hasselbalch directly. While in other cases, sharing information on the Web would be a nefarious practice called doxing, this was clearly done in earnest. For example, we see in the examples below that users wanted Hasselbalch to authenticate a Herreshoff design and to determine if an eBay listing was accurate. In both cases, users suggested speaking to Hasselbalch for credible information.
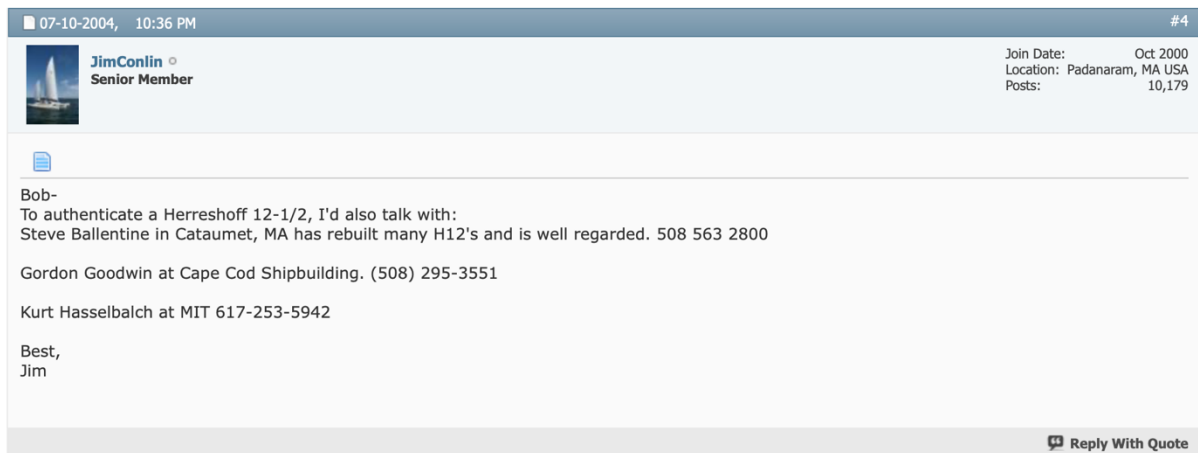
Figure 8.2 Herreshoff identification inquiry on The Wooden Boat Forum
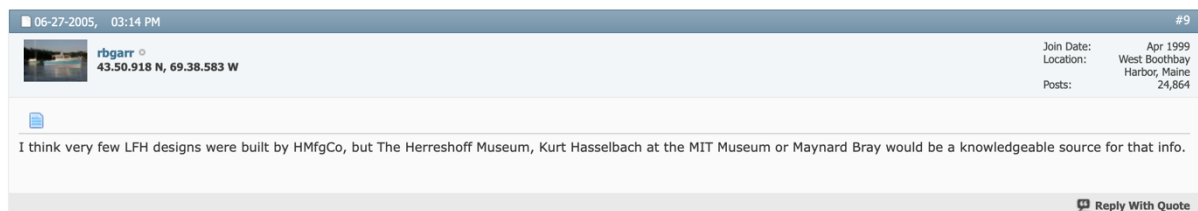
Figure 8.3 Herreshoff identification comment on The Wooden Boat Forum

In other situations, users explained that they had already spoken to Hasselbalch. In one instance, a user shared that they purchased the record set drawings from The Mystic Seaport Museum and want to build a Herreschoff replica. When a second user suggested looking into the collection at MIT, the original poster (OP) replied that he had already spoken with Hasselbalch as well as the staff at The Mystic Seaport Museum. This appeared to be an attempt at an alignment move (as discussed in Chapter Three).

Figure 8.4 Herreshoff identification and curator comment on The Wooden Boat Forum

We can also examine how people reference Hasselbalch. While some users wrote his full name as part of a formal contact information listing, others referenced him sans contact information as "Kurt [...] at the Museum" or "Kurt at the MIT Museum". This level of familiarity with Hasselback was surprising since he himself did not use this forum and it is unclear if the people posting knew him on a personal level.

Figure 8.5 Curator comment on The Wooden Boat Forum

In each post, including those with Hasselbalch's name and various types of direct contact information, there was an implication that contacting him was easy to do and approaching him in a casual manner was appropriate. But, when asked if he was aware of these mentions, Hasselbalch heartily laughed, "I've been around for a long time … Is this recent talk? [...] No [I was] totally unaware." (Hasselbalch, 2018: 39:28 - 40:01).

Many participants on The Wooden Boat Forum recognized that The MIT Museum and Hart Nautical Collection have topical information that individuals on this forum were seeking and therefore, repeatedly suggested using MIT's resources to fellow users. Those who suggested the museum as a resource appeared to be deeply familiar with the objects in the collection and the ways in which the collection was organized. For instance, in a thread where user *Bob Perkins* wanted to purchase a Hereschoff boat, user *Steve Pasky* explained that a specific guide at MIT lists the years the boats were constructed and their hull numbers. However, he also offered his opinion that the list's omissions made it imperfect. Further in the thread's replies, user *SNagy* shared that they have used these records for similar purposes. In another thread titled "Old Town Dinghy/Alden 'X' Class dinghy", the participants suggested that The MIT Museum might be a good resource, but that their online collection was not as detailed as other institutions, suggesting, again, a familiarity with multiple museum online collections and websites. Other threads that offer The MIT Museum as a source of information even

included direct links to the information sought, such as one by user *Ian McColgin* in reply to

a first-time forum participant, user *phobia*, who was seeking, but was unable to find, specific

technical information.
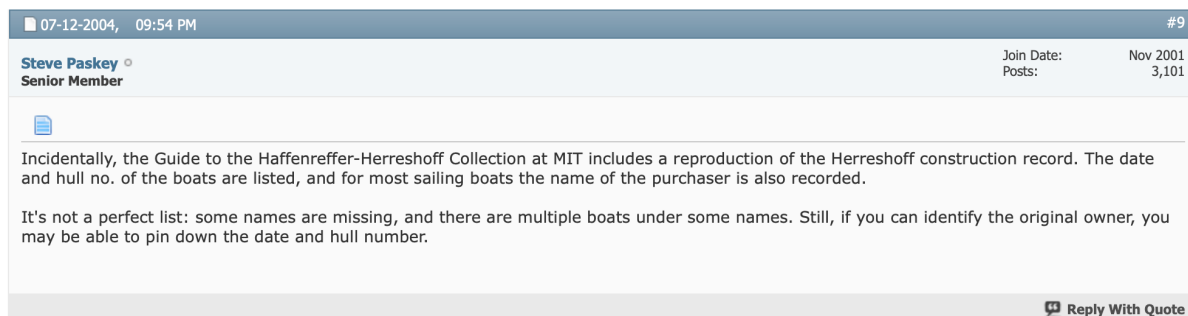
Figure 8.6 Using guides at The MIT Museum on The Wooden Boat Forum
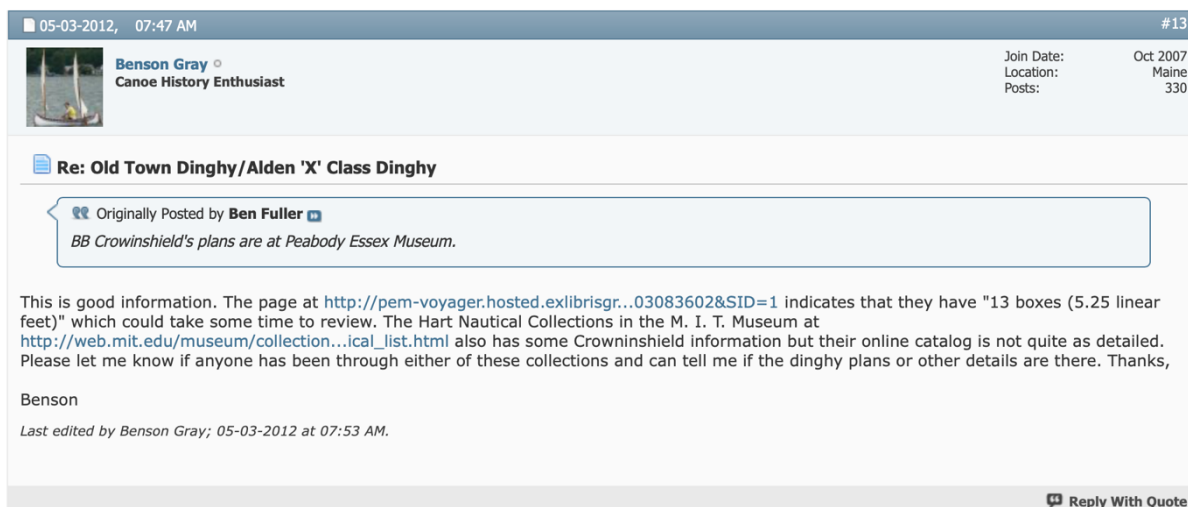
Figure 8.7 Suggesting guides at The MIT Museum on The Wooden Boat Forum
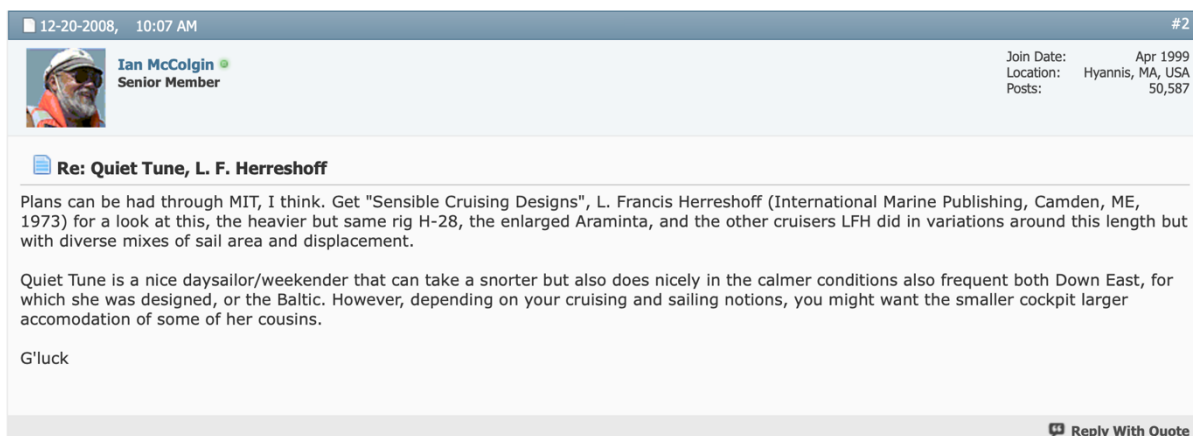
Figure 8.8 Suggesting plans at The MIT Museum on The Wooden Boat Forum

However, in other threads, there were participants expressing their general interest in nautical museums who admitted that they did not know of any specific collections. Here, we see an example when user *InTheBeech* sought a "plans library" or a relevant museum in the north-eastern part of the United States.
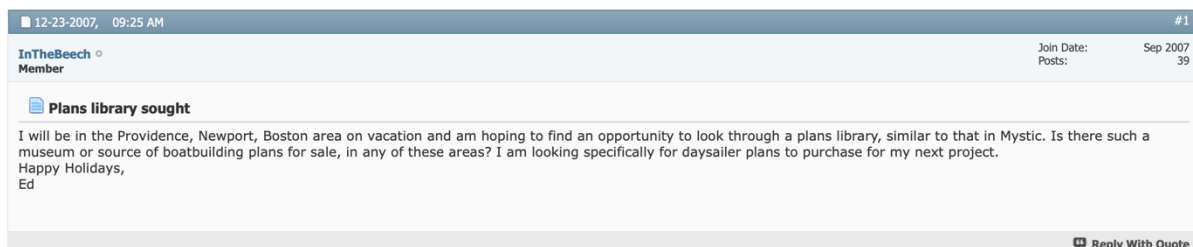
Figure 8.9 Plans library request on The Wooden Boat Forum

Some threads inquired about specific items, demonstrating the community's knowledge about their chosen topic and related historic figures. For instance, user *Jlaup* was hunting for a source for Sonder Klasse drawings, and user *Reynard38* inquired about Herreshoff plates,

but neither seemed to know about the collection at the MIT Museum before others replied

with the museum as a source.

Figure 8.10 Sonder Klasse drawing request on The Wooden Boat Forum

While most of the time, users were linking The MIT Museum as a resource, there were

instances when the community participants discussed why the institution was less useful.

Sometimes the posts detailed that The MIT Museum did not have a specific piece of

information, as in this post by user *Helipilot* who wanted information on the creator of the

"Alden Schooner 'Prudence' design number 993".
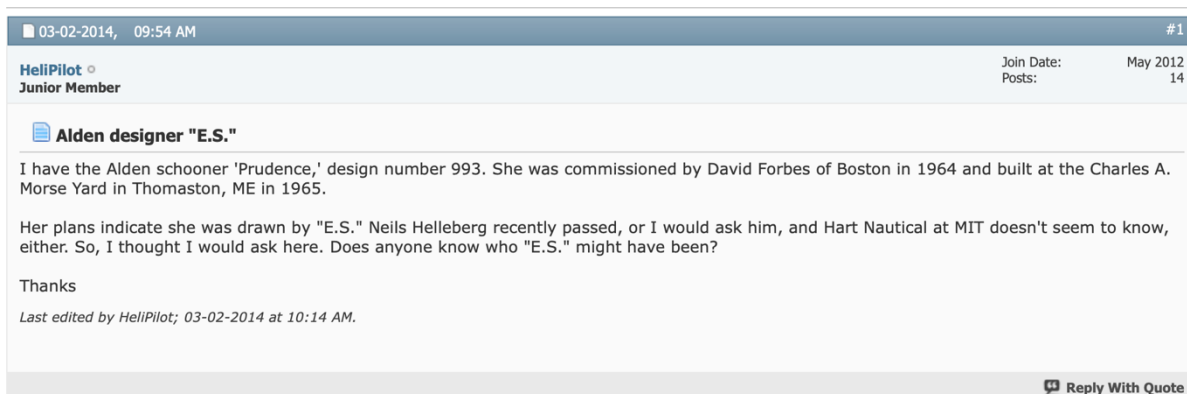
Figure 8.11 Alden designer inquiry on The Wooden Boat Forum

When MIT did not have desired information, the participants sometimes offered their reaction in addition to the factual remark. In another thread, someone noted "even MIT can't produce the prints I am producing after".

When the information that users sought was unavailable at The MIT Museum, the users sometimes hypothesized about what the museum could offer instead. When someone suggested that The MIT Museum license a third party to publish drawings for purchase, the users debated if there would be enough demand in the market and if there was market value. Although this thread pivoted to be about users selling their own drawings and the conversation about museums ceases, it is worth noting that this community of interested participants had devised a revenue stream for museums that they appeared to be willing to pay. These posts were not limited to making images from The MIT Museum available for purchase. In July of 2009, user *rbgarr* posted a thread titled "boat plans: what are / would you be interested in from Mystic Seaport?". In the 28 replies that followed, the community envisaged their ideal museum website with images and measurements that could be found

through an internal search function. User *Bill Perkins* even offered his assistance and ability

to "work on site" and mentioning that his family had membership to that museum:
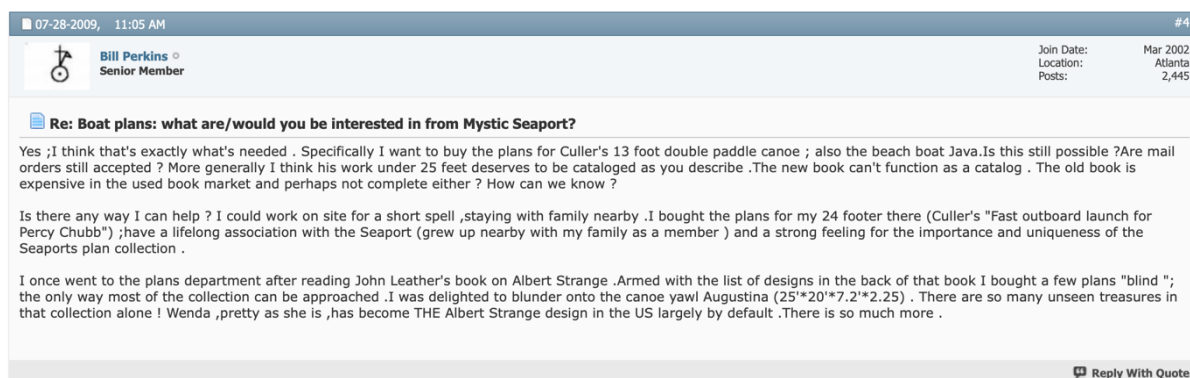
Figure 8.12 Mystic Seaport collection inquiry on The Wooden Boat Forum

These users also demonstrated an awareness, and some concern, about how museums

function on a day-to-day basis: one user indicated that an automated search could result in

staff count being reduced; another user shared that there were legalities surrounding

donations and displays; and another explained that museums have intended audiences, citing

researchers instead and not their community of boatbuilders. It is this third comment that

could cause concern in the museum community, as the perception that a collection is not for

this public is antithetical to the institution's goal to make these collections public (as

demonstrated by the Web-based collection that was since developed). While this perception

juxtaposed the people who directly call Hasselbalch and expected his time and expertise, it

shows a schism in hobbyist communities. This particular schism was further revealed in the

conversation that follows. While the user who highlighted the audience discrepancy

expounded on how The MIT Museum collection was partially housed there for stewardship

and pointed out that the museum initially did not own the copyright nor intellectual property,

they shared that once the collection becomes a donation and was authorized to be released, that still did not indicate that the collection had been catalogued nor digitised. Information about museum policy, procedures, and workflows, as indicated by the post replies, appeared to be new information to The Wooden Boat Forum community and some participants offered their gratitude for becoming informed. User *Tom Montgomery* said:

> "Thank you for the insight, Bob. Your explanation of the problems involved in properly cataloging the plans collection makes sense. If I ever become a wealthy man I will bequeath Mystic Seaport Museum a large sum of money toward that end. I hope someone beats me to it. Perhaps everyone on the WBF should consider remembering the Mystic Seaport Museum in his will?"

But another user complained that a post with museological information was defensive and aggravated, retorting that museums accession limited items and if there was not sufficient interest, the unwanted items in the collection would have already been removed. While this statement might not be factual, the impassioned argument demonstrated that these users are invested in conversations about the collection, in ways that the staff at The MIT Museum had not anticipated.

This episode is an example of an online community that was highly aware of a museum and knowledgeable of its collections, while the museum appeared to be hardly aware of the community and entirely unaware of the depth of their knowledge. In the context of understanding the impact of platform, we see that individuals who participate on topic-

specific forums have a sense of ownership of their topic and by extension feel that they are entitled to knowledge and attention. For a museum to operate within this context would mean relinquishing some control over their curatorial narrative and recognising these individuals who view themselves as keepers and organisers of knowledge. The episodes that follow demonstrate a similar sense of topic-ownership.

8.3.2 Community for My Little Pony on The My Little Pony Arena

While each community is passionate about their subject matter, pop culture fans can be the most vocal and the most coordinated. The episode that follows exemplified this devotion as the My Little Pony community attempted to influence The Strong Museum of Play, initially believing that they were capable of self-actualization, that their fan object was deserving of commendation, and eventually losing interest when they realised their voices were not being heard.

Social media, content creation platforms, and online culture demonstrate that adult toy fandom and toy related activities are more than just hobbies or collecting. Katrina Heljakka, researcher in toy culture and fandom, affirmed that toy fans are engaging in a form of *play* though parasocial (one-sided) relationships with their toys. As mentioned earlier, fans have strong feelings and even relationships with their chosen objects and deep emotional convictions (Baym, 2018; Fuschillo, 2018). In the world of toy fandom, these same feelings and rules apply. The toys have nostalgic value to the player and they want to preserve and continue the lifecycle of the toy, either as a valued artefact or as an artefact that can be used in creative practice (Heljakka, 2017).

Online communities have enabled toy fans to engage in traditional collecting activities such as arrangement and display, collections care, and documentation while simultaneously using digital technologies and environments to share them with like-minded adults. The ability to use mobile phones and online media for this purpose has meant that sharing toy experiences and creativity are more visible online and encourages people to join toy fandom (Heljakka, 2017). This echoes Baym's assessment that the pleasure of being part of a fandom comes, in part, from being connected and having relationships with others with the same interests (Baym, 2018). Heljakka would agree, affirming that one motivation may be from a desire to have contact and close relationships with others, using the toys as a shared material resource (2017). Heljakka explains:

> On the other hand, social media provide a platform for showcasing one's collection. Even though toy play of adult toy fans is often a solitary practice, it also has social dimensions just like any other activity in which knowledge about objects of fandom is accumulated. Collectors tend to form communities (Hills 2009). There are the adult toy fans who put the playthings into creative play and appropriate the objects in material, digital, and narrative practices that manifest on one hand both physically and solitarily, and on the other hand digitally and socially. (Heljakka, 2017: 95)

Heljakka explained that adult fans of popular toys are more organised and "perceivably present" in online spaces and attract a wide fan base (Heljakka, 2017: 98).

Heljakka identified trends that can be clearly seen in the research conducted at The Strong Museum of Play regarding the "My Little Pony Arena" community. In addition to the social elements outlined above, she explained that, to fans, the act of collecting is a type of game

with rigid rules (Heljakka, 2017). Similarly, Baym asserted that fan groups engage in collective strategies for common causes (Baym, 2018). If we apply these two theorists to the My Little Pony community, we can begin to conceptualise the community as one being organised for a common cause (the desire to have the My Little Pony toys enter the National Toy Hall of Fame, shared below), having the appeal of a game or sport (daily voting), and the appearance of rigid rules (the perception that the toy with the highest votes would receive the honour).

Figure 8.13 Toy Industry Hall of Fame (which houses the National Toy Hall of Fame) at The Strong Museum of Play. Photo courtesy of The Strong, Rochester, New York.

In October 2013, user *STLGutsy* wrote an informative post introducing the National Toy Hall of Fame and its toy-of-the-year contest to the members of the online community "My Little Pony Arena". This post combined formal and informal language, demonstrating that the intention was friendly per the informal salutation "Hey" and the regional phrase "ya'll" yet

retained the capitalization and punctuation to give the post's content gravitas. The smile emoji at its conclusion was a positive gesture that reinforced the underlying message, that *STLGusty* is pleased that their toy of choice was being recognized. While the overseeing institution, The Strong Museum of Play, is not mentioned by name, to this community, the institution and the National Toy Hall of Fame were synonymous. What followed the original post was a linear conversation that urged community members to vote for the community's fan object (My Little Pony toys), a running log of the pony's chances to win, and, eventually, expressions of disappointment and frustration when My Little Pony ultimately lost.

Figure 8.14 First National Toy Hall of Fame post on The My Little Pony Arena

While the initial posts referred to The National Toy Hall of Fame, within two hours of the original post, user *Corona* referenced the museum, favourable thoughts about the institution, and desire to visit: "Some day [sic] I want to visit the museum and hall of fame but it's a little far. They've been featured on one of ny [sic] favorite shows and it looks cool!" (Reply #14). User *teacher316* shifted the focus from the online environment of the poll to the museum's physical location by referencing "in my city" and demonstrated warmth and excitement through three exclamation marks while user *Foxtale* used the kiss emoji to reinforce the

message that they have voted as instructed and to echo the emoji and sentiment from user *STLGusty*. These early messages, as well as other messages in which users expressed desires to visit the museum demonstrated a community of congeniality.

Figure 8.15 Voting post and city reference on The My Little Pony Arena
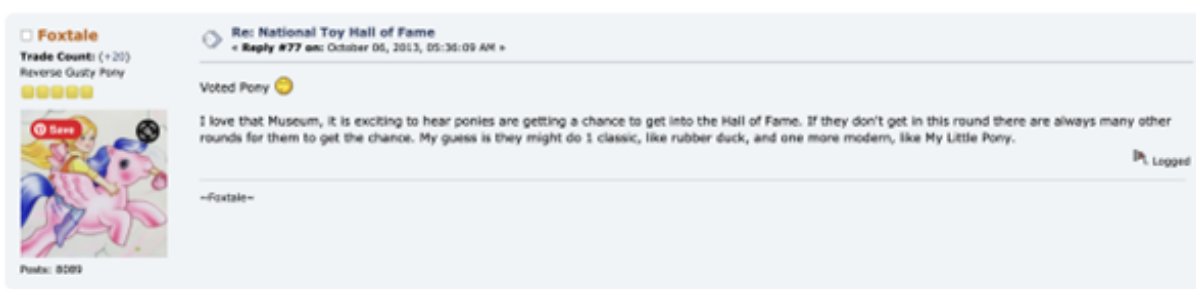
Figure 8.16 Voting post with potential winner analysis on The My Little Pony Arena

While the first post was informative, it is the second post in the thread which included a call to action to the community and a direct link to The Strong's Toy Hall of Fame microsite (reply #1). The members of the community had established a common goal and what they believe to be a "plausible promise" (discussed at length in Chapter Nine). They began a collaborative month-long online campaign in which community members voted, tracked the toys' progress, and encouraged community members to do the same. The importance of this contest was evidenced by user *hathorcat* proclaiming that this was the most important topic

on the forum that day which is echoed by subsequent replies as users suggested various ways to keep the thread in their public's eye (Reply #31). When the Ponies fell to second place, members of My Little Pony Arena suggested overlooking interpersonal differences with the rival My Little Pony fan community known as "Bronies" in order to have more votes (Reply #46) for their fan objects. This proposed alignment move demonstrated their desire to manoeuvre themselves into perceived positions of power within the community.

The first indication of the My Little Pony Arena community members' mistrust of The Strong Museum was evidenced by a question by user *Ice Crystal* who wondered if the voting campaign influenced who was ultimately accepted into The Hall of Fame or if inductees were "chosen by a panel?" (Reply #33). This suspicion is echoed by user *LadyMoondancer*, who confirmed that "the poll on the website has nothing to do with which toys get inducted" (Reply #54). Regardless, members of the community continued to report that they had voted and urged others to do so as well, seemingly ignoring user *LadyMoondancer* and believing that they still could influence the museum's curatorial decisions.

Just over a month after the original post, users saw an announcement (presumably on The Strong's website) that My Little Pony had lost to rubber duck and chess despite the fact that My Little Ponies continuously had more votes. Suddenly, the language used to describe the museum shifted from generally positive to disbelief and disappointment. Users began to assign blame to the institution and even hypothesized conspiracies about rigged voting (Reply #89). Below, user *Bow Tie* utilised expressive lengthening for added emotion (the extraneous "h" in oh) as well as the eye roll (sarcastic) emoji, which were the textual

equivalent to the involuntary facial expression the reader can assume would have been given in person.

Figure 8.17 Voting post with sarcasm on The My Little Pony Arena

As users speculated about why the poll was created in the first place, their distrust of the institution grew. These community members had been under the impression that voting was a form of co-curation and now they saw that their time and effort did not affect the result nor was their voice valuable to an institution with whom they believed they shared a common interest (Reply #95). In addition to their growing distrust, users' opinion of the institution shifted, and they began to identify how the community and museum had divergent values; user *kellyponyfeathers*, who clearly expressed their disgust via the textual interjection "humpf", went so far as saying that nobody will want to visit if objects in The Hall of Fame are not exciting collectables. This is in direct opposition to earlier posts where users voiced their assumed common goal with the museum and a desire to visit in person.
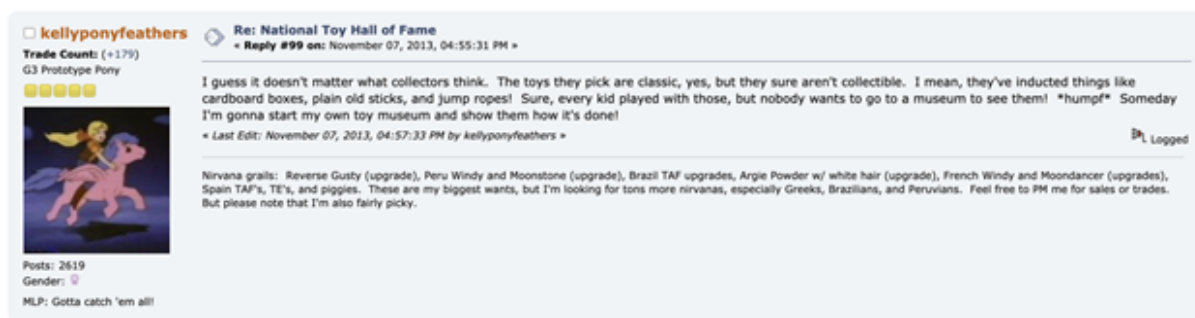
Figure 8.18 Post suggesting voters do not matter on The My Little Pony Arena

As the participants tried to make sense of their voices not counting, their posts became longer and more descriptive. Their language shifted and users employed euphemisms for profanity such as user *sweetiebabyfizzy* declaring the result "a load of bull!" (Reply #101). As users reckoned with the reality that they had lost, they began to discuss common topics in museology using layman's terminology. For example, user *Sandra* was emotional (evidenced by the expressive lengthening of "but") and declared that both My Little Pony, and another popular toy, "are deserving of inclusion in the Hall of Fame", which points to her awareness of criteria for museums acquiring objects and later in the conversation, user *Keelee_von_Cupcake* inquired about the "judges" who chose which toy is selected, which demonstrated a cursory understanding that curation is done by individuals with subjective opinions.

Figure 8.19 Post about toys deserving recognition on The My Little Pony Arena
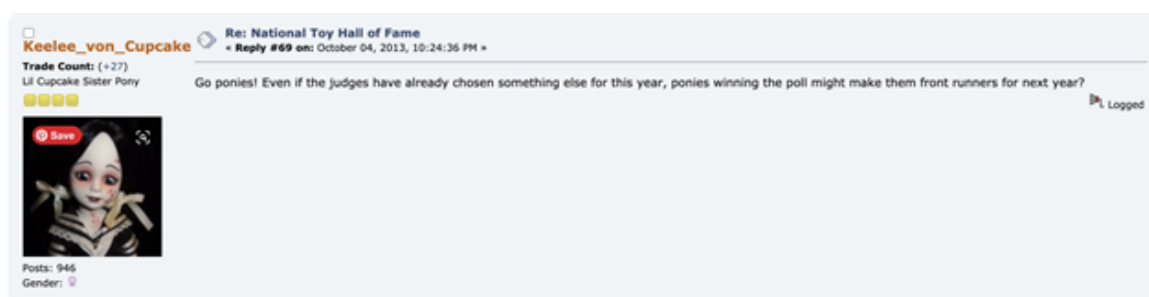
Figure 8.20 Post about judges on The My Little Pony Arena

One year later, in September 2014, the My Little Pony Arena community once again saw the museum organize a Toy Hall of Fame poll and created their own coordinated campaign. A similar pattern to the year before followed with an announcement post and link and replies reporting their toys' ongoing percentage points (reply #10). But when user *Shenanigans* reminded the participants that in the previous year the poll winners were not inducted into The Toy Hall of Fame, user *sailorstitch* confirmed with a link to an article (reply #11) and user *scarletjul* (Reply #31) explained that through a close reading of the museum's poll language, they have realized that the museum admits that they are not compelled to take the public's opinion into account. Yet, the participants remained hopeful, dutifully voting, and reporting back, post after post.
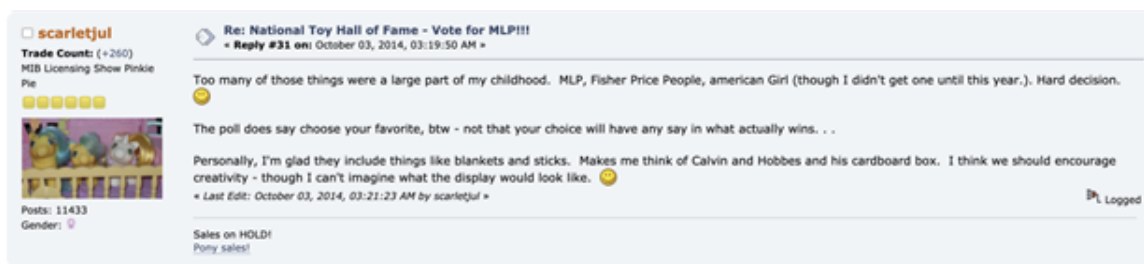
Figure 8.21 Post about voting rules on The My Little Pony Arena

Because of their dedication to their fan object, these users collectively saw themselves as an important part of the museum's constituency and a collective voice that deserved attention. They even made arguments as to why they should not be ignored, in this case (reply #15) from a fiscal perspective:

Figure 8.22 Post about museum's constituency on The My Little Pony Arena

For some users, this is the first time they were learning about the museum. User *CapnChan* (reply #33) specifically asked the community member what was in the museum.

Figure 8.23 Post about museum's collection on The My Little Pony Arena

For a second time, the campaign to induct My Little Ponys failed, and Bubbles, Little Green Army Men, and the Rubik's Cube were inducted (Toy Hall of Fame, n.d.).

In September of 2017, the My Little Pony Arena community organized a voting campaign for a third time. User *Foxtale* announced in a new thread 1. that The National Toy Hall of Fame had opened their contest, 2. included a quote about the institution determining which toy would be selected and, 3. encouraged community members to vote, in contradiction to the quote. User *Foxtale* had appeared in these calls for voting in years past, though this is the first time they were starting the call to action; we see both elements of informal writing as they try to gain support and convey excitement via a variety of typographical styles (three varieties of emoji, repeated exclamation marks, and line breaks that echo spoken language) as well as hallmarks of formal writing (proper capitalization and punctuation beginning and ending each sentence as well as proper capitalization on the name of the institution).
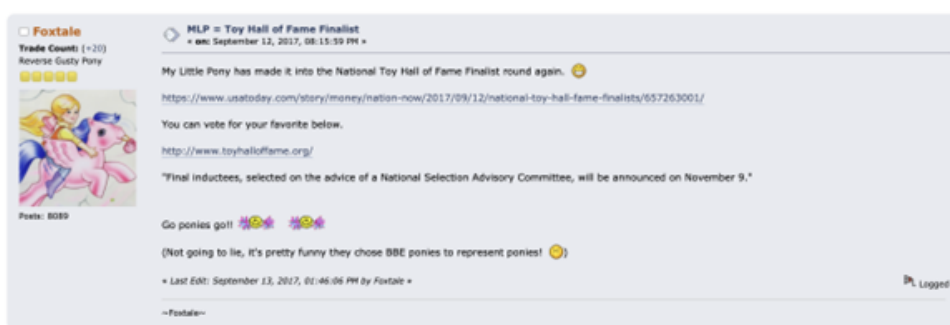
Figure 8.24 Voting call to action on The My Little Pony Arena

The early replies also had positive connotations about the institution - the community members were happy that My Little Pony was once again nominated especially, as one user wrote, since girl's toys are often not taken as seriously (reply #4). The community members again prioritized voting, giving the thread a place of prominence in the forum (Reply #3). As user *Foxtale* continued to organise the community, understanding and explaining that while their votes were not a deciding factor, they could still express the ongoing hope that the community might be influential: "Maybe the committee will take notice. ;P" (Reply #14). However, the forum participants soon recalled and referenced the past years when the institution chose poor competitors (stick and ball, reply #17) and argue that a Pez dispenser is not even a true toy. In this third attempt to win the place they believed My Little Pony deserved, the forum participants became more systematic, determining that each IP could only vote once per day (reply #25). Concurrently, users who recognised that the contest would probably not be influential began to discuss the advisory panel, noting that those who chose the winner were from a "professional panel". This was the first time that the forum participants elevated the "panel" and recognized their expertise, even if they disagreed with the decisions.

Figure 8.25 Post referencing a "professional panel" on The My Little Pony Arena

When My Little Pony lost once again, the community lost interest in the contest and was not referenced again. From this episode, we can extrapolate that because the plausible promise implied they could win but was not fulfilled and their voices were not heard by the institution, the community felt no need to interact with the museum again. As with The Wooden Boat Forum, the perception of ownership and entitlement to their fan object affect the interactions that occurred in this toy forum. When the participants realised they can control neither the process nor the outcome and felt slighted, they wanted nothing to do with the institution thereafter, a worrying predicament for any museum looking to extend its reach.

8.3.3 Community for Taxidermists on Taxidermy.net

Some communities exist in multiple contexts and their subcommunities can populate a variety of platforms. Here we see the far-reaching taxidermy community, which has existed for hundreds of years, find their place online and discover where the interests of the multifaceted group members overlap with each other and with institutions such as The Field Museum.

Modern taxidermy began as a craft in 16th century Europe to preserve specimens collected by adventurous leisure travellers. By the mid-19th century, taxidermy was a popular career and

the animals were entered into museums and private collections. After World War I, interest in taxidermy declined: colour photographs rendered taxidermy less necessary, big game hunting became less socially acceptable, and taxidermists became the subject of popular horror movies (Dee, 2012; Blitz, 2015; Waldman, 2019). Yet, today, taxidermy remains popular in the United States and can be divided into three categories. First is traditional taxidermy which embraces imagery of rural Americans hunting and mounting large animals as trophies while considering themselves to be conservationists who revere animals, "study nature", and "have a special bond" with nature (Derham, 2019). Second is artistic taxidermists who use small animals to make Victorian-style and whimsical "rogue taxidermy" and became popular in urban areas during the early 2000s. And third is museum taxidermy which holds scientific value for research and displays species that have been lost; museum taxidermists are revered for their professional skills and, to the creators and their followers, the museum is considered hallowed ground (Blitz, 2015; Leckert, 2018; Derham, 2019; Waldman, 2019). The popularity of these three types of taxidermy and the people it attracts has changed in the past twenty years, while it was initially "older white men: collectors, people really interested in this esoteric natural-history world" those interested now appear to be "younger, more diverse, and much more female" (Leckert, 2018).

Taxidermists display a variety of 'fannish' characteristics and for this research are considered a group of fans. When considered in this way, we must first define their fandom. The taxidermist's objects are both the animals they use, and the animals reused in their art; the original animal would be akin to a fan icon (factual) and their scenic, narrative creations are their fictional fan objects. The taxidermists also use emotional language to describe their craft, further solidifying their fan-status. They describe the activity of taxidermy as "between a hobby and an addiction", "lifelong addiction" and "a passion", which are highly positive

phrases demonstrating commitment. Similarly, they describe the animals (the fan objects) as "beautiful" and speak of "romantic feelings" towards them (Derham, 2019). Taxidermy fans, like traditional fans, use taxidermy identities to define themselves and their relationship to the larger taxidermy community. Skilled creators proudly identify themselves as both taxidermists and artists, reworking and manipulating their medium into their own narratives, just as media fans do with their fandom (Guerrucci, 2019). They also define themselves by fandom social aspects, such as their relationships to their communities. In the documentary *Stuffed*, community is historically described as "tight-lipped, closed" but through taxidermy activities, they are in truth "a shared community" and "a really close-knit community of eccentric weirdos" (Derham, 2019). They meet through conventions and competitions such as the World Taxidermy Championships (established in 1983) which attracts upwards of a thousand people from all over the world (Blitz, 2015). Additionally, they can connect at studios or intern at museums, which are, arguably, fan pilgrimages (described in more detail in Chapter Ten).

While taxidermy experts such as Rachel Poliquin, author of *The Breathless Zoo: Taxidermy and the Cultures of Longing*, described taxidermy as the "ultimate anti-modern object" and expounded on the taxidermist's rejection of mass-production and taxidermist Robert Marbury discussed the appeal of rejecting digital technologies, taxidermy fandom has a fan field of gravity deeply embedded in technology. In addition to taxidermy related activities (conventions, courses) and printed materials (trade journals, books) there are also movies, reality television, and, most importantly for this research, online forums (Dee, 2012; Benson, 2013; Blitz, 2015; Waldman, 2019).

The internet and social media helped spread the practice to a broader audience. For traditional and museum taxidermists, the internet became a way to connect with each other even when their passions were not popular in their local regions. According to Larry Blomquist, organizer of the World Taxidermy & Fish Carving Championships, interest has increased with the availability of information online. The popular site Taxidermy.net (discussed in more detail below) has had significant effect on the community. For example, this forum is where taxidermists can advertise and purchase supplies with a global reach, which is especially useful as legalities change by country and region, and a documentary was born from a connection forged on the site's forum (Benson, 2013; Blitz, 2015; Pounds, 2019). For rogue taxidermists, social media has been a boon in sharing their kitsch creations, with one supplier explaining "taxidermy isn't something you have to go to school for or encounter for the first time in a library or lecture hall [….] It's something you can see on Instagram" (Leckert, 2018).

Recalling the episode in Chapter Seven about The Brain Scoop, we saw an online community form around Emily Graslie and her YouTube series about natural history. Many of her videos include content about taxidermy and the title of the series itself was inspired by a taxidermy tool. With this in mind, she was not surprised to learn that the Taxidermy.net forum had seen her videos. This community was aware of The Brain Scoop and Graslie and found her content to be a respectful portrayal of their field and an entry point for non-taxidermists. The writing on the taxidermy forum, while still informal, was more stylistically formal than the internet writing in The Brain Scoop's comment section (in Chapter Seven). The posts in Taxidermy.net tended to be longer, broken up into paragraphs, used punctuation to express emotions (rather than emoji and typographical gestures) and individually contributed more information than the briefer posts (McCullogh, 2019).

The taxidermists who participated on Taxidermy.net's forums had inconsistent knowledge of museums, which could be seen through posts and replies that discussed museology. In one instance, user *PA* posted about museums, and when no one replied, they posted again (post # 2) to bring attention to their own post and to lament others' lack of interest. Their second post made a case for people becoming interested in museums, mentioned financial constraints, and explained how expanding audiences at science and natural history museums could also increase interest in taxidermy. The perceived lack of interest is unwarranted as a few people replied that they were in fact interested, though not knowledgeable about such things. A reply from user *3bears* (post #4) demonstrated this asymmetrical understanding by stating that they previously were unaware that museums even had wildlife collections and that information, such as the link from the original poster, was helpful in learning more about museum work. The conversation continued as user *PA* made their case that museums were relevant to this forum and discussed their experiences working in a museum (it is unclear where they were employed) and explained the provenance of a turtle specimen.

Figure 8.26 Conversation about provenance and wildlife collections on Taxidermy.net

Despite this asymmetrical understanding, Graslie's YouTube series was mentioned with some regularity, though the posts where it appeared can be surprising. In a post discussing deformations in the jawbones of marsupials, the seventh post of the thread by user *ClaraD* mentioned that this skeleton specimen reminded them of a specimen seen on The Brain Scoop and provided a link. When a second person chimed in that they too remembered that video, we see that there was a common awareness of the YouTube series. In a long meandering thread about the effects of burnout when working as a taxidermist, user

Tanglewood Taxidermy recounted watching one of Graslie's videos about taxidermists and became so inspired that they retrieved their supplies and parakeet specimen. Then, in a thread that proposed a crowdfunding campaign to create a monument for famed museum taxidermist Carl Akeley, The Brain Scoop was mentioned because the hyena diorama (also mentioned in Chapter Seven) was originally an Akeley creation. While none of these posts were about museology (as some posts in other episodes were) we can still see that The Brain Scoop and The Field Museum had relevance to this shared-interest community. We can also see from the monument campaign that the community valued museum specimens, as the majority of funding for the monument was from the Taxidermy.net community

Figure 8.27 Conversation about The Brain Scoop and Graslie's skills on Taxidermy.net

There are also threads devoted to Graslie and The Brain Scoop in which her taxidermist fans praised the content in the videos as well as her skills as host. The most significant of these threads was about her visit to the World Taxidermy Championship where she filmed content for The Brain Scoop. In addition to a link to the video itself, user *PA* began the thread sharing their experience meeting Graslie. By posting the link, we can assume that *PA* was pleased with the content, though they also say that they "[ran] into her in the lobby and quizzed her about when she thought the "brainscoop", or properly terms "brain spoon" actually began appearing in taxidermy catalogues - actually I teased her a bit about it". The replies praised Graslie; they praised her personality, described her as fun, and shared that they were looking forward to subsequent videos. Two replies specifically demonstrated that they believed Graslie to be authentic, "She does understand taxidermy well," (post #10) while another says that she is respectful. We can assume that these two later comments were high praise from this topic-based community.

Figure 8.28 Conversation praising Graslie in interview on Taxidermy.net

But did they know that Graslie is, in fact, familiar with Taxidermy.net's discussions of The Brain Scoop? While she knew that the community had parallel interests, and was aware that she is discussed, she noted that she has no direct involvement (Graslie, 2018). Regardless, user *Kerby Ross* still attempted to pass on a message that [she] "DID GREAT!".
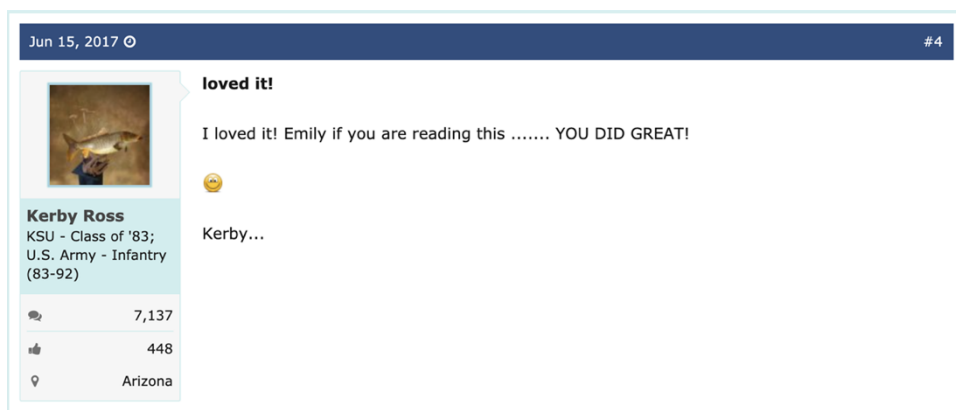
Figure 8.29 Post speaking to Graslie directly on Taxidermy.net

While the mentions of The Brain Scoop were occasional and did not form a narrative arc on the Taxidermy.net site, the takeaway is that Graslie's YouTube channel was something that the Taxidermy.net users occasionally referenced and had on their minds. Interactions with museums need not be discrete instances nor the focus of conversation. Instead, this community offered their respect. By contrast, the next episode offers anything but respect, as we cross into the contentious world of 4chan.

8.4 Platform: Imageboards

While the third and final platform examined is a notorious imageboard with extensive comment sections called 4chan, it defies clear characterization. This platform is not social media (users are anonymous and without profiles), nor a forum (there are multiple topics), nor a video hosting platform. It is aligned with social news (multiple topics) but lacks a standard ranking system. In the episode below, 4chan acted as a chaotic comment section informally accompanying a live-streaming video broadcast from The Museum of the Moving Image (MOMI).

4chan is one of the most impactful generators of online content and its users are often the source of famous internet memes and culture. But it is also known as 'one of the darkest corners of the internet' and commonly features hate speech, pornography, trolling, and doxxing. Structurally, 4chan is an imageboard site built on top of a discussion bulletin board model but what set it apart was the freedom granted to users. The platform kept users anonymous, threads were removed as time passed, and there was little to no moderation, all of which led it to become a gathering place and cover for internet-culture-inclined alt-right agitators, members of fringe political groups, and contentious content. The only feature on each post that could trace a user back to the actual person typing was a flag of the nation where their IP is located, though this was usually circumvented by using proxy servers which bounce the IPs through multiple nations (making the flags effectively useless). Unlike other social media and news sites, there was no like or upvote feature; instead, the way people received validation and interaction was through replies, which meant that users were encouraged to write inflammatory and controversial posts to gain attention. One of 4chan's most popular subcommunities was "/pol/", which mocks political forums by being a purposefully politically incorrect space with 'distasteful' content and controversial ideologies, even by 4chan's lax standards. This subcommunity is known for conducting internet raids that disrupted other websites and their communities from a content perspective, which were evidenced by links to external targets and vague calls to action such as "you know what to do". The threads then became aggregation points with screenshots of the target's reaction, which is what would soon happen to The Museum of the Moving Image.

8.4.1. Community for the Alt-Right on 4chan's pol

Prior to delving into the episode about the imageboard 4chan, it is first necessary to remind ourselves of the chronology that led the museum to embrace the internet in such novel ways: Chapter Five discussed the history of the institution and how Executive Director Goodman was open to unconventional partnerships; Chapter Six explored the staff's understanding of Web culture; and Chapter Seven recounted the success of two internet-themed exhibitions. After demonstrating the success of these exhibitions as proof-of-concept in Chapter Seven, this episode, here in Chapter Eight, first introduces an alt-right 'fan' community and then shares an episode in which a third internet-inspired installation was displayed at the museum to coincide with political turmoil, which led to 4chan co-opting the live video feed, confronting the museum on its physical premises, and eclipsing the artists' intent.

Political news and specifically the American 'alt-right' (far right, white nationalist) online communities have raised their online profile significantly in the past few years. These communities bring nearly unparalleled emotion to politics and have emerged as an unlikely fan group. The broadcast of "He Will Not Divide Us" at The Museum of the Moving Image and the corresponding discussion on 4chan's "/pol/" message board brought this new fan group into the public for the first time.

News fandom explains fans with emotional relationships to specific news programmes, characters, and journalists. The fans are interested in stories with obvious and direct civic content, and have emotion, enthusiasm, and excitement for the news media and their fandom, which parallels news shows that have a confusing mix of rationality and emotions (i.e., political rallies as fan events). In the worst scenario, news programmes that use personal and

deeply emotional appeals, repeated outbursts and crude statements can attract fans looking to adopt pre-formed positions, seek reaffirmation of their beliefs, and find a community in which they belong (Gray, 2017). In the context of the current rise of extreme political partisanship, this manifests as oppositional fandom or anti-fandom, whose position is to oppose an ideology or to promote a negative view without restraint, such as racism and the promotion of white power (Lopez & Lopez, 2017; Sandvoss 2017; Baym, 2018).

Supporters who exhibit these qualities are typically those who affiliated with Donald Trump, who first became a fan object as a pop-culture icon and later converted his fame into political capital:

> The textuality of Trump-the-candidate was that typical of a fan object: intertextual, mediated, polysemic. His campaign persona in the Republican primaries was based on his performance as the host of *The Apprentice* (which in turn is based on Trump's previous media appearances and self-branding efforts). Like popular fan objects in sports, Trump sought tirelessly to brand himself under a banner of "success", inviting a self-reflective affective bond with his fans who were left to color in the then-still-substantive ideological blanks according to their own, often diverging, beliefs and convictions. And many had no hesitation in calling themselves a "fan" of their preferred candidate. (Sandvoss, 2017: 21)

Furthermore, news outlets, seeing the fanlike behaviour at campaign events, also adopted the term fan to describe supporters. By describing all these people as fans, scholars and writers can draw conclusions including that fandom has contributed to the erosion of rationality and civility in American politics and connect the rise of Donald Trump with the timeline of toxic

fandom, while also understanding that fan "dust ups" might represent larger social conflicts (Sandvoss, 2017; Schulman, 2019).

In 2016, an artist collaborative created an installation titled *He Will Not Divide Us*. While the work itself did not announce a political affiliation, it attracted the alt-right news fandom when exhibited at The Museum of the Moving Image. While this episode, explained in detail below, followed months of political campaigning and 'fannish' activity, it was the first time that online fan communities made themselves very visible during Trump's presidency. In speaking about how artists refer to their fans, Nancy Baym explained that an artist needs to decide how exposed they will be to their fans since online fandoms and social media can enable unprecedented contact (as opposed to the physical barriers of stages, backstage). An artist in the public, she explained, encourages a fandom to be more direct (Baym, 2018). We will see these behaviours exhibited in this episode.

Some of the forum content that follows can be difficult to read, but that makes it no less important than content which is more light-hearted. Understanding the rise of the online alt-right and being able to pinpoint one of the very first moments when its members made themselves publicly visible contributes to an understanding of recent American history, especially as the alt-right and their disruptive actions became more prevalent in the years after 2017 (when the events detailed below occurred). This research makes the case that it is important to assemble this information - and to even revive events - when there is something to be learned from the perspective of imageboard users.

On 11 November 2016, four days after the United States elected Donald Trump to the presidency, the artistic team of Shia LaBeouf, Nastja Säde Rönkkö, and Luke Turner registered the domain "HeWillNotDivide.Us" (Bernstein, 2017; DenHoed, 2017) and searched for a publicly accessible art space to host their forthcoming artwork of a single security camera embedded into an exterior wall with four lines of large black text above the camera which read "He Will Not Divide Us". This phrase was both the name of the work and the mantra that the artists hoped would be chanted into the camera 24 hours a day, seven days a week, for the four-year term of Trump's presidency while being live-streamed onto HeWillNotDivide.Us (Bernstein, 2017; Broderick, 2017; DenHoed, 2017). On 6 January 2017, The Museum of the Moving Image agreed to host the politically charged installation for all four years (Bernstein, 2017; Kawamoto, 2019). The museum's medium size and location in a mixed residential and commercial neighbourhood seemed to provide the flexibility for the exhibition to be arranged quickly and the combination of performance art and web-based output appeared to be a good match. But just in case, as part of the final negotiations just two weeks prior to the opening, the artists and museum staff agreed upon conditions in which the Museum could end the exhibition: the final contract included the phrase "MOMI may, due to forces beyond MOMI's control, be required to close the installation" (Bernstein, 2017). Furthermore, before the installation was put in place, Goodman received permission from the museum's board and approval from the local member of the city council and the head of New York City's Department of Cultural Affairs. He had even called the local congressperson to alert them: "We're going to do this. And it may be interpreted as political" (Goodman, 2017: 1:32:38-1:32:42).

Figure 8.30 Back lot and wall where the camera was mounted at the Museum of the Moving Image. Photo by Author.

Yet, even with this precaution, the concept of this exhibition was exciting. It was current. It was, as *We Tripped El Hadji Diouf* and *Reaction GIF* had done prior, transversing the physical and digital world in new ways. Goodman knew all of this:

The piece for me was 'What if you had a chat room that was actually a physical space, and everyone was in it that the people that go off into their own corners into their own bubbles and pat each other on the back and create their own enemies?' But what if everyone was forced, - was invited - to share the same space that would broadcast out to

the whole world in broadband video. And what would happen? (Goodman, 2017: 1:24:52-1:25:20)

On 20 January, just hours before Donald Trump was inaugurated, the museum opened the area (Bernstein, 2017). For the first few hours, American actor Jaden Smith and artist LaBoeuf began the chanting session (Eppink, 2018a). It is important to note that LaBeouf's fame began as an awkward child star on a family friendly Disney-produced television show before turning to a series of eccentric performance art pieces and popular but not particularly well-reviewed blockbuster movies. That, coupled with a series of bizarre actions, had caused him to be generally disliked and to become a focus of ridicule across internet communities. After a few hours of Smith and LaBeouf chanting, a crowd of students from the local arts high school arrived to meet the celebrities and to be seen on the livestream; an older man arrived with a guitar (Bernstein, 2017; Eppink, 2018a). But while the artists said they intended to create unity, they instead instigated a place of division within hours as the participants shifted from local students to users of the website 4chan, which had an ongoing pursuit of LaBeouf. By nightfall on the first day, *HeWillNotDivideUs* livestream had been shared on 4chan's /pol/ and other alt-right online communities, where isolated and ostracized viewers organized a coordinated campaign to disrupt the artwork both online and in-person.

The museum staff had to make sense of the situation as it unfolded, tracking the multi-layered landscape, and eventually made judgment calls to determine when it was appropriate to intervene. The staff recognized three concurrent layers: 1. the online community space, 2. the physical space, and 3. the viewer's space. But, as Tomoko Kawamoto, Director of Public Information, explained, "it was hard to know if these people were who they said they were"

and where the spaces were intersecting (Kawamoto, 2019: 18:26-18:30). In an article published months later, Alex Lockwood divided the events that followed according to five discourses: 1. Trump's acerbic politically-hegemonic discourse, 2. the social-artistic discourse of LaBeouf, Rönkkö, and Turner, 3. the media-celebrity discourse surrounding the project, 4. the counter-resistant discourse of the protesters and, 5. the institutional discourse from The Museum of the Moving Image (Lockwood, 2017). Borrowing from the above framework, this research primarily focused on the social-artistic discourse, the counter-resistant discourse, and the institutional discourse to review the comments made in /pol/ and the conversation that straddled the online-onsite experience. As people participated in the social-artistic discourse, the counter-resistant discourse emerged on 4chan as a disruption to the artwork, eventually becoming "volatile and dangerous which prompts the museum to intervene with institutional discourse." (Lockwood, 2017). These structures are helpful, but as Kawamoto alluded to regarding the layers, while these divisions appear distinct, in reality, there was much overlap and obscuring of who individuals were and the roles they played. Lockwood's generalization of protestors did not consider the online forums where these people were initially gathering and getting their "marching orders" (Lockwood, 2017). Furthermore, to understand the entire situation, it is necessary to recognize who owned each of the layers: The HeWillNotDivide.Us livestream and a YouTube's page belonged to the artists, the physical space belonged to the museum, and 4chan was owned by an internet entrepreneur. This divide of owned 'channels' was either not apparent or wholly ignored by viewers, participants, and commenters, who used all these digital forums somewhat interchangeably to voice their opinions.

The thread on 4chan's /pol/ began with a link to the artwork and offered a brief description, noting that the two oft-mocked celebrities were onsite and on camera and questioned how

long the artwork would last. It was unclear if the original poster knew the artwork was supposed to be there for four years, but as is common with /pol/, they offered vague calls to action and "how long do you think they will keep this up?" would likely have been understood as a call to be disruptive until the art was removed.

Figure 8.31 Early call to action on 4chan

The posts that followed minutes later mocked the actors using the heavily coded jargon of 4chan. Below, we see one viewer was laughing so much that they are now "ded" (dead) and a second user wants LaBoeuf to "rip" which can either mean to fail or to die. In the context of 4chan, this is a mild reaction. In both cases, the use of lowercase and the lack of punctuation shows attitude and even passive aggression (McCullogh, 2019).

Figure 8.32 Post mocking actors on 4chan

After the initial reactions to LaBoeuf, the users quickly shifted to being rowdy and disruptive. One user cleverly posted lines of dialogue in all-capitals from the popular American television program *SpongeBob SquarePants* episode about protesting as a typographical form of loud disruption (McCullogh, 2019).

Then, just ten minutes after the initial post, the conversation shifted to racist terminology, including slurs for people of African descent and Jews. These words were used to describe the participants seen on the livestream, including LaBoeuf. Next, the commenters began to reference alt- and far-right conspiracy theories. These conversations were heavily coded and may have appeared to be disruptive nonsense, but they referenced popular conspiracies, namely one where a network of American democrats operated a paedophilia ring headquartered in a pizza store. When an on-site participant held up a sign to the livestream, some 4chan users wondered if people in the 4chan conversation are actually onsite; one user plainly asked, "is he one of us?". When the alt-right symbol Pepe The Frog was displayed over LaBoeuf's shoulder, the 4chan users took this as a shibboleth and responded with glee that their people had "infiltrated" and "taken over". As symbols and signs were held up to the screen, there was a further breakdown of dual-digitalism (the concept that the online and offline worlds are separate entities) and it became nearly impossible to delineate between what was the internet and what was not. This breakdown, according to Eppink, was one of the most significant aspects of this project, "before [this], 4chan communities, if they had ever been in public, they'd anonymize themselves" (Eppink, 2018b: 8:458:51).

Once the 4chan readers recognized that the onsite and online layers converged, they began providing suggestions for those seen on the livestream (i.e., displaying signage with Holocaust denial slogans), lamenting that they wished they could travel to the museum, and

in one case announced that they were immediately going to the museum to participate. In later conversations in the following days, people in the comment section confirmed that they had been or were going back onsite, showing a two-way communication channel. While the majority of posts on 4chan and phrases being said into the livestream were racist and turbulent, there were still references to the divisiveness of American politics: a 4chan user described an individual who said, "Trump won't forget the working class like the democrats did" and calls him "a god".
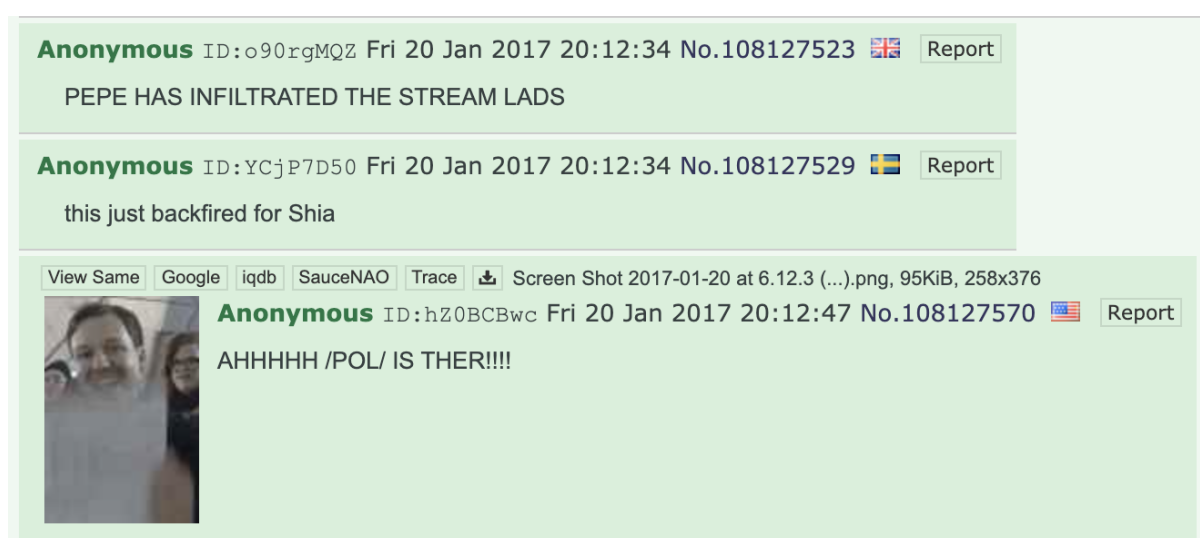
Figure 8.33 Post confirming that users were seen via livestream and screenshot on 4chan

During one of these early threads, Eppink identified 4chan as the main place where people were congregating online. Each night, he read the 4chan posts and offshoot private chat rooms where he had gained access and watched the livestream. But at that point he thought,

> It [wasn't] like actually dangerous, right? It was a group of people participating in bad faith trying to troll [LaBoeuf]. [...] [It was the] alt-right or sort of 'trolls' that would come out and be really rowdy throughout the night on weekends, [the] weeknights were not that bad. (Eppink, 2018b: 15:08-16:30)

As attuned to the situation as Eppink was, other internet theorists might not have written off these people as internet trolls. As evidenced in this situation, it became clear that the people who would have been labelled trolls for their disruption were also racist and antisemitic; Reagle recognized this in his analysis of "the bottom half of the web", affirming that the "lone mischievous *troll* who attempted to start up trouble is now part of a larger culture, and the classic flame wars from before the Web now look harmless with the arrival of *bullies* and *haters*" (Reagle, 2015) and by extension, the racists and antisemites.

Over the first weekend, (21 and 22 January), 4chan had multiple concurrent threads about the livestream (Broderick, 2017) while the number of people visiting the camera increased. As the installation site became tenser, the language used on the forums and words said into the camera echoed each other; while some people screamed the desired "He Will Not Divide Us" phrase, others replied with right-wing buzzwords, such as "alternative facts", "just apologize to the world", and "Remove the roaches!" (DenHoed, 2017).

It became apparent that there was a growing crowd mentality and deindividualism contributing to a loss of self and an abandonment of social norms, as frequently seen with online trolls (Reagle, 2015). In the text-based side of these events, we can attribute some of this to equalization and disinhibition, as the social cues and information that would typically regulate interpersonal exchanges. Simply, as Reagle puts it, people grow emboldened with "Internet balls" (Reagle, 2015: 95). As the in-person events reflected the online events (again, a lack of dual-digitalism), this same lack of inhibition fuelled the people onsite. People played with their own identities and adapting certain characteristics, as one does with online usernames, either becoming more daring in their political opinions or seeking more extreme experiences (Goodman, 2018). When a large group of Trump supporters (identified by their

"MAGA" hats) and white nationalists (identified by clothing with white nationalist phrases "14, 88" and "heil Hitler") formed, museum employees refused them entry into their property (Broderick, 2017). Instead, they attempted to engage museum visitors over the barrier with conversations about the Klu Klux Klan, Nazism, refugees, terrorism, and antisemitic conspiracy theories.

As a response, the artists asked the museum to place signage near the camera forbidding hate speech, but director Goodman decided against installing a sign, telling Buzzfeed "The museum is not in a position to say what is and isn't hate speech and what one is allowed or obligated to do [...] How do you tell a troll from a neo-Nazi?" asked Goodman (Bernstein, 2017). "There were definitely people out here who were seeking their own celebrity and they're trying to amplify their followers by performing in front of us," offered Kawamoto who also noted that the same people would return day after day (2019: 46:14-46:26). At the time, the museum thought they understood the situation, but had not realized that this situation was of unprecedented magnitude, and that this event "really portended what would become." (Eppink, 2018b: 13:59-14:01).

Online, people from all discourses and layers commented on the artists' YouTube page, sent messages, and posted to the museum's social media pages. Kawamoto and Eppink started to 'translate' the conversations and explained them to the staff, and together realized that actual neo-Nazis and "ultra-right-wing types" were there, not just trolls. "That was really troubling to me," admits Kawamoto (2019: 21:07-22:51). Goodman was deeply affected in personal ways by hearing antisemitic phases for the first time from his office window (Goodman, 2018). As disruption increased, neighbours complained, prank callers contacted the museum, and staff realized they were not able to control the situation, the museum decided to add 24-

hour security and discussed bringing the webcam inside, only accessible during open hours. Kawamoto did not elaborate on why this was decided against (Kawamoto, 2019).

Alt-right dog whistles, symbols of white supremacy, and general bizarre behaviour being broadcast on the livestream became increasingly common: children's plush toys were sliced open by masked men, prank pizzas were ordered for delivery, gallons of milk were drunk while people shouted, "an ice-cold glass of pure racism", and Nazi-themed tattoos were shown to the viewers (Bernstein, 2017; Broderick, 2017). Each day, the 4chan conversation became increasingly coded and filled with conspiracy theories. The conspiracies centred around the Clinton political family, an artwork by Marina Abramovic, and various theories that either French science fiction celebrities or Jewish cabals secretly controlled the world. "We did not expect what happened to happen. […] we underestimated the vitriol underlying society that has only grown stronger," noted Goodman (2018: 1:32:50-1:33:19).

While the symbols are dog-whistles, the repugnant language was, in internet terms, "flames". These are typically meant to be hurtful and non-productive when read by the targets of the language or heard by non-4chan people (Reagle, 2015). Yet on this broadcasted live stream, there appeared to be intent to cause others' emotional (or physical) injury. We also see that the 4chan participants both online and onsite felt that they were one multi-platform community, with one user going so far as explicitly saying "I want all of you to know that I feel very united with you right now".

Figure 8.34 Conversation with conspiracy theories, racism, and antisemitism on 4chan

As the time progressed, the people repeatedly appearing on the screen became recognizable

characters and were given names by the community, often referencing physical

characteristics and race alongside pop culture. While 4chan users had always stayed

anonymous before, those who appeared in the livestream - and especially those who indicated

they were from 4chan – also earned crowdsourced nicknames as identifiers. On a neo-Nazi

wiki, users attempted to identify and document all of these people (Broderick 2017). Those

who were able to reference the people on screen with their character name demonstrated their

ability to be part of the action, even if they were not physically at the museum.

At some point, the oft-ignored and rarely used moderators on 4chan attempted to moderate

and censor the conversations to keep some semblance of peace. As a result, some 4chan users

migrated to invite-only, unmoderated Discord and Tinychat rooms (Broderick, 2017) where

they could speak more freely about conspiracies. But many 4chan users stayed and the

conversations continued.

While the museum was not itself a target of the harassment, the webcam visitors were incorporating the institution into their photographs and imagery. In most of the videos, the museum's distinctive white geometric walls were visible (Broderick, 2017)

Yet, despite all the maliciousness, there remained an ongoing conversation about the artwork itself, which was the initial goal of the work. The participants invoked the "He Will Not Divide Us" phrase above the camera and discussed it (as they were supposed to) as well as talked about the people who were chanting the phrase. The artwork, no matter how derogatory the other comments became (below there is a rude mention of people who are neurodiverse), was being an effective provocateur for dialogue (the artists' aims) and for discussing the work itself (the museum's aims).

Figure 8.35 Posts discussing art with conspiracy theories, racism, and antisemitism on 4chan

One week into the installation, the New York Police Department decided the installation needed a constant police presence, the museum hired two additional security guards, staff

stayed on the campus 24-hours a day, and asked the artists to assist (Bernstein, 2017). When

even these mitigations did not improve the situation, the museum realized that the situation

could not continue, and Eppink emailed the artists:

> The city is requiring us to go back to the drawing board on how we're supporting
>
> hewillnotdivide.us [...]I have to be realistic and admit — and I need you to do this too
>
> — that the current situation is untenable, particularly for the tremendous strain it is
>
> putting on our staff and our community. (Bernstein, 2017)

The artists were outraged and believed that this proved the museum was unprepared to handle

visitors and blamed the museum for not providing a larger security team (Bernstein, 2017).

Communications between parties broke down; the museum's lawyer contacted the artists,

explaining if a compromise could not be reached, the museum would be forced to close the

installation. In reply, LaBeouf contacted the American Civil Liberties Union about Executive

Director Carl Goodman and local politicians. On Friday, 10 February, the museum decided,

in consultation with New York City's government, to close the installation and released a

statement which was followed by a statement by the artists blaming the museum (DenHoed,

2017).

The institution then had to manage the aftermath of the situation. They would eventually hire

a public relations firm with a specialty in crisis situations to work with the media. In

retrospect, they admit that they should have considered a much wider visitor experience, no

longer limited to the on-site experience when planning exhibitions, and they have established

a new paradigm of protocols for reviewing exhibition proposals and establishing controlled

environments on social media. While they say they would never do a livestream again, they are not opposed to outdoor exhibitions (Goodman, 2018; Kawamoto, 2019).

While the staff interviewed said that museums should take a stand against evil, they also explained that it was difficult to do so in the moment, in the midst of an emergency. Afterwards, some interviewees admitted that they had not come to terms with what happened - on site or online - and they recognized that there are some people who still hold a grudge against the institution since they were not "championing the artists" (Kawamoto, 2019).

Recounting how the events unfolded, the staff repeatedly indicated the installation's gravity and effect on the wider world. Eppink chose to use the word "traumatic" to describe his personal experience, but shifting back to his professional perspective he, added "I think that's actually why this work is really significant. This is the first work of the Donald Trump era." (Eppink, 2018b: 13:49-13:55). The installation was supposed to be, according to Goodman, "an example of a museum serving, creating something that is accessed and seen and discussed and trashed and beloved by people around the world," but instead, "In a sense [it] dredged up certain aspects of a dangerous societal dynamic that is all too clear to us today" (Goodman, 2018: 1:30:18-1:31:39). Buzzfeed's reporter, who reported on the events as they unfolded, postulated that the public space devoted to free expression had come into contact with the dynamics of the internet, and predicted that *HeWillNotDivideUs* would later be "remembered either as a cautionary tale of what happens when cultural institutions fail to reckon with the dark side of the internet, or the very moment when these institutions started to let the dark side of the internet break them apart." (Bernstein, 2017). Online, it is worth remembering that the disrespectful and distasteful comments are often more awful in severity and scale, and that a negative online experience can feel more potent than the joys of a

positive experience (Reagle, 2015). As awful as this entire situation was, there were two other exhibitions -*We Tripped El Hadji Diouf* and *Reaction GIF*- which included and enabled positive relationships with online communities.

8.5 Conclusion

The episodes in this chapter have revealed that the platform type and the topic of the fandom can greatly affect how participants act and the types of discourse that ensue. This chapter, along with Chapter Seven, has built an image of how wide in scope Expert Web content can be, with multiple landscape of online spaces and a plethora of 'activities' in which to partake, all of which will inform the next Chapter. Chapter Nine looks at all of these episodes and the information provided in Chapter Six by museum staff to understand the nature of the Expert Web.

Chapter Nine:

Exchanges of Information and Negotiations of Control

9.1 Introduction

Throughout the 'episodes' staged in Chapters Seven and Eight, we saw variety within their narratives, with museums displaying similar behaviours when they engaged with their online communities. These narratives and resulting behaviours reflected the types of participants involved, the locations where the events took place, and the content that was shared in each case amongst the participants. Each episode represented something unique and can be a model for how the sector might think about museum and online community interactions going forward. We can usefully divide these narratives into two main categories: *exchanges of information* and *negotiations of control*. We can further divide these categories to understand their relationships and dynamics, which can then be matched to specific platforms, institutions, and episodes:

Platform Type		Exchanges of Information		Negotiations of Control			
		Transactional	Dialogic	People	Property	Process	Place
Popular	Social News		The MIT Museum & Reddit's Mechanical GIF				
		The Museum of the Moving Image & Reddit's Reaction GIF					
	Video Sites				The Field Museum & YouTube's The Brain Scoop		
		The Strong Museum of Play & Twitch					
Community-Created	Web Portal			The New York Botanical Garden & Zooniverse			
	Forums		The MIT Museum & The Wooden Boat Forum				
						The Strong Museum of Play & My Little Pony	
		The Field Museum & Taxidermy.net					
	Imageboards						The Museum of the Moving Image & 4chan

Figure 9.1 Exchanges of Information and Negotiations of Control Framework

In these 'exchanges of information', the museums are in their typical comfort zones as arbitrators of information; the research in this study shows that these exchanges are either *transactional* or *dialogic*. As we shall see, in *transactional* exchanges, museums take active roles by identifying communities and initiating contact with whom they can exchange discrete information. Evidence indicates that they are motivated to either share information about their collections or to receive information to make their exhibitions more informative, both of which behove the museum and centre the museum in the conversation. By contrast, in the *dialogic* exchanges, we will see that online communities are collecting information (in comment threads) which is then negotiated amongst participants showing the thinking and learning of the group and centring their own experiences. Since it is the online communities that are taking the active roles and structuring the conversations with their own initiating 'seed' posts, museums take a passive, and often observational, role.

In 'negotiations of control', the discussion here shows that institutions and their online communities each attempt to influence and exert power over people, property, processes, and places. Institutions will attempt to limit the online presence of individuals or corral individuals to act in approved ways to remain in control, which works against online culture. The online communities will then decide how to act in response and, if they so choose, attempt to exert their authority and negotiate power. It is these insights into how museums and communities behave and act in these online environments that, when considered alongside the specific institutions and the nature of platforms being used, we can unravel the motivations that drive each community and see patterns which the sector could use to anticipate the nature of future interactions.

9.2 Exchanges of Information

In the physical world, museums are transactional; in other words, they attract attention and visitors by offering the ability to purchase a ticket in exchange for the ability to enter a space and learn about the collection (Pan et al., 2016; Hegley et al., 2018). Online, we see similar transactions in which the museums and online community members either become senders or receivers of goods (the information) and services (the exchange).

9.2.1. Transactional

Museums take active roles and make their presence known in transactional situations. They are present when they identify and introduce themselves and have a visible staff member who is interacting with the public and positioning themselves as a public liaison from the institution to the community. In both the Reaction GIF episode at The Museum of the Moving Image and the Twitch episode at The Strong Museum of Play (both in more detail below), the visible staff members were both curators. This is not entirely surprising as curators are typically the people who are driving the institutional narratives with specific research goals. As described in Chapter Six, curators feel comfortable and confident interacting with people who also are knowledgeable about their subject matter. Both curators at The Museum of the Moving Image and The Strong Museum of Play were personally gregarious and shared their enjoyment of communicating with people of similar interests. As we shall see, these qualities appear to manifest into taking an active and transactional role in online communities and planning outreach methods with the Expert Web.

The Strong Museum of Play and its Curator of Digital Games, Andrew Borman, had transactional exchanges with their Twitch community: Borman was the sender, the game preservation fandom were the receivers, the information exchanged about the games was the goods, and the entertaining manner in which the information is delivered was the service. Borman took an active role by disseminating information, which could then be extended to The Strong Museum of Play.

Borman entered the transaction on behalf of the museum. While he explained that he was given the freedom to "just [talk] to people online" (Borman, 2018: 11:26-11:28), his active role had a strategy and a method. He decided what information he was disseminating, scheduled the livestreams, and became the public face (quite literally on this video platform) of the institution. Borman's role as host and 'sender' in the transaction was so clear that when he took parental leave from the museum, the Twitch channel became dormant until his return, rather than another staff person even temporarily taking his place. Yet part of his success in this transaction was from his past as a non-institutionally affiliated sender and receiver in the game preservation community. As noted in Chapters Six and Seven, "it's still me [...] I still have the same or very similar conversations that I would have had prior to being at the museum" (Borman, 2018: 17:10-17:25). And because he was still a community member, the community accepted him as an institutional 'sender' in these transactions.

The fandom for game preservation that was watching the livestream, became the receivers of the goods and services Borman provided. As noted in Chapter Seven, the gamer community's primary motivation to watch Twitch is the exchange of information (Dux, 2018), and the preservationist community believes that preservation work and learning about past games is

their responsibility, and thus we saw them being receptive to receiving Borman's goods (the information) in these transactions.

Transactional relationships are built into the Twitch platform, so much so that broadcasters who monetize their channels and accept tips are called "Twitch-preneurs". As described in one review of Twitch's new "behavioural economics":

> [A]nonymous viewers, who receive virtually no tangible returns for their donations, reveals a complex psychological culture behind the blossoming platform. By connecting with viewers, these self-starters have persuaded a fanbase who could just as easily watch for free to pay for their time. (Rubenstein, 2018)

These non-tangible returns are entertainment, information, and the ability to feel that they are part of the broadcaster's world, especially when the broadcasters mention the donors by name. While The Strong Museum of Play did not accept financial contributions from viewers on the platform, using the platform to exchange information (goods) and provide entertaining commentary (services) kept the museum aligned with the Twitch community at large and made the viewers more aware of the museum and its collection.

On Reddit, in The Museum of the Moving Image and Reaction GIF episode, we also saw a transactional relationship, but the roles were switched when the curator became the receiver and the community became the sender of information (the goods). As detailed in Chapter Seven, Curator of Digital Media Jason Eppink first contacted the moderator of the subreddit and then wrote a seed post asking for help, positioning himself as the receiver of information while retaining an active role.

In his post, Eppink identified himself as a curator at the museum, marking himself as the public face of the institution and setting the direction of the conversation by asking for information (the goods) from the community. His willingness to relinquish control proved that he recognised and acknowledged that the information (goods) he needed was not something he currently had and that the information 'senders' should have been the "experts [who have] have something to offer" (Eppink, 2018a: 1:01:18-1:01:21). The community took kindly to this transaction, replying with GIFs, descriptions, links, and commentary, and referred to Eppink as a "friend" within the context of the subreddit. The people who replied with information became the senders of the information within these transactions. These senders, Eppink believed, were willing to respond because they were treated with respect.

Eppink's role in identifying himself and asking for input made The Museum of the Moving Image an active participant in this initial thread and again months later when he invited contributors to visit the exhibition, where he entered into the active role. But, when Eppink and the museum did not continue these relationships, we saw the museum lose its status as an active participant. As Goodman noted in Chapter Seven, this was a failing of the institution and it appeared that he would have preferred to have the institution remain in this active role.

In the transactional exchanges, the comments make it clear that the participants in the online communities understood the transactional nature of the interactions and were comfortable with the museums driving the interactions. In the case of Reaction GIF, participants were willing to provide their favourite GIF and on Twitch, participants understood that Borman was supported with institutional authority and would be providing them with information in the live streams. Both Eppink and Borman appeared to be satisfied with their respective

levels of engagement. This institutional satisfaction parallels both communities' satisfaction, who demonstrated their willingness to participate by leaving comments as thread replies or within the chats and articulated their appreciation for the interactions.).

This enjoyment, evident in both communities and with the curators, might reflect the limited size of the communities. Only a handful of subscribers responded to the request for input for the Reaction GIF request and Borman noted that his regular audience was roughly 15 people. Clay Shirky explains that in online communities intimacy does not scale and that comment sections can be only two of the following three: good, big, or cheap. But, if treated like community members, smaller size online spaces will have better conversations (Shirky, 2008; Shirky, 2010; Reagle, 2015). The relatively small online communities in these two episodes retained their intimacy and social elements, further confirming that these spaces are fandoms, even when a transaction was added by the respective museums.

9.2.2 Dialogic

In recent years, museums have tried to be more dialogic by inviting wider arrays of people to visit and offer their voices to the curatorial narratives. This is indicative of cultural shifts which also affected (or perhaps were because of) the internet. The ability to add one's own perspective is something that became commonplace online, as social networking and social media emerged and virtual discussions became standard (Shirky, 2008; Shirky, 2010). Exchanges of information that are dialogic have virtual socialization with participants debating ideas and considering the perspectives of others. The dialogues are comprised of individual comments written by the online community participants and together show the thinking and learning of the group. The dialogue becomes a space for social thinking

amongst the community and a written record of the evolution of group thought. But these dialogic exchanges of information can be messier than the transactional exchanges discussed above. The senders and receivers of information change with each reply and it is not as clear when information is correct, incorrect, complete, or incomplete as the arbiters are the participants themselves rather than an institution or institutional representative. As a result, we see through the episodes reviewed in Chapters Seven and Eight, the museums are less comfortable engaging in these spaces.

In these dialogic exchanges of information, the individuals and the communities centre their experiences. This means that the museums, while mentioned and discussed, can become one of many subtopics and not the primary focus of the community. This can make museum staff feel uncomfortable, unsure how to join in the conversations or know if it is even their place to do so. For example, in Chapter Five, Daryl McCurdy, Curatorial Associate, Architecture and Design, said that museums would need a "level of bravery" to participate and her employer (The MIT Museum) was not prepared for that. Consequently, some museums elect to take exclusively observational roles. However, being comfortable taking a 'backseat' is also a risk. As Associate Vice President for Exhibitions and Public Engagement Karen Daubmann explained:

> I think that we should be more a part of the dialogue. I think that [we are] thought of as a sort of dusty, crusty, archival institution rather than a living, vibrant institution. (Daubmann, 2017: 20:06-20:30)

In addition, more than just being uncomfortable, taking this passive role gives the appearance that the institutions do not want to have dialogic exchanges with certain communities. Yet, a

deeper look reveals a more complex picture. If we know where to look, past the communications staff and onto the outreach personnel, we see instances where the museums are, in fact, present as observers. In these situations, they are not active parts of the conversations, they do not announce themselves (as curators do in transactional conversations), and they do not reroute the conversations to be about the museums.

It is perhaps fitting that the outreach staff is present in these dialogic exchanges of information: they are personally interested in the subject matter, know enough information to participate in content-based conversations, and know where to find topical information online because they have perused these online spaces at their leisure. We find these outreach observers in two of our 'episodes', where museum employees were given online freedom and autonomy: Taxidermy.net at the Field Museum and Reddit's Mechanical GIF at The MIT Museum. A third dialogic exchange of information can be found in the episode regarding The Wooden Boat Forum, but The MIT Museum appears to be unaware, demonstrating that there are layers of complexities regarding awareness and that online freedom and autonomy may be less important than individuals' desires to participate.

On Taxidermy.net's forum, we saw this online community discussing The Brain Scoop. The dialogic exchanges on the Taxidermy.net forums were written by taxidermy fans (described in Chapter Eight) who have historically been physically distanced from each other yet very socially engaged through competitions and conventions. This combination of factors had contributed to their embrace of the Web to form closer ties in virtual spaces; we saw them building relationships with each other in the comments in real-time. The conversations and posts by individuals on the forum provided insight into the types of taxidermists who are attracted to this Website: the majority appeared to be traditional taxidermists, with rogue

taxidermists and museum taxidermists also taking part. The variety of taxidermists and their variety of perspectives contribute to the dialogic exchanges; they negotiate ideas and continuously inform each other within their comments.

The community participants seem to have inconsistent knowledge of museums. Yet it is in these same conversations that we also see the dialogic exchange of knowledge about museums; participants build upon each other's posts to construct dialogues about museum administration, museum audiences, and specimens with participants responding in linear threads, building information, recounting personal experiences, with some participants sharing that they are learning new information. The written product (the dialogue itself) becomes a document showing the evolution of the thinking in the group.

Some of the dialogue mentioned The Brain Scoop and its host Emily Graslie within wider conversations or in a few dedicated threads. In some of these cases, forum participants mention Graslie and The Brain Scoop in the third person, while other times, Graslie was addressed directly in the dialogue. In these instances, we can extrapolate that some forum participants believed that Graslie and the museum might be present. But there was no evidence on the Taxidermy.net forum of any institutional involvement at all. It is true that Graslie was very much aware of this forum and knows that the community has parallel interests to her own (it was Graslie herself who mentioned this forum during her interview for this research), so it is also true that through her affiliation with The Field Museum the institution was aware of this forum. But her awareness with only occasional passive observation and no active posting created a disconnect. She explained, "in general, I'm just not always aware of what people are saying, which I think is fine" (Graslie, 19:25-19:30). Her personal decision to focus on the comment sections of YouTube (discussed later in this

chapter) and her personal Twitter account meant that the institution was present through her eyes, but by choosing not to create posts in the Taxidermy.net community, the institution stayed passive.

While we saw the taxidermy community responded to content posted online by The Field Museum, Reddit's Mechanical GIF community affords us another perspective in which a visitor had posted a video online of an artwork at The MIT Museum and the community responded.

Reddit's Mechanical GIF threads about The MIT Museum was particularly dialogic. The participating fans of math and science (described in Chapter Seven) are the people who were participating in and directing the dialogue. They collectively - through comments which form a dialogue - built exchanges of information about clever math, clever jokes, mathematical explanations, and close-looking. In each, multiple participants shared informational comments and constructed complex threads of dialogue and described complex mathematical concepts in long, detailed explanations for the benefit of other readers. Especially when participants asked for clarifications, we saw the dialogue show the thinking and learnings of the collective group.

When participants provided identifications, information about artworks, direct links to their collections page, and described visiting (or intent to visit) The MIT Museum, it was clear that the community was aware of The MIT Museum and was comfortable talking about the institution. The participants continuously informed each other through long-threaded conversations and negotiated the information presented about the artwork and about the museum. The MIT Museum was present in the conversation because the participants brought

the museum into the dialogue. But the participants always talked about the museum as a separate entity; they do not speak to the museum or assume that the museum's staff was present.

This, again, creates a disconnect, as the museum's staff was actually present in this dialogue. As outlined in Chapters Six and Seven, the museum's outreach staff, and specifically Ben Wiehe, Manager, Science Festival Alliance, read this dialogue as it was forming. He even told his colleagues about it. But none of them, it appeared, took an active role in the conversation. They instead elected to take passive roles as observers.

The Wooden Boat Forum was comprised of dialogic exchanges of knowledge amongst boat fans. We saw the participants here commenting and creating dialogues about the history of boats and how to build them, which kept in line with the research by Jalais (cited in Chapter Eight) which discussed online boat forums contributing to the exchange of "minute and subjective detail" and the sociality amongst participants. Specifically, Jalais discussed that these communities have "issue - or problem-oriented discussions on the web" and that their fandom engages in their practice socially (Jalais, 2006), both of which contributed to the dialogue seen on The Wooden Boat Forum.

Regarding The MIT Museum, the institution was mentioned when it could solve a problem being discussed in the dialogue. The MIT Museum became a resource for knowledge (or a lack thereof, depending on the exact conversation) as it is invoked repeatedly. Interestingly, and as a comparison, the semi-frequent invocation of The MIT Museum and its organic establishment of becoming a resource for the community was what Borman articulated as an institutional goal for The Strong Museum of Play. As the participants discussed The MIT

Museum and its collection, even going so far as citing specific objects, the museum was absolutely present in the minds of those writing the comments. Also, seemingly present was curator Hasselbalch, whose name and contact information were posted in the comments many times. The community was aware of the museum and perceived the museum as present while participants encouraged each other to actively engage with the institution. Yet, it seemed that the community simultaneously knew that the museum was not actually participating and present themselves. We know this since there were no direct references to museum staff, no asides asking, "if the [museum] is here" (as seen in some posts related to The Field Museum and The Brain Scoop), and no direct evidence that the better way to contact the institution was via phone or email.

As explored in the previous chapters, this research suggests that the museum staff at The MIT Museum were neither participating in these online communities, nor did they even have prior knowledge of them. Thus, the museum and its staff was clearly not active, let alone engaged in the community. The museum was not actively engaged nor passively observant. When alerted to their presence in the forum, staff had a variety of perspectives. At one end of the spectrum, curator Hasselbalch questioned whether it was the museum's place to be involved in online communities (Hasselbalch, 2018). At the other end of the spectrum, Communications Officer Martha Davis knew that it was her responsibility to spread the word about the new boat exhibition and collections portal and that she needed to reach the niche community of people interested in boats. But she also knew that Hasselbalch was not "a social media person so he's not going to be able to advise me or invite me [to any online communities]" (Martha Davis, 2018: 38:16-38:28). As neither knew about The Wooden Boat Forum prior to this research, they used traditional social media to advertise the new

exhibition and online portal, and became aware of the forum during their interviews for this research but was neither present, active, nor observational.

Both transactional and dialogic exchanges of knowledge put the shared content as the primary driver of the communities' existence and the individuals' continued engagement. With a focus on content, museums and their information are highly prized, consistent with their orthodox comfort zones. Within this context, they can choose to be either active participants centred in the action (transactional) or passive observers (dialogic). In the former, sharing information centres the museum in conversation, able to prioritise their own needs, and reap the benefits of engaging with small, intimate fandoms. In the latter, the online communities structure the conversations, without the museums deciding the goals or objectives and instead may have indirect benefits through observation.

9.3 Negotiations of Control

While museums were active during transactional exchanges of knowledge and passive in dialogic exchanges of knowledge, they all took active roles when attempting to control a situation, even if their claims were tenuous. We see this through the four episodes with online communities in which institutions attempted to direct events, influenced their staff, and even took legal action. While museums can remain a dominant force in their own online and offline spaces, their right and ability to influence spaces that they do not own and to control the actions of unaffiliated individuals became more difficult. In these episodes, the online communities had as much power as the institutions. The institutions confronted this reality and decided how to proceed, no matter how tense the situation became. In each episode that follows, the museums were active participants (the people) who either initiated the episode or

adjusted their actions in response to actions initiated by the communities (the processes) online (the places). This structure built upon and adapted Baym's description of musicians determining participatory boundaries as they negotiate control, identity, and participation (Baym, 2018).

The following sections examine the negotiations that occurred, with each side vying for control. The research asks who was involved and what they valued, the extent of communications among the parties, the expectations of the parties, the appearance or absence of any agreement, how influence was leveraged, and if there was a solution or a continued conflict.

9.3.1 People

In a negotiation of control amongst people, we see that an institution wishes to exert its influence and manage the actions of individuals. The influence and management can proceed in two ways, either urging individuals to have less autonomy and limit their online presence or to corral individuals to participate in highly managed museum-official projects and events. In both cases, the institution remains in control and oversees the messaging. But this does not correspond with the openness of online culture nor what the expert individuals want to do. Thus, the individuals may decide if and how much they wish to defy their affiliated institution and negotiate with the authoritative force within the institution. Or, in other instances, staff members may attempt to rally participants to engage in a museum-affiliated community that is overseen by the institution and subject to its messaging and authority.

In the case of The New York Botanical Garden (NYBG), the negotiations of control in the example shared were about placing limitations on people. Primarily, the institution executives and the staff each wanted the freedom to decide how to interact with online communities and the Expert Web. Evidence pointed to how NYBG adopted an executive-led approach in which executives decided the institutional voice and then the communications department staff was responsible for creating communications protocol and enforcing the executives' decisions. Together, they decided what is broadcast via disembodied institutional messages on social media and established codified social media rules, thereby developing a set of standards for the institution's online interactions. Content Manager Matthew Newman had noted that "[I] don't think the executives are quite comfortable with putting faces up there in that regard" (Newman, 2017: 4:05-4:11). His supervisor, Director of Marketing, Ariel Handelman, corroborated this by communicating that NYBG was not seeking to be a personality. The communication's top-down approach (or command and control approach in business communications) meant that the communications staff members were then tasked with communicating and enforcing both the codified social media rules as well as a series of uncodified rules to their staff.

The establishment and enforcement of social media rules can put the executives and communications staff at odds with the second group: the curatorial (specifically horticultural and exhibitions) staff. It is these people who, as seen in Chapter Six, had a strong passion for plants and were very dedicated to their ability to grow flora. The interviews demonstrated that these people wanted to talk about plants in online communities. But these individuals also knew that following NYBG's codified rules would prevent them from engaging with these communities. As noted in Chapter Six, Primeau spoke of being "painfully aware of the rules that exist for The Garden" (Primeau, 2017: 7:00-7:03).

To understand the power dynamic in these groups of people, and to determine who has control, it would be logical to turn to the institution's organizational structure. But here, job titles may not be a direct analogue of influence and responsibility; for instance, at NYBG a manager in one department appeared to have a higher status than a manager in another, and a vice president in one division appeared to have more authority than a vice president elsewhere in the institution. It appeared that those in charge of institutional voice outranked the individuals and caused friction.

This difference in opinion and intent led to the curatorial and horticultural staff wanting to hold fast to their autonomy by being in charge of their own communications and occasionally defying rules. Yet, they did so with such apprehension that their self-confidence suffered. One staff member explained that they felt demoralised when the institution wanted to strip away individual expertise. Another staff member unsuccessfully attempted to change the opinions of upper management only to be convinced that participation specifically about the institution could potentially become problematic. Their solution had been to post in members-only groups with the hopes that the communications team would look the other way.

In Chapter Two, it was explained that the internet's chat functionality survived because the military leaders in charge of the internet did not really understand the technology that had been created. While the military held the official power, the technologists had the knowledge to create what they wanted and the power to go undetected. We see a similar situation in Chapter Eight's New York Botanical Garden and Zooniverse episode, where Charles Zimmerman led a project that the communications staff did not quite understand. His

recruitment of participants and interactions with them were not overseen by the communications department, with staff explaining their ignorance about the actual goings-on, nonchalantly referencing 'whatever Charles is doing'. It was unclear why exactly he was given more freedom, though it could have been attributed to his position being in the Garden's science division which was granted academic freedom or because its position there was outside of the communications' staff's comfort zone.

Throughout the analysis in Chapter Six and the Zooniverse episode in Chapter Eight, we saw tension amongst the people working at The New York Botanical Garden. This tension, in both chapters, demonstrated a misalignment amongst the knowledge workers (who were participating in or wanted to participate in the Expert Web) and the management workers (who were not horticultural expects and acted in a more administrative capacity). These two groups negotiated what their roles were on behalf of the institution, and what their roles could be as individuals with autonomy online. The institution could attempt to exert influence and tell or suggest appropriate actions to staff, but the staff may defy the institution's wishes.

9.3.2 Process

A negotiation of control regarding process focuses on the ways in which various parties attempt to arrive at a finishing point. If two (or more) parties have different understandings of how to get to that point - or even what that point is - conflict may arise due to vastly different expectations, tools, and outcomes. This situation has strong parallels to the concept of the "plausible promise" in which social tools are provided to an online community for "channelling existing motivation [...] yet achievable enough to inspire confidence", the appearance of these tools becomes "an acceptable bargain with the users" and a reason for

the users to participate. The tools enable the 'how' and the ability to coordinate a large group

of people. The bargain is that if the tools are used and the rules are followed, the desired

result will be achieved (Shirky, 2008: 17-18). But the plausible promise can fall apart entirely

if the institution providing the tools and the bargain do not uphold their end of the promise.

Furthermore, if the institution does not keep up its end of the bargain, but the community is

still motivated and coordinated, the two parties can come into conflict.

In the case of The Strong Museum of Play's negotiation of control, we saw the tools (the

poll) provided and the bargain appeared clear (the poll winner would be entered into The

National Toy Hall of Fame) but even with group motivation and coordination, the desired

result was never achieved. The online community eventually realised that the museum did

not keep its promise because the community and the institution had vastly different

understandings of the process, its intent, and desired result.

In this episode, there were two participating groups in negotiation for control of the situation.

The first group was The Strong Museum of Play which houses The National Toy Hall of

Fame and whose marketing staff organised the poll. They created the poll as a marketing tool

and, ultimately, are in the more authoritative position as it was their sole judgment as to

which toy is inducted into The National Toy Hall of Fame. The second group was the My

Little Pony Arena fans, as described in Chapter Eight, who had moderately strong ties with

each other and saw themselves as a collective (Heljakka, 2017; Baym, 2018). These fans, like

other fan groups, self-organized and saw themselves as an important part of the museum's

constituency who deserve to be recognised by the institution. They believed that they would

be recognised through the poll which included co-curation as part of the process. The My

Little Pony Arena community believed that their community mobilisation effort to form a

voting block gave them influence and power. This is initially confirmed by the community's ongoing monitoring of the poll results where they saw their preferred toy winning. But the actual power was with the decision-makers at The Strong Museum of Play who elected to ignore the poll results and instead choose the toy which they believed was worthy of a spot in The National Toy Hall of Fame.

Unclear communications as well as a lack of direct communications between the two parties contributed heavily to the negotiation – and, in this case, misunderstanding - of control through process. While the poll was accessible to the public, there was no direct communication between the museum and any toy online community whose toy was included in the poll. Similarly, the positive and then negative comments that the My Little Pony Arena community posted in the forum were not sent directly to the museum, though the museum seemed to be aware of the negative feelings.

In this episode, the crux of the negotiation of control and the main source of friction is the process implied by the museum and therefore assumed by the community versus the actual process to select an inductee. When individuals in the online community began to realise that their voice was not taken into account, the participants discussed that their votes might not be included in the process. But most of the community continued to vote anyway, still hoping that these votes would count as their voice and enable them to negotiate the process. In the three years that the poll was published, the community repeatedly hoped that the process would include them. Even when they were proven wrong in the first two years, they still devoted time and effort to use their collective voice to show their collective power. Yet, as each year progressed, they grew more suspicious of the process. They questioned the process itself as well as the museum staff, the intentions of the museum staff, the communications

from the museum, the decision-making ability of the museum, and the power of the institution. Within this questioning and attempting to negotiate through voting, the My Little Pony community became so frustrated with the process and distrustful of the museum that the community lost interest entirely after a few years. We know that the museum had an entirely different intention regarding the process because they firstly, did not take the poll results into account, and, secondly, restricted voting to one vote per IP per day. Yet, they did not share the exact methodology with the public, only that their choice reflected the toy's iconic nature, had longevity (not a passing fad), and was innovative (MuseumOfPlay.org).

Despite this negotiation of process, with the online community attempting to change the process through their devotion and the museum appearing to ignore the community, there was no agreement or clarity between the two parties. The online community members failed in their quest, became frustrated, and lost interest. Afterwards, (over the course of several years) the museum added a "people's choice category" to communicate with the communities and acknowledge the poll voters but this was too little, too late, and was not a true entry into The Hall of Fame. Had the museum engaged earlier in the negotiation, made contact, or more clearly explained the process, there would have been a better understanding.

9.3.3 Places

While one could assume that the negotiations of online communities stay within the online world, the intertwining of online and offline worlds means that virtual communities can attempt to stake their claim in the physical world. The most concrete way to do this is to negotiate control of physical spaces, to invade a real-world space, and show that online communities wield power and influence in the real world.

This is what was evident, for the first time, in The Museum of the Moving Image and 4chan episode. Digital dualism disappeared, the online community that had previously hidden themselves online became public, formed competing groups, and attempted to negotiate for control by overpowering their opposition in a physical space.

The episode at The Museum of the Moving Image had multiple groups of participants with competing motivations and conflicting goals who wanted to control a variety of places. The first group of participants was the artistic team who conceptualised the *HeWillNotDivideUs* artwork and wanted to find a physical space where it could be displayed for four years. The second group was The Museum of the Moving Image, including its board and employees, who owned and controlled the physical space where the artwork was exhibited but did not want to relinquish control of their property. The third group was subdivided into 4chan users who were influential online creators who posted about the installation online and those who visited the installation. The fourth group was local residents and business owners who did not welcome disruptions. The fifth group, and final group, was the local government who were alerted to and approved of the artwork and the police officers who came to assist the museum's security team once there were noise complaints and disruptions. There was some communication between these groups of people, but the interactions ranged in civility. This episode demonstrated the participants' differing understanding of the situation and extreme frictions (neither seen in the other MOMI episodes nor episodes at other museums) as the participants negotiated for control of the place. First, we saw unprecedented contact between fans and the institution as a result of being accessible (Baym, 2018) and then, we saw frustrations grow and communications break down between the establishment parties of lawyers representing the museum, the artists, and government officials (DenHoed, 2017).

There was one online 'place' and two virtual 'places' where participants negotiated control in this episode: the museum's physical property, the artists' virtual property HeWillNotDivide.Us, and 4chan's virtual property on '/pol/'. The two virtual places, HeWillNotDivide.Us and 4chan, enabled the online community participants to entirely control them and demonstrated how the community used these platforms as tools in the negotiation for control. In this episode, the first instance of territorialising was the artists' purchase of the domain which gave them ownership of the virtual place and the ability to unequivocally control the broadcast. When the museum agreed to host the website's livestream, they relinquished control. Then, when 4chan's /pol/ found the livestream and visited the museum's courtyard, their negotiation tactic to claim the physical space was their presence and disruptive actions. These individuals had weak ties (demonstrated by the individuals not knowing each others' names) but had a broad reach (demonstrated by the mobilization of users who went to join the crowd).

The most that the museum was realistically able to do in the virtual place negotiation was to observe. The staff could have joined the 4chan conversation to negotiate or go to the courtyard to have their message broadcast on the artists' website, but this, in likelihood, would have, provoked a worse situation.

The museum provided the artists with a physical claim to the place and the ability to broadcast live video of their place to the world. Then, the museum relinquished some of its control to the celebrities and teenagers who first arrived. Next, when Donald Trump supporters, Neo-Nazis, and 4chan participants arrived in person, these groups saw an open

invitation to control the space and engaged in disruptive and physical contact to show that the physical place was under their control. The people who were watching online began to use words that described the takeover of physical property: the internet, they said, had "infiltrated" and "taken over". When the physical inhabitants became too problematic, the museum refused them entry onto the property and set a physical boundary, exerting their authority and territorialising the physical place which they own. Once the in-person crowds became disruptive, the local community entered the negotiation for control of the physical place through protest and phone calls to the museum and law enforcement. When the local government received prank phone calls, the museum contacted security forces to monitor the situation and professionally territorialised the physical place. Once local government and the museum agreed that the museum needed to regain control of the physical place, they alerted the artists that the installation needed to close (a provision in the initial contract) and attempted to force the artists to renounce their claim to the place. Yet, the artists continued to say they had the right to claim the place. Regardless, once the camera was removed, the alt-right community lost interest, and the museum regained control of the courtyard.

While there were clear boundaries regarding who owned each place (the museum owned the courtyard, the artists owned the website, 4chan owns /pol/), the online community exerted their influence in extreme ways and created a physical battle as part of the negotiation of place. Once the camera was removed and law enforcement and the museum regained control, no one in the online community cared anymore.

9.3.4 (Intellectual) Property

When one entity owns something and another entity wants it, a simple solution is to purchase it from its owner. With owned online communities, or owned source materials, this is entirely possible. One could purchase a domain, software, and a community manager. Whilst this might be a relatively extreme measure to negotiate control, it nonetheless makes the intellectual property decidedly 'owned' and managed by a single entity. This was what happened with The Brain Scoop. It was created by Emily Graslie, produced and owned by Hank Green's EcoGeek, and then purchased by The Field Museum; and the online communities on YouTube and Taxidermy.net followed.

In the case of The Field Museum and The Brain Scoop on YouTube, there were multiple parties whose roles changed over time. In chronological order, we can begin with the originator and host of the series, Emily Graslie. She was working at The Phillip L. Wright Zoological Museum when she began her Tumblr blog, which became popular enough to attract the attention of famed vlogger Hank Green who, with his company EcoGeek (vlogbrothers, 2016), transitioned the blog into a YouTube series. By January of 2013 (Graslie, n.d.), she was an employee of EcoGeek LLC, and within the next seven months, EcoGeek became the owner of the channel.

After Graslie visited The Field Museum and was hired full-time by The Field Museum for a fixed term, the institution entered a legal transaction in which the museum purchased The Brain Scoop's intellectual property from EcoGeek. The purchase included the back catalogue of the video series when it was filmed at The Phillip L. Wright Zoological Museum, including its assets, files, tapes, graphics, music, and tangible and intangible intellectual

property. They also took ownership of related physical property (merchandise) and purchased the social media content including the YouTube channel, website, Gmail account, Facebook account, and Tumblr domain. Graslie, who was then a work-for-hire, retained ownership of her Tumblr content and her social media accounts.

The negotiation for control of The Brain Scoop centred on who owned the intellectual property at any given time. Even though Graslie was a work-for-hire and appeared to have had creative control, the series was not a marketing tool for the sole purpose of promoting the museum (Graslie, 2018). The institution had the influence and power via ownership. For the museum, owning this intellectual property offered two distinct advantages: futureproofing and exclusivity. The museum was able to make decisions about the future of The Brain Scoop and could make use of the content as they, alone, pleased. For Graslie and Green, the affiliation with one of the United States' most prominent natural history museums legitimised their content and role as content creators[1]. Most of this information stayed behind the scenes. This is partially because all legal arrangements and communications were among The Field Museum, EcoGeek, and Graslie. All communications with the fans were on a need-to-know basis and came via Graslie (Dunn, 2019).

The fan community which began on Tumblr, switched to YouTube, and watched Graslie's career advance at The Field Museum had little awareness of the legal proceedings. Graslie's introductory video at The Phillip L. Wright Zoological Museum and announcement video at The Field Museum solely shared that the channel had evolved and that exciting opportunities were to come. Generally speaking, the community offered her congratulations and were happy that there would be more content and more resources.

The changes in ownership and the negotiation of control (regarding intellectual property) did not greatly affect the viewer experience. On most channels (in this case YouTube), people own their own comments and grant the page owner limited use (depending on the platform). The institution wanted to provide content that reached a wide audience; they did not take much notice of the comments from a legal perspective. Yet, the change in ownership affected the commenters and fandom, if certain situations arose across any of the relevant platforms (YouTube or Taxidermy.net). While The Field Museum did not own the comments made on the YouTube channel, they gained the ability to control the comments through moderation. Or, if a fan created content that used the trademarked property or intellectual property of The Brain Scoop, The Field Museum could intervene on legal grounds (this extreme situation did not seem to have ever come to fruition). Unlike in some of the other episodes, there was no friction among parties. This was a simple negotiation in which control was granted through ownership.

9.4 Conclusion

In Exchanges of Information (transactional and dialogic) we saw exchanges of information amongst participants.

In each of these negotiations for control (*people*, *process*, *places*, and *property*), the museums wanted to be in control, or takes action to stay in control, while the communities tried to centre their experiences. This is to be expected as museums historically control their curatorial narratives and marketing efforts. Despite advances in opening institutions to be more democratic and accepting of audience input as well as individual staff members wanting to have more open contact with the online public, we see from this evidence that

institutions still attempt to hold fast to power online. At the same time, the communities, as fans, try in each case to stake their claim in the wider world. Whilst tensions can occur within each episode, and within the online communities in their negotiations, there is also tension between the museums as a whole and the culture of the Expert Web.

Chapter Ten

Conclusion

10.1 Introduction

For thirty years, when online, the museum sector has typically worked within spaces which they have constructed or that they can control – reluctant to venture out of their comfort zones. This thesis set out to explore the relationships among museums, their staff, and Web users in spaces in which the museums have considerably less (or no) control. It acknowledges how some museums with diverse curatorial narratives have engaged with online expert communities where people who are knowledgeable about specific topics come together to discuss their interests and discuss these very institutions. The aim here was to show that niche online communities are engaging with museum content, and that the museums themselves are known, considered, and discussed among participants. Through a series of 'episodes' (framed in Chapters Seven and Eight), it became evident that some of the institutions in this study recognize, acknowledge, and participate in these communities, but of these, only a few appear confident in their interactions. Moreover, it was evident that their confidence in these discussions can wane depending on a variety of circumstances – including subject matter, platform choice, and participant profile. Moreover, it also became apparent that the individuals participating in the Expert Web evidently might be omitted from these museums' typical definition of 'audience'.

In researching the Expert Web and examining a variety of museums, the research identifies four contexts. First, the thesis considered the internet and the Web as inherently social technologies and its evolution into a space for everything, existing everywhere, and used by (nearly) everyone. Second, it recognised that online communities have three distinct components: *people* who form identities and exchange information in the community; *processes* which establish authority, power, and trust in the community; and *platforms* that shape the ways this knowledge and authority is implemented within the community. Third, while museums successfully located, observed, and participated in online communities, they later pivoted away from these expert groups to focus more routinely on online broadcasting and display. Fourth, through the critical lens of fan studies, the research established the value of seeing participants as 'fans' of specific subjects, establishing their own vibrant communities online. With this grasp of the landscape, an understanding of Expert Web trends was established. This understanding was then reviewed alongside online communities' relationships with museums, and it was determined that the scenic 'episodes' of case study examples, were typically either *exchanges of knowledge* (transactional or dialogic) or *negotiations of control* (of people, process, place, and property).

10.2 Summary

Chapter One presented the research questions and introduced the two main theoretical frameworks. The first was the sociality of the Web and the assumption that the internet provides a unique space that enables individuals to speak with each other and to form groups around specific topics of interest (O'Neil, 2009; Shirky, 2008; Shirky, 2010). The second was the framework of fandom and the idiom of fans who are distinctly invested in specific topics and create experiences and identities within a social context. The discussion showed how

online fandoms uniquely connect asynchronously and become part of the fan's everyday life (Baym, 2018; Gray et al., 2017).

Chapter Two situated the Expert Web within the social history of digital, internet, and Web communities and explained how the internet provided a unique space and unprecedented opportunity for individuals to communicate with each other as both technological advances and changing cultural elements enabled relationships to form. It drew upon the work of sociology and media scholars who advocate for a wider understanding of internet history (beyond the technical aspects) to include evolving social dynamics, changing values, and modified behaviours as well as fan studies scholarship which examined how people form connections to each other through their interests and passions. The chapter detailed the history of fandom (Cavicchi, 2014; Baym, 2018; Schulman, 2019; Maher, n.d.) and the emergence of digital communications as culturally and social-driven media (Leiner et al., 1997; Murray, 2003), explored the digital duplications of physical experiences (Wooley, 1994), and the invention of the internet (Castells 2001; Baym, 2018). The chapter demonstrated how fandom and digital technology combined and flourished as conversations about popular culture thrived in the newfound digital freedom and congeniality (Castells, 2001; Driscoll, 2016; Baym, 2018). It attempted to show how, more recently, collaborative and participatory websites and passion-specific online social networks became nearly ubiquitous as boundaries between intimacy and solitude were redrawn (Mieszkowski, 2001; boyd, 2004; boyd et al., 2007; Beller, 2011; Turkle, 2013; Adams, 2015; Grey et al., 2017).

The chapter evidenced how the Expert Web is a result of this social internet and is made of people sharing information about niche topics who found each other online. Ultimately, it showed that by increasing internet and Web integration into the world, "online" becomes

everywhere, everybody, and everything. This helped to give context to the importance and relevance of the Expert Web, especially to museums eager to increase their virtual reach.

Chapter Three investigated the complexities of building authority in online communities. The chapter examines the people who convene and join communities to exchange information, how these individuals construct their identities online and interact with each other to find social validation in fandoms (Castells, 2001; Turkle, 2013; Sandvoss, 2017; Tushnet, 2017; Baym, 2018). We saw how these individuals learn to interact with each other and create cues via online processes (post frequency, voting systems) to determine online authority and power to meet community goals (Nissenbaum, 2001; O'Neil, 2009; Jessen &Jørgensen, 2011). Yet, the discussion also showed how these individuals are regulated by the platforms and software that control websites' features and affordances (Kraut et al., 2011; Owens, 2015).

Chapter Four revealed how museums have historically participated in online communities. In the 1980s, Bulletin Board Systems (BBSs) were introduced in museological literature (Archives & Museum Informatics, 1987-1989) and in 1990, we see the first evidence of BBS-based staff and visitor interactions. These interactions demonstrate an understanding of emerging online communities, but museums soon pivoted to focus on professional development communities (Archives and Museum Informatics, 1990-1995b.; Bernier & Bowen, 2004) and websites that focused on providing information for in-person visitor experiences and information broadcasting (Archives and Museum Informatics, 1990-1995b). The chapter made a case for seeing museums diverging from the expert and niche communities that they could not control. And it was argued that people in online

communities filled the void in museum expertise and continued to talk about museums and make suggestions to fellow participants.

With these key conceptual components (on the sociality of the Web, on the characteristics of online communities, and on museums' history of online collaboration) in place, Chapter Five then introduced the five museums discussed in subsequent chapters: Strong Museum of Play (Rochester, New York), Museum of the Moving Image (Queens, New York); MIT Museum (Cambridge, Massachusetts), Field Museum (Chicago, Illinois), and New York Botanical Garden (Bronx, New York). The chapter introduced a brief history of each museum and their collections and uses information from the fieldwork interviews to explain how each museum has historically used the internet, Web, and social media to connect with visitors. This information situated the Expert Web interactions by showing a wide range of comfort with sociality online and varying acceptance of digital visitors.

The following three chapters then examined, through a variety of perspectives, how these museums specifically have encountered the Expert Web. Chapter Six analysed how the staff of these five institutions engage with the Expert Web, first organized by department, then by affiliation and identity and finally by motivation. Based on the first phase of fieldwork interviews, the evidence showed that most curators are generally aware of relevant online communities and feel comfortable using them to perform research or engage with interested individuals. Conversely, only some communications teams are aware of these communities but still are not confident entering into conversations with limited topical knowledge. The outreach staff tends to be both aware of their respective Expert Webs and knowledgeable enough to participate while also being successful communicators with these communities. Some participation in online communities is a personal choice and individuals, regardless of

their department, have perspectives on becoming museum-affiliated public figures themselves.

Chapters Seven and Eight shared a series of episodes in online communities in which the museums' curatorial foci are aligned with the topic of the community. Some episodes demonstrated that the communities have a sustained interest in the museums through complex and analytical conversations while other episodes are made of mere mentions repeated over time. In each episode, the mentions of the museums and the framing of the discussions point to how there is community awareness of these institutions and that museums are part of the community's memory. These episodes were categorized by the type of platform on which they appear. Chapter Seven focused on popular platforms which feature a multitude of content types, divided into thematic sections while Chapter Eight focused on single-theme websites shaped by their communities. Both chapters embed the reader into the perspective of the user who has chosen to engage in each type of platform with their respective affordances and structural influences. These chapters were primarily based on the fieldwork's stage two, online community conversations. Excerpts were analysed primarily using methods developed by internet language scholars Margaret McCulloch and Joseph Reagle, Jr.

Chapter Nine examined the patterns seen in the nine episodes and categorized them into exchanges of information and negotiations of control. In exchanges of information, the museums are in their historic comfort zones as arbitrators of information; the research shows that these exchanges are either transactional (the museums take active roles sharing and receiving information about their collections) or dialogic (the museums take passive roles while the online communities take active roles collecting and negotiating information). It

became clear that in negotiations for control - people, process, places, and property - the museum in each case wanted to be in control (or take action to stay in control), while the communities tried to centre their experiences and stake their claim in the wider world.

10.3 Key Findings and Original Contribution

10.3.1 Identification of the Expert Web

One of the basic premises of this research is the identification of the Expert Web, as a classification of virtual space with a range of niche online communities inhabited by experts. This research has demonstrated that the Expert Web has historical precedence both within the larger context of internet history (Chapter Two) and with past relationships within the museum community (Chapter Four). The Expert Web is complex; this is evident in its users' behaviours in general (Chapters Two, Seven, and Eight) and also evident with museum-affiliated users (Chapters Six, Seven, and Eight).

This thesis reveals the multi-dimensionality of the Expert Web. Each platform and each group of users brings something new to its existence and shows that there are established trends and continual change. This research assembles the critical tools and evidence to begin this new subject area and a direction for future investigation.

10.3.2 Articulating the Expert Web and its Relation to Museums

This research provides a new vocabulary to describe the concepts introduced in the thesis. The novel contribution is the term 'Expert Web', described above, which provides a way to

conceptualize the virtual space. Using 'fan' as an idiom and introducing fan studies (Chapters One and, below, in Chapter Ten) connects an entire discipline of relevant vocabulary to museology and a way to describe the participating people. Recognizing and introducing the term 'relational labour' as part of the lived experience of museum staff (below in Chapter Ten) gives credence to a common but previously ignored professional contribution as a process.

10.3.3 Methodology for Museums to Collect Web-Based Data

While the proverbial staff member holding a clipboard and tracking, tabulating, and surveying visitors remains a common and prevailing technique in museological visitor research, Anderson traces in 'Visitor and audience research in museums' (2018) and Parry explores in 'How Museums Made (and Re-Made) Their Digital User' (2019) the evolution of visitor research and digital user research to reflect advances in museological, digital, and related practices. These works, though, almost exclusively focus on museum-controlled settings, be it in gallery or using museum-provided resources. In instances in which visitor and user research is completed for external-to-the-institution platforms (such as social media platforms), museums rely on social listening software which provides marketing insights and data analysis about the museums' social media messages, reply comments, and mentions on social media platforms. But these methods do not consider the Expert Web. Their method of tracking the frequency of associated keywords would neither fully capture meandering yet valuable conversations which mention museums (as many of the discussions did in the MIT and Reddit Mechanical GIF episode) which show the community's priorities nor track influential subject-specific forums (SproutSocial.com). Thus, a new method had to be

determined for working in these spaces, which contributes to the originality of this research in the museum field.

This research used a three-phase approach to the fieldwork which provides a holistic view of each museum and the Expert Web:

Phase One's goal was to understand the perspective of the institution and its' staff regarding the Expert Web. Staff that influenced digital strategy, contributed content to the institution's official accounts, and/or had a strong web presence were interviewed about their institution's use and personal involvement in the Expert Web. These interview recordings were analysed across institutions and identified parallels (such as departmental trends) and contrasts (such as the amount of oversight per institution). This information became the basis for Chapter Six.

Phase Two's goal was to understand the Expert Web communities. For each museum, conversations that mention the museum, their staff, and exhibitions were collected, and the dialogue's jargon was 'translated' and analysed to understand the narratives and chain of events that participants were describing. All episodes were reviewed using four lenses:

1. Study of social behaviour, online archetypes, and emotions that are found on the Web within comments (Reagle, 2015).

2. Changing new media norms as they affect interpersonal relationships and professional responsibilities known as relational labour (Baym, 2018).

3. Language usage online (McCulloch, 2019)

4. Online discourse analysis, which looks at the collaborative, personalised, and context-rich characteristics of online interactions (Page, 2012).

This resulting evidence became the basis for Chapters Seven and Eight.

Phase Three's goal was to compare the evidence yielded in Chapters Six, Seven, and Eight and determine how the institutions were aligning or coming into conflict with the Expert Web. Two distinct patterns were evident, exchanges of information and negotiations of control, and provide institutions with a deeper understanding of the dynamics of the Expert Web. This analysis became the basis for Chapter Nine.

Creating a methodology, like this, that considers internal and external factors, overall narrative, and specific instances of language, is a robust and novel approach to online data collection for museums to use.

10.3.4 Using 'Fandom' as an Idiom in Museology

As described in Chapter One and evidenced in Chapters Seven and Eight, the idiom of 'audience' became insufficient in describing the Expert Web. An audience, in the museological world, typically describes groups of individuals with common characteristics who physically visit the museum (similarly, visitor and guest imply a physical connection). They are typically divided by a particular dominant set of normative demographics, such as: young/old audiences; male/female audiences; tourist/local audiences. While this method of audience characterization may continue to have some uses in some museum research settings, it is perhaps less useful on the Expert Web: the demographic information is either unknown

or can be obscured, and the participants may or may not have any past, current, or future connection to the physical museum (or even to its website as a digital visitor). Thus, in understanding the participants of the Expert Web, these terms feel insufficient, and it became necessary to move beyond the idiom of 'the audience' and onto something else. In a wide search for that 'something else', this research sought a way to talk about individuals, their self-discoveries, interests, and activities.

The idiom that is most appropriate, and both a common phrase and one used in cultural and web studies literature is 'fan'. Fan studies has a breadth of scholarly research supporting it (detailed in Chapter One), and provides a powerful way to help see, articulate, and understand the people who are the Expert Web and reflects the relationships which individuals have with their chosen subject matter.

Throughout this research, fandom studies have provided a lens to understand the people on the Expert Web and their relationships with museum collections and objects (Baym, 2018). Chapter One introduced fans and the study of fandom. Chapter Six considered museum staff as both representatives of their respective institution and as fans of their subject matter. In some cases, this bifurcation caused tension amongst museum staff while also revealing that the sector should consider how fandom changes museums and their publics' social dynamics and professional hierarchies, and expertise networks among staff, fans, and staff who are fans. Chapters Seven and Eight introduced specific communities and explained how and why they are fandoms. In the course of recounting how these fans on the Expert Web interacted with each other and with museums, the complexities of fan communities were more fully realized. Chapter Nine then revealed the essence of the dynamics between the fandoms (as communities) and the museums and the resulting patterned behaviours. As evidenced

throughout this thesis, the object-focused conversations of the Expert Web are strikingly similar to how fans identify with and speak about their objects, and thus understanding fan studies became critical to this research.

Considering 'fans' in a museum context can be used beyond the Expert Web; it can impact the visitor experience and visitor studies by widening the museums' views of who may be interested in connecting with the museum and its staff through visits, programming, and even monetary and object-based donations and preservation.

10.3.5 Recognizing 'Relational Labour' in the Lived Experience of Museum Staff

The research also takes notice of an aspect of the lived experiences of museum workers which has been overlooked in museological literature: namely, relational labour. In her study of online communities and musicians, Nancy Baym explains that relational labour is the commodification of intimacy and the work that is done to engage with fans online which "demands skills and practices different from the job you want to be paid to do, and it can take time away from that work and from leisure" (Baym, 2018: 9). She argues that it is necessary to engage with fans online and makes the musicians more marketable, while also setting fans' expectations regarding availability and accessibility. We can extend this concept to online communities and museums, with specific emphasis on museum workers who participate in the Expert Web. This reveals a new layer of truths about the lived experiences of many museum workers.

The interviews conducted for this research demonstrated that there are, in fact, many museum staff people who are so passionate about their subject matter that they reach out to relevant

online communities, become part of these communities, and engage in the practice of building and maintaining relationships online. Primarily, as seen in Chapter Six, this is done most successfully by the curatorial and outreach personnel who are well-positioned to speak with fans due to their deep subject knowledge. These individuals also need to feel personally confident entering such places online and, ideally, in a field that correlates with the museums' expertise (Dunn, 2019). But, since it is not within their official job responsibilities to engage with the Expert Web, museums usually do not provide the time nor affordances to curatorial and outreach staff members who are engaging with the Expert Web. The interviews revealed three considerations regarding museum staff engaging in relational labour: time and capacity, compensation, and emotional bandwidth.

The first of these is 'Time and Capacity'. Across museums and departments, the staffs' primary concern about performing relational labour is time. This concern was especially pronounced in curatorial departments where research and collection management responsibilities take precedence. Christian Primeau, of the New York Botanical Garden who engages with the Expert Web on his own time, explained how his current responsibilities fill his entire workday: "I think we just, probably in [the horticulture department], just wouldn't have the time to do it on top of everything else we have to do, which is a shame" (Primeau, 2017: 18:08-18:13). This sentiment was echoed by other curators, such as MIT Museum's Debbie Douglas, who spoke about the possibilities if there was "infinite resources and staff time" (Douglas, 2018: 1:05:15-1:05:17). Those in outreach positions also articulated the same sentiment, which was somewhat surprising as their responsibilities tend to include in-person public engagement. Charles Zimmerman, of the New York Botanical Garden, shared:

My regret is that I don't have enough time to really look for the strongest and

[reaching out] to a more diverse online community. That's partly because I still have

my other foot in the collections management and so there's a ton of that I need to do

on a daily basis just to keep the herbarium running. Doing outreach for these

volunteer projects has to be a limited portion of my time and it does take a fair

amount of time to communicate online and to develop messaging strategies and things

like that…. (Zimmerman, 2017: 24:32-25:08)

Similarly, concerns about timing were echoed by the communications staff across museums, who explained that their oversight of marketing, press relations, design, and current web platforms made for already busy days (McGrath, 2018). Yet, these individuals spoke more towards capacity. Instead of articulating that they wish they had more time to engage with the Expert Web (as the curatorial and outreach teams said), the communications staff members expressed desires for additional staff members. "If we had more people then this certainly would be a consideration," said Matthew Newman of the New York Botanical Garden (Newman, 2017: 07:48-07:50). His supervisor, Ariel Handelman, concurred, "Unless we also had a dedicated person to engage and converse […] [websites with conversational engagement] only works if we have a continued voice that becomes a reliable source of information. Right now, we just don't have that." (Handelman, 2017: 09:04-09:35). Thus, if the institutions agree that relational labour with the Expert Web would benefit their museums, the administration would need to formally articulate this change and create allowances in current and future staff time for the added responsibility.

If relational labour became an additional job responsibility for the curatorial department or an adjusted responsibility for the outreach and communications departments, the institutions

would (or should) be obligated to pay for the additional work. Esther Jackson, Public Services Librarian at the New York Botanical Garden, articulated this concern in relation to "scope creep between personal life and work-life… I don't want to create that expectation that I'm on the clock 24/7" (Jackson, 37:21) Jackson's concerns about 'scope creep' recalls Nancy Baym's perspective on relational bandwidth, in which she describes the blurring between social and work responsibilities, colleagues and audiences, friends and fans.

Yet, even if the staff was allocated time and given compensation for relational labour, would they want to perform this task for their institution? The answer is not always clear. While there was a clear desire among interviewees to interact with the Expert Web, the staff did not always want to take on added work. The non-communications staff currently and successfully performing relational labour enjoy their freedom online do not always want to be held to predetermined institutional messaging. The freedom to talk about their passion online, away from watchful and at times censoring communication eyes is an enjoyable aspect of doing this type of work. Primeau explains with an eye towards relational labour becoming a quantified job responsibility and the institution calculating a return on investment:

> The forums and the discussion, that kind of thing, I wouldn't want to be sitting there doing that because I had to. It's the kind of thing, when you're bored, you step in, help some people and step back out. And there were a lot of things I've come across still that I have no, I don't have the answers for. So to be in a position where you don't have those answers. Just [wouldn't be] a comfortable situation to be in. (Primeau 18:55)

The senior curatorial staff at MIT also had some reservations; Debbie Douglas, for example, shared that she is readily available through her current work and scholarship throughout MIT and being compelled to engage online would open the proverbial floodgates (Douglas, 2018).

Relational labour is, at this point in time, a voluntary aspect of museum work. Yet the time, expertise, and dedication that it requires to be successful should be noted by the institutions for whom this work directly behoves.

10.4 Limitations and Further Research

While this research has identified and explored the complexities of the Expert Web (as well as introduced it as a clearly defined concept and as a workable term) to the museum sector, an introduction is only the beginning of understanding these spaces online. This research, of course, raises additional questions and from there, we can chart our course to learn more.

While collecting data from staff interviews and the written records of online communities was, in this study, fruitful, it did not include formal interviews with online community participants. Input regarding individuals' feelings about these online communities would create an extended understanding of the Expert Web. Furthermore, direct questions about their relation to relevant museums (Do they want museums to participate in these online communities? Have they ever visited the relevant museums? Do they intend to visit? Are they able to visit?) would add a deeper understanding, beyond the written record. Interviewing such people would provide much fodder for further research.

The museums who graciously agreed to participate in this research vary greatly in their business scope, collections, and provision. Together they evidence how the Expert Web and fan communities can exist for a wide array of content types. Yet, there are many other types of museums that were not part of this particular study. For example, this research does not include a traditional art museum, a conventional history museum, an interactive science centre, diverse ethnic institutions dedicated to historic testimony, nor a zoo. Future research could study Expert Webs which correlate with institutions that have living collections, institutions focusing on ethnic heritage, collecting versus non-collecting institutions, institutions dedicated to the life of a single person, or any other combination of museum curatorial themes. Furthermore, the institutions used in this research all have physical locations in the eastern half of the United States; institutions elsewhere in the world and digital museums that exist wholly on the web might have produced different results.

Looking at potential research opportunities, museums which are aware of their relevant Expert Web communities could actively engage while researchers observe the episodes (instead of reviewing a written record months after the episode). Institutions could apply user experience research methods such as A/B testing with different departmental participants and note the community reactions. If truly committed to this type of engagement, institutions could even create formal positions for this type of work (addressing the time, capacity, and compensation concerns noted above) and devise a method alongside researchers to evaluate the impact and return on investment (though the working hypothesis is that effects may be significant but require long-term evaluation).

Looking at further research more broadly, a promising path is to again look toward fan studies and combine museological research with the research subset known as "fan tourism".

Fan tourism recognizes that fans go on vacation and will travel vast distances for seemingly mundane spaces which their fandom has deemed special (Duffet, 2018; Brooker, 2017). These journeys to physical spaces (celebrity mansions, film sets, and on-location spots) are spoken as religious pilgrimages to capture the "tales about commitment in the face of adversity" (Duffet, 2018: 227), the magic of the arrival, and emotional value (Duffet, 2018; Brooker, 2017). This is somewhat counterintuitive to the idea that fan consumption and 'flow' is often placeless (be it on television, in a book, or in this research the virtual Expert Web).

In instances in which fan studies scholarship discusses visits to such locations, they are put into contrast with visits to museums. Fans highly value authenticity and want their pilgrimages to be both what they perceive to be authentic places as well as emotional and ideologically safe (the latter referred to as 'heimat') (Duffet, 2018). Yet museums might not be perceived as authentic or safe, since in fan tourism the media is the initial point of contact and guides their interpretation (rather than the media and interpretation that the museum would provide). Duffet explains:

> Museums and exhibitions offer other spaces that become devoted to particular moments, stars or genres. These spaces are *designated* as relevant places by business or public activity: they have no direct link to the fan phenomenon except as a form of branding. Indeed, fans are only likely to be a fraction of their visiting (usually paying) public. While devotees can be curious about the artefacts kept inside, such spaces seem opposite to the private, non-commercial places more organically linked to the star. [….] There has to be something significant, perhaps historical, about a place in order to make it a 'mecca' for touring fans. (Duffett, 2018: 226-227)

Consequently, within fan studies, there tends to be greater emphasis on fan pilgrimages to authentic spaces instead of designated spaces. And so, for the future intersection between fan studies and museum studies (understanding museum visitation through the idiom of 'fan' and using the museum as a venue for fandom), both will benefit from an exploration and market research into perceptions of authenticity and interpretation.

Research on fan tourism appears to be similarly sparse in museum studies. One of the few examples is Abraham Lincoln fandom and the history of Lincoln-related museums. This research demonstrates correlations among the rise of road trips, emergence of guidebooks, and the development of "Lincolnland" geographic clusters but does not mention Lincoln themed online communities or American history Expert Webs (Mackie, 2016).

The participants in the Expert Web seem inclined to travel (seen in this research's episodes, for better or worse, fans of Donald Trump made pilgrimages to the Museum of the Moving Image). Museums are eager for in-person audiences to see their exhibitions and even share their collections (Curator Andrew Borman repeatedly invited Twitch streamers to come visit The Strong Museum of Play and request specific objects to see). Therefore, it seems like converting Expert Web participants into something akin to fan tourists would be worth exploring, as long as the museums can create welcoming, authentic and safe environments. It is further possible that museums' research into third spaces could be compared or looked at alongside 'heimat' to serve this purpose.

The potential path for scholarship in this area is not only to speak directly with online communities, but also to speak with scholars and practitioners and encourage them to widen

their concept of visitors and visitation. It might be time to look towards a museology that regularly considers the Expert Web and the fan experience.

Appendix A Ethics Review

17/10/2017

Ethics Reference: 13618-bmm17-museumstudies

TO:
Name of Researcher Applicant: Blaire Moskowitz
Department: Museum Studies
Research Project Title: The Potential for Interactions Between the 'Expert Web' and Museums

Dear Blaire Moskowitz,

RE: Ethics review of Research Study application

The University Ethics Sub-Committee for Science and Engineering and Arts Humanities has reviewed and discussed the above application.

1.   Ethical opinion

The Sub-Committee grants ethical approval to the above research project on the basis described in the application form and supporting documentation, subject to the conditions specified below.

2.   Summary of ethics review discussion

The Committee noted the following issues:
The amended project represents minimal risk so we are happy to approve it.

3.   General conditions of the ethical approval

The ethics approval is subject to the following general conditions being met prior to the start of the project:

As the Principal Investigator, you are expected to deliver the research project in accordance with the University's policies and procedures, which includes the University's Research Code of Conduct and the University's Research Ethics Policy.

If relevant, management permission or approval (gate keeper role) must be obtained from host organisation prior to the start of the study at the site concerned.

4.   Reporting requirements after ethical approval

You are expected to notify the Sub-Committee about:
- Significant amendments to the project
- Serious breaches of the protocol
- Annual progress reports
- Notifying the end of the study

5.   Use of application information

Details from your ethics application will be stored on the University Ethics Online System. With your permission, the Sub-Committee may wish to use parts of the application in an anonymised format for training or sharing best practice. Please let me know if you do not want the application details to be used in this manner.

Best wishes for the success of this research project.

Yours sincerely,

Prof. Paul Cullis
Chair

Appendix B Interview Information Page

PROJECT INFORMATION

This Project

This project *"The Potential for Interactions Between the 'Expert Web' and Museums"* – is being conducted by Blaire Moskowitz (the researcher) for the purposes of completing the requirements to earn a Ph.D. in Museum Studies at the University of Leicester, U.K.. Please read the following and sign the attached consent form.

Research Purpose

This research looks at how museums can interact with online communities which focus on specific subject matter and asks, instead of inviting people to visit museums or their websites and social channels, what if museums *went to them* by participating in online communities?

Consent and Ethics

Written consent is being sought to provide a consistency and uniformity across all case studies. It also protects both the researcher and the participants should any dispute arise. This consent covers this interview and any follow-up and avoids repeated requests. This research is being conducted under the supervision of Dr. Ross Parry (rdp5@le.ac.uk). If you have any questions about the ethical conduct of this research, please contact the School of Museum Studies Research Ethics Officer, Dr. Giasemi Vavoula (gv18@le.ac.uk).

Participation

Participants for this research were selected due to their affiliation with a museum or cultural institution, outreach and engagement responsibilities and/or online presence.

Participating in this research includes a one to two hour interview in person, by phone, or via email, with the possibility of follow up questions. The participant may be asked to provide supporting documents and/or to participate in some online conversations (known as interactions) over the course of one week. The interviews and the interactions will be recorded and/or screenshot.

The participant will be playing an important part in furthering museological research. Their quotes may be used in this research and related publications.

Participant Rights

The participant's contribution is entirely voluntary. Participants are free to withdraw at any time before [date]. If the participant is uncertain or uncomfortable with any aspects of their participation, please contact the researcher to discuss your concerns or to request clarification. To withdraw completely, please provide a request by email.

Confidentiality

Information will be treated with confidentiality. All materials provided as part of this study will be treated as confidential and securely stored in accordance with the Data Protection Act 1998. Interviewees may be identified by name, job title, institution and online usernames.

Researcher contact information:

Email: bmm17@leicester.ac.uk
Phone: +001-201-336-4245

Appendix C Interview Consent Form

INTERVIEW CONSENT FORM

This project "*The Potential for Interactions Between the 'Expert Web' and Museums*" – is being conducted by Blaire Moskowitz (the researcher) for the purposes of completing the requirements to earn a Ph.D. in Museum Studies at the University of Leicester U.K.. If you consent to being interviewed and to any data gathered being used as outlined below, please check the boxes, print and sign your name, and date the form in the spaces provided.

Consent

Yes No

☐ ☐ I have read and understood the project information sheet, which I may keep for my records. A copy of this form will also be provided.

☐ ☐ I have been given the opportunity to ask questions about the project and they were answered to my satisfaction

☐ ☐ I understand that this study will be carried out in accordance with the University of Leicester's Code of Research Ethics which can be viewed at http://www2.le.ac.uk/institution/committees/researchethics/code-of-practice.

☐ ☐ I understand that the material I provide as part of this study will be treated as confidential and securely stored in accordance with the Data Protection Act 1998.

☐ ☐ I voluntarily agree to participate in the project through interviews and audio recordings. My words may be quoted in this research and related publications.

☐ ☐ I understand that I can withdraw from participation at any time by [date].

Data and Information

☐ ☐ I understand that for the researcher to use the information I provide legally, I agree to assign the copyright I hold in any materials related to this project to Blaire Moskowitz.

Please indicate the following personal details and permission for them to be used in connection with any words I have said or information that I have passed on:

Full name: ….………………………………………………………..
Job Title: ….………………………………………………………..
Institution: ….………………………………………………………..
Internet accounts (social media, online accounts): ….………………………………..
……………………………………………………………………………………
……………………………………………………………………………………

Print your name: ….………………………………………………………..
Signature: ….………………………………………………………..
Date: ….………………………………………………………..

Researcher contact information:
Email: bmm17@leicester.ac.uk
Phone: +001-201-336-4245

Appendix D Interviewee List

Institution and Interviewee	Duration
The Field Museum	
Brad Dunn, Web and Digital Engagement Director	57:00
Emily Graslie, Curiosity Correspondent	59:37
The MIT Museum	
Martha Davis, Communications Officer	57:21
Debbie Douglas, Director of Collections & Curator of Science and Technology	1:40:06
Julie Fooshee, Science Festival Alliance Coordinator	48:41
Kurt Hasselbalch, Curator, Hart Nautical Collections	57:43
Tina McCarthy Digital Communications Coordinator	33:38
Daryl McCurdy, Curatorial Associate, Architecture and Design	36:52
Jennifer Novotney, Public Programs Coordinator	21:17
David Nunez, Director of Technology and Digital Strategy	36:22
Gary Van Zante, Curator of Architecture and Design	43:39
Ariel Weinberg, Curatorial Associate, Science and Technology	36:01
Ben Wiehe, Manager, Science Festival Alliance	48:41
Brian Mernoff, Education Coordinator	21:17
The Museum of the Moving Image	
Jason Eppink, Curator of Digital Media (two interviews)	1:60:03
Carl Goodman, Executive Director	1:51:04
Tomoko Kawamoto, Director of Public Information	58:52
The New York Botanical Garden	
Karen Daubmann, Associate Vice President for Exhibitions and Public Engagement	56:57
Joanna Groarke, Director of Public Engagement and Library Exhibitions Curator	38:06
Ariel Handelman, Director of Marketing	55:11
Wambui Ippolito, Horticulturalist, School of Professional Horticulture	34:41
Esther Jackson, Librarian	1:01:46
Matthew Newman, Content Manager	45:27
Christian Primeau, Manager, Enid A. Haupt Conservatory	29:26
Charles Zimmerman, Herbarium Collections and Outreach Administrator	43:44
The Strong Museum of Play	
Christopher Bensch, Vice President of Collections	41:42
Andrew Borman, Curator of Digital Games (two interviews)	1:19: 02
Allison McGrath, Director of Digital Media Services	32:38
Julia Novakovic, Archivist	41:39
Shannon Symonds, Curator of Electronic Games	53:20

Appendix E Sample Interview

Interview Transcript

The New York Botanical Garden: Christian Primeau

Blaire [00:00:01] That [recorder] should be working. And hopefully that [other one] will work also. Okay, so firstly thank you so much for doing this. I really do appreciate you taking time out of your day. The questions - a few different topics. One of them is about just your position, then a little bit about your department strategy on social media, how you work either with marketing or not with marketing. Here we're going to talk a little bit about how other people are using the internet, in general, as I explained briefly, kind of these people who talk about plants that are not museum accounts, a little bit about your Instagram feed and then a little bit about how if you were to redesign everything what would you do.

Christian [00:00:41] Sure.

Blaire [00:00:42] So tell me a little bit about what you do here. Just your job here.

Christian [00:00:45] So I'm the manager of the Enid A. Haupt Conservatory. So, managing the staff who take care of all the plants in the eleven houses of The Conservatory.

Blaire [00:00:57] Great. And do you... Does your department have a strategy for digital public outreach?

Christian [00:01:05] We don't. And to my knowledge never have. So we will assist but the strategy I believe is wholly formed and implemented through marketing.

Blaire [00:01:17] When you say assist, how, how so?

Christian [00:01:19] When we're asked, I think to write articles I've written articles in the past. I've taken pictures for BGBase which I think marketing will use on occasion, but we've never actually been part of any comprehensive strategy. Or ongoing strategy.

Blaire [00:01:39] So are you aware of online communities that have nothing to do with The Garden accounts, but for online communities that talk about gardening, botany, plants. What are you aware of online?

Christian [00:01:51] The ones I'm aware of are the ones that are participating and so mostly on Facebook. There are groups that help people identify plants, diagnose problems with plants. So I... A lot of my colleagues participate in those types of online groups.

Blaire [00:02:14] And this is on your own time? Through your own…

Christian [00:02:16] Personal e-mail account. I mean, uh, Facebook account.

Blaire [00:02:24] So you do engage in these conversations? You're an active participant in them?

Christian [00:02:33] Yeah.

Blaire [00:02:33] Are they private groups do you know or are they public?

Christian [00:02:36] Some are private where its... you do apply to be a member. Others are public groups. And the public groups are the most rewarding. That's where anybody can take their houseplant or a question about anything in their yard and ask. People who are ostensibly more knowledgeable a lot of experts from those sites. That's what they enjoy the most. You know I can pick up the phone and talk to colleagues if I want to but that offers me the opportunity to you know, help people. Which kinda falls in line with our mission here. I would think.

Blaire [00:03:18] Do you know the names of the public ones? I'm going to try to find them.

Christian [00:03:25] Yeah. One is "plant idents 101". One is "plant identification and discussion" and then I think the other one is just "plant identification". It's... a very just generic names... easy to find on Facebook

Blaire [00:03:38] Great. So, are you posting content? Are you, when there's, like, a thread in a conversation? Are you posting the content to start the conversation or are you responding?

Christian [00:03:52] Not usually, on rare occasions I will post if there's a plant that we really need to find an ID for that we have a collection of posts in hopes that one of the other experts will be able to point me in the right direction but more often than not it's helping somebody else who has, you know, on the initial poster who has posted a plant or a problem or a question.

Blaire [00:04:14] So when somebody else… When you need it playing identified in someone e'se's answering, and you get the answer. What do you do... to... Like what is your due diligence after someone else has said what it is?

Christian [00:04:30] Library resources that I have and then of course colleagues here signed staff.

Blaire [00:04:37] So its double checked?

Christian [00:04:38] Yeah, so I don't just take people's word for it but sometimes they can lead you in the right direction in terms of family or provenance or something like that. [7.3s]

Blaire [00:04:47] And when you do this... If you think it's like a lead that that's worth following, is it because the person who posts, their Facebook name, you're like oh I know that person. They work in the arboretum. Or would you possibly. Trust a name you haven't seen?

Christian [00:05:02] Never. I usually find out I know some of these people and what their background is and if I don't know them, I will get their background. Some of them are botany professors or people at reputable nurseries or other botanical gardens in which case I would be more apt to take their advice. [20.5s]

Blaire [00:05:24] So this is a resource for a lot of people who work in botanical gardens. But most of the people have some sort of credentials, you think?

Christian [00:05:33] In the public forums. Maybe 10 percent. 15 percent are professionals and then majority are just people worldwide. They're guessing maybe amateurs and hobbyists. But, but it's easy to weed out the people who are experts and people whose advice you should probably heed or at least follow up on. [22.5s]

Blaire [00:05:56] And when you're replying to this information and when you are the expert in this.

Christian [00:05:59] Yeah.

Blaire [00:06:00] Is it people that you do know or don't know? Do you have like uh, do you tend to answer more in a certain way?

Christian [00:06:08] Yeah I think most of the people who I interact with people I don't know and people who are not experts, who do not do this for a living so it's more just to keep my skills sharp and to help other people at the same time so when it comes to, I tend to find plants, it's fun. It's kind of a hobby. And when it comes to diagnosing things it's fun to just help people do that.

Blaire [00:06:33] Sorry, I am still listening. Just want to make sure the recording is still working. So, within these, they're called engagements when you're talking to someone online.

Christian [00:06:42] Yeah.

Blaire [00:06:43] And do you identify who you are. Do you start with saying I am NYBG staff? How do people….

Christian [00:06:51] I never represent myself outside in any of these. Because I, to me, it's something I'm doing it for me and I'm painfully aware of the rules that exist for The Garden, so I don't represent myself as anything. I offer my opinion and if they choose to take it that's fine. I assume that people will follow up on any advice as I would. If I can point them in the right direction, fine. But I don't get on and say I am from NYBG or anything like that. It's just Christian Primeau posting advice or opinion.

Blaire [00:07:28] Great. So, when you're posting or someone else what makes a successful post or interaction either on your Instagram or on Facebook, something when you're conversing with amateur experts or real experts?

Christian [00:07:45] With real experts it's always fun to just chat... share ideas, that kind of thing. With amateurs a successful interaction, I suppose would be somebody who has a question. You know the answer, you give them the answer they do further research, they come back and say thank you so much. That's exactly what this plant is or I think that's exactly what's wrong with my plant. On Instagram, its more um... I just I just like to share and people enjoy those pictures to me that's satisfying. I don't see a lot of success. I'm sure it's good for The Garden because we reach a wider audience. To some extent it's probably good for me professionally if anyone should choose to check up on me. But that's not that's not the goal. But. I also think with the students and people who come here and train and under us it's good for them t=o see that. The people are kind of what they're passionate about. So for all those reasons I think it's a successful endeavour. But you know, I don't think you can point to any one thing and say it was a successful interaction on Instagram. To me, it's just a fun thing to do. But I think it has value in a lot of different levels.

Blaire [00:09:03] So has a museum or garden, aside from NYBG, ever interacting with your posts?

Christian [00:09:12] All the time. Yeah. In fact, the only people I follow are professional people, professional organizations, for the most part, so 95 percent of the people I follow and interact with on a regular basis are those people. Five percent are people who just really like the garden so some are volunteers here and students. People that I come across who are gardening fanatics but amateurs but I really find value in there. So I follow them.

Blaire [00:09:41] Do you ever get other Botanical Gardens responding to you and you can see their account name. So say, like, whatever Arboretum.

Christian [00:09:50] All the time.

Blaire [00:09:50] So… what types of comments do institutional accounts have on what you're posting.

Christian [00:09:57] Mostly they just enjoy. They can appreciate the plant. And. It's not so much, you know, that they're offering any in-depth anything in their comments it's just

beautiful. I love that plant. I wish we could grow, that we'd like to grow that, that kind of thing. It's basically we appreciate each other's efforts.

Blaire [00:10:29] If an institutional account. Like an official marketing sanction account for another institution wrote you a question, how would you respond?

Christian [00:10:38] Wrote me a question, addressing me as a representative of a garden? Or just me?

Blaire [00:10:45] On your personal Instagram or on your Facebook, if another well-known garden, just as an example like Kew Gardens in the U.K. wrote you. You don't personally know who is running the account.

Christian [00:11:00] Right.

Blaire [00:11:01] What if they commented wrote you, like how you were asked to question.

Christian [00:11:05] Asked me for advice? I would probably be very guarded with something like that. It's not happened. Yet. But that's where the rules of the garden, I think, would be at the forefront. And I would have to be very diplomatic and thoughtful about it because.... Yeah, because I don't want to, in that case, saying anything as a representative of The Garden. Not knowing who these people are or how they're going to use that information, so I think I'd just probably just try to scrub the issue. And like, I said most of the time it's just appreciating good horticulture on both ends and not so much asking advice or anything like that.

Blaire [00:11:48] I'm not trying to catch you.

Christian [00:11:50] No, no, no, I totally, but I've thought about this a lot because I know I've spoken with Todd about this and I know how this could be turned into something that I would not want. Something fun could turn into a problem at work. That's something I'm painfully aware of.

Blaire [00:12:07] You don't have to give me this specifics.

Christian [00:12:10] It's never happened so.

Blaire [00:12:12] So I'm going to assume, but tell me if I'm wrong, that you don't have any Twitter or there's another website called Reddit, like any of these accounts that don't identify you.

Christian [00:12:22] No.

Blaire [00:12:22] Like, plant Q and A where just doesn't identify you in any way but it's just it ends up being... You don't have that?

Christian [00:12:29] Nope, I just use Instagram and Facebook for the most part.

Blaire [00:12:29] Got it. Are you aware of any conversations that the institutional accounts have with online communities? And, like have you ever been brought into that? My guess is that you may have fielded questions from Matt Newman at some point like someone's asking.

Christian [00:12:54] On?

Blaire [00:12:54] About a plant, like we got this question, do you know the answer?

Christian [00:12:57] Email some that's to my work account but we never have interactions like that through my personal accounts.

Blaire [00:13:07] Gotcha.

Christian [00:13:07] And I think Matt has probably reposted some of my pictures from Instagram but we don't have yeah we don't interact that way and I'm not really trying to that way with another institution on those accounts.

Blaire [00:13:20] Have you ever seen, I don't want to say conflicting information, but what would happen if you saw incorrect or not entirely accurate information in one of these communities?

Christian [00:13:30] Oh, all the time on those Facebook communities.

Blaire [00:13:34] You go and say something or you just kind of let it be?

Christian [00:13:38] I... Sometimes I stifle the urge because it would come across as a know it all or an asshole, for lack of a better term. But if it's something that I think that I can be gracefully and step and say I think that might be incorrect, why don't you try to follow this path instead or look into this as an alternative. I've done that a lot of time because if I see how people have done it incorrectly it causes more problems than good. So yeah, on occasion I will if I feel really, if I know the answer 100% and somebody was being led down the wrong path. Then, yeah but its easier just too, you know, as I said more often than not. Don't. get involved in that kind of thing because I don't have time to be in online arguments, you know what I mean?

Blaire [00:14:30] Yeah. I'm not asking you to be.

Christian [00:14:33] People do find out where you work and you're the argumentative belligerent guy online, like it's just not good for anybody. So yeah I try to stay out of that.

Blaire [00:14:42] So if institutional accounts, official NYBG accounts, or the official wherever else account decided to enter into these conversations on these Facebook groups, public or private, or Instagram or wherever it is. What would you think of that happening and when you do think of that happening and also what do you think like the best practices like what would you be telling them. I know how this forum works. This is what you should be doing.

Christian [00:15:09] I think for the garden I'll just use NYBG as an example to enter into these conversations. And not to take away from the people who run those accounts but I don't think they have the depth and breadth of knowledge to address a lot of the questions. What they would most likely do is fire off questions to Mark [Hachadorian] or I and in which case it wouldn't be the kind of timely interaction that people are looking for on those forums. You know what I mean?

Blaire [00:15:48] Yeah.

Christian [00:15:48] I mean we have the Plant Question Hotline. And all the questions get forwarded to us in horticulture and we have to write back and then write back to your initial, you know, questioner. So in those forums it's more if you know the answer would be post it. But I can't see somebody in marketing having the answers to some of the questions that pop up there and being able to answer them quickly and to people's satisfaction without making inquiry here in the science department or horticulture department.

Blaire [00:16:24] And if there was an opportunity to say, you know, you're featured for a few hours, prearrange on the Facebook group or whatever any social media group.

Christian [00:16:38] Yeah.

Blaire [00:16:39] Would you either be willing to do that? Do you think that that would be maybe a little better in terms of a knowledge base? That you would be like the expert for an hour.

Christian [00:16:53] I think it would be problematic. I think the hotline is great and it's a great resource but I think to get involved and, you know, to pop on to Facebook and establish Facebook with a lot of different people with a lot of differing opinions. And there are different approaches that people take. So I think to get on and to say as an NYBG representative here's my approach. You're gunna get people who disagree, I think you can, it would be opening a can of worms that we probably wouldn't want to get involved in. It could go south quickly. It could help a lot of people but there are the possibilities for disaster are also there.

Blaire [00:17:35] What… Explain to me what a disaster circumstance.

Christian [00:17:39] There are things A that I don't know. And I would have to say I don't know. And I don't think the Guardian wants an account where people don't have the answers. There'd be instances where people disagree. Or think you're just outright wrong in which case they get argumentative or difficult and that's something that I don't get involved in. The Garden probably doesn't want to be involved in. That and I think we just probably in horticulture just wouldn't have the time to do it on top of everything else we have to do which is a shame because I think you know helping people is great but I think the way to do it without the through an immediate online presence. I suppose if there was an online resource where people could leave questions and we could answer them in some way shape or form later on after some thought maybe consulting with each other. Or we could leave advice on a weekly basis or something like that. It's not so interactive but that helps people.

Blaire [00:18:44] Isn't that plant Q&A?

Christian [00:18:45] More or less, yeah. But the other things I do on online, I wouldn't want to do. Aside from Instagram which is just posting pretty pictures with information. The forums and the discussion that kind of thing I wouldn't want to be sitting there doing that because I had to. It's the kind of thing, when you're bored, you step help some people and step back out. And there were a lot of things I've come across still that I have no, I don't have the answers for. So to be in a position where you don't have those answers. Just wouldn't be would be a comfortable situation to be in. Have to immediately come up with something for somebody.

Blaire [00:19:31] Do you have an opinion on what the digital visitor is to a botanical garden like this. Some institutions count it as people go onto their website, so like The Met has almost every object they have is online, like a picture of it. So in theory, you can visit the Met online. But here it's a little different. So you have an opinion on what makes a digital visitor or digital participants for a botanical garden?

Christian [00:19:59] What makes one? I someone who, I have people who kinda fall into that category who lived in other countries that follow my Instagram who are just fans, either they visited here once when they visited the country or they just know of New York There are people who live in Russia. You know as far away as you can get who know of New York. It's got a reputation as a great city. And they are just in love with The Garden from what they've seen online, so they eat up the content that The Garden posts, they eat up content that I would post or Mark Hatchadourian posts because they know that it comes from this garden, an historic garden. So they're just kind of fans, right? So that's how I consider those people. What makes one? I don't know. I mean I guess somebody who is passionate about... just good horticulture. Because I've got people who can't grow a lot because parents who just love the pictures that I post. They're from New Zealand and I love the pictures that they post. I can't necessarily grow a lot of the plants that they grow so I guess I would be an online. What is the term you used?

Blaire [00:21:18] A digital visitor.

Christian [00:21:19] A digital visitor to their site, too. Because I appreciate what they're doing.

Blaire [00:21:23] And if you want them to be... now thinking about the people that... Thinking about these people but from an institutional perspective, how would you get them more involved. If it's not interacting with them on these forums, what would be your method of making them - not indebted - but a little more compelled to be connected or a little bit more involved somehow? And I like that you are saying they are so far away

Christian [00:21:47] That's why Instagram is great. It's a purely, some people are just lazy and Instagram just sticks beauty in your face and you click and you like it. It's super easy right. And if you keep posting and this is the thing I've noticed about Instagram, and keep posting just beautiful pictures even if, I don't think having people read any of the things I've actually write. I think first and foremost it's the visual hook. And then they get to know that you're on a reliable basis, you're posting beautiful pictures. And it's almost like like your things and in turn you like their things. And then, I think they start feeling indebted like they have to look at your content and read what you're writing. And occasionally, I'll write like little comments to these people and say that's beautiful. I've never seen a plant more beautiful grow old or something like that are just beautiful textures, you did an awesome job. And I think that's how you establish those relationships. You know a few at a time. They get to know you even though they've never met you. Feel like you know their garden, their plants. I think that's how you hook people get those people feeling indebted if that's the term you want to use.

Blaire [00:23:05] So, in terms of institutional perspective, when we have visitors here, we do push membership. So, is there a way - not say memberships - But if you wanted to buy a really expensive plant for the garden and for whatever reason says like, you know, try to get more people involved. Maybe - are you familiar with crowdfunding? So, it's like - when other museums do it for paintings occasionally like an artwork they can't afford. They say everyone chipped in a few bucks online. And people will send in you know, pennies or sometimes dollars, someone might throw in a lot of money. And it works for art objects, on occasion, and then people feel really compelled or not compelled - they feel really connected to the institution because they helped. And it's not vague like membership which you may or may not go because its expensive but when you go in.

Christian [00:23:58] How would that translates into your eyes?

Blaire [00:24:02] I mean if it's a painting in a museum here it would be, you know, we want to buy this tree. I don't know how much trees cost actually. But we want to buy a tree and it's not even always a financial thing but it's getting people involved in a different way. We want to buy this tree and maybe you guys would help out by chipping in small bits of money. And then you get a lot of people giving very little bits of money. So if you went into - and this is just one example - it could be, it's not going to be like, lets boost everyone's salaries. It

usually has to be around either an object or event like a little more tangible or experiential. Could you see going into these online communities? And not... in a polite way and not obnoxiously going hey we're doing some fundraising. What do you think would happen?

Christian [00:24:51] Kick you out. I don't think you can use it as a platform for Games For the institution. They either kick you out or one of the forum moderators would probably tell you that this is not the place for you to try to, you know. Here's the agenda for your garden. Or yourself, or that kind of thing. But I do I love the idea and I agree with you that I think that's the kind of thing that people would feel make people feel vested in the garden. Just finding the right platform to present that I think is the trick. But Instagram would work. Facebook communities, no. But Instagram, our personal Instagram if you posted this site and this beautiful picture of this tree that you are proposing. You said this is what we would like to do. You know if you believe in this, if you believe in the garden and you'd like to contribute, I think that would work.

Blaire [00:25:56] So you think that there was people who were invested enough to do that even if they're not going to show up here, even if it's your New Zealand visitors? And then, changing the topic a little bit to just kinda of how the internet works in general, Are you familiar with net neutrality. It was in the news a lot this week.

Christian [00:26:19] Yeah. A little bit.

Blaire [00:26:21] OK. So what do you think? If... So it's a lot of rules of how the Internet works and various sites can be different amounts of money is what we think is going to happen. But no one really knows.

Christian [00:26:30] So basically the Internet, or these providers can promote content over other content, right?

Blaire [00:26:37] That's part of it. Is how to promote content over other content or like cable TV at home? So like you know how you might pay for the sports channel or gardening channel, whatever you do. You don't pay for the cooking channel and the kid's channel, whatever your interests are. It might end up being like that. So it is possible.

Christian [00:26:58] That's awful. It's bad, its bad.

Blaire [00:26:58] Yes. So it is possible that gardens, that the botanical garden can be in some sort of culture package, or a science package. Or if you live in New York City, its in the New York City package and it would cost more money to visit the website if you're far away. No one quite knows what's going to happen. But, this will be a challenge say for these Facebook groups or Instagram gardens Instagram versus yours. What... Is there a way that you think could be a work around? Is there anything that anyone in the garden with ever said to you like we're going to have to figure this out. Has this ever come up?

Christian [00:27:36] No. That has never come up and I've never thought about it. So I don't have an answer to that question.

Blaire [00:27:41] If within the garden. If, now that is a raised question, just, who would you go to, to figure out the answer. I'm not going to actually pursue this probably, but who would it be?

Christian [00:27:50] Who would I go to figure out that answer? I think it's totally above my pay grade but I think if I have to talk to anybody about it it would probably be a meeting between Todd Forrest and somebody in Marketing. So Terry might?

Blaire [00:28:12] You know this is a new law regulation whatever in my whole topic of a lot harder. I'm actually having to kind of go OK because my program is like a six year program. So in three years if the internet works totally differently, what is my project? So my last question for all these interviews is like the precursor for me shifting my project entirely. But you like everyone else. Is like oh my god no one's ever though of this. Not just you it's not that's above your pay grade. There are people who are literally working... I haven't spoken marketing here but there are various people in the garden and I spoken to it directly relates to their work and they we don't know. And other museums don't know. So no one knows. It's not.

Christian [00:28:57] In the grand scheme of things I have to worry about, I do think it's important but it's not something that I would ever sit down and hash it out.

Blaire [00:29:04] It's not your job.

Christian [00:29:06] But I do think it's important. So someone should.

Blaire [00:29:10] Yeah but also no one knows what's going on yet. So it could be it's going to be challenged in court. So it's possible that this will happen. But I've run out of questions so thank you so much for your time.

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