Information Practices of Teen Content Creators: The Intersection of Action and Experiences

A Grounded Theory Study

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KEYWORDS

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ABSTRACT

What are the information practices of teen content creators? In the United States over two thirds of teens have participated in creating and sharing content in online communities that are developed for the purpose of allowing users to be producers of content. This study investigates how teens participating in digital participatory communities find and use information as well as how they experience the information. From this investigation emerged a model of their information practices while creating and sharing content such as film-making, visual art work, story telling, music, programming, and web site design in digital participatory communities.

The research uses grounded theory methodology in a social constructionist framework to investigate the research problem: what are the information practices of teen content creators? Data was gathered through semi-structured interviews and observation of teen’s digital communities. Analysis occurred concurrently with data collection, and the principle of constant comparison was applied in analysis. As findings were constructed from the data, additional data was collected until a substantive theory was constructed and no new information emerged from data collection.

The theory that was constructed from the data describes five information practices of teen content creators. The five information practices are learning community, negotiating aesthetic, negotiating control, negotiating capacity, and representing knowledge.

In describing the five information practices there are three necessary descriptive components, the community of practice, the experiences of information and the information actions. The experiences of information include information as participation, inspiration, collaboration, process, and artifact. Information actions include activities that occur in the
categories of gathering, thinking and creating. The experiences of information and information actions intersect in the information practices, which are situated within the specific community of practice, such as a digital participatory community. Finally, the information practices interact and build upon one another and this is represented in a graphic model and explanation.
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STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

QUT Verified Signature
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CHAPTER 1 SETTING THE STAGE

Introduction

Creating art is a part of teens’ everyday life. They keep sketchbooks, write stories and poetry, journal, compose and perform music. With access to cheap video cameras they engage in filmmaking. They build web sites, and write computer programs. Teens have long been content creators. In the new millennium, as the world becomes a networked, global community and digital tools become cheaper and easier to access, the content that teens create becomes more visible. This thesis explores the information practices of teen content creators as they engage in digital participatory communities.

The research investigation used a grounded theory methodology. Grounded theory methodology adheres to the principle that the theory emerges from data (Charmaz, 2006; Glaser & Strauss, 1967). Accordingly data collection and analysis is iterative and simultaneous. As data is collected, analysis is also occurring, which leads to additional data collection. In this investigation data collection took place through semi-structured interviews and observation of digital participatory communities. Data analysis was a process of open and focused coding that employed the principle of constant comparison. As conceptual categories were constructed additional data was gathered to further understand the categories and to build a model of teens’ information practices. This process shaped the investigation, and the resulting findings. Accordingly, the dissertation is reflexive in tone to represent the applied methodology.

The theory of teens’ information practices that was constructed in this investigation contains three analytical descriptions. In the first description I describe the communities teens participated in while creating and sharing content. This includes how the social structure and tools of the community impacted the way that teens participated in creating and sharing content. In the second description, I describe how teens experienced information. Experiences of information included information as participation, as inspiration, as collaboration, as process, and as artifact. This was based in analysis that teens understood information to be conceptualized in a variety of ways. In the third description I describe the information actions teens engage in while gathering, thinking about, and using information to participate in creating and sharing content. The resulting grounded theory defines the information practices of learning
community, negotiating aesthetic, negotiating control, negotiating capacity, and representing knowledge as an intersection between the experiences of information and information actions.

In this introductory chapter I begin by briefly describing the background of the research problem, and why the problem is of interest to me. Second, I outline how the research problem developed in a manner consistent with the methodological principles of grounded theory. Third, I define the research problem and highlight the three components of the model of information practices. These components are the community of practice, the experiences of information, and the information actions. Fourth, I briefly discuss the significance of the research, and the limitations of the findings. Fifth, I provide a glossary of key terms, in order to provide context to the theoretical framework and the findings. Finally, I provide an overview of the remaining chapters. The overview allows me to preview the findings of this investigation.

**Background**

The digital community has undergone a participatory evolution (Anderson, 2008; Grossman, 2006; O'Reilly, 2005b). As digital tools have become cheaper, more ubiquitous, and online software has provided new opportunities the number of people participating in online communities has grown. While the number of adults participating in daily content creation is not particularly high, the trend of participation has increased over the last decade (Rainie, 2011). This trend is also apparent in American teens involvement in content creating and sharing. In 2009 38 percent of teens had shared something they had created online, 21 percent of teens engaged in remixing materials such a songs, texts, and images, and 14 percent had an online journal or a blog (Lenhart, Ling, Campbell, & Purcell, 2009). This rate is higher than adult participation; for instance, only 33 percent of adults either work on a blog or share creative content (Lenhart, Madden, Smith, Purcell, & Rainie, 2011). This research focuses on the information practices of teens as they join in this participatory culture.

**Development of Research Interest**

Grounded theory research can begin with a research interest from the field or researcher’s experiences (Charmaz, 2006; Urquhart, 2001). Grounded theory encourages researchers to ask questions about their observable world. The research interest that guided the beginning of this
investigation was - how are teens engaging with information in order to participate in creating and sharing content? It started as an interest in the types of digital activities I was witnessing, and how information was being accessed and used to engage in these activities. In this section I describe how the research interest developed from my experiences.

My interest in how teens were using information emerged from my experience as a teacher librarian at an American high school. As a professional I was teaching teens to find, evaluate, and use information to complete school assignments. I based instruction on the Information Power standards from the American Association of School Librarians (AASL & AECT, 1998). I introduced students to different models of the research process such as the Big6 (Eisenberg, 2001) and Kuhlthau’s Information Search Process (Kuhlthau, 1995). However, what I observed as a teacher caused me to question the effectiveness of the instruction and the research models. In particular I questioned whether the skills I taught were generalizable to everyday contexts. Assessments in my library suggested that mastering skills within one context, or discipline, did not necessarily mean skills were utilized in different contexts. Furthermore, my observation of different approaches to everyday life information seeking suggested that students did not use the skills they developed for academic purposes when seeking information for personal needs.

This observation was consistent with what was seen in research into youth information behaviors. This research indicated that skills did not necessarily cross contexts between school and everyday life contexts (Edwards & Poston-Anderson, 1996; Fisher, Marcoux, Meyers, & Landry, 2007; Todd & Edwards, 2004). Research also indicated that skills were poorly developed (Gross & Latham, 2009; Gunter, Rowlands, & Nicholas, 2009; Hughes-Hassell & Agosto, 2007; Large, Nesson, & Beheshti, 2008; Livingstone, 2008a; Lu, 2010; McTavish, 2009; Weiler, 2005). Despite the findings of information behavior research I observed teens acting as competent information users. They were able to access and use information to meet personal information needs. The observation of teens as competent in accessing and using information was particularly evident in their personal creating activities. The teens I observed produced films, wrote blogs, and were writers and editors in fan fiction communities. In doing so they accessed and used information effectively and efficiently. They demonstrated an ability to leverage online communities for needed information. As I considered what I was observing as contrasted to research that suggested youth lacked information seeking skills I was motivated to
pursue this interest in a formal manner. I was interested in how information was used to participate in digital communities that were focused on this activity.

**Developing the Problem**

The research question - what are the information practices of teen content creators? - developed from the interest in how teens engaged with information to create and share content in digital communities. The interest was grounded in my professional experiences and readings, signaling initial questions for investigation. As I observed teens participate in content creation I asked the following questions: How did teens find, evaluate, and use information to create content? How did they use information to participate in these communities? What were the skills needed to participate in the communities? Additional questions regarding their communities arose from those initial questions: What communities are they participating in? How do they learn about the different communities? How do they choose to participate in these communities?

The initial questions provided a foundation for the initial data collection. However, a specific focus for the research problem and/or findings had not emerged. Glaser and Strauss (1967) said it would “be presumptuous to assume that one begins to know the relevant categories and hypothesis until the ‘first days in the field’ are over (p. 34). In keeping with this principle early data gathering was not guided by a focused question, rather initial interviews explored the developing research interest. In applying grounded theory methods data was collected and analyzed concurrently (Charmaz, 2006). This process of collecting and analyzing data using the principles of grounded theory allowed emerging concepts to develop that helped focus the investigation. Consequently as the investigation proceeded the research question developed a focus.

It was through this methodological process that the term information practice was adopted. This research approaches information practice as distinct from information behavior, as explored in chapter four. Savolainen (2007) has suggested that information practice is an umbrella concept, different from information behaviors. While this position has been contested (T. Wilson & Savolainen, 2009), I adopted information practices with the intent of describing the reason for this choice. The reasons are both epistemological, in that practice is a sociocultural
framework and in response to youth information behavior research that focused on the individual rather than the community.

**Research Problem**

The research question:

- What are the information practices of teen content creators?

was constructed from analysis of early data collection that had been based on the research interest – how are teens engaging information to create and share content? In teens’ descriptions of how they engaged with information while creating and sharing content the following areas of information practices emerged:

- The social structure of the community as represented by participation and interaction, and the tools of the community that allowed for participation and interaction.
- The various ways information was experienced in participating, creating, and sharing content.
- The actions in which teens engaged in while participating, creating, and sharing content.

The resulting model of teens’ information practices describes how information actions intersect with their experiences of information. It also suggests that the information practices are located within a community of practice that shapes their understandings of the information through social interaction. Therefore each of the components contributes to understanding information practices.

**Significance of the Research**

This investigation contributes to several research areas of interest within library and information science (LIS). First it contributes to conversation that focuses on information practices. It presents a model of information practices that includes how information is experienced, and the actions associated with these experiences that shape the information practices of learning community, negotiating aesthetic, negotiating control, negotiating capacity, and representing knowledge. Additionally it suggests a model for how the information practices are related to one another with regard to participating in a content creating community. Information practice is an emerging field of inquiry in LIS and this research helps define the field in its contribution to the conversation. This is further discussed in chapter nine.
Furthermore, the research contributes to youth research in LIS by investigating teens beyond their role as student. It recognizes that youth are producers of information as well as seekers. And it investigates their information practices in relation to their recreational interests. Existing research in this area is limited, particularly when it focuses on artistic hobbies rather than developmental or academic information needs (Bernier, 2007; Dresang, 1999). Therefore this is a significant contribution to the field of youth research in LIS.

This research also has relevance to new media studies. In new media studies the focus is commonly on the intersection of media (often participatory), computers, humanities and the arts (Peters, 2009). In research focusing on youth in this domain the role of information is underemphasized. However, as this research focuses on information it presents a different lens on the phenomenon. This different lens helps develop a richer, more complex picture of how youth are engaged in creating content.

Limitations of Research

This research provides a snapshot in time of a community and its participants. It is a small-scale, geographically located study of a limited age range. This limits its generalizability. While the activities and digital participatory communities are diverse, there were only eleven participants. Furthermore, the digital tools and communities change over time, as was reflected in observation and interviews of the participants. As such the study attempts to generalize the practices of communities, but recognizes that they may change as the tools and the community members evolve. Observation of the communities occurred over several years, from June 2009 – February 2012, this provides a time frame to my analysis of the communities that needs to be taken into account. However, the length of time did allow for some stability in description of practices within the community. As is necessary with any research, further investigation will be important.

Furthermore, this research is based on an assumption that by enacting information practices teens are learning in informal contexts. In using the theoretical framework of a community of practice to shape the analysis of communities I indicate that I consider participation learning. As Wenger (Wenger, 1998) states, “social participation is a process of learning” (p. 4). And yet I do not explore the theoretical construct or idea, what is learning?
This assumption should be considered and examined closely in future work. Moreover the process of learning in relation to information practices deserves more explicit analysis.

**Glossary of Terms**

In this section I outline the definition of terms that contribute to shaping the research problem. While the terms may not have been explicit in the development of the research question they contribute to understanding how the research question developed, and how the findings were constructed. The definitions are not explored in theoretical depth as they will be in later chapters but provide a frame of reference for the upcoming chapters. Furthermore, I will use the terms to preview the findings.

**Social constructionism:** By adopting social constructionism this research recognizes the impact that culture has on the individual and the construction of knowledge. It theorizes that knowledge is constituted through interaction and is intersubjective (Crotty, 2003). This is a foundational concept to the framework of community of practice, which is used to describe the communities in which teens participated.

**Communities of Practice:** A community of practice is created through a shared pursuit over a sustained amount of time (Wenger, 1998, p. 45). Communities of practice were first delineated as a concept by Lave and Wenger (Lave & Wenger, 1991) to describe situated learning. Wenger (1998) expounded on it and provided a theoretical definition that will be explored in chapter five. However, a foundational notion is that they are “so informal and pervasive they rarely come into explicit focus” (p. 7).

The communities of practice that teens engaged in were DeviantArt, YouTube, Vimeo, SoundCloud, ReverbNation, FanFiction.net, smaller communities within the larger sites, and communities they built themselves through using the tools of the Internet such as Blogger, MoonFruit, and MyFastForum. The communities engaged in interaction around shared content by commenting, “liking”, and responding through their own content. The communities of practice framework provided a structure for describing the teens’ communities. The framework was adopted after it emerged in the data that the communities were described by teens based on how they understood what the purpose of the community. Furthermore, it was clear that there were implicit, or unspoken, rules and member’s roles in the communities that shaped a teens’ involvement in the community.
**Digital Participatory Communities:** A digital participatory community is built upon the idea of community of practice and a theory of participatory cultures. A participatory culture is defined as “a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one’s creations, and some type of informal mentorship” (Jenkins et al., 2006, p. 3). They have also been referenced as informal learning communities (Jenkins, Clinton, Purushotma, Robison, & Weigel, 2006). Participatory cultures do not have to exist exclusively online; however this research is focused on online or digital participatory cultures. There are four forms of participatory culture:

- **Affiliations.** These are cultures that develop around formal and informal memberships in a community; examples include Facebook or online gaming.
- **Expressions.** This refers to the production of new creative forms such as fan videos or fan fiction.
- **Collaborative problem solving.** This form refers to users working together in teams to complete tasks and develop new knowledge. Examples include Wikipedia or building open source software.
- **Circulations.** This form can be defined as shaping the flow of media, examples include blogging or podcasting (Jenkins, et al., 2006, p. 3)

In this research a digital participatory community is a community of practice that is built around artistic expression and has strong support for sharing and mentorship, and produces circulations. This was significant in the information practice of learning community as it related to how teens adopted the community in which they participated.

**Practice:** Chapter four explores practice in detail. In short, practice is defined in this research as a performance that has meaning within the social, cultural, historical context in which it occurs and as it is mediated by social and material structures (Kemmis, 2011; Schatzki, 2001a). This suggests the following: that practices are located in time and place, are impacted by the social community they occur in, and are enabled by the tools or material items of that community. Practices take into account the tacit knowledge of a community such as the tenor of interactions or the roles adopted by different members of the community. There is a physical relationship between the body and the performance, therefore practices are understood to be embodied. And finally, practices are negotiated through discourse and interaction.

**Socio-technical affordances:** These are the tools and community structures that exist to support a digital participatory community (Kimmo Tuominen, Savolainen, & Talja, 2005).
Affordances refer to the properties of the tools or social structures that allow actions to occur. Thus the technical affordances are the tools of a community that enable interaction such as commenting, using emoticons to indicate a reaction to content, and adding members to “watch” lists. These tools, or technical affordances, produce social practices. In describing teens’ communities of practice I also describe the socio-technical affordances of the community. This description contributes to how we understand teens’ information practices.

**Information Practice:** While the term information practice is explored in greater detail in chapter four, a brief definition is the ways a community engages in information activities as constructed within the community, and aided by the affordances of the community (Kemmis, 2011; Rouse, 2006; Savolainen, 1995). This indicates that information practices are how a community engages in the situated actions of seeking, evaluating, sharing and use of information.

Information practices are often represented as structured information actions (Savolainen, 2008). The actions are the concrete ways we access, evaluate and use information. These actions are embedded within a community (McKenzie, 2003b; Savolainen, 2008; Kimmo Tuominen & Savolainen, 1996). The meaning of the information is constructed through conversation (Kimmo Tuominen & Savolainen, 1996). Furthermore, the tools and social structure of a community are presented as the affordances of the community, and therefore enable information practices (Pilerot & Limberg, 2011; Veinot, 2007). Information practice suggests an alternative to information behavior, in the ways it describes how people “deal with” information and the focus it places on community (Savolainen, 2007). This research uses the term information practices as a framework for describing how teens engaged information while creating content. As such it is in conversation with existing information practice research.

**Content:** Conceptualizations of content in digital participatory communities are broad and varying. For example, content has been conceptualized as social networking profiles (boyd, 2008b), blogs (Huffaker & Calvert, 2005), machinima (Lowood, 2008), fan fiction (Black, 2005), videos (including fan videos as well as original videos) (Ito et al., 2009; Kann et al., 2007), and web sites (Stern, 2008). However for the purposes of this research, content is defined as that which is created without a template. It takes a broad approach in investigating fine art, music, film making, blogging, fan-fiction, programming (games), and storytelling.
Youth: The focus of this research is on teens, participants ranged in age from 15-19. Since it builds upon youth research it is necessary to understand the age ranges as understood by those who utilize the terms. Youth refers to the age range that incorporates children, teenagers, and young adults in their early 20s. Children are generally understood to be under the age of twelve, whereas teens are understood to be between the ages of 13 and 19. The participants in this research are teens; however in investigating the literature relating to the research interest and specifically the research problem, youth research was investigated.

Overview of the Chapters

Grounded theory studies, such as this one, may be difficult to organize (Dunne, 2010). This thesis introduces the method chapter first. As a grounded theory investigation the process of the investigation was influenced by the principles of the methodology. As a result the methods used for data collection and analyses are described early in the structure of the dissertation in order to provide a context to the remaining chapters. The literature review occurs in two chapters. Chapter three, Sensitizing Concepts, introduces the literature that was reviewed to provide background to the initial research interest. Chapter four, Theoretical Sensitivity, introduces the literature that was reviewed after analysis produced an initial theory. This chapter helps provide context to the findings for a reader. I then introduce the findings of the investigation in chapters five, six, and seven. This includes describing teens’ communities of practice, the experiences of information, and the information actions. These were the building blocks for the constructed grounded theory of teens’ information practices. In chapter eight, Information Practices, I introduce the constructed grounded theory. In chapter nine I return to the extant literature to highlight how the findings are in conversation with the literature. In the final chapter I highlight the significance of the study, acknowledge the limitations, and suggest directions for future research.

Chapter Two: Methodology

Chapter two outlines the methodology. It describes the epistemological position of social constructionism, which impacted the choice of the methodology. Grounded theory has evolved since it was first described in 1967 (Charmaz, 2006; Corbin & Strauss, 2008; Dey, 1999). This research takes the constructivist grounded theory approach articulated by Kathy Charmaz. I
explicate the reasons for this choice in chapter two after I briefly describe the history of grounded theory. This includes the conflict between the founders, Barney Glaser and Anselm Strauss. Given the evolution of grounded theory, I argue that constructivist grounded theory is an appropriate methodological choice for this investigation.

I then explain the process of data collection and analysis. This includes how I identified potential participants through gatekeepers. I then describe the primary method of data collection, semi-structured interviews. Semi-structured interviews were guided by a series of questions that evolved as data analysis progressed and the theory began to be constructed. Data was also gathered through observation of the community. While the data collection and analysis occurred concurrently the description of the analytical process follows the description of data gathering. In this description I describe the coding procedures, including both the initial coding of data and the focused coding that was used to develop categories. The technique of constant comparison of the data and the emergent theory was employed and coding was an iterative process. I further describe the use of theoretical memos, in which I explored new ideas. Finally I explore the concepts of theoretical sampling and saturation, which allowed me to confirm the theory with additional participants. Chapter two is a map of the research journey, and provides context to the remainder of the dissertation.

Chapter Three: Sensitizing Concepts

Chapter three provides a review of the literature that was explored for the background of the research problem. Traditional grounded theory suggests leaving the literature review until after data collection (Glaser & Strauss, 1967). In Charmaz’ (2006) pragmatic approach she recognizes there may be a need for an early literature review; however she recommends taking a critical approach by treating “extant concepts as problematic” (p. 166). I have followed the advice of both Dunne and Urquhart who suggested that an early literature review might be necessary to provide sensitizing concepts (Dunne, 2010; Urquhart, 2001). This is also consistent with Charmaz’ (2006) recognition that students may find this a necessary approach.

In chapter three I outline the literature that I reviewed to identify sensitizing concepts relating to the initial research interest. Sensitizing concepts provide ideas to investigate, and influence the types of questions that are asked (Charmaz, 2006). The sensitizing concepts in this research are related to the context, and the content creating practices youth engaged in, as well as the ways in which their information seeking and use have been conceptualized. First I provide a
definition of the context of the study. Second, I explore teen's online activities from the perspective of new media studies. This literature provided a conceptual understanding of the types of content creating activities teens engaged in. Third, I review literature in the area of youth information behavior within the Library and Information Science discipline. This literature review reveals a gap in the research that this investigation addresses.

Chapter Four: Theoretical Sensitivity

When the components of teens’ information practices emerged from the data, practice theory provided a useful framework for describing the pieces of the theory of teens’ information practices, and nuanced concepts to look for in the data. Chapter four explores the extant literature related to the theoretical framework of practice. It also reviews literature related to information practices. This literature helped provide theoretical sensitivity. Theoretical sensitivity is the researcher’s ability to perceive nuances in the data (Mills, Bonner, & Francis, 2006b). They argue that extant literature read throughout the process is “another voice contributing to the researcher’s theoretical reconstruction” (p. 5). The literature reviewed in chapter four was not engaged until data collection and analysis had significantly progressed and acted as another voice.

In chapter four, I explore how practice has been theorized. First I define practice through exploring the common themes of practice. The common themes of practice are: tacit knowledge, the role of the individual and the role of cultural understanding, embodiment, the role of language, and how actions are mediated by social and technical structures. In this chapter I explore what is meant by tacit knowledge or shared, but unspoken, understandings of a community. I articulate the tension between the individuals’ understanding of their performance as opposed to how the community makes meaning of the performance. I also describe the role of language as it acts as a mediator when meaning is negotiated. I explain the role of time in practice theory. And finally I discuss how practices are enabled or constrained by the structures of the site they are enacted within. I then introduce a community of practice framework, which is used in chapter five to explore the digital participatory communities teens are participating in.

In the final section of chapter four I explore the literature relating specifically to information practices. I first examine how the discipline has theorized information, while explicating my theoretical position on information. I define information practices, and describe the research that has used information practice as a theoretical framework. This research has
defined information practices as consisting of recognizing information practice as a social activity. The research suggests that information practices are an organized structure of actions related to seeking, sharing, and using information. I pay particular attention to the ways information sharing has been constructed, either as a practice or an activity. And finally I address how the research has responded to the role of socio-technical affordances as they shape information practices.

While this research recognizes and engages in the information practice research it was not until data collection and analysis were completed that the literature of information practices was considered in depth. Consequently despite the early placement of this chapter within the structure of the dissertation the actual process of reviewing the literature occurred after the initial analysis.

**Chapters Five, Six, and Seven**

In Chapters Five, Six, and Seven I introduce the components that are related to information practices. In digital participatory communities there are a number of practices that can be investigated that define the community. In the Figure 1-1 below I represent two different practices of digital participatory communities: social practices and content creating practices. These practices are fundamental to the ability of digital participatory communities to exist. The arrows that represent how the gears turn are symbolic of the information practices that drive these practices. In order to fully describe information practices it is important to recognize that they are significant to other practices of the community. Information practices contribute to and are embedded within content creating and social practices.

![Figure 1-1: Community Practices](image-url)
Furthermore, information practices consist of experiences of information and information actions. Information actions derive meaning from how the information embedded within the action is experienced. Information Practices are the intersection of experiences of information and information actions as situated within a digital participatory community.

While reading Chapters Five, Six, and Seven it is helpful to keep in mind that information practices are embedded in different community practices, and that information practices exist at the intersection of experiences of information and information actions.

Chapter Five: Digital Participatory Communities

Chapter five describes the context of the specific digital participatory communities under investigation and the participants of the community. It uses a community of practice framework to describe teens’ digital participatory communities. It describes communities as being formed through a mutual engagement in activity. They are shaped by joint enterprises, which is the negotiation of the meaning of the mutual engagement and how it occurs. And finally it is bound by the shared repertoire, the knowledge of the community. Communities of practice rely on information. Information is how the joint enterprise is negotiated, and it is represented in the shared repertoire. The chapter also provides a more complete description of the participants as they are related to their communities, including information about motivation and relevant backgrounds.

Chapter five explores DeviantArt, YouTube, Vimeo, SoundCloud, and ReverbNation as digital participatory communities that are communities of practice. It also explores communities of practice that are created by participants using the tools of the Internet, and reflect smaller communities. In doing so they create digital participatory communities. The descriptions of the communities take a critical approach in considering how the technical structures of the community allow for social interaction. The social interaction and technical structures of the communities shape how teens experience information, and the information actions they perform. As a result the descriptions of the communities provided context to the information practices defined in chapter eight.
Chapter Six: Experiences of Information

Chapter six describes the information experiences of teen content creators. It introduces five information experiences: information as participation, as inspiration, as collaboration, as process and as artifact. The experiences of information indicate that information is diverse in relationship to the practices of a community. The experiences of information introduced teens to the tacit knowledge of a community, as well as providing a shape to their ideas for content creation, and a space for reflecting on knowledge. The experiences of information intersected with information actions to form information practices.

Chapter Seven: Information Actions

Chapter seven describes the information actions teens engage in while creating content. The findings in this chapter have been previously published as “Teen Content Creators: Experiences of Using Information to Learn” (Harlan, Bruce, & Lupton, 2011).

There were three conceptual categories of information actions, gathering, thinking, and creating. Gathering actions were guided by intentional needs and occurred through unintentional actions. Gathering included serendipitous encounter, observation, focused browsing, and direct searching. Thinking actions related to how teens used the information they gathered. Thinking included evaluating, musing, considering, planning and reflecting. Creating actions were the visible use of information. They included copying, modeling, and composing. The information actions intersected with experiences of information to form information practices.

Chapter Eight: Information Practices, Bringing it Together

Chapter eight explores the information practices in digital content sharing communities. It proposes a model of information practice in which the actions and experiences of information intersect. The five information practices are tied to the five experiences of information, with different embedded information actions. These practices are situated within the context of the community.

In this chapter I describe the information practice of learning community, which includes adopting a community of practice and learning the roles, rules, and norms of a community. I also define the information practice of negotiating aesthetics. Negotiating aesthetics is how teens define what content has personal value and develop a sense of originality. Next I define the information practice of negotiating control. Negotiating control is how teens take ownership of
knowledge and process. Next I describe the information practice of negotiating capacity. Negotiating capacity is the practice of applying information in order to create content, and it includes the physical capacity, an awareness of information needs, and the ability to apply knowledge gained from negotiating control. I then describe the information practice of representing knowledge. Representing knowledge is teens producing a performance (content) to share with the community.

Finally, this research presents a model of information practices situated in digital participatory communities. A brief description is that information practices in digital participatory communities consist of an intersection of how information is experienced and the actions that enable that experience. There are five conceptual categories of information practices: learning community, negotiating aesthetic, negotiating control, negotiating capacity, and negotiating knowledge. The categories of information practices overlap with each other, enabling the full process of creating content to ensue. This is represented in the figure below (Fig. 1-2; Information Practices).

![Information Practices Diagram](image)

Figure 1-2: Information Practices

Chapter Nine: Discussion

Chapter nine provides a discussion of the research findings as related to practice theory and information practice research. First, it returns to the general theoretical framework of practice theory to explicitly relate findings to the concepts of performance, situated practice, tacit
knowledge, embodiment, and discursive negotiation. Second, it explores the relationship of teens’ information practices and findings from information practice research. It specifically addresses information practice as socially situated and a collection of structured actions, the role of discursive negotiation through language, as an embodied experience. In conclusion the chapter provides a summation of the relationship of the findings to existing theory and research.  

Chapter Ten: Conclusion

This chapter provides an overview of the research. It returns to the methodology to once again elucidate the role it had in shaping the research. It reviews the model of information practices, and states that information practices enable teens to participate in the social and creating practices of digital participatory cultures. I introduce the significance of the findings in relation to information practice research and youth and information research. I then outline the limitations of the research. I use the limitations of the research to suggest future directions, including exploring the relationship between information practice and learning, and as the theory might be applied.
CHAPTER 2 GROUNDED THEORY

Introduction

This chapter describes my theoretical and methodological choices. It seeks to explicate my position as a researcher, as well as build an argument for the use of a qualitative approach. Specifically it argues for the use of constructivist grounded theory as an appropriate method to investigate the research problem: what are teen content creators’ information practices? It describes the process of selecting participants and gathering data through semi-structured interviews and observation of the content creating communities in which teens participated. It also describes the process of data analysis, which occurred throughout the investigation. Data collection and analysis contributed to the construction of a theory, through the use of theoretical memo-ing and sampling to explore and enrich the emerging findings.

A Qualitative Research Approach

Qualitative research seeks to “examine various social settings and the individuals who inhabit them” (Berg, 2004, p. 3). My initial interest in teen content creators arose from my experience as a teacher librarian, and in observing the teens in the school library. I was interested in describing the processes I was observing, as well as problematizing my own understandings of their process. This interest developed when I recognized that teens were creating content for their own purposes rather than school assignments, and they were doing so without formal instruction. Furthermore, teens were accessing and using information while creating content. Nevertheless they were not obviously using the skills I had taught them based on the Information Power standards (AASL & AECT, 1998). This led me to wonder how they were accessing and using information, and how they learned the skills to effectively participate in content creation and sharing. The emerging research interest sought to describe a process of using information to create and share content. Furthermore, this interest was grounded in an observation that the community impacted the content creating experience. I posited that the social setting was particularly relevant to teens’ content creating and their use of information. Therefore it was appropriate to adopt a qualitative approach to the investigation.
There were additional reasons I chose to adopt a qualitative approach; I was interested in valuing the voice of the teen content creators. Youth study scholars argue that we should conduct research that empowers youth (Best, 2007). By taking a qualitative approach I felt I could represent youth action in a richer way. By valuing and representing their voice in the methodological approach I could empower them in describing their process of engaging information, and attempt to “understand a phenomenon from the perspective of those engaged in it” (Livingstone, cited in Jenkins, 2009, para 2). Furthermore, the way I saw the world impacted my choice of a research approach. I believed that truth was subjective and that our culture shaped our knowledge. This positioned me in a particular epistemological paradigm, which I explore in the following section.

**Epistemological Considerations**

The choice of a methodology and the methods used to collect data should be guided by the research question (Crotty, 2003). However the researcher also guides these choices according to what they believe and how they understand their world, and the knowledge within it. A researcher does not come to an investigation a “tabula rasa” or blank slate (Charmaz, 2006; Glaser & Strauss, 1967). Thus explaining the choices made in the research design requires that the researcher examine their understandings of the world, and their philosophical stances that guide their choices. In designing research Crotty (2003) suggests that a researcher should ask what philosophical stance informs the methodology and what epistemology informs the theoretical perspective. I began with these questions before adopting a methodology; therefore my epistemology impacted my methodological choice. This section explicates the epistemology that guides my choice of grounded theory.

*Constructionism and Constructivism*

This thesis is underpinned by the epistemological assumptions of social constructionism and social constructivism, and the ways they interact in our understandings of our world. A blurring between the terms constructionism and constructivism often occurs and they are occasionally used interchangeably (Bryman, 2008). However, there is a primary difference that I wish to explore. While they share a key tenet: “Meaning is not discovered, but constructed” (Crotty, 2003, p. 42), the focus on the cognitive individual versus the community is at the root of
the difference. Constructionism holds that meaning is socially constructed through interaction between individuals and the world around them. Constructivism is a paradigm that asserts that meaning is constructed by an individual (Bryman, 2008; Charmaz, 2006; Crotty, 2003; Mills, et al., 2006b). Crotty (2003) explores the differences between constructionism and constructivism by suggesting:

It would appear useful, then, to reserve the term constructivism for epistemological considerations focusing exclusively on ‘the meaning-making activity of the individual mind’ and to use constructionism where the focus includes ‘the collective generation [and transmission] of meaning’ . . . Whatever the terminology, the distinction itself is an important one. Constructivism taken in this sense points up the unique experience of each of us . . . On the other hand social constructionism emphasizes the hold our culture has on us (p. 58).

As Crotty acknowledges the view of social constructionism emphasizes that experiences are informed by an individual’s prior social experiences and interactions within their world; despite the fact that individuals have a variety of different experiences that might make each life unique. The cultural norms and knowledge that an individual learns while participating in a culture help create the individual’s personal constructions of knowledge (Kemmis, 2011; Schatzki, 2001b). Meaning making within a community means the collective contributes to understanding, thus an individual’s knowledge is informed by the community (Wenger, 1998). Despite the influence of social interaction on individual’s knowledge construction it should be acknowledged each individual has a unique experience within a particular culture (Mills, Bonner, & Francis, 2006a). Individuals construct knowledge through a diversity of experiences in a variety of communities. As such, knowledge-making experiences are both unique and informed by cultures. It follows then that there is a tension that exists between social constructivism’s emphasis on the individual and social constructionism focus on the social.

This research is informed by social constructionism. It explores digital content creating communities to understand the role they have in the process of knowledge construction. It investigates the information practices of these communities in order to create and share content, presuming that in engaging in information practices there is knowledge construction. The method I adopt is constructivist grounded theory. As I position myself with a social constructionist paradigm I use constructionism as a term when referring to my research, and its epistemological position, rather than Charmaz’ term constructivist.
Grounded Theory

The starting point of this investigation was how do teens engage with information when creating and sharing content? In considering what methodology to use to investigate this question I wanted to consider my intentions. First, I wanted to investigate this phenomenon from the teen’s perspective. Second, my approach would necessarily be informed by my epistemological understanding that we construct meaning of our world through interaction. Thus it would be interpretivist research as I was constructing a meaning of a social action. Hence, constructivist grounded theory presented itself as an appropriate approach to this investigation.

In the following sections I describe the theoretical perspective of constructivist grounded theory. I then describe the history of grounded theory, including how it has evolved. Finally I describe constructivist grounded theory and argue for its appropriateness to the investigation.

Theoretical Perspectives of Grounded Theory

Constructivist grounded theory is informed by the theoretical perspective of symbolic interactionism (Charmaz, 2006; Crotty, 2003). There are three basic assumptions of symbolic interactionism:

- That human beings act toward things on the basis of the meanings that these things have for them;
- That the meanings of such things is derived from, and arises out of, the social interaction that one has with one’s fellows;
- That these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters (Crotty, 2003, p. 72).

In designing this inquiry I have made the assumption that teens are constructing meaning through interaction within the community, and that they are interpreting the process. In using constructivist grounded theory I am choosing to investigate their interpretive experiences.

Symbolic interactionism has been informed by and is grounded in the pragmatist philosophy, a worldview that is formed by considering actions, situations, and consequences rather than concerning itself with conditions (Charmaz, 2006; Corbin & Strauss, 2008; Crotty, 2003). Pragmatists are typically concerned with “truth at the time” (Creswell, 2009, p. 11), and use multiple methods to illuminate that truth. Pragmatism is a position that has been criticized for its uncritical approach to accepting the perspective of the ‘other’ without a critical
examination of culture (Crotty, 2003, pp. 75-76). This does not necessarily need to be the case, as pragmatism does not commit itself to one philosophy or method (Creswell, 2009). This investigation is concerned with “truth at the time”; however it also seeks to illuminate how the culture of the community impacts the process. As such, in describing the communities it uses an analytical eye.

The History of Grounded Theory

Grounded theory was first delineated as a methodology by Barney Glaser and Anselm Strauss in The Discovery of Grounded Theory (1967). They argued for a methodology that provided a “discovery of theory from data systematically obtained from social research” (p. 2). They defined theory as a “strategy for handling the data in research, providing modes of conceptualization for describing and explaining” (p. 3), and identified two different types of theory, formal and substantive. Substantive theory was developed for an empirical area of study, whereas formal theory was developed for a conceptual area of inquiry; both are referred to as “middle-range theories” (p. 32).

Glaser and Strauss outlined the principles of applying grounded theory emphasizing the constant comparative analysis of conceptual categories. They describe a process in which collection and analysis “generates conceptual categories or their properties from the evidence, then the evidence from which the category emerged is used to illustrate the concept” (p. 23). This emphasizes that theory is grounded in the data, and that the theory is emergent. They conceptualized the development of theory as a process, emphasizing the simultaneity of data collection and analysis. They also outlined a process of advancing theory throughout the investigation by memo writing. Memo writing is a way to explore developing conceptual categories and to conceptualize the connections between categories (Charmaz, 2006). Glaser and Strauss (1967) also describe theoretical sampling to test emerging hypotheses. Theoretical sampling allows researchers to seek data to further develop emerging theory (Charmaz, 2006).

Since the initial outlining of the methodology in 1967 grounded theory has developed and been adopted by both the positivist and interpretivist positions (Charmaz, 2006; Corbin & Strauss, 2008; Dey, 1999). Glaser and Strauss hailed from different research positions – Glaser from a positivist tradition and Strauss from an interpretivist tradition (Charmaz, 2006; Dey, 1999). Glaser’s positivist tradition accepted that there was a single objective truth that could be discovered and experienced in the same manner. Strauss positioned truth as subjective, and
created within a particular moment. Strauss’ interpretivist position was based in symbolic interactionism and pragmatism. He believed that “truth is equivalent to ‘for the time being this what we know- but eventually it may be judged partly or even wholly wrong’” (Corbin & Strauss, 2008, p. 4). He accepted that knowledge was created through interaction (p.2). It is possible that while working together the conflict in Glaser and Strauss’ epistemological positions were never fully explored, as epistemology is not explored in the seminal text, The Discovery of Grounded Theory. The lack of such exploration suggests that there is the possibility of different epistemological positioning while the methods remain useful in different paradigms.

Conflict and Evolution

The many interpretations of grounded theory have led to multiple critiques of the methodology, some of which are based on the analysis of the epistemological positioning of the original text. In reviewing the critiques Dey (1999) analyzes a critical thread in which the positivistic language of the original text is contrasted to the goals of inductive reasoning. There is some basis to this concern. Strauss and Glaser (1967) discuss verification, properties of categories, testing hypothesis, and sampling, which are terms used in positivist research paradigms. However they also stress that data should guide the research and theory development that relies on inductive reasoning. The use of language consistent with deductive reasoning and positivism to discuss a method based in inductive reasoning can be confusing. Despite this, the ultimate goal of the method is to allow conceptual categories and properties to emerge from data and this should be the primary concern of a grounded theory approach to research design.

This conflict in using language common to positivism while focusing on emergence is never fully resolved and led to the divergence in application of grounded theory between Strauss and Glaser. In particular, there is an argument surrounding coding methods. Glaser’s stated approach has continued to emphasize that theory is built from codes that derive directly from the data. Strauss and his new co-author, Corbin, who had begun to explore the process of verification of a theory, developed a coding method that guides the process of coding and analyzing data. Glaser argued that their version of coding “forces” data into a particular coding scheme (Urquhart, 2001, p. 127). However, in Theoretical Sensitivity (1978) Glaser takes the opportunity to further describe the methods of grounded theory as he conceives of them. In this text he outlines the properties of data, creating 18 coding families a researcher can use to build
categories as the building blocks of theory. Glaser emphasizes that the coding families are a guideline, and should not be used unless the data warrants usage. Nevertheless, it seems that a researcher could force data into Glaser’s coding families. Therefore, it seems the important point is to avoid forcing data into any version of preexisting categories.

Understanding the conflict between the founders of grounded theory gives a more complex picture of the methodology that can enrich the application of the method to a research problem. It also lays the groundwork for placing the methodology within various epistemologies, as many researchers and authors have done (Charmaz, 2006; Dey, 1999; Urquhart, 2001). Recognizing that the lack of epistemological underpinning in the original delineation of the theory has led the application of the method to evolve and has allowed it to be placed in a variety of theoretical perspectives. Thus Charmaz (2006) has argued that grounded theory guidelines are “in many ways, neutral” (p. 9), suggesting that the methodology is a grounded theory is a collection of methods for collecting and analyzing data that can be placed in differing epistemological and theoretical positions. Charmaz’ understanding of the neutrality of the guidelines has led her to explicate grounded theory within a constructivist epistemological position. She states that researchers construct theories rather than “discover” them (Charmaz, 2006, p. 10).

**Constructivist grounded theory**

Constructivist grounded theory challenges the notion of discovery that Glaser and Strauss emphasized in the original text. Strauss and Glaser (1967) discuss emergence, believing that theory emerges from the data. This indicates that Strauss focused on emergence, despite his interpretivist position. In contrast the basic tenet of the constructivist approach is that “neither data nor theories are discovered. We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices” (Charmaz, 2006, p. 10). Charmaz suggests that researchers are situated in the world and that developing a theory is a construction of knowledge. Therefore, the primary difference is that the theory is constructed with participants as meaning is shaped through interaction between researcher and participant.

Constructivist grounded theory was an appropriate methodological choice for this research. It was consistent with my constructionism worldview in that it suggested that a theory was constructed, rather than found in the data (Charmaz, 2006). This position acknowledges the
subjectivity of the researcher in analyzing data (Charmaz, 2006). As I understood knowledge to be subjective, it was important to use a method that adopted this position. Additionally this investigation focused on the process of participating in creating and sharing content. It follows then that constructivist grounded theory as it focuses on constructing a theory the actions and process of experience (Charmaz, 2006) was an appropriate methodological choice. Furthermore, the method allowed me to value teens’ voices in describing their experiences, as it positioned the development of theory as a “co-construction between researcher and participants” (Charmaz, 2006, p. 130). Finally this approach shaped the research problem as data was collected and was analyzed, a primary tenet of grounded theory (Charmaz, 2006; Glaser & Strauss, 1967). As such, the research interest in teens’ use of information when creating and sharing content developed into the question, what are the information practices of teen content creators?

Data Collection

Grounded theorists Glaser, Strauss, Corbin, and Charmaz agree that grounded theory is a method designed to investigate the process and the actions people engage in to make meaning in a particular context (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967). Charmaz (2006) states throughout her book that the focus of data collection and theory building should be on the actions of the participants, although the constructionist approach in examining a community of practice would necessitate investigating the actions of the community as well as individual participants. Furthermore, the emphasis of the method is on the ongoing, simultaneous and iterative nature of both data collection and analysis (Charmaz, 2006; Glaser & Strauss, 1967). As such it can be difficult to separate data collection from analysis. This chapter is organized by following the principles of grounded theory methodology. It describes developing a participant cohort and the initial data collection. It then describes the process of coding and analysis. Finally it describes the process of theoretical memo-ing, and theoretical sampling, which included additional data collection. It then addresses the question of when to stop collecting and analyzing data, known as saturation (Dey, 1999).

Ethical Clearance

Ethical clearance was received from Queensland University of Technology (QUT) in 2009. The ethics number is 0900000501. Due to the fact that many participants were under the
age of 18 it was necessary to obtain parental, as well as participant, consent. The standard QUT consent form was used with parents and participants.

**Identifying and Accessing Participants**

The initial plan was to identify participants through surveys administered at local high schools. The survey asked students to identify if they participated in specific content creating activities such as blogging, posting original art, writing and sharing poetry online, mashing up or posting original music compositions, writing fan fiction, maintaining a website, and creating programs for online applications such as games. The students were asked if they were willing to participate in research involving these activities and if so to provide contact information for themselves and their legal guardian. It was at this point that consent forms were to be signed by parents and participants.

Unfortunately difficulties involving gatekeepers created problems in implementing the survey at schools. Gatekeepers are defined as “individuals within an organization that have the power to grant or withhold access to people or situations for the purpose of research” (Leonard, 2007, p. 135). In this instance there were several levels of gatekeepers – the superintendent of the school district, the principals at each high school, the department chairs (viewed as the teacher leadership team), the individual classroom teachers, and finally the students surveyed who had the option to not participate in the survey or to participate anonymously if they wished. Difficulties with the varying levels of gatekeepers resulted in difficulties identifying participants.

Return rates on surveys varied widely, with high levels of participation at two schools, and less than one percent of the surveys returned at a third school. Approximately 70 percent of returned surveys identified students who were willing to participate, although many did not meet the parameters of the research, as they were not content creators.

Despite the uneven participation rate the surveys provided a starting point. Students who were content creators and willing to participate in the research were contacted and asked if they and their parent would be willing to participate and provided the consent form. Arising from this initial contact were two students who were willing to participate. Their parents and/or legal guardians provided consent, and, more importantly, so did the teens. However, the process suggested that there would be some difficulty in identifying participants without some intervention from local gatekeepers.
In order to further identify willing participants specific gatekeepers were contacted. These were teachers who taught in subjects that made them likely to be aware of teen content creators (Art, Video Production, and English). They were asked to identify content creators and facilitate access. As Leonard (2007) suggests “access is an ongoing aspect of the research process rather than a one-off event” (p. 136). Consequently identifying participants through gatekeepers was an ongoing process throughout the investigation. The method of identifying gatekeepers to solicit recommendations for participants proved more successful and an additional five participants were identified. This did, however, introduce additional concerns in the research process, particularly involving privacy. In order to reassure participants of their privacy both gatekeepers (teachers) and participants were reminded of the confidential nature of the interviews. Participants were reminded during each interview that they could end their participation at any time, and that they were under no obligation to answer the questions posed.

Introducing Participants

In identifying participants teachers were asked to look for teens that participated in content creation in diverse manners – blogs, videos, fan fiction, etc. They were also asked to identify teens of a variety of ages. Finally they were asked not to recommend “just the good kids.” In other words they were asked to recommend a wide variety of academically successful or not successful students. The resulting participant cohort had 3 boys and 4 girls within a narrow age range (15-19) but with a variety of content producing activities including blogging, sharing visual art, videos, and programming. They ranged from students planning on attending art school, community college, and four-year universities, and they received a wide range of grades in academic classes. They also represented a wide socio-economic range, including teens on free and reduced lunch (an indication of poverty) and teens in possession of the necessary equipment due to their upper middle class families. They lived in diverse areas, including rural homes with little Internet access (dial-up), and more suburban environments. While specific attempts were not made to interview teens from diverse socioeconomic backgrounds, the end result demonstrated the expected diversity of the local geography – which is to say they came from differing family backgrounds and levels of wealth, but represented little diversity in culture and race. The range of socioeconomic diversity is not particularly unusual in rural communities in Northern California. The primary goal of identifying research participants was to interview teens that participated in creating a diversity of materials in a wide variety of communities.
The teens in this study are represented by pseudonyms, often selected by the teen. The table below represents the initial participants and the format of their content. The initial participants (listed in Table 2-1) were interviewed using a similar interview schedule (see Appendix A).

<table>
<thead>
<tr>
<th>Pseudonym (Age)*</th>
<th>Primary Content Shared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hannahsusannah (17)</td>
<td>Web site (MoonFruit hosting service)</td>
</tr>
<tr>
<td>Xeda (15)</td>
<td>Visual Art (DeviantArt)</td>
</tr>
<tr>
<td>Roni (17)</td>
<td>Visual Art, Web Comic (DeviantArt)</td>
</tr>
<tr>
<td>Goku (16)</td>
<td>Video (Vimeo)</td>
</tr>
<tr>
<td>Robert (17)</td>
<td>Video, Forums – story creation (YouTube, MyFastForum)</td>
</tr>
<tr>
<td>Jack (17)</td>
<td>Programming; Forums – beta testing</td>
</tr>
<tr>
<td>Loli (18)</td>
<td>Blog (Blogger, WordPress)</td>
</tr>
</tbody>
</table>

Table 2-1: Initial Participants

The teens reflected a diversity of content while still representing some similarities regarding their chosen format and digital participatory communities. As will be discussed below there were four additional teens that participated in the investigation for the purposes of theoretical sampling.

Participant Interviews

Primary data gathering occurred via semi-structured interviews. Charmaz (2006) suggests that intensive interviewing is well suited to grounded theory particularly because of its flexibility (p. 29). Semi structured interviewing allows the researcher to be reflective and constantly review the questions to determine in relationship to the developing theory. Furthermore, Charmaz suggests that interviewing allows for a demonstration of “respect by making a concerted effort to learn about their views and actions” (2006, p. 19). This was important in meeting my research goal of valuing the teen voice. While there was an initial and theoretical sampling interview guide (see Appendix A) the guides allowed for flexibility while
focusing on particular themes. The guide ensured that ideas were explored but it was not prescriptive, additional questions were asked, and the interview did not proceed step by step through the guide.

The goal of the interviews was to explore the practices of content creation from the perspective of the teen, and to encourage reflection upon the process of creating content. Questions were asked that explored their daily online activities, how they learned of communities and how to create content, the role they saw for themselves within the communities, the impact of the community on their content, and how learning to create and share in those communities was understood by the participants. Issues that arose during interviews included ethics, copyright laws, and conceptualizations of information. These issues were included in analysis despite not existing in the initial interview guide. The interviews provided an insider perspective on the content and the context through exploring the experience of the participants.

**Building Rapport**

Interviewing teens was a process of building rapport. While some of the teens may have known who I was previous to meeting with me, I did not have prior relationships with the teens, and in some cases I was completely unknown to the participants. This presented some concerns regarding the power dynamics, as I was interested in the co-construction of a theory with the participants. An interview is a relationship between two people, and should be treated as such with respect to personal boundaries and the power dynamics (Berg, 2004). Kvale and Brinkmann (2009) suggest that given the specific power roles for the researcher given their scientific knowledge, and the nature of one-directional questioning (the interviewer designed the guide and asks the questions) the goal is not conversation but to answer specific questions through data gathered. The concern is that interviews can be guided by the interviewer’s agenda, which may not be explicit, and furthermore, the interviewer does the analysis. Still, participants have the potential for power roles as well; they can withhold information, or start to question the interviewer in order to take control of the experience. These roles needed to be balanced in order to collect rich data.

In working with teens the power differential takes on specific cultural concerns. In North American teens are often positioned as separate from adult culture and constructed as foreign
(Raby, 2007). This positions the researcher or adult as outsider, while at the same time positions the teen participant as lower status. Teens’ “dependence, low social status, lack of access to institutional resources, and different social skills” (Raby, 2007, p. 57) may provide power to a researcher. Building a relationship was a balance of respecting teens’ positioning as knowledgeable about the subject while still demonstrating my own understandings of their environment in way that suggested I was aware of the basics of the community. During interviewing it was necessary to balance of deliberate naïveté and sensitivity. By adopting a position of ‘deliberate naïveté’ or “openness to new and unexpected phenomenon” (Kvale & Brinkmann, 2009, p. 48) I positioned participants as experts in their own process, if not the process as a whole, while employing sensitivity or knowledge about the topic positioned me not only as interested in their story but aware of their environments.

One technique of building rapport and addressing the power imbalance was encouraging teens to direct the interview by following their personal interests in the conversations even if their interests did not seem immediately relevant to the research problem. This produced interesting lines of inquiry, and while sometimes the lines of inquiry were not seemingly relevant, other times new facets of the research problem emerged. This meant that during the interview questions were asked in natural order rather than how they were constructed in the interview guide. Teens were encouraged to ask questions that were of interest to them but not of specific interest regarding the research. The questions were still explored and answered as a part of natural conversation. This was particularly apparent in Goku and Loli’s interviews in which topics such as power dynamics at local schools and the television show DragonBallZ were discussed. The ability of participants to ask questions, and explore my intentions encouraged rapport. For instance, when a participant asked why I was interested in his process, my answer, which focused on giving voice to teens in describing their practice, rather than constructing it merely through observation, suggested to him (as he stated) that I was respectful of teens and their own agency. He responded, “It’s cool that you are on our side” (Goku, Interview #1). The natural conversational tone of the interview helped shape the relationship between the participants and myself.
Shaping the Research Problem

Over the course of the investigation the interview guide was shaped by analysis and early theory construction. The initial interview guide was used during the interviews with the first two participants, but as new concepts emerged the interview guide was adjusted to reflect the need to explore emerging concepts with new participants. For example, after the third interview with Roni, a question was added that explored the definitions of information and inspiration, and the interaction between the two. As semi-structured interviews allowed for “actively following up on the [participants] answers” (Kvale & Brinkmann, 2009, p. 30) data collection often yielded new concepts for exploration.

Semi-structured interviews also allowed for participants to ask questions. Participant questioning also led to richer data collection, in that their questions exposed my own biases, and provided insight in concepts that I had not previously considered. For example, in discussing information sources, a simple question by the participant to clarify a question regarding information led to a discussion about what information is, how it used, and connotations of information. This exchange allowed the participant and myself to agree upon an understanding of the word information in which it was similar to inspiration, and this emerged as an important concept in the final theory. It also clarified the language being used throughout the interview so that the participant and I had the same understanding of terms and indicated the necessity of clarifying with participants how they conceptualized information when asked about it during the interview. Therefore, the process of conducting semi-structured interviews suggested new avenues of inquiry, exposed assumptions that need exploring, and required that the guides be adjusted as data collection continued.

Observation

In order to understand the communities the teens were engaged in and to contextualize their practices their sharing context was also observed. Observation of context occurred over a one-two year time frame, and while teens were aware of the possibility of observation the other members of their community were not. This could best be described as non-participant observation in that while observing I did not participate, and the observation was unstructured (Bryman, 2008). As the observation was digital “lurking” I chose not to actively participate so as to limit reactivity on the part of the community. Lurking presents some ethical concerns; however it did not occur until after informed consent on the part of the participant was provided.
It is suggested that the more a community is acknowledged to be public the less obligation there is to seek consent of all members (Bryman, 2008); however I felt it important the teens knew of my engagement on their personal pages of the communities, all of which were public and encouraged social interaction. The primary goal of the observation was to understand the role of the community of practice engaged in creating content.

### Analysis

In grounded theory data collection and analysis are ongoing and interwoven. Early analysis helps direct future data collection, and opens new avenues for exploration (Bryman, 2008). The presentation of the method suggests a linear process, but in practice the process of collecting and analyzing data was iterative and the initial analysis suggested areas for further data collection.

**Transcription of Interviews**

Interviews with participants were the primary data sources, although observation informed my understandings as well. Interacting with interview data provided the richest site for analysis, and the process of constant comparison of data yielded a variety of insights that began during interviews, and continued throughout the writing process. After interviews with participants I briefly made a note of my immediate thoughts and reactions. These were primarily ‘gut reactions’ about what ideas stood out in the interview, and were generally focused on concepts that the participant had demonstrated some excitement about during the interview by tone of voice, longer replies, and/or questioning me to learn more about the concept. My initial reaction was often a brief statement made on a different recorder than the one used to record the interview. This allowed me to transcribe an interview and code the interview without influencing the coding by my initial reaction, and yet still preserving my initial thoughts. These initial reactions occasionally provided additional insight when I returned to them, which presented a more complex, textured picture of the content creation process.

I chose to transcribe the interviews myself, which allowed me to become increasingly familiar with the data. Transcription allowed me to interact deeply with the data, and familiarize myself with it at the word level, as well as identify the elements not represented by text and the role they play within the participant’s process. For example, one participant (Loli) was
particularly animated during her interview, using different voices to represent different ideas and concepts, indicating enthusiasm or displeasure within a community she was interacting in. Transcribing her interview with attention to the voice changes revealed information regarding her motivations, uncertainties, and areas of confidence. Furthermore, the process of transcription exposed flaws in the interview process that could be corrected during the next interview, such as rushing through a question and/or answer, or not clarifying a concept with a participant. This helped improve my skills as an interviewer throughout the investigation.

During the course of transcription if a theme presented itself I would make a note of it. This was similar to the recording of the initial response, designed to preserve flashes of insight for reflection later, and to compare to a more structured initial coding. However, I primarily tried to avoid an analytical eye during the transcription process. I found the transcription a valuable experience in the analysis process. While I would have had similar opportunities had someone else transcribed the interviews, my experience was that I developed a deeper awareness of the themes, and codes that arose from the interviews.

*Initial Coding*

The building blocks of grounded theory analysis are the codes developed from data (Charmaz, 2006). Codes are words or phrases that are constructed to define what is happening in the data, which categorize actions and processes. Actions are both the activities and the strategies employed by the participant. Process is the collection of actions, the big picture of the event. In coding the actions and process are shaped by how a participant has understood their actions. However, the codes allow us to begin to conceptualize the theory.

Coding allows the researcher to analyze and describe a phenomenon succinctly and to look for commonalities across data. Codes are the initial conceptualizing of data. Charmaz (2006) recommends Glaser’s technique of coding with gerunds (using action verbs that end with –ing) in an effort to preserve the focus on what is happening and what the participants are actually doing. Using this recommendation interviews were initially coded to focus on the actions of the participants. After an interview was transcribed I did not analyze it for a few days, allowing me to approach coding with fresh eyes. Interviews were initially coded answer-by-answer, focusing on the actions being described in the answer.

Initial coding did not use pre-established codes from previous interviews as I wanted to explore each interview without a preconceived vision of the data, and I knew I would follow up
with more focused coding later. While I did not consciously attempt to bracket my prior knowledge, I found that by not using the codes that had emerged from previous interviews new insights surfaced. This primarily occurred through the subtle differences in the word choices I used to describe participants’ actions, such as the use of the words “direct searching” or “specific searching.” Charmaz (2006) points to the critical role language plays in the coding process, and that the language of the researcher imposes meaning on the data, as the researcher constructs meaning in the data. Exploring the difference in words used in the coding process to represent actions exposed properties of the action and this exploration led to the development of a focused code that could be explored in all of the collected data.

The use of in vivo codes (those in the participant’s language) was particularly helpful in exposing properties of an individual’s experiences. Participants often used slightly different words to describe the same process, each different word describing a slightly different property of the action. For example, in one interview in describing the process of learning a new suite of software, the participant referred to ‘fooling around’, ‘pushing buttons at random’, and ‘doing fun stuff’—exposing his motivations (doing ‘fun stuff’) as well as a process of learning by trial and error (‘pushing…random), with the emphasis on a diffuse approach to learning the software (‘fooling around). By exploring the differences in in vivo codes I was able to develop more focused codes and begin to categorize the data.

**Focused Coding to Develop Categories**

The iterative process of returning to data to explicate coding and conceptual categories requires a variety of coding processes. After an initial coding, interviews were coded in more detail. Charmaz outlines questions to guide line-by-line coding that focuses on the process of the event being studied, in this case the participation in content creation. The questions are broad enough that they help code without forcing data. The questions are:

- What process(es) is at issue here?
- How does this process develop?
- How do participant’s act while involved in this process?
- How do they profess to think and feel while involved in this process?
- When, why, and how does this process change?
- What are the consequences of this process? (p. 51).

This more intensive coding combined with initial coding led to yet another comparison of the data. Codes were examined for how they related to one another and similar codes were explored
in the data. In exploring similar codes I asked what properties emerged from the data and what did the properties of the action tell us theoretically about the content creating process? For example, the code of inspiration appeared in multiple interviews, and by comparing the participant’s answers the properties of inspiration, such as its relationship to serendipitous encounters were identified. This contributed to understanding the information practices in content creation, as well as how the participants constructed the information practice.

This comparison led to the next coding step – focused coding. Focused coding is yet another look at the data, this time to discover where codes occur that may have been missed in initial coding of early data. After the initial coding the codes that had been identified throughout, particularly the in vivo codes (those in the participant’s language) were compared throughout the transcripts and then standardized. For example, if at one time I used the code ‘direct searching’ and at another I used ‘specific searching’ I chose ‘direct searching’ and made a note that ‘direct searching’ include a property of specificity. This allowed me to return to previous interviews to recode them with standardized codes. In doing so emerging areas of interest that had been initially missed were then coded, and contributed to the analysis.

Throughout the analysis and continued data collection I returned to previous interviews in depth to see if there was data that supported any new codes that had emerged. This is the process of constant comparison, a cornerstone in grounded theory analysis that helps ensure that theory is grounded in collected data (Charmaz, 2006). I followed this process with each interview: determining which codes were similar, noting how the different language exposed new properties of the action, applying standardized codes to new interviews, standardizing codes that emerged in the latest interview and then returning to older interviews. Returning to transcripts of previous interviews to analyze the data through focused coding exposed both new information in the original interviews, and identified areas that could be further explored with participants in follow up interviews. It also allowed me to be reflective regarding the semi-structured interview guide and edit the guide when it was necessary to explore new concepts such as the role of time in creating content.

Developing Categories

Focused codes were compared, or connected to form categories. While traditional grounded theory address core categories, Charmaz uses the term conceptual categories (Charmaz, 2006). Conceptual categories “explicate ideas, events, or processes.... and may
subsume common themes and patterns in several codes” (Charmaz, 2006, p. 54). Categories arose from coding at a focused level and a constant comparison of data. Charmaz explains constant comparison of categories as “the process of constantly comparing instances of data that you have labeled as a particular category with other instances of data, to see if these categories fit and are workable” (p. 91). The constant comparison of codes in terms of classification, or attaching data to a category, and connecting and comparing the categories in relationship to one another directed the research. In doing so three categories of information actions, gathering, thinking, and creating, were constructed and codes and properties relating to those categories explicated the properties of the category. Categories also influenced the interview guide, which was adjusted as new categories of investigation emerged. For instance, as the category experiences of information was constructed, the interview guide was altered to explore the category in more detail with participants. As the categories were constructed the relationship between the categories was explored through theoretical memo-ing. This assisted in developing a model of teen content creators’ information practices.

Theoretical Memos

Throughout the process theoretical memos were used to analyze and capture emerging codes, categories, and analytical ideas. Memo writing is a key component of grounded theory. Memos should “capture your thoughts, capture the comparisons and connections you make, and crystallize questions and directions for you to pursue” (Urquhart, 2001, p. 127). It is recommended that you even interrupt coding to memo an idea (Charmaz, 2006). As such memos are spontaneous and informal writing that allow you to explore emerging analysis. It is difficult to categorize the ways memo-ing occurred throughout the analysis process as it happened at different times, and in different ways. Initial thoughts that were recorded were examples of early theoretical memos as they represented early ideas and concepts that emerged in interviews. For example, after the first interview I recorded a memo to follow up on the idea of serendipity, a key element in the findings.

After the early data analysis a theoretical model was constructed and shared online (http://realoud.wordpress.com/2010/01/27/pilot-study-findings/). I also wrote online blog entries when ideas struck me during coding interviews (http://realoud.wordpress.com/2010/04/12/interview4-initial-thoughts/). These entries are examples of theoretical memos in which I explored the emerging codes and categories. They
also marked concepts that I wanted to explore such as issues of control and collaborating, as can be seen on the memo linked above. The memos that were shared online via the ReAloud blog were also shared with participants for feedback. And while they chose not to comment on the blog, they did reference the memos in follow-up interviews. While not as direct as respondent validation, it did allow for corroboration of ideas with participant. This increased internal validity, or a match between my observations and the conceptual ideas that were developing (Bryman, 2008). Additionally memos were also hand written journal entries and brief notes typed on my iPhone (Examples can be found in the Appendix B). The process of memo-ing allowed for categories and theories to emerge, as well as connections to be made, which then could be explored through theoretical sampling.

*Theoretical Sampling*

Theoretical sampling is defined as seeking pertinent data to develop emerging theory (Glaser, 1978). This data allows the researcher to elaborate and refine conceptual categories through developing the properties of the categories (Charmaz, 2006; Dey, 1999). Theoretical sampling began in earnest after the first two interviews, which was considered the pilot study, although those interviews are included in the final study data.

**Early Interviews**

The first two interviews presented broad initial categories. The emerging categories were encountering information, using information to learn, and representing knowledge. While the emerging categories developed as more data was collected they represented a consistency in information actions, such as serendipitous encountering, focused browsing, direct searching, musing, reflecting, copying, and modeling. Additional analysis, however, presented a richer picture of information practices in content creating and these categories evolved into the conceptual categories of experiences of information, and the information actions of gathering, thinking, and creating. The analysis interrogated original categories for more nuanced understandings of the process of creating content.

With each interview categories were further investigated through more focused interview questions. Charmaz (2006) emphasizes that theoretical sampling pertains to conceptual development; it is collecting and examining data to see “where to go” (p. 91). The original participant cohort participated in follow up interviews to explore the conceptual development of
the early categories. In follow up interviews categories were presented for comment and connections. During these interviews participants were presented with a graphic of a developing model (see Appendix B) for their reactions. This revealed additional information. Furthermore, they were asked questions that explored concepts that had emerged in the data that had not previously been explored such as conceptualizations of information, and establishing authority. This was the process of co-constructing a theory with my participants.

After the initial two interviews the concept of experiences of information and how these experiences were common throughout participant’s information actions emerged. This led to additional interview questions such as what is information? There was a stronger focus on how information was conceptualized and used. As interviews began to focus on the experiences of information and the actions involved in creating content additional concepts emerged such as negotiation and the role of the community. This occurred with participants in the fourth (Goku) and fifth (Robert) interview, and I returned to interview both Roni and Xeda in light of new concepts. These avenues of inquiry led to further exploration in interviews with Loli, and Jack, and follow-up interviews with Goku, Robert, and a necessary second interview with Loli. Eventually the basic model was constructed which led to the theoretical sampling of a second group of participants.

Theoretical Sampling Participants

A final group of participants was interviewed after initial analysis for the purposes of theoretical sampling. Participants were identified through similar methods of contacting specific gatekeepers that worked with teens engaged in content creation. Three participants were engaged in an after school program that provided space and tools to create content, although the teens were granted freedom to create their own content. A fourth participant was identified through the same methods outlined above. Similar to the initial cohort participants represented a range of socioeconomic backgrounds. One participant had dropped out of high school and struggled with homelessness. This impacted her access to tools necessary for content creation, although the after school program mitigated this difficulty. Each of these participants was provided with and signed a standard consent form acknowledging both their personal consent and that of their guardian if they were under the age of 18.
The participants used for theoretical sampling are listed in Table 2-2. It should be noted that the additional participants presented expanded diversity in the types of content that was created and shared. Two participants were primarily musicians, and participated in music sharing communities, which had not yet been investigated. A third participant was a fan fiction writer. As a result the theoretical sampling cohort expanded the investigation by presenting differing communities. This was a benefit to the research, as it presented richer data.

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Primary Content Shared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam (19)</td>
<td>Music (ReverbNation)</td>
</tr>
<tr>
<td>Salamonde (18)</td>
<td>Music (SoundCloud)</td>
</tr>
<tr>
<td>Swift (18)</td>
<td>Video (YouTube)</td>
</tr>
<tr>
<td>Eilowyn (17)</td>
<td>Fan fiction (Fanfiction.net)</td>
</tr>
</tbody>
</table>

Table 2-2: Theoretical Sampling Participants

**Theoretical Sampling Interviews and Analysis**

The procedures for data collection for theoretical sampling were the same as initial data collection. Participants participated in semi-structured interviews. The interview questions were slightly different in that they focused on questions that explored the experiences of information as well as the actions of creating content (see Appendix A for Interview Guide for Theoretical Sampling). However, the interviews only loosely followed the questions, as participants were encouraged to ask questions and topics of interest were discussed as they emerged rather than in strict adherence to the interview guide. The analysis process was also similar to the previous coding process, although in the initial coding of theoretical sampling interviews the codes standardized in previous interviews were applied. I approached new interviews with an open coding process as well, looking for new codes to emerge. This process suggested categories were saturated, as new codes did not emerge.

Using constant comparison, returning to participants and their content, and seeking new participants to explore new concepts allowed the properties of my categories to be constructed and to become richly defined. It provided details for analysis, and grounded initial analysis in further data, and was a key element in developing emerging theory.
Saturation

One of the main concerns with grounded theory is when to stop collecting data (Charmaz, 2006, p. 100). The simplified answer that is often presented is that one stops gathering data when the categories are saturated. The traditional and common understanding is that saturation is reached when new data does not generate new properties or theoretical insights of core categories (Dey, 1999). This is a significant distinction in data collection as saturation occurs when the data no longer has the capacity to generate new ideas, rather than an accumulation of evidence in order to support the conceptual ideas (Charmaz, 2006; Dey, 1999). But in truth Glaser and Strauss themselves recognized the lack of clarity in saturation, writing that the “published word is not the final one, but only a pause in the never-ending process of generating theory” (Dey, 1999, p. 116). This indicates that at any point one may return to the data, or collect additional data and discover new information about a core category. It is on this point that Dey (1999) challenges the metaphor of saturation and suggests instead that grounded theory is more likely done with data collection at the point in time that categories are “suggestive” (p. 117) and uses the concept of sufficiency, the point where categories can cope with data without requiring modification. Charmaz (2006) may agree with Dey as she emphasizes that researchers should remain open, often going back to recode earlier data.

In keeping with Charmaz suggestion and struggling with the concept of saturation interviews were coded, and recoded numerous times as I built conceptual categories around experiences of information and information actions. Categories were shared with participants, and we constructed definitions that allowed me to explore the properties within a category. This was particularly true in both the follow-up interviews conducted with early participants as well as the theoretical sampling done through interviews with additional participants. This research is a small window on information practices of teens who create and share content online; it does not purport to represent all information practices, or experience of information of the teen population, or the population of content creators.

Conclusion

In considering the methodological approach it became apparent that in order to investigate how teens engaged with the information practices of a community in order to create and share content qualitative research was an appropriate approach. Grounded theory allowed
me to both value teens’ voices and as well as follow the path of the investigation as concepts emerged. While the main research problem ultimately directed the scope of the data collection, emerging concepts introduced additional theoretical ideas, and paths of investigation. The method is based in interpretivist tradition and employs the theoretical concepts of constructing knowledge and understanding regarding the qualitative ways information was engaged, considered and used.
CHAPTER 3 SENSITIZING CONCEPTS

Background

The purpose of this early literature review was to provide sensitizing concepts and a preliminary theoretical sensitivity to the field. It has been argued that a literature review undertaken before data collection and analysis can provide theoretical sensitivity, or insight, to the proposed investigation (Dunne, 2010; Mills, et al., 2006b). This literature review provided sensitizing concepts. Sensitizing concepts are general ideas that provide a general context to the researcher’s interest (Charmaz, 2006). Charmaz cautions that sensitizing concepts are a place to start. Charmaz does not suggest engaging in the extant literature prior to data gathering but does indicate researchers are not tabula rasa and may have disciplinary knowledge before beginning the research process (Charmaz, 2006). Therefore when one engages in the early literature it is important to resist being limited by prior theoretical constructs, while still engaging in contextual ideas that provide sensitivity to the area of study.

While the early literature review (undertaken in 2008-09, and revisited in 2011) provided the building blocks to understanding the field, the deep engagement with the literature came later in the research process. However, the literature explored in this chapter was the starting point, allowing me to shape the initial interview questions, and refine my research interest. The literature reviewed in this chapter was multidisciplinary. It is located in communication, media studies and information science disciplines. This range of literature guided the initial formulation of the research problem and early data gathering. This literature review defines the environment of the research, the activities of the participants and our existing understandings of how youth seek and use information.

The environment of the research is a digital participatory community in which content is shared. In the section below I explore our understandings of Web 2.0 as it relates to the ways digital communities are constructed. Particularly how technical structures such as the ability to contribute content to a site relates to the ability to contribute to community knowledge. This also provides social affordances, such as the opportunity for interest-based groups that are geographically distributed to emerge. The technical structure and social affordances of Web 2.0 help establish a digital participatory community.
I also describe the current research that focuses on how many teens are online. This establishes that teens are participating in digital communities by creating and sharing content. I then focus on qualitative research relating to how teens are engaged in creating and sharing content. The content I focus on is creative expression in the medium of video, writing, art and music. These are the activities that provide a boundary to my research. The gap that emerges in the review of this research suggests that there is a need for research that focuses on the information practices of teens that are participating in creating content. Finally I report on youth information behavior research. The youth information behavior research provided a preliminary theoretical understanding of the activities of information seeking and use. Furthermore, the review exposed a gap in information seeking and use in terms of how youth engaged in information for personal creative reasons or for the production of information.

Thus the intent of this chapter is to provide sensitizing concepts for the initial investigation of teen’s engagement of information in digital communities that engage in creating and sharing content.

**The Context of the Research**

Digital communities in which teens share personally created content were sites of observation and investigation in this study. The socio-technical affordances of the digital communities impact the ways teens participate. These affordances included the tools of the community that allowed for interaction. Therefore, understanding the technical structures and the social opportunities of digital communities and how they are understood is helpful in providing context for the research problem. When this research began in 2008, Web 2.0 was a term that was often employed to reference user generated content and the sites that content where the content was shared (Anderson, 2008; Grossman, 2006; O'Reilly, 2005a; Tapscott, 2009; Zimmer, 2008). During the duration of the research the term has been less prevalent. However, it is worth examining the initial definition as it provides insight into the technical structures and social affordances of digital participatory communities. In the following section I explore the definition of Web 2.0 as it relates to our understandings of how Web 2.0 tools and the opportunities of interaction of digital content sharing communities.
**Digital Communities**

The digital communities that were sites for investigation are social, interactive, and promote creativity. They host a variety of media formats that include written texts, audio files, and visual formats such as photographs, art and video. These texts are shared with a larger community. Specific interactive tools such as blogs and wikis, and larger social networking platforms that host media such as YouTube (video), SoundCloud (music), and DeviantArt (visual art) are examples of the sites I investigate. While digital communities exist that encourage participation and also encourage the sharing of photographs and/or videos, if the primary objective of the site is to connect, such as Facebook, and the content was not understood as art by the creator and/or community that site does not fall within this investigation.

The ways our society understands the World Wide Web has continued to evolve over the duration of this research. When the World Wide Web was launched it was connected by Hypertext conceptualized as web of nodes one could browse at will (Gromov, 2005). Software including the browser used to access web pages was hosted on a local machine (O'Reilly, 2005b). The primary role of most users was as consumer, Web 2.0 as a model changed this. During a conference brainstorming session in 2007 the term Web 2.0 was coined to describe the new business model emerging on the web (O'Reilly, 2005b). While attempting to clarify the term certain practices of Web 2.0 sites were conceptualized. However, Web 2.0 has lost meaning for teens. Teens conceptualize the environment as the web. This is not surprising. The technology of the computer is much like television for the previous generation, it has become a fact of life (Tapscott, 2009). Despite the fact that teens do not use the term Web 2.0 the genesis of the term provides an initial boundary to the context of the research. Hence it is instructive to investigate the definition of Web 2.0 and what it came to mean in terms of participation.

**Web 2.0 as a Model**

First and foremost the term Web 2.0 developed in reference to a changing model of web architecture. The principles of this changing model were articulated thusly

- Designing and using software as a native web application that is constantly updated and delivered,
- Harnessing of the collective intelligence of the small sites and users of the web,
- Mash-ups of data and applications (O'Reilly, 2005a).
While the above principles were constructed from examining differences in site design these suggested a change in the role of the user from passive (Web 1.0) to active (Web 2.0). In fact O’Reilly argued the defining difference between Web 1.0 and Web 2.0 resides within the role of the user suggesting the user has a more active role in interacting with the environment than they had in previous iterations of web sites (O'Reilly, 2005b; Zimmer, 2008). In the section below I explain the principles as they related to this research.

In the first principle software is a web-based application (O'Reilly, 2005b). These applications are often free and easily modified. As a web-based service the applications are not individually owned software located on computer desktops, rather they are accessible online via any computer. This means teens have the opportunity to contribute to content creating communities from school, after school programs, libraries and friend’s homes if barriers such as filters are not used (Flynn, Pearsall, Pettiglio, & Wu, 2011; Jenkins, et al., 2006; Springen, 2011; Tapscott, 2009). Occasionally the web-based software can be modified; the programming codes are shared within a community(Anderson, 2008). For example, teens can manipulate code in order to reflect their identity, such as their profiles on MySpace (boyd, 2008b), or use programming tools such as Scratch to tell stories (Burke & Kafai, 2012). The free applications, web hosting, and easy modification allow for a wide variety of content creation (Anderson, 2008; Burke & Kafai, 2012; Ito et al., 2010; Martens, 2011; Miller, 2010). This includes a range of material such as web sites, photographs, text, music, and videos. The easy access and simplified use contribute to the shift from passive consumer of media to active creator on the part of the user.

The implications of web-based applications that are easy to use and free of cost is that there are opportunities for participation (James et al., 2008; Jenkins, et al., 2006; Springen, 2011; Tapscott, 2009). These opportunities are available to those who may have been previously marginalized because they lacked access or expertise, such as youth. However, in the participatory culture of Web 2.0 youth voice is accessible. Some youth have launched careers through their participation (Hung, 2010). Others have had political impact through their artistic participation (Jenkins, et al., 2006; Khadaroo, 2009). Opportunities to participate occur because there is access to free tools, free hosting, and the tools and sites do not require technical
expertise. In other words those without the financial means and/or technical background find opportunities in this environment.

In the second principle, harnessing collective intelligence, Web 2.0 sites encourage and rely on collective intelligence (Anderson, 2008; O'Reilly, 2005b; Tapscott, 2009). The harnessing of collective intelligence in digital communities consists of the ability of community members to manipulate and respond to content. Web 2.0 applications encourage participation through contributing, editing, sharing, and responding (Gunawardena et al., 2009; Jenkins, et al., 2006). For instance, some applications allow for group editing that leverages individual knowledge by providing an opportunity to revise and add to individual entries (Anderson, 2008). This sharing and revision produces a wider knowledge base (Alecia Singletary, 2012). This is evident in wikis such as Wikipedia, an online encyclopedia. Wikipedia is the largest community edited web site. In other Web 2.0 applications participation occurs through conversation by commenting and/or using symbols and emoticons to respond to content. This also allows for a wider knowledge base to emerge as ideas are refined or expanded upon (Anderson, 2008). For example, participants in Web 2.0 communities may create new content that is in conversation or directly responds to original content (Alecia Singletary, 2012). Examples of new content that acts as a response to another user would be video responses on YouTube. Furthermore, the process of community members “tagging” (applying keywords to content), allows smaller, interest based, communities to emerge. Tagging creates a community-based organization of content based on shared keywords. The principles of harnessing collective intelligence have allowed practices to emerge in which content is created and communities are built around libraries of shared content (Anderson, 2008; O'Reilly, 2005b).

The ability of communities to organize and express their collective intelligence is another technical affordance that produces social outcomes (Jenkins, et al., 2006; Wenger, White, & Smith, 2009b). The boundaries and relationships of digital communities are expressed in different ways which changes in the dynamics of participation (Wenger, et al., 2009b). The obvious change in the boundary of a community is the ability to extend participation beyond the local geography. This provides opportunity for connection with those interested in similar topics and passions, even if the community does not exist locally (Jenkins, et al., 2006; Martens, 2011). Furthermore, the digital aspect of a community changes the relationships (Wenger, et al., 2009b, p. 11). One example is how it allows for lurking, or observing the community before active
participation. Lurkers can participate anonymously through observation. When participants choose to become more active, they may remain anonymous. The technical affordances of anonymity and observation restructure how we understand participation and interaction.

As the content of a community evolves, data and applications are used in new ways that allow users to create new knowledge and to represent information in a different manner (Anderson, 2008; Lange & Ito, 2010; O'Reilly, 2005b). The ability to do this is what O’Reilly refers to as a “mash-up” (2005b). Mash-ups can be as simple as adding data to existing sites. Data as it is used in this context can be content such as mapping coordinates or photographs, or even tagging content with keywords creating a directory of sorts. As Web 2.0 software is interactive it has become easier to merge content and applications in new ways that may be more creative and intensive (Anderson, 2008; O'Reilly, 2005b). For example, in mash-ups of content users may create fan videos, adding different music to clips from movies or television shows. They may merge different sounds and/or songs together to create a new song. Users can merge mapping applications with a variety of data collections to create visual data representations. They may allow photo-sharing applications to be mined to create photographic representation of song lyrics. Furthermore, users can create an entirely new information artifact in a mash-up. Machinima is one example of a new form of a mash-up artifact. Machida is a mash-up between game animation and original content in which gaming animation is used to create a video (Lowood, 2008). These artifacts suggest new ways of engaging in creative works.

While the historical definition of Web 2.0 focused on the architecture of the web a more common understanding emerged that focused on what was provided in terms of social interaction and capacities. This allowed a “blurring of the boundaries between Web users and producers” (O'Reilly, 2005b; Zimmer, 2008). Amateurs, or those with limited technical knowledge could engage in creating and sharing content. Time magazine acknowledged this phenomenon when they made ‘You’ the Person of the Year in December 2006. The article highlighted the common understanding of the “new” Internet as a “story about community and collaboration” focusing on how anyone can contribute and connect online (Grossman, 2006). As O’Reilly had suggested the primary difference was in the role of the user. The user had become the producer in a social environment. It is these digital environments that were the context of this investigation.
Implications

The focus on the role of the user in online environments has cultural resonance. As evidenced by the early adoption of the term Web 2.0 and the celebration of amateurs creating content by popular media outlets such as Time magazine there is an interest in user created, amateur content (Grossman, 2006). Understanding how Web 2.0 was conceptualized and how it evolved into a common understanding provided a general understanding of the context of the environment I was investigating. While it did not directly shape the research, Web 2.0 as a framework suggested a common framing for the technical aspects of the community that proved important to participants. It also suggested the role of the social in content creating had importance to understanding the digital participatory communities.

Digital Youth

This research investigates how teens engage with information to create content in digital communities. In the following section I explore research that describes how and why teens participate online. The intent of this section is to describe the category of participants that are involved in this investigation, online content creating teens. In engaging this research prior to and during initial data gathering the studies indicated areas of concern in regards to how we understand teens and their use of online technologies. For instance, I examined our construction of teens as “digital natives.” In considering this issue I was able to take a reflexive approach to the research problem. However, the term has been widely criticized, and is not as frequently used in recent academic framings of online youth. Furthermore it was necessary to return to the literature as online practices change, as tools and communities evolve.

In the beginning of the investigation this literature provided an overview of the types of content teens engaged in which helped me to define the types of content this investigation was focusing on and consequently provided a boundary to the research question. It also introduced possible motivations for online engagement that helped shape the initial interview guide as it suggested possible avenues of exploration. As the focus of my research is on content creators, there is a more in depth exploration of studies concerning teens that create and share content.
**Online Youth**

There is growing attention to today’s adolescents and the role technology plays in their lives. Over the past five years large-scale research has surveyed online youth (Lenhart & Madden, 2005, 2007; Lenhart, et al., 2011; Lenhart, Purcell, Smith, & Zickuhr, 2010; Rideout, Foehr, & Roberts, 2010; Roberts, Foehr, & Rideout, 2005). The results of the surveys suggest widespread engagement in online activities. In 2005, the Kaiser Family Foundation Generation M study described the lives of American school children as “media saturated” (Roberts, et al., 2005, p. 10), highlighting the increasing media options available to children and adolescents over the past fifty years. The study described an environment where the amount of screen time was increasing as youth engaged with television, movies, and computers. Five years later a follow-up survey revealed an increase in computer screen time (Rideout, et al., 2010). Furthermore, there was a significant increase of those with personal Internet access in their bedroom and an increase in mobile access. In 2007 93 percent of American teens stated that they used the Internet; 61 percent used the Internet daily (Lenhart & Madden, 2007, p. 2). By 2011 the number of teens who were online teens had increased to 95 percent (Lenhart, et al., 2011).

The online activities of these teens vary. Eighty percent of online teens are social network users (2011). Social networks are a way of connecting online with friends and acquaintances. Common North American social networks are Facebook, MySpace, and Google +. Teens also engage in searching for information, including news and consumer information. They use the Internet to meet their academic needs. Of significance to this study 38 percent of teens said they shared creative artwork online that included sharing artwork, video, and stories (2010, part 3). One note of interest is that blogging activity among teens has declined over the lifetime of my investigation from 76 to 52 percent (part 3). However, content creating in online communities on the whole remains a significant activity.

**Constructions of Online Teens**

In discussing and understanding teens and their online activity there are multiple understandings of the teen population. Teens have been constructed as digital natives, comfortable and capable in digital environments (Prensky, 2001; Tapscott, 2009). Others suggest that teens are not as capable in their environment as the construct of digital native implies (boyd, 2008a; Hargittai, 2010; Livingstone, 2008a; Margaryan, Littlejohn, & Vojt, 2011; Palfrey & Gasser, 2008; Ransdell, Kent, Gaillard-Kenney, & Long, 2011). There are
suggestions that youth misuse technology, do not understand the implications of its use, and/or are not sophisticated users of technologies (Bauerlein, 2008; Livingstone, 2008a; Margaryan, et al., 2011; Palfrey & Gasser, 2008). In this section I explore how teens have been constructed regarding online technologies.

Youth as Digital Natives? Problematizing the Construct

There are a variety of names that refer to this generation. Youth have been referred to as Digital Natives, Generation M (as in media), Net Gen, and the Google Generation (JISC, 2008; Palfrey & Gasser, 2008; Prensky, 2001; Roberts, et al., 2005). This indicates a lack of common language and multiple understandings regarding the capacity and activities of online teens. The most mainstream term is Digital Native as evidenced by mass media’s use of it as shorthand for youth (Carr, 2011). The term originated to describe a generation that has grown up with digital technology (Prensky, 2001). The usage of digital native continues to occur despite the term being problematized by researchers (boyd, 2008a; Hargittai, 2010; Livingstone, 2008a; Palfrey & Gasser, 2008).

Many researchers have suggested that the classification of the current generation of adolescents as “digital natives” is problematic (boyd, 2008a; Livingstone, 2008a; Palfrey & Gasser, 2008). Even Prensky (2009) has suggested the term is outdated. While many youth have grown up with access to digital technology, not everyone has access. As illustrated by the five percent of American teens are not online (Lenhart, et al., 2011). Furthermore, broadband access is not distributed equitably in the United States, being limited by geography and socioeconomic considerations (Horrigan & Rainie, 2002). This limited broadband capacity may limit teen’s ability to participate in online communities. So despite the large number of online teens it should be noted that their access varies.

It is possible that the larger concern is youth who lack the skills necessary to participate in online activities. Activities and capabilities of online youth differ (Jenkins, et al., 2006; Lenhart & Madden, 2007; Livingstone, 2008a). This has been called a participation gap (Jenkins, et al., 2006). The participation gap suggests that there is diversity in the digital skills of youth (Buckingham, 2003; Hargittai, 2010; Jenkins, et al., 2006; Livingstone, 2008a). This participation gap is of some concern both to researchers and educators (Hargittai, 2010; Livingstone, 2008a). For instance, youth demonstrate different levels of engagement, even when
access is available (Livingstone, 2008a). This suggests that while technological restrictions may impede access, limited skills may impede participation. An assumption should not be made that youth are participating effectively because of their age (Palfrey & Gasser, 2008). The skills and interest in participation vary among youth, therefore assumptions regarding capacity and desire may limit our understandings of youth online engagement (Gunter, et al., 2009; Herring, 2008; Ito, et al., 2010; Livingstone, 2008a, 2008b; Margaryan, et al., 2011; Ransdell, et al., 2011). In sum, we should construct youth as demonstrating diversity in online participation, and critically question their practices.

Techno-optimism versus Techno-pessimism

Competing discourses exist in the public consciousness, particularly around youth online engagement. They are “fear and concern” versus “breathless optimism” (Herring, 2008, p. 71). On one hand the popular media presents us with teens involved in sexting, cyberbullying, and in danger from sexual predators (Kim, 2009; Morris, 2011). These stories compete with stories of youth using social networking to raise funds for charities or encourage the political engagement of their peers (Khadaroo, 2009). Books aimed at the mass market also promote the competing discourses. Rosen claims that youth learn differently because of their engagement with technology suggesting that youth are better at multitasking and more creative than previous generations (Rosen, 2010). On the other hand professor and author Mark Bauerlein referred to them as the “dumbest generation” (Bauerlein, 2008).

Researchers may also adopt conflicting positions, although they attempt a more nuanced stance. A common concern among youth researchers is the tendency to “exoticize” youth and their experience, particularly through language we employ (Herring, 2008; Raby, 2007). Researchers may emphasize the novelty of the online environment, and its potential to be transformative (Herring, 2008). For instance, Tapscott (2009) presents an example of this optimism when he writes that the Net Generation is “smarter, quicker, and more tolerant of diversity” (p. 6). He proceeds to outline teens’ interest in civic engagement, engagement in social justice, their prizing of freedom, and desire for customization as positive attributes that will change our world.

On the other hand, research has also suggested that youth’s skills vary widely (Hargittai, 2010; Livingstone, 2008a; Margaryan, et al., 2011). Some claim that youth demonstrate a lack of concern or capacity to identify quality information while online (Bilal, 2004; Flanagin &
There is a lack of awareness of the persistence of online data, and a tendency to reveal private information among some teens (James, et al., 2008; Palfrey & Gasser, 2008). Furthermore, 88 percent of teens have witnessed cruelty or meanness towards each other online (Lenhart, et al., 2011), suggesting that cyberbullying and the ethics of participation is a very real problem. While it can be argued these concerns are hardly limited to youth, it does present a less positive picture of the “digital native” than Tapscott’s vision.

Awareness of these constructions is an important consideration when examining research into teens’ engagement online. One should also be aware of one’s own bias while considering the research problem. I take the position that the possibility of participation presents opportunities for teens that may not have previously existed - to make connections, receive mentoring, and demonstrate competency – but the opportunities may not be all positive. There is also the possibility of negative consequences, such as “flaming” (Lange, 2006). Or they may find their participation ignored; their content may not viewed or commented on. This dissertation attempts to present a description that avoids the value-laden language and judgment of techno-optimism or techno-pessimism.

**Practices of Online Teens**

In research emerging from new media and new literacies studies the focus is on the practices and activities of youth as they participate online. In the following section I review this research. I focus on studies that discuss the activities and motivations of teens engaged in online content creation.

**Genres of Participation**

Research has identified two “genres of participation”; friendship-driven and interest-driven (Ito, et al., 2010, p. 15). Friendship driven practices are the dominant practice of online teens and represent the shared activities that grow out of their social world. These include participation in social networks such as Facebook. Interest driven practices focus on specialized interests, activities, and hobbies, and are sites of peer-based learning around that interest. The activities that I investigate are interest driven. Furthermore, three different purposes for online participation have been identified:

- Hanging out, which has a primarily social and communicative purpose;
• Messing around, a more media centric interest driven activity in which teens are exploring different online environments;
• Geeking out, which “represents a more intense engagement” with a more focused digital ecology (Horst, Herr-Stephenson, & Robinson, 2010).

My investigation uses digital communities that focus on sharing content as sites for exploration. Participants engaged in creating media such as music, artwork, videos, and writing. They choose their media format and subjects of content based on personal interests. Therefore their purpose of engagement ranges from messing around to geeking out and their genres of participation are interest based.

Engaging in Creating Content

In this section I explore the reasons and ways teens engage in creating content. The practices of creating content include exploring identity, civic engagement, and creative expression. Research has investigated why teens engage in these activities as well as describing this engagement. This section outlines this research as a way to construct what teens are doing while using information to create and share content.

Identity Exploration

Many studies exploring youths’ online experiences, particularly those experiences that involve the use of social media sites, focus on the role of exploring identity. The underlying assumption guiding this research is that adolescence is typically a time in which identity is explored (Buckingham, 2008). Erikson’s theory of adolescence as a “critical period of identity formation” forms a theoretical basis for many studies that explore online identities of teens (Buckingham, 2008). In the 21st century this identity exploration can occur online (boyd, 2008b; Buckingham, 2008; Huffaker & Calvert, 2005; Palfrey & Gasser, 2008; Stern, 2008). For instance, web site maintenance, social networking sites and blogs are sites of “impression management”, self-reflection, and self-documentation (boyd, 2008b; Huffaker & Calvert, 2005; Stern, 2008). Blogs can be used to express one’s identity through longer reflective entries and it has been suggested that they are consistent in the ways teen girls represent themselves in a manner consistent with their offline identity (Huffaker & Calvert, 2005). It through profile management on social networking sites that youth negotiate status and social negotiation (boyd, 2008b). Teens present themselves on their profiles in ways they believe will be accepted by peers, as many of their interactions in these online spaces were with people they knew offline.
Web sites are also a site of personal presentation (Alexander, 2006; Stern, 2008). The personal web site allows youth to navigate their public performance of self (Alexander, 2006). The ability to explore identity and promote one’s self is a fundamental motivation and “core issue” at the heart of youth’s online participation (James, et al., 2008; Stern, 2008).

Civic Engagement
Identity exploration is not the only purpose guiding teens’ participation in online communities. They also participate in civic engagement (Earl & Schussman, 2008; Kann, Jeff, Connor, & Phil, 2007; Xenos & Bennett, 2007). Different levels of online civic engagement and political consumerism have been identified among older teens. This includes organizing boycotts, using action toolkits and participating in political process through emailing politicians or participating in civic focused list-servs (Kann, et al., 2007). Youth also participate in creating and using online petitions. Research into online petitions discovered that they are often focused on youth concerns, and youth are quite active in engaging with these petitions (Earl & Schussman, 2008). While this type of civic engagement seemed to surround consumerism rather than traditional political involvement, it demonstrated a willingness to actively participate in online communities as an effort to effect change. Meanwhile sites for youth engagement in more traditional politics have been emerging and maturing in terms of content as more youth interact in the digital political realm (Khadaroo, 2009; Xenos & Bennett, 2007). The research regarding youth’s political and civic activity suggests that their online activities are representations and extensions of their engagement in local and community contexts.

Creative Expression
Research has also investigated youth’s creative activities in online environments (Chandler-Olcott & Mahar, 2003; Herr-Stephenson, 2010; Ito, et al., 2010; Lange & Ito, 2010). While much of youth’s content creation is about documenting their lives, that is often the starting point for more creative endeavors (Ito, et al., 2010). Youth experiment with common forms of media, music and video as a jumping off point to create a public profile as producer (Lange & Ito, 2010). This can rise from a personal passion that helps a teen create a personal identity as an expert in a topic. For example, a community of podcasting focusing on Harry Potter promotes collaboration while exploring the Harry Potter universe in a number of diverse ways, including literary analysis, news items, fan fiction and ‘wizard rock’(Herr-Stephenson, 2010). Youth
acting in the community do so because of their passion for Harry Potter. Anime is another popular source for fan fiction writers as teens pursue this personal interests in particular characters or series (Chandler-Olcott & Mahar, 2003). An additional emerging artistic production is machinima, using software for gaming to make animated movies, which has become a new art form adopted by youth who have moved from merely players to producers (Bittani, 2010; Lowood, 2008). The research presents a picture of youth engaged in a wide variety of creative endeavors, built upon their everyday passions.

**Implications**

It is evident that youth participate online in a multitude of ways. I have provided examples that focus on content creation around identity management, civic engagement and artistic participation. The focus of my investigation is on creative endeavors. As such I have not explored the activities of game playing, although it can be participatory. However, at the level of engagement of playing the game it is not necessarily artistically creative. It also does not explore entrepreneurship, youth who use technical or creative expertise to earn money, since they may not necessarily being doing so as creative expression.

These studies provide an understanding of the types of online content creating opportunities there are for youth. They also suggest motivations for engaging in creating online content. There is an underlying assumption that in order to participate information is necessary, particularly in how one understands the community. However, there is a specific lack of focus on how this information is engaged and experienced. As teens engage in creative endeavors there is a need to understand the role of information and information use within these specific practices. While media studies offer a rich picture of teens’ practice, it lacks an emphasis on the ways information is experienced and used. This research extends our understanding of youth engaged in creating online content by focusing how they engage with information.

**Youth Information Behavior**

Information behavior research investigates how individuals engage in information seeking and use (Case, 2006; Fisher & Julien, 2009). Youth information behavior research is based on a foundational understanding that young people have different information needs and different cognitive processes (Chelton & Cool, 2004; Edwards & Poston-Anderson, 1996; Gross,
Youth information behavior research frequently focuses on youth as students, studying their processes in the context of school, or a school assignment (Bilal, 2004; Fidel et al., 1999; Gross, 2006; Hirsh, 1999; Kuhlthau, 1995; Large, 2004; Large, Beheshti, & Breuleux, 1998; Lorenzen, 2001). Recently there has been research on everyday life information behaviors (Edwards & Poston-Anderson, 1996; Fisher, et al., 2007; Hughes- Hassell & Agosto, 2007; Mehra & Braquet, 2007; Todd, 1999, 2003). However, much of the emergent research into everyday life information behaviors emphasizes social and developmental concerns, such as sexuality and drug use. This ignores information needed for personal interests such as hobbies, or entertainment. Furthermore, the primary focus has been on information seeking, rather than use. Research in the Library and Information Science (LIS) discipline has not examined youth as information producers or creators (Bernier, 2007). This suggests a need for research that emphasizes the role of information in creating, particularly when creating content based on personal interest.

The research of youth information behaviors provided sensitizing concepts in the early investigation of teen content creator’s engagement with information. Nevertheless they were not necessarily concepts that I approached uncritically. How youth were often constructed solely as information seekers was a motivation for the initial research question. I was interested in how youth used information. Furthermore, I was interested in problematizing the finding that youth had poor seeking skills (Bilal, 2004; Fidel, et al., 1999; JISC, 2008; Large, et al., 2008; Lorenzen, 2001; Weiler, 2005). The role of the community emerged more clearly in data collection and analysis; however, I began this investigation from a position of critical concern regarding the youth information behavior research. In my work with youth, particularly older teens, I had observed them to be competent seekers and users of information when they were sufficiently motivated by personal interests. I understood youth to be more than students, and more than seekers. I began the research process with the assumption that youth had agency as users and creators of information. I also was seeking to understand if youth were poor information seekers in environments they chose to participate in while searching for information that had value to them.

Youth information behavior research was a disciplinary underpinning of the initial question. Thus, the literature was reviewed to understand how youth were constructed as information seekers and users. Subsequently the literature revealed a gap in the research. This
gap was located in understand youth as producers of information. In this section I examine youth information behavior research and the findings located within this paradigm that provided theoretical sensitivity to the research problem.

Youth Information Behaviors as Students

Youth information behavior research often focuses on youth as students, investigating their information seeking in relation to schoolwork. Youth’s information needs are consequently formed by the school assignment, and their seeking is constrained by the assignment requirements. For example, in various assignments at both of my work place environments, there were specific expectations regarding the format of sources. Teachers required a minimum of three sources, and/or required that the sources be print material such as newspaper articles. This constrained the process of information seeking. Further constraints are represented in academic expectations of authority and credibility, often represented by teachers not accepting Wikipedia as a source (Flinders, 2008; Hammond & Farhie, 2009; Kenty-Drane, 2008). Finally the information need is based on the topic of the assignment. The topic may not be self-generated; rather it may be imposed upon the student. This may impact the motivation in seeking, and youth may not demonstrate seeking resilience (Bowler, 2010). The parameters and constraints of information seeking as it relates to a school assignment may impact the seeking behaviors of youth (Bowler, 2010; Gross, 2006).

There is research that has investigated the seeking of students when constrained by adults or a school assignment. Acknowledging that children’s information seeking world is often controlled by adults Gross (2006) studied imposed information seeking, defined as “seeking information for others” (p. xiii). In Gross’ study it was clear that children attempt to control their information seeking and use. The research found that children take varying ownership of an imposed query and act as “information agents” (p. 131) who provide information to others even if the others have not requested the information. In sharing information with peers children demonstrate ownership of the imposed question and acquired information. An additional method of taking control of the process was to engage in informal seeking activities such as asking peers or adults for information. So while the information need was imposed children did seek ownership. This finding suggests that constraints may not have impacted the process of seeking, since they were willing to engage in asking peers for information. However, Gross (2006)
acknowledges that the culture of the school may have impacted this practice, as this was encouraged and modeled by adults.

Bowler’s (2010) investigation into the role curiosity has in information seeking demonstrates the problem with imposed information seeking. Her investigation focused on seeking when the need is constrained by assignment parameters or time. She suggests the problem for students is not only cognitive, but also motivational. Curiosity was both a motivating factor, and a source of frustration, and information seeking during a school assignment required controlling curiosity. The finding that constraints such as topic and time may impact motivation and self-control should be considered when considering youth information behavior studies in an educational context.

In her research Kuhlthau (1995, 2004) does not explicitly address how the assignment parameters constrained information seeking. However, her model of the cognitive, affective and physical process takes into account issues such as ownership and self-control, particularly in the affective model. Kuhlthau (2004) investigated student’s information seeking for research projects. Cognitively students focused their search moving from vagueness to a focused need, for example in stage three of the search process students described a process of going from a general to more specific search. This was not an organized process; in her findings Kuhlthau suggested it was “disorderly” (p. 82). She also describes an iterative nature to the affective process. Participants demonstrated a move from confusion to brief elation to uncertainty to confidence to satisfaction (Kuhlthau, 2004). During the affective and cognitive process students are taking ownership of the questions. For instance, a student’s cognitive move from a vague understanding of the topic or question to a focused need represents a student’s personalization of a topic. The affective process when a student experiences confusion, and then brief elation, and then uncertainty, can be understood as controlling curiosity, as students’ develop an increased interest in the project itself.

While not explicitly acknowledging the effect of the assignment parameters, Kuhlthau (1995) acknowledged that students approached research as “if there were only one right answer...they are often not engaged in a process of using information to construct their own learning” (p. 3). As students became older they became more conscious of their thinking while constructing knowledge (Kuhlthau, 2004). However, if students are not engaged in using information in order to learn, rather they are attempting to produce the right answer for the
teacher, they may not be taking control of the knowledge that they may gain. Despite this, Kuhlthau (2004) emphasizes that the process of information seeking involves the construction of meaning throughout. She argues that interpreting meaning involves creating something uniquely our own. While Kuhlthau’s work is significant in its resulting model I am concerned that the imposed nature of the process may impact the cognitive and affective components of information seeking.

Research into youth’s information seeking skills when the query is imposed, either by a school assignment or by the researcher, has demonstrated that youth’s seeking skills are often limited (Bilal, 2004; Fidel, et al., 1999; Hirsh, 2004; Lorenzen, 2001). This seemed to be particularly true in digital information environments. Digital technologies have become integrated into classrooms and school libraries. Thus indicating a need for research into youth information behaviors with technologies being a context for research. While early research focused on electronic environments such as encyclopedic CD Roms (Large, et al., 1998) and electronic databases or libraries (Hirsh, 2004; Neuman, 2004), later research focused on the World Wide Web (Bilal, 2004; Fidel, et al., 1999). In the following section I investigate the youth information seeking research related to digital environments, the context of my own research.

Youth information behavior research suggests that youth are not “digital natives” in their use of information seeking skills (Bilal, 2004; Cool, 2004; Fidel, et al., 1999; Hargittai, 2010; Hirsh, 1999, 2004; 2008; Large, 2004; Large, et al., 1998; Large, et al., 2008; Lorenzen, 2001; Madden, Ford, Miller, & Levy, 2006; Nahl & Harada, 2004; Shenton & Dixon, 2003). The “digital native” construct presumes that as natives they are skillful searchers (Gunter, et al., 2009; Margaryan, et al., 2011); however research indicates that they commit a variety of errors in composing searches from misspellings to Boolean operator errors (Fidel, et al., 1999; Large, et al., 1998; Nahl & Harada, 2004). Findings indicate that youth preferred to browse rather than plan a purposeful search (Large, et al., 1998; Madden, et al., 2006). They also relied on keyword searching rather than subject searching (Bilal, 2004; Madden, et al., 2006; Shenton & Dixon, 2003). These findings indicate a lack of efficiency in the search process. When searching they proved to be more successful in locating answers with ill defined questions than for specific information needs (Bilal, 2004), a process when iterative searching is more important. The
overall emerging picture from youth information seeking research is that they are ineffective in their search process, particularly in their lack of planning and efficiency.

Despite the general understanding that youth are ineffective searchers studies also suggest they can be successful in meeting their information needs. Findings from a variety of studies indicated that prior knowledge was essential in effective and successful seeking (Bilal, 2004; Fidel, et al., 1999; Hirsh, 2004; Madden, et al., 2006; Shenton & Dixon, 2003). As a case in point researchers found that as their knowledge of the technological system grew the success of their search appears improved as well (Bilal, 2004; Madden, et al., 2006). This finding may indicate why students tend to rely on a particular search engine (Shenton & Dixon, 2003). Their background knowledge of a topic also impacted the effectiveness of searching as well, as a lack of subject area knowledge hindered success (Hirsh, 2004). These findings indicate that as youth develop a broader knowledge base that their searching is more successful. Furthermore, they may be successful searchers in areas of personal interest, as they will have deeper knowledge stores from which to build their searches.

Studies indicate that youth can be effective searchers, if not efficient searchers. Students developed strategies to meet information needs for the assignment by using information technologies. For instance, they were found to be iterative searchers demonstrating an ability to change search strategy if their results were not successful (Bilal, 2004; Fidel, et al., 1999). This suggests that they learned how to use the search system more effectively with each individual search. Imposing library and information science disciplinary standards of effective searching such as the use of subject words and Boolean searching does not necessarily represent the effectiveness of students in developing seeking strategies that work within an imposed environment.

The majority of information seeking in these studies was imposed either by the researcher or a teacher. The success of the search was viewed through the lens of what was needed for an assignment, as defined by the adult. The question of motivation regarding search resiliency is not addressed explicitly in much of the youth information behavior research. Convenience appears to be a key ingredient in students’ search process, with expediency and ease of use taking precedence over accuracy (Madden, et al., 2006; Weiler, 2005). This finding does not seem to be evaluated within the understanding that the information need is imposed and there are constraints on the process. Time may require that students rely on early information in terms of
expediency. As their motivation may not be high with an imposed query they may prefer ease of use in the seeking system. Students were more oriented to the end product than the process and as a result made errors in paraphrasing and citation (McGregor & Streitenberger, 2004). This finding suggests that they were less interested in making meaning, perhaps more interested in the right answer. Furthermore, students were willing to change topics when unsuccessful (Fidel, et al., 1999). This indicates a lack of personal ownership of the information need. This suggests that researchers should further attempt to understand seeking that is intentional by the seeker and intrinsically motivated. Students enjoy using the web and many times prefer it, suggesting they turn to it beyond school assignments in which their motivation might lead to different experiences (Large, 2004).

**Everyday Life Information Seeking**

It has been argued that we should investigate information behaviors beyond constructing youth solely as students (Bernier, 2007; Dresang, 1999). Dresang (1999) points out that our understandings of youth information seeking may be based on contexts where youth are uncomfortable and lack background knowledge. Perhaps if we investigated contexts and information needs in areas where youth feel comfortable their seeking may yield different results in terms of success. Furthermore, we need to recognize that youth are not solely seekers. We should recognize their role as information producers and consider their information behaviors in the context of “seeking joy” (Bernier, 2007). In this section I examine the research investigating youth’s information seeking and use in everyday life contexts.

The branch of information behavior research that investigates youth in contexts beyond school resides within the everyday life information-seeking (ELIS) framework. ELIS is defined as the type of seeking people do to “orient themselves in daily life” (Savolainen, 1995, p. 267). For instance, a frequently cited model of everyday life information needs is Hughes –Hassell and Agosto’s (2007) model of the information needs of urban teens. The model is based on Havighurst’s developmental tasks. He theorizes eleven developmental tasks ranging from adjusting to the new physical and intellectual self, to developing identity and emotional and economic independence to developing the skills necessary for civic engagement (Havighurst, 1953). Agosto and Hughes-Hassell (2006) used these developmental tasks to build a theoretical model of urban youth information seeking. In the resulting model information seeking supports development of the social self, the emotional self, the reflective self, the physical self, the
creative self, the cognitive self and the sexual self. This covers a wide range of information needs from personal safety, academic support, career needs, sexuality questions, and so on. This suggests that information seeking should support creative needs and recreational needs as well as social, developmental and academic needs. However, much of the research with youth in ELIS focuses on problem solving involving life concerns such as sexuality (Mehra & Braquet, 2007; Pierce, 2007), careers (Edwards & Poston-Anderson, 1996; Julien, 2004), and drug use (Todd & Edwards, 2004). There is little research that addresses creative needs and recreational needs.

Studies show that youth information seeking behavior when seeking information on daily life concerns and problems may look different than when they are seeking information for academic needs. In ELIS studies it seems youth preferred to seek information from peers, particularly those engaged in the activity if the activity was socially risky such as drug use or sexuality (Mehra & Braquet, 2007; Todd & Edwards, 2004). Studies with older children in regard to solving life problems, (sometimes referred to as ‘tweens’) also found a preference for information seeking among peers (Fisher, et al., 2007; Lu, 2010). This may explain the myth that (similar to adults) youth prefer information from their peers (Gunter, et al., 2009). This does not mean that they ignored digital resources. In some cases as they searched for social connections to help answer questions they used online resources to locate those interpersonal connections (Mehra & Braquet, 2007).

In ELIS studies information was not always purposively sought out. Some studies described information seeking that was less purposive (Edwards & Poston-Anderson, 1996; Todd & Edwards, 2004). Teens often did not engage in formal searching even when they had a specific need, this was particularly true if the need was not immediate (Edwards & Poston-Anderson, 1996). When purposive seeking occurred youth used diverse strategies; asking questions of the people around them, looking for information in books and online, and making observations of their life world (Edwards & Poston-Anderson, 1996; Mehra & Braquet, 2007). Despite the findings of these studies regarding non-purposive seeking it has also been found that ELIS occurs in response to an immediate and specific need and can be more purposive (Fisher, et al., 2007). ELIS research has found that youth act in diverse ways and that they seek information differently in ELIS contexts than they do in academic contexts (Gunter, et al., 2009).

A concern with the research outlined to this point is that the focus on solving life problems ignores other types of ELIS, such as searching for interest-based information relating
to hobbies or entertainment. This occurs despite the findings of Hughes-Hassell and Agosto, and Stern that indicate that youth engage in information seeking for social needs (not just problems), creative needs, and reflective needs based on their interests. This suggests we should explore how youth engage information beyond solving social concerns such as drug use and academic needs.

**Information Use**

Information seeking has a purpose, whether personal, social, or academic. The purpose of seeking is to find an answer that meets a need (Dervin, 2003). Meeting that need requires thinking. As a result, as Kuhlthau (2004) noted, thinking occurs throughout the search process. Thinking indicates information use, but this needs more purposeful investigation. Adolescents are not “passive, robot-like processors of information; rather they are active creators of new knowledge” (Todd, 2003, p. 40). How they understand and construct knowledge is important.

Based on an understanding that the use of information suggests a change in knowledge structure, Todd (1999) investigated adolescent girls and their information needs about drug use. The study identified a cognitive structure of information use. Todd found that the girls used information to get a complete picture, get a changed picture, get a clearer picture, verifying, and getting a position within a picture. This suggested a change in their knowledge structure. While Todd’s work is important in its focus on the changes in cognitive structures the focus is on changes within an individual’s cognitive structure. While he addresses the role of the community, it is not the emphasis of his work. The focus on the individual suggests his work occurs within an information behavior framework with its focus on the cognitive individual.

Information use has also been explored through the relevancy criteria and the judgment youth make regarding their seeking results. Studies suggest that youth are able to determine relevance of information and make use of variety of criteria to do so (Gross, 2006; Hirsh, 1999; Large, et al., 1998). For instance, older children (age 10 and above) considered relevance in their information seeking suggesting that cognitive engagement “follows the Piagetian scheme” (Gross, 2006, p. 136). In other words as they moved into a formal operational developmental level at approximately age 11 they were capable of making relevancy judgments. Another study found that as students, youth used a variety of techniques to assess relevance including convenience, novelty, quality, recency (date of the source), peer interest, and the most dominant criteria, topicality. They adapted their relevance criteria as their personal knowledge grew.
(Hirsh, 1999). It has also been suggested that youth are better at relevancy judgment than search strategies (Large, et al., 1998). However investigations into relevancy judgments are a minor facet of information use, and do not necessarily consider knowledge construction or creation of new information. Furthermore the approach is primarily to focus on cognitive structures of individuals, rather than a social constructionist understanding of knowledge construction. Again suggesting that this research occurs within an information behavior framework.

**Implications**

There are a number of gaps in the research of youth information behavior. In researching the information seeking of teens, researchers need not construct teens solely as students, or as solely concerned with personal and social problems. There is a need for research that represents youth’s diverse interests and information needs. Research should also consider teens within their social environments. They interact in communities both outside of their school environment and beyond their geographic locations. These communities are based on recreational interests and passions. Research can seek to understand the diversity of communities, and the ways these communities construct and engage with information. Finally research should investigate the ways teens produce information, and engage in creative, civic, recreational, and entrepreneurial endeavors.

**The Research Problem and Sensitizing Concepts**

This chapter reviewed the literature that clarified sensitizing concepts. These concepts were related to the context of the research, the participants I was focusing on, and the disciplinary understandings of youth information seeking and use.

When the research interest was developing and the area of investigation was forming the term Web 2.0 had resonance within our mainstream culture, and academic culture. While this term faded over the duration of the research, the elements of a web site that were defined as Web 2.0, such as the sites being web applications and promoting collective intelligence, provided background knowledge. This background knowledge provided early structure to my understandings of digital participatory communities.
The research related to online teens introduced me to the ways teens were participating in online communities and content creation. This included their visible performances, motivations, and levels of engagement. This literature helped shape my understandings of content. My investigation describes the information practices of teens as they created and shared creative content. This included visual art, filmmaking, writing, music, and programming. Furthermore, it provided context for initial interview questions.

Finally the youth information behavior research provided a starting point for conceptualizing how the discipline understood youth information seeking and use. In keeping with Charmaz’ (2006) caution to remain open to concepts in the data, these ideas were starting points. Furthermore, the literature revealed a gap in the research that this research seeks to fill through investigating teens’ information practices as teens participate in creative endeavors.
CHAPTER 4: THEORETICAL SENSITIVITY

Introduction

The literature review in grounded theory typically occurs after data gathering and analysis (Charmaz, 2006; Dunne, 2010; Glaser & Strauss, 1967; Mills, et al., 2006a; Urquhart, 2001). This was the case with the literature reviewed in this chapter. It was reviewed while framing the initial construction of the grounded theory explored in chapters five through eight. However, as the literature reviewed in the chapter provided a deeper theoretical sensitivity to the emergent analysis for myself, I am explicitly placing the literature review before the findings. I do this with the intent of providing context for the findings chapter for the reader.

While the previous chapter referred to sensitizing concepts explored in the early phases of data gathering, this chapter explores literature engaged after the majority of analysis was complete. In reviewing literature at this stage I was presented with concepts that suggested I return to the data. The concepts provided nuance to the data and framework to critically examine my theory in relation to the field (Charmaz, 2006). This is not to suggest that I adopted an existing framework, more to indicate that existing frameworks stimulated what Charmaz (2006) refers to as “flashes of illuminating insights” (p. 128). This has been described as theoretical sensitivity (Mills, et al., 2006b).

This chapter introduces practice theory and its concepts, including the language of the discipline. It also explores how practice theory has been conceptualized and applied in the LIS discipline.

Practice as a Theoretical Framework

In the early analysis of the research data it emerged that teens constructed information as subjective and the community they participated in impacted their actions. Teens spoke of information as inspiration, as how to do something, and/or how a community interacted. They described engaging in actions modeled on the actions of other community members. They followed an implied model of interaction. And they explained how their actions were inhibited or enabled by the tools and their knowledge of how those tools worked. Their engagement with
information was more than a set of actions that could be described as skills. It involved the understandings of how a community interacts, how one was represented in this interaction, and how the community understood its purpose through the interaction. It emerged that if I was to describe the totality of teen’s engagement with information it would be necessary to describe their actions, their experiences of information, how the tools of their community enabled or constrained their actions, and the sociocultural environments within which teens constructed their understandings. This led me to investigate a theoretical framework of practice. Practice theory provided nuance to the questions I was asking of the data when I coded and engaged in further analysis.

In this chapter I describe the theoretical framework of practice. The chapter defines practice. This includes the social roles and rules that may be implicit as well as explicit. It describes the role of the body and language as it relates to the practices of a community. It suggests that where a performance is located in time has an impact on the meaning of the performance, which can lead to practices changing over time. It introduces a community of practice as a lens to understand how the context of the teen’s online communities can be defined. And finally it explores my interpretation of information practice and locates my research within the discourse of information practice.

**Practice Theory**

Practice as a theory has a wide range of definitions and usage in social science research (Kemmis & McTaggert, 2005; Lloyd, 2010; Rouse, 2006; Savolainen, 2008; Schatzki, Knorr Cetina, & von Savigny, 2001; Kimmo Tuominen, et al., 2005). The diversity in practice theory displays some thematic unity but it has been suggested that various theorists develop the themes differently and sometimes in “opposing directions” (Rouse, 2006, p. 528). Practice theory may be influenced by the methods of research, and/or a researcher’s epistemological positioning (Kemmis & McTaggert, 2005). Despite disagreements among researchers and theorists accounts of practices share a common belief that “knowledge, meaning, human activity, science, power, language, social institutions and historical transformation occur within and are aspects or components of the field of practices” (Schatzki, 2001a, p. 2). In this section I explore the ways practice has been constructed and define it as a theoretical sensitivity for my research.
Practice as a theoretical framework has been applied within different epistemological perspectives. The way a researcher theorizes how we know the world may impact how they understand practice. Kemmis and McTaggart (2005), for example, identify five epistemological perspectives: objective and individual, objective and social, subjective and individual, subjective and social and reflexive-dialectical (p. 573). Objective perspectives tend to be adopted in quantitative methodologies, and construct practice and individual behavior as represented in terms of performance, events and effects or as social interaction such as ritual. Subjective perspectives tend to be adopted in qualitative methodologies. In subjective perspectives where the focus is on the individual, practice is understood as an intentional action that is shaped by meaning and values. In perspectives that focus on community, practice is socially structured and shaped by meaning and discourses of a community. Critical stances or methodologies adopt reflexive-dialectical perspectives. This perspective also sees practice as socially and historically formed but suggests that practices are re-formed by human agency.

The epistemological position that I adopt is social constructionism. Social constructionists assume that meaning is constructed through discursive interaction (Kimmo Tuominen & Savolainen, 1996). Discursive interaction consists of the linguistic and physical ways we socially respond to one another. I regard knowledge and meaning making as socially situated and shaped by discursive interaction. This is consistent with the social constructionism concept that “the way things are’ is ‘the sense we make of them’” (Crotty, 2003, p. 64). In this position knowledge is a socially constructed endeavor, and information is subjective. Thus the lens guiding my understanding of practice is both subjective and social.

Defining practice

There are common themes in the theoretical framework of practice. These are: practices are socially and temporally situated, they are embodied, meaning is discursively constructed, the tacit knowledge of the sociocultural structure is a lens through which we construct meaning, and they are mediated by material structures such as technology (Kemmis, 2011; Rouse, 2006; Schatzki, et al., 2001). Practices are represented by a performance and the negotiation of the meaning of the performance. Hence, it is important to define a performance before examining the common themes. Performances are visible actions that have meaning within a context (Schatzki,
2001b). The connection of performances to the social, cultural, historical, and material sites they are located within is how practices are defined (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). In the following section I explore the common themes in practice theory, beginning with a broad definition of the themes and then focusing on individual themes as they may relate to digital communities.

**Common Themes of Practice Theory**

Common themes in practice theory include that practices are situated within social and technical structures, that they are physically enacted, that meaning is negotiated through discourse (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). Schatzki (2001a) identifies the “central core” of practice theory as defining practice as “embodied, materially mediated arrays of human practice centrally organized around shared practical understandings” (p. 2). In this definition he encapsulates the themes of physical performance (embodiment), tacit knowledge (shared understandings), and that practice is mediated by material structures. Of the six principle themes Rouse (2006) identifies he also discusses shared understandings, physical performances, and the situated nature of practices. This is echoed by Kemmis and McTaggart (2005) who explicitly define practice as concerned with the meaning of a performance as it is situated within social structures. In this definition the theme of the situated nature of practice, the physical performance, and the shared understandings are also apparent.

There are minor differences in the principle definitions. For instance, Rouse (2006) includes the role of practice in terms of scientific inquiry, particularly social inquiry, and the domain of practice as central to social sciences, explicitly in his review of common themes. This isn’t inconsistent with either Schatzki (2001b) who implicitly explores practice in social inquiry or Kemmis (2011) who theorizes practice through professional practice. Furthermore, while Schatzki and Rouse both explore practice as situated, Kemmis (2011) explicitly states that practice is temporally situated. In exploring practice Schatzki (2001a) posits that they are “historical transformation” (p. 2) is an aspect of practice. Rouse (2006) writes that “interpretation is only possible against the background of prior understanding” (p. 503). In both of these observations it is suggested that practices are located within time.

In short, despite the minor difference we can synthesize practice as situated both in time and place, based on performance through which we construct meaning and enabled or constrained by the social and technical system. In the following section I review the concepts in
more depth. I identify key components of practice as a framework for understanding how information is encountered and used in digital content creating communities.

**Tacit Knowledge**

A common theme in practice theory is the existence of tacit knowledge. ‘Tacit’ has come to mean that the shared understandings that are so obvious they do not need to be articulated (Rouse, 2006). It is often referenced as “shared presuppositions” (Rouse, 2006) or shared understanding (Schatzki, et al., 2001). It is the awareness of the social norms, roles, implicit and explicit rules that compose a social structure.

Tacit knowledge exists in the roles of community members (Kemmis, 2011). It is through tacit knowledge participants understand their role in the community. Community roles can be either unspoken or codified (Kemmis, 2011). For instance, in a digital community, roles such as techne-mentor (Finn, 2010) or technology steward (Wenger, White, & Smith, 2009a) are members who position themselves as helpers in the communities. Another role can be positioned as “newbie”, someone who is new to the community (Boostrom Jr., 2008). Each role comes with expectations based on how members interact (Boostrom Jr., 2008; Wenger, et al., 2009a). Codified, or explicit roles may be found in site’s policies, such as the DeviantArt policy for group administrator (DeviantART, 2012). There was also the role of moderator, which had tacit understandings regarding the role, such as the “invisible mentor” (Gray, 2005, p. 30), as well as explicit responsibilities to help maintain the community. While roles may have defined responsibilities there appears to be implicit understandings of those responsibilities both by the member fulfilling the role and by other community members (Finn, 2010; Gray, 2005).

Tacit knowledge is also how to interact with in a community (Kemmis, 2011; Rouse, 2006; Schatzki, 2001b). Implicit rules suggest expected behavior, and unexpected behavior is understood through the implicit understandings of what is normal (Rouse, 2006). In online communities the language used to interact is an example of implicit rules of interaction that involve power, ideologies, and identity (Huffaker & Calvert, 2005; Lange, 2006; S. M. Wilson & Peterson, 2002). For example, is there a use of language that can be construed as constructive criticism, friendly in tone? Or in criticism is it acceptable to engage in personal slurs? What slang words and/or emoticons are common within the community? The language used indicates
the purpose of the community. Is it a social community, or is its purpose more focused on the content?

Tacit knowledge is also the shared understandings, underlying beliefs, and values of a community (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). Shared understandings may be seen in the gap between the explicit rules of the larger culture and the actions within smaller communities (Wenger, 1998). An example in online communities can be seen in the explicit copyright laws, and the ways communities either actively circumvent them or ignore them (James, et al., 2008). This can occur through the sharing of software or passively ignoring a copyright violation. Tacit knowledge shapes the structure of a community.

Tacit knowledge may be a justification of action. Some critics suggest that the notion of tacit knowledge is a justificatory act by social scientists in order to provide a basis for a theory of practice (Rouse, 2006). However, those who employ practice as a framework suggest that it is the community who engages in justificatory action by making explicit the implicit social structure of the community (Rouse, 2006). For instance, the use of an economic argument to share software among those that cannot afford the tools is a justificatory act by participants. The role of justification by researcher or participants indicates a subtle difference in our understanding of tacit knowledge. Are we as researchers justifying actions in our use of practice or does the community use tacit knowledge to justify practice within the community? There is inherent tension is making tacit knowledge explicit. Are researchers describing a practice or building argument for our findings? Is there tacit knowledge in a community? Or is it a way of explaining our actions as normative? Furthermore, by describing tacit knowledge it is no longer implicit, it becomes codified. The process of constructing our understanding can lead to a restructuring of social practice (Kemmis, 2011), thereby changing the community. In this research I adopt an understanding that there is tacit knowledge within a community. Tacit knowledge is the roles the members adopt, the implicit rules that meaning is constructed upon, and the norms of performances.

**Individual Action and Social Construction of Meaning**

Practice is built upon the idea that action occurs within a structure of rules, norms, and concepts of a community. Nevertheless practices are “bigger than actions” and in making meaning out of actions individuals draw on different social, cultural and historical discourses
Discourses can be understood as the “ways of behaving, interacting, valuing, thinking, believing, and speaking” within a group (Gee, 1996, p. 3). Discourses are the ways we define the roles, rules, and tacit knowledge used to make meaning of the performance. For instance, how one constructs an online profile, what they include in their likes, dislikes, and other identity information helps a community construct a mutual understanding of that individual’s role in the community (Lange & Ito, 2010). This is not to suggest that meaning is built only upon conformity to the norms, only that those norms help us construct meaning of a public performance (Rouse, 2006).

In constructing meaning of a performance an individual negotiates an understanding of the social structure. This includes the explicit rules and codified roles as well as tacit knowledge within the social structure. The negotiation is formed through the implicit questions, what do I mean, how do you understand what I mean, and what knowledge is inherent in what I mean? This suggests a tension between the role of the individual and the role of the social in constructing meaning (Rouse, 2006). The individual produces the performance but the meaning of the performance is viewed through the community’s habitus, or the “organizing principle of actions” (Bourdieu, 1977, p. 19). An individual may be expressing agency in the performance but the meaning may be constructed by the community differently than the actor may have intended (Bourdieu, 1977). This negotiation of meaning is constructed through the interactions of individual actor’s performances within the larger community (Kemmis, 2011). In online communities this interaction can take place through textual comments, videos have visual cues such as facial expression, or the use of emoticons such as 😊 to represent feelings (de Souza & Preece, 2004).

Practice theory attempts to reconcile the role of the individual and the role of the social in how meaning is constructed, representing the inherent tension between the individual and the social. It tries to address the tension without separating or prioritizing one or the other (although it tends towards prioritizing the social) (Rouse, 2006). Furthermore, it recognizes that performances may not look the same and may not conform to the implicit or explicit rules of a community. For instance, in an online community the explicit rules may specify that members do not personally attack, or “flame”, each other (DeviantART, 2011; SoundCloud, 2012; YouTube, 2011). However, an individual may offer criticism they do not construct as an attack; yet the community may construct the criticism as personally motivated and unacceptable (Lange,
2006). This differing construction may be true if personal aspects are under criticism, such as commenting on how a person looks, or their weight. The meaning of the performance is how it is constructed within the community. Therefore, performance is a negotiation between the individual and the community based on shared understandings.

Physical Action and Language

Another common theme is the role of the body and the role of language. There is tension in how the body and language is understood in practice. Particularly in how practice theorists construct language, whether it is a physical act or an abstraction (Rouse, 2006). In this section I discuss embodiment of practice both in terms of how practice is physically embodied, and in terms of how practice is shaped through language and discursive interaction.

Physical Embodiment

There is a physical nature to enacting a practice. The bodily skills necessary to perform may impact how the meaning of the performance is understood (Rouse, 2006; Schatzki, 2001a). Physical performance can impact how one constructs their identity (Kemmis, 2011). This impacts how their role in the community is understood. The quality of a physical performance may be determined by the value a community places on it. For example, a singer may be considered an expert within their community because of the quality of their physical performance. This identity as expert impacts how the individual constructs their identity as well as indicating to newcomers what and who is valued.

Physical embodiment in practice produces a tension in terms of how we understand the bodily skills of performance. On one hand the body is understood as the “locus of agency, affective response and cultural expression” (Rouse, 2006, p. 512), on the other hand it is also seen as the product of norms within a community. In other words, while the individual demonstrates agency in physical performance and emotional response the visible physical performance is understood against the backdrop of the social structure. Again the tension between the individual’s intended meaning and the socially constructed meaning may emerge.

The physical nature of practice should not be understood as only visible physical action and skills. It can also be understood in terms of emotions, particularly those that are characteristic of the specific practices (Kemmis, 2011). In the previous example emotions such as pride and confidence may be attached to the visible physical performance. Enacting a
performance may require that one emotionally engage within that performance. This is a significant understanding of embodiment when considering online performances. Online performances may not produce content as a visible physical action. However, the sharing of content may be embodied through an emotional response, such as satisfaction or frustration. The process of creating content for the digital community does involve the use of physical skills. Content can be a representation of bodily skills, representing the ability to physically engage with the tools to present a performance that is shared digitally (Dall’Alba & Barnacle, 2005). Furthermore, the bodily orientation to the task of drawing, filming, or singing is a necessary component in the process. Finally in the process of creating content emotions may be based on how a community responds to content (Alexander, 2006; Kemmis, 2011). For example, an individual’s understanding of the meaning of their enacted performance and their role within that community may be emotionally experienced as pride or disappointment. Emotions may surface based on the way a community constructs their performance and responds (Lange & Ito, 2010). Consequently, embodiment should be understood as a component of content creating practices even in virtual spaces where the physical body is not realized.

**Language, Conversation and Discursive Negotiation**

In practice theory the meaning of a performance is often constructed through conversation. Conversations are interactions that are an exchange of language. Language is interpreted as being enacted through words, images, and/or physical actions. It can be constructed as a physical embodiment in that it requires physical action. Some practice theorists suggest that the “ability to speak and understand language is … a form of practical, bodily know-how” (Rouse, 2006, p. 520). Others suggest it can be constructed as abstraction, that words are symbolic representations of meanings (Kemmis, 2011; Rouse, 2006). Furthermore, the use of language in conversation is a performance itself; this is referred to as a discursive performance (Rouse, 2006; Kimmo Tuominen & Savolainen, 1996).

In this research language is understood as a conversation. Practice theory acknowledges that we engage in negotiating a common language to construct meaning by “opening communicative space” (Kemmis, 2011, p. 7). It is in this communicative space that we engage in constructing meaning through discursive interaction (Kimmo Tuominen & Savolainen, 1996). This discursive interaction may be textual, a written interaction that explores meaning (Lam, 2000). It may be visual based on emoticons meant to portray typical visual cues such as a smile,
or an empathetic look (de Souza & Preece, 2004), or the representation of one’s self through an avatar (Boostrom Jr., 2008). It may be auditory, a recorded response that allows for tone of voice to be evident. It may be multimodal including visible physical performance and auditory performance, such as videos designed to act as response videos in YouTube. Language acts as a mediator within that space for the negotiation of roles, rules, and norms (Kemmis, 2011). Practices are understood through interaction as constrained and enabled by the discursive performances within the community.

**Time**

Another element of practice is the role of time. Practices can transform over time as communities evolve (Kemmis, 2011). While practices are located within the historical context, and knowledge of the community, new performances may transform the meaning of performance and construct new practice (Wenger, et al., 2009a). An example is the ability to participate in geographically and culturally diverse communities in which different practices are shared and new practice emerges over time, as can happen in online communities. Performances of an actor may also change over time as they gain experience in the practices (Rouse, 2006). If performances change this may impact how a community makes meaning of the performance and alter the rules and norms of a community. Therefore it is important to recognize practice as situated within a specific temporal period.

**Mediation**

Practices are situated within the material world, and as a result, are mediated by the material structures and technical systems of the site where they are situated (Schatzki, 2001a). The tools or physical environment may enable or restrain performance. In digital communities the technical affordances of the software shapes the practice through the ways it enables and constrains a performance (Kimmo Tuominen, et al., 2005). For example, a limitation on the size of a file or the length of a video may change the way a performance is planned. It should be noted, however, that this could be reciprocal. Participants use technologies in ways that may not be the original intent of the tool. The emerging practice of creating machinima is an example of using gaming technologies in ways programmers had not originally planned (Bittani, 2010). Practices structure technologies by giving meaning to them, and in turn technologies impact practices through their affordances (Kimmo Tuominen, et al., 2005).
Technology may change the physical and/or social boundaries of a community. This may change the practices of participation within the community (Wenger, et al., 2009b). One example of this is the ability to “lurk” or observe without anyone knowing. Lurking is an accepted role within communities and is an action governed and meditated by the technological structures of the community, and implicit understandings of lurkers. In lurking implicit and explicit knowledge is shared. In digital communities knowledge is distributed; sharing is enabled by technology allowing knowledge to be distributed across time and space. This suggests a change in how we construct knowledge, “knowledge is no longer even the property of individuals, but instead a feature of large groups, together with their material setups” (Schatzki, 2001a, p. 11). Technical affordances and/or the material setup of a digital community allow knowledge to be distributed and shared. However, how a community constructs their understandings of and uses the affordances is constructed through members’ engagement both with the tools and with each other.

**The Theoretical Sensitivity of Practice**

The literature of practice theory provided theoretical sensitivity in regard to the emergent analysis. The enacted information actions were based on the experiences of information, which allowed participants to construct meaning of what was essentially a performance - creating content. Furthermore, the information actions and the experiences of information were understood by participants through the lens of their community. Therefore, both elements of teens’ content creating are socially situated. The tacit knowledge of the community was accessed through information gathering, and experienced in different ways. Furthermore the tacit knowledge helped shape teens’ content creating process. The extant literature suggested I return to the data to more clearly articulate the tacit knowledge of teens’ communities.

The role of the community, and the role of the individual, had been an ongoing theme in the data. Practice theory’s interrogation of meaning making, and how a community constructs knowledge notwithstanding how an individual intended a performance attuned me to elements in the data that emphasized this dichotomy. I had analyzed an emerging issue of negotiating control of performances and information. Returning to this concept with theoretical sensitivity allowed me to question more deeply what was occurring. Furthermore, I began to construct how the tacit knowledge of the community was information used in negotiating meaning making of a performance. The extant literature suggested a framework for theorizing this practice.
In analyzing the data there was a suggestion that teens constructed information in concrete and abstract ways. When they spoke of information they indicated that information was concrete in the form of content, or explicit statements or visible actions. However, they also indicated that it was internalized as well, and consequently, invisible. Information was emotions, or physical response. Practice theory presented a concept that could articulate this understanding of information, embodiment.

Furthermore, it appeared that knowledge was constructed in communities through a variety of conversations that were textual and visual through the use of emoticons to represent those emotions. Interaction in the form of conversation was a significant mode of meaning making. This was consistent with the role of language and discursive negotiation. When reviewing extant literature, the concept of discursive negotiation articulated experiences of information that teens described.

It was also apparent through teens’ descriptions that participation in content creating communities was mediated by the tools of the community. The tools shaped how they interacted. They shaped teens’ information actions. The language of practice theory, that practices are mediated by material structures, provided theoretical sensitivity and language to articulate this phenomenon. Additionally the social structure of the community also shaped the ways they experienced information and their information actions. Finally, the tools and the social structure allowed practice to change over time. Over the course of data gathering I had witnessed teens’ practices evolve, primarily based on the evolution of their digital participatory community. This indicated that as material structures evolved, practices also evolved, and that a reciprocal relationship existed between the information actions and the materiality that enabled those actions.

The literature of practice theory offered theoretical sensitivity to data and analysis. The basic categories of teens’ information practices had been articulated, but the extant literature encouraged me to interrogate the findings more deeply. It provided a background for the shape of the substantive theory. The concepts of practice theory – tacit knowledge, the role of the social community, embodiment, discursive negotiation, time, and materially mediated sites – existed within the data. Early analysis had addressed them. The literature attuned me to how the elements of community, information actions, and the experiences of information intersected to form an information practice.
Communities of Practice

In describing learning as a situated process, Lave and Wenger (1991) introduced the concept of a community of practice. Wenger (1998) defined the concept in detail. This is significant to my work because the definition of a community of practice facilitated a deeper understanding of the digital participatory communities teens participated in. Wenger writes that “practices are thus the property of a kind of community created over time” (p. 45). He argues that practices provide coherence to a community, that they develop over time and provide boundary to the community. It follows then that using a community of practice lens to analyze the digital participatory community can suggest theoretical sensitivity and provide depth to the surface understanding of what is occurring within these communities.

Practices are situated within communities; negotiated and defined by the performances of members of that community. Given this definition of practice, and the need to understand the tacit knowledge and mediated structures of a community it is appropriate to use a community of practice framework to analyze and describe the sites of this research. Communities of practices are created and defined through the participation of their members (Lave & Wenger, 1991). Members engage in performance and meanings are constructed and negotiated to develop a shared repertoire of action and knowledge. The communities that were sites for this research will be described in chapter five, but this section lays the theoretical foundation for the descriptions of a specific digital community of practice.

Defining a Community of Practice

There are three dimensions to a community of practice: mutual engagement, joint enterprise, and a shared repertoire (Wenger, 1998). Mutual engagement is participation with a common purpose. Being included within a community implies one is engaged in the practices of the community, and this engagement maintains the community. If people were not to contribute at varying levels the community may disappear. One significant understanding of mutual engagement is that it is important to give and receive information rather than know everything yourself (Wenger, 1998). Thus, knowledge is distributed. This highlights the social nature of the digital communities that teen content creators are engaged in. As members share and respond to content they are mutually engaging in a common purpose. Furthermore, groups leverage the technical affordances to create niche communities (Wenger, et al., 2009a). Members use tagging
of content or the ability to join focused groups to participate in smaller communities with a more specific purpose, such as the sharing of fan videos of a Dr. Who. These smaller communities explore mutual engagement focused on more specific subjects or formats of engagement.

Communities of practices are a joint enterprise. Joint enterprises are the result of a process of negotiation that reflects mutual engagement and is defined by participants in the process (Wenger, 1998). The communities used for this investigation are joint enterprises that are shaped around the sharing of artistic works. The negotiation of a joint enterprise occurs in complex and diverse ways (Wenger, 1998). This is reflected in large networks of like-minded people that create and share content. The sharing of content takes place on specific platforms that are interest based. In a digital community of practice the joint enterprise is the purpose of the website. This purpose is formed through a negotiation of what the intention of the site is, establishing the norms for content production and sharing, and how members of the site are defined.

A final source of coherence for a community is the shared repertoire. A shared repertoire consists of the resources used for negotiating meaning that reflect a history of mutual engagement and can be used for shared reference (Wenger, 1998). Through the shared repertoire the tacit knowledge as well as explicit structures is distributed among members. The act of sharing content, as well as interaction around that content, builds the shared repertoire. For example, as a community negotiates the implicit and explicit rules of story telling on a site, they build content that can be referenced. The use of emoticons that suggest “liking” a particular piece of content knowledge demonstrates what is valued in the repertoire of a community. Therefore a shared repertoire is the content of the community.

This research assumes that communities of practice are built upon the exchange, construction and creation of information. Information is, therefore, fundamental to the joint enterprise of a community of practice. Information is how communities can communicate to negotiate a joint enterprise. How information is encountered, engaged, negotiated and used within a community is a performance that builds the shared repertoire of the community. By making this assumption I position information practices as fundamental work within a community of practice. In the following section I will explore information practices, providing a description of the definition of information practice and examining the framework as it has been applied.
Information Practices

In investigating teens’ information practices while creating and sharing content in digital communities I have adopted an information practices framework. Having explored the extant literature of practice theory, which provided theoretical sensitivity, I now describe the literature and research related to information practice. This section begins by examining how information is understood, and problematizing information. It suggests the position this research takes in theorizing information. It then explores how information practice has been used in Library and Information Science research. Finally it establishes my reasoning for adopting information practice as a theoretical framework.

Problematizing Information

Having explored the theoretical implications of practice it is necessary to problematize and explore information. The discipline of information science has attempted to answer the question ‘what is information?’ in great detail. One approach within the discipline uses a hierarchal approach to describe a difference between data, information, and knowledge, and occasionally wisdom (Cornelius, 2002; Kakabadse, Kakabadse, & Kouzmin, 2003; Rowley, 2007; Stenmark, 2002). A case in point is Stenmark’s (2002) synthesis of definitions he defines data as discrete fact, information as interpreted data, and knowledge as personal meaning constructed from information. Another example of the hierarchal approach includes wisdom, defined as including ability to act critically or apply knowledge in abstract ways (Rowley, 2007). Common themes emerge in both of these example syntheses; typically data is conceptualized as discrete and objective but lacking meaning, information is interpreted data or data with meaning, knowledge builds on information, or is organized information that conveys understanding particularly to an individual, and wisdom is the ability to use knowledge critically (Rowley, 2007).

However, this approach has been criticized as lacking a philosophical underpinning (Capurro & Hjorland, 2003). Furthermore, there is concern that the transition between each level within the hierarchy remains relatively unexamined (Rowley, 2007). For instance, how does one gauge when data becomes information and information becomes knowledge (Cornelius, 2002)? Attempts to measure the transition between the hierarchal levels positions information as purely objective. The difficulty with information as a measurable object, is that there is no agreed upon
measure that identifies information (Cornelius, 2002). Furthermore, information can also be considered subjective, or dependent upon perspective, in which case measurement is irrelevant. A close reading of information as it is located in a hierarchal structure could suggest that information is subjective. While information is not constructed as either an objective entity or a subjective construction in definitions that adopt a hierarchal approach the implicit understanding is that information is a subjective construction based on interpretation. The definition of information as interpreted data, or data given meaning, implies that an individual or community is making meaning as it interprets data, which indicates that different meanings may be constructed.

The question of the relationship between information and meaning produces differences of opinions (Bates, 2005; Hjorland, 2007). The debates surrounding the objective/subjective nature of information date back to Shannon’s mathematical theory, considered the foundation for the debate regarding the nature of information (Cornelius, 2002). In Shannon’s theory information was an objective entity, a signal. There are questions about information as a signal: What if the signal was not received in the same manner it was sent? For instance, what if what one heard was different than what was said? Did information exist without meaning? (Cornelius, 2002; Dervin, 2003). In a more recent theory of the nature of information Hjorland (2007) argues that users of information should be seen as situated in context, suggesting that it is related to semiotic theory, and that in constructing information the meaning of signs (semiotics) should be involved. This constructs information as subjective.

This research adopts a social constructionism framework, and it is helpful to understand how information is defined within that framework. Constructivists position information as subjective (Cornelius, 2002; Hjorland, 2007). Two levels of constructivism have been identified in this regard, moderate and radical (Cornelius, 2002). Moderate constructivism allows for knowledge to not be entirely subjective because given the same information people can develop the same knowledge. Radical positions suggest that given the same information people can come to different conclusions and thus knowledge (and information) is intersubjective (Cornelius, 2002). These interpretations recognize tension between the individual and the culture in how meaning is constructed. However, they both suggest that meaning is subjective and interpreted. Information as interpreted data is therefore subjective in social constructionist conceptualizations of information within the Library and Information Science discipline. This is significant in
relationship to a community of practice framework, in which the joint enterprise of the community is a negotiation of meaning. Negotiation of meaning suggests an understanding of information as subjective as members of a community come to a shared understanding.

There are conceptualizations of information that suggest information can be defined in more concrete terms. For example, Buckland’s (1991) approach to a theory of information introduces a different understanding. He suggests there have been three principal uses of information: information-as-process or the act of changing what one knows, information-as-knowledge or what is communicated in the information-as-process, and information-as-thing, or objects that can be regarded as informative. These framings of information have some significance both within the communities of practice framework, and as related to the findings of this research. In communities of practice information as process is the negotiation of meaning through a joint enterprise. Information-as-knowledge is the result of the joint enterprise. Information-as-thing is the shared repertoire of the community.

Positioning information as subjective is significant in an information practice framework because it demonstrates a consistency with practice theory. If practices are negotiated, situated within a community, then they, and the information that informs them, are subjective. Meaning of information is constructed by members of the community, through performance and negotiation of meaning. Ultimately practices cannot be shaped without the information that shapes them. This is a foundational understanding to information practices that are explored in the next section.

**Information Practices: A sociocultural approach**

Practice theory concerns itself with performances that are situated within time and a site (Kemmis, 2011; Rouse, 2006; Schatzki, et al., 2001). I use a community of practice framework to define the boundaries of a site. However, the focus of the research is on information practices. Information practice research was explored for further theoretical sensitivity. Furthermore, by using the terminology of information practice I place my research in conversation with the field and therefore an awareness of how LIS understands and uses information practice provides context to my own substantive theory. In this section I explore information practice as it has been defined and applied in order to lay a foundation for the use of information practice as a framework, and for how this research contributes to the conversation regarding information practices.
Information practice research concerns itself with how people seek, share and use information, and it does so within a sociocultural framework (Savolainen, 2007). Information practice research uses a framework that positions information as subjective, and proposes that the ways people engage with information are structured and mediated by context. Information practice as a theory focuses on the community, recognizing that practices are socially situated; that our meaning making is constructed within a framework of tacit knowledge, and shaped by technical affordances (McKenzie, 2003b; Savolainen, 2008; Kimmo Tuominen & Savolainen, 1996). In this section I explore information practice research, including a critique of information practice in relation to an information behavior framework.

Defining Information Practice

The concept of information practices suffers from the same concerns as practice theory, in that there is no unifying principle, or definition (Lloyd, 2010; Savolainen, 2007; Kimmo Tuominen, et al., 2005). While the concept of information practice appeared prior to the new millennium it has received increased attention since the early 2000s and is still an evolving concept (Savolainen, 2008). A tentative definition of information practices is that it is an “umbrella concept” that explores the ways “people seek, use and share information” (Savolainen, 2008, p. 37). However, this is not distinct from definitions of information behavior (Savolainen, 2007; T. Wilson & Savolainen, 2009). Wilson, after all, suggests that practices are a part of information behaviors (T. Wilson & Savolainen, 2009), and that behavior is how we act in the world (T. Wilson, 2009). Wilson argues that human behavior is “composed of cognitive, physical, and social actions” (T. Wilson & Savolainen, 2009). This suggests that behaviors include social practices and physical embodiment. However, information behavior as it is applied as a framework for understanding how humans interact with information focuses primarily on the cognitive individual rather than on the social community (T. Wilson & Savolainen, 2009). This was observed in the youth information behaviors research reviewed in Chapter three, Sensitizing Concepts.

On the other hand information practice studies are often influenced by a social constructionist paradigm (McKenzie, 2003b; Savolainen, 2008; Kimmo Tuominen, et al., 2005; Veinot, 2007). The social constructionist paradigm believes that there is a negotiation of meanings, and that this occurs through discourse (McKenzie, 2003a; Kimmo Tuominen & Savolainen, 1996). This emphasizes the role of social structure and interaction as well as
language and conversation in making meaning (Kemmis, 2011; Kimmo Tuominen & Savolainen, 1996; Wenger, 1998). This epistemological position shifts the focus of meaning making from how an individual makes meaning independent of context to how a community constructs meaning. It emphasizes the social interaction when constructing meaning.

The Applied Framework of Information Practices

In this section I review research within the information practice framework. Information practices frameworks are found in everyday life information seeking (ELIS) studies (Caidi & MacDonald, 2008; Kalms, 2008; McKenzie, 2003b; Olsson, 2010; Savolainen, 2008), workplace studies (Johannisson & Sundin, 2007; Olsson, 2010; Veinot, 2007), and studies in an academic setting (Lundh & Limberg, 2008). In the following section this research is reviewed. The research considers information practices as social activity, located within a social and cultural context (Caidi & MacDonald, 2008; McKenzie, 2003b; Pilerot & Limberg, 2011; Savolainen, 2008; Kimmo Tuominen & Savolainen, 1996). It also suggests practices are “organized composite of actions” (McKenzie, 2003b; Savolainen, 2008; Veinot, 2007), which can be understood as a performance if one were to apply the terminology of practice theory. Furthermore, it addresses the socio-technical aspects, such as the tools that enable social construction of meaning (Johannisson & Sundin, 2007; Savolainen, 2008; Kimmo Tuominen, et al., 2005; Veinot, 2007).

Information Practice as Social Activity

Information practice is theorized as a situated social activity, with an emphasis on context and exploring communicative activities (Savolainen, 2007). For instance, McKenzie’s (2003b) study of information practices based on the everyday information seeking of pregnant women emphasized the “concrete and situated activities of interacting people” (p. 24). She focused on nature of knowledge, theorizing that knowledge was produced through conversation. For instance, she found that “participants in conversation create very flexible and versatile descriptions of cognitive authority” (2003a, p. 283); authority decisions were negotiated in internal and external conversation. In his study of theatre professionals Olsson (2010) explained that “participants’ sense making/s are an essentially social process” (p. 244). Participants shared their varying interpretations based on their roles within the theater. This provided a richer understanding of the Shakespeare text that was the context of Olsson’s investigation. Caidi and
MacDonald’s (2008) investigation into Canadian Muslim’s information practices found that their seeking was shaped by their identity as Muslims both in what they searched for, and in how they searched. In each of these studies the social context was important to how the participants performed information related activities such as seeking and constructing meaning.

Information Practices as Organized Composite of Actions

Savolainen (2008) suggests that the starting point for practices is that they are an “organized composite of actions” (p. 25). He conceptualizes three major everyday information practices: information seeking, information use, and information sharing. For instance, in information seeking actions he describes seeking orienting information. This includes the daily habitual engagement with media. It also includes the ways people may begin to seek more specific sources for orienting information, which is more defined as active monitoring. In seeking for problem solving the “composite of actions” included establishing the criteria that was used to select preferred sources and the ways those sources were accessed. In information use the actions were related to establishing credibility and coping with information overload. This included how information was filtered. And finally in information sharing the actions were related to implicit understandings such as expectations of reciprocity. The organized composite of actions he describes are daily performances, they have meaning in context of participant’s every day lives.

McKenzie’s (2003b) model of information seeking theorizes four modes of seeking: active seeking, active scanning, non-directed monitoring, and by proxy. She also describes two phases: connecting and interaction. The connecting phase is the identification and making contact with a source. The interaction phase includes the practices that occur during the encounter with the source. Embedded in this model were a specific composite of actions such as seeking contact, reconnecting with a source, and/or placing oneself in an information rich environment. The model is a representation of a variety of actions that are performances. These performances can be understood as the “organized composite of actions” discussed above.

In describing the work place practices of an electrical worker, Veinot (2007) found that the organizing actions of the physical experience as a starting point for describing information practices. The actions of preparing for visual inspection such as donning appropriate clothing or the physical method of accessing information provided a site for the negotiation of meaning of
the profession and job responsibilities. The implicit reasons for certain items of clothing emerged through a physical understanding of the job. The “composite of actions” or the performance was the basis for the negotiation between what was explicit in the rules, and the implicit understandings of how to engage in performing the job. Furthermore, engaging in the actions included tacit knowledge, such as when to contact repair personnel. The actions that shaped professional practice provide information and were conceptualized as information practices.

The actions described by these researchers are performances. The organizing structure of the actions is shaped through tacit knowledge. The meaning of the actions is constructed within the structure of the social and material situation. In this sense the composite of actions is the starting point for describing information practices (Savolainen, 1995).

A View on Information Sharing

While Savolainen suggested information sharing is an information practice a differing opinion suggests sharing might be better understood as an activity (E. Meyers, 2009; Pilerot & Limberg, 2011). When described in this manner an activity is the same as an action (Pilerot & Limberg, 2011). Information sharing activities contribute to a collective understanding or knowledge base. Sharing is a common element in information practice research. For instance, Meyer’s description of preteens sharing information to “tip the iceberg” in a virtual world included how the community shared information beyond the immediate site in writings and visuals such as video and image creation (E. Meyers, 2009). Attempts to “tip the iceberg” were based on rumors, but rich information sharing emerged from the activity of trying to succeed in tipping an ice island over in Club Penguin (E. Meyers, 2009). This built a library of knowledge, a shared repertoire, of the Club Penguin community that was the site of investigation. It also indicated that the sharing performances contributed to how participants interacted and negotiated the community. In trying to “tip the iceberg” a community of practice formed around a shared knowledge base.

It is through information sharing that that the tacit knowledge is negotiated. For instance, in studying design scholars’ information practices the implicit value of information sources emerged (Pilerot & Limberg, 2011). The value of sources and what should be considered a source was arrived at through information sharing within the community. The types of
information passed on and the ways information was shared formed the implicitly agreed upon value of types of information (Pilerot & Limberg, 2011). Information sharing emphasizes what is important in the community. Engaging in the action of information sharing is a performance that allows the negotiation of knowledge within the community. Information sharing should not be ignored in descriptions of information practices, but it may not be an independent information practice. Rather it should be considered a performance.

**Socio-technical Aspects of Practice**

Practices are also formed and understood by the material, or technical, structures of the context they occur in. Social practices give form and meaning to technology and reciprocally technology provides new ways of performing social practices (Kimmo Tuominen, et al., 2005). As new ways of performing social practices emerge, the communities joint enterprise transforms. The tools of a community shape the practices of the community. As an illustration in describing the information practices of the nursing community, the journals and publications of both the nursing community and the medical community were material objects that structured the practice of the nurses (Johannisson & Sundin, 2007). This occurred both in how they interacted with doctors, and how they understood their professional practice. The journals held different value based on publishing rules and authority within the community, from which nurses took professional cues and increased personal knowledge (Johannisson & Sundin, 2007). Another example of practices shaping technology, and technology shaping practice was design scholars use of technological tools (Pilerot & Limberg, 2011). The scholar’s day-to-day activities were shaped by the technologies they used; they were unable to “imagine what [their] world would look like without [ICT]” (p. 323). Specifically the design scholars’ network, Norcode, was the context of the study and was one way of sharing information. It provided a material form to the organization but it also provided a social structure to how interaction occurred. How the individuals used the website eventually shaped the site and what was included on it. The material objects or technical structures shaped practice, but practice also shaped the structure.

**Why Information Practices?**

As a researcher I adopt an epistemological position of social constructionism. This led me to reviewing information practice research as I engaged in data collection and analysis.
Information practice was a sensitizing concept. It provided a tentative tool as I constructed ideas about teens’ processes. Charmaz suggests this is the role of sensitizing concepts (Charmaz, 2006). As data analysis continued and the substantive theory was constructed, relationships between information practice studies and this investigation became clear. The description of experiences of information such as information as participation and information as collaboration was consistent with information practice researchers emphasis on information practice as a social activity. The description of information actions presented an “organized composite of actions” which included information sharing in the actions of planning, reflecting, and all creating practices. And teens emphasized how tools and community impacted both their experiences of information and their information actions. The model of information practices that was constructed emphasized concepts such as negotiation in meaning making, and the role of the community in meaning making and representing knowledge. Therefore not only did the information practice literature provide sensitizing concepts, it also suggested theoretical sensitivity. Understanding how my model interacts with other information practice models encouraged me to consider the connections between the information practices. How did the practices of negotiation relate to the practice of learning community or representing knowledge? In reviewing how others’ had theorized these connections I was able to clarify the connections in this model. And therefore eventually contribute to the information practices conceptualizations and knowledge.

**Conclusion**

In this chapter I reviewed the literature that provided theoretical sensitivity after data collection and analysis was primarily completed. The literature provided theoretical nuance to the initial information practice model, or “flashes of illuminating insight” (Charmaz, 2006, p. 128). It also provides context to my study. The model of teens’ information practice relates to the theoretical framework of practice in its emphasis on tacit knowledge in the information practice learning community, its emphasis on negotiation, and its emphasis on the role of social (or discursive) interaction. Furthermore, it recognizes the role of the materiality of digital communities and their information practices while creating and sharing content. Finally it contributes to an emerging understanding of information practices within the LIS discipline.
CHAPTER 5 DIGITAL PARTICIPATORY COMMUNITIES

Introduction

The sites for investigation in this research were digital participatory communities. As participatory communities the practices included strong support for sharing and informal mentorships (Jenkins, et al., 2006). Using a community of practice framework helped shape how these communities were described in relation to this research. The communities were a significant component of information practices. The information actions and experiences of information were situated within a community. This suggests that the information of that community will affect the actions and experiences of content creators. The actions and experiences of information intersected to produce performances that provided purpose and meaning within the community. Furthermore, communities have tools and social structures that further inform the information practices of teens. How the tools are used, and social structures are experienced also influences the community. Therefore it is necessary to describe the communities while considering how they may shape information practices.

The descriptions of the communities in this chapter came from observing the communities over several years, through the lens of participant’s content. Additionally the interviews provided a site for community analysis in regard to how participant’s understood the community and their role as community members. Therefore this chapter is more than a description of observable elements, it also attempts to articulate tacit knowledge of a community. In particular it describes the social structure of interaction, which revealed tacit knowledge about roles, rules, and norms within the community.

This chapter also introduces the teens that participated in this research, while describing their primary community of practice in the online environment. Participants in this study participated in multiple communities. However, they chose to be more active in a particular community. This was the primary community in which they shared content. There were two categories of communities that participants engaged in: 1) pre-existing communities built around a shared interest and 2) communities that were organized through the affordances of social media but not a specific website. This investigation explores both through the lens of communities of practice.
Communities of practice have three defining elements: mutual engagement, joint enterprise and a shared repertoire. This chapter introduces the communities of practice while defining these three elements in relationship to the community. In the section following I provide an overview of the participants, the format of their content, and the community they engage in. I then go on to describe the participants and their communities of practice.

**Participants and Their Communities of Practice**

In the sections below I introduce the participants and the communities of practices they are members of, while outlining the social and technical affordances the communities provide.

*Participants*

In Table 5-1 below I list participants, their age at the time of the first interview, the format of their content, and their primary community of practice.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Format of Content</th>
<th>Community of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xeda</td>
<td>15</td>
<td>Visual Art</td>
<td>DeviantArt</td>
</tr>
<tr>
<td>Roni</td>
<td>17</td>
<td>Visual Art</td>
<td>DeviantArt</td>
</tr>
<tr>
<td>Goku</td>
<td>16</td>
<td>Video</td>
<td>Vimeo</td>
</tr>
<tr>
<td>Swift</td>
<td>18</td>
<td>Video</td>
<td>YouTube</td>
</tr>
<tr>
<td>Salamonde</td>
<td>18</td>
<td>Music</td>
<td>SoundCloud</td>
</tr>
<tr>
<td>Sam</td>
<td>19</td>
<td>Music</td>
<td>ReverbNation</td>
</tr>
<tr>
<td>Eilowyn</td>
<td>18</td>
<td>Writing/Fan fiction</td>
<td>FanFiction.net</td>
</tr>
<tr>
<td>Robert</td>
<td>17</td>
<td>Role-playing</td>
<td>MyFastForum/Local</td>
</tr>
<tr>
<td>Loli</td>
<td>17</td>
<td>Blog</td>
<td>WordPress/Blogger/Local</td>
</tr>
<tr>
<td>Hannahsusannah</td>
<td>17</td>
<td>Website/Graphic Design</td>
<td>MoonFruit/Local</td>
</tr>
<tr>
<td>Jack</td>
<td>17</td>
<td>Programmer</td>
<td></td>
</tr>
</tbody>
</table>

Table 5-1: List of Participants and Communities

*Visual Artists and DeviantArt*

DeviantArt is an art hosting site and social network for artists. Two participants, Xeda and Roni, used DeviantArt as their main site of participation, and identified themselves as visual
artists. In the following section I introduce the reader to Xeda and Roni, as well as the community they participated in, DeviantArt.

Visual Artists: The Participants

Xeda’s primary content was visual art. She participated in multiple communities but primarily used DeviantArt. While Xeda had been a member of DeviantArt for a year and a half at the time of her first interview she had been participating in online communities for seven years. She had begun participating in social networks when a friend introduced her to Gaia, an online network with social games and forums. Because Xeda lived in a rural area she was isolated from her friends and spent after school hours online, saying “I don’t get out a lot so I do a lot of my communication with my friends over the Internet.” The rural nature of her home presented some difficulties in terms of technical affordances. Xeda’s home still used a dial up connection, which was slower than her peer’s broadband connections. The use of a dial up connection meant she experienced difficulties managing the size of her files, and had learned a variety of ways to manipulate file size.

As an artist Xeda began as a doodler. She primarily drew cartoons, describing her content and inspiration in this way: “I really, really ...like cartoons so I started trying to draw cartoons a lot during class, so all of my homework is covered in doodles.” Her most popular work on DeviantArt was Morbid Rabbit (see figure 5-1).

![Figure 5-1: Xeda's Morbid Rabbit](image)

Over the course of the three years of observation of Xeda’s art she began to explore different styles (Figure 5-2) while still maintaining an interest in cartooning.
Eventually Xeda began a new DeviantArt site under a different profile name. On this site she shared new artistic interests that were less focused on cartoons.

Roni was also primarily a visual artist participating in DeviantArt. She had been taking art classes since she was a young child and was a student in Arcata Arts Institute, a school within a school. Arcata Arts Institute (AAI) emphasized art education and provided a modified schedule for students so they can work on their art for extended periods of time during the school day and after school. Her schooling played a role in the type of content Roni created as she was working on a senior project and portfolio. However, she had enrolled in AAI because she was an artist, and had been required to audition. Roni had been a member of DeviantArt for slightly more than a year at the time of her first interview. Before joining DeviantArt she had been a member of fanartcentral.net, a community built around sharing “fan art”, or artwork based on a creation by a different author or artist. Roni’s move to DeviantArt was precipitated by a need for “a more serious community.” She was also experimenting with developing and sharing a comic strip on SmackJeeves, a web comic hosting site. The artwork for the web comic was also shared on her DeviantArt (Figure 5-3).
Roni’s profile on DeviantArt represented a variety of content that represented her artistic interests and identity: photographs, comic art, fan art, poetry, and artwork from class assignments (Figure 5-4).

As Xeda and Roni both identified primarily as visual artists, DeviantArt was an appropriate digital community in which to participate.

**DeviantArt: The Community**

DeviantArt is a large, diverse community. It was founded in 2000 as a social network and art hosting community. There are over 13 million registered users, although frequency of
participation varies as it does in most social networks (DeviantART, 2011). While DeviantArt was the primary community for Xeda and Roni, other participants such as Loli, Hannahsusannah, and Eilowyn used the site as well. This indicates that participants had multiple communities of practice. This may have meant practices from one context impacted practices in a second context.

DeviantArt provides both social and technical affordances: the ability to share content (technical), the ability to comment (social), the ability to respond to content through emoticons (social and technical), the ability to browse by interest (technical), and the ability to form smaller communities within the larger site (social and technical). The community is highly interactive on forums that discuss issues related to the art and the community. Members of DeviantArt build profiles including personal information, their art, art they have “favorited”, and their “watchers” (those following their updates). Profiles allow members to connect to smaller communities based on their interests. This creates smaller, more focused communities of practice. DeviantArt provides a range of emoticons (Figure 5-5) that allow users to express emotions. This is different than other content creating communities which usually allow a like and dislike buttons or “thumbs up.”

![DeviantArt icons](image)

Figure 5-5: DeviantArt icons

This allows for a more nuanced social interaction.

The mutual engagement of DeviantArt is represented through the sharing of art (and in some cases, poetry and prose). As the site has grown the diversity of communities has grown as well. Smaller communities exist around subjects such as digital art, traditional art, crafts, photography, animation, fan art, and fractal art among others. As a joint enterprise members negotiate meanings including (but not limited to) the ethics of fan art (art based on other member’s work), how to respond to and critique art, and how to produce and create specific genres of art. These negotiations take place on forums, as well as through comments. They can also be seen reflected in site polls such as the one below (Figure 5-6).
The shared repertoire on the DeviantArt site includes not only the art, but also the communal conversation about creating, sharing, and art theory. It is through these negotiations that the implicit rules of the sites are made explicit, such as how to respond to critique, and implicitly how to provide critique.

Consistent with many content-sharing communities, the commenting practices on DeviantArt are subject to both explicit and implicit rules. Like many sites DeviantArt has an explicit statement that outlines prohibited commentary. Prohibited comments “are racist, bigoted, or which otherwise offensively target a philosophy or religion” (DeviantART, 2011). They also provide a statement that identifies comments that are discouraged, such as “personal arguments, disagreements, and other volatile "personal" issues” (DeviantART, 2011). The site explicitly emphasizes respect and participants recognized this community value, suggesting they had not encountered negative comments. As was often the case in viewing the participant’s content most commenting was mundane and supportive such as this found on Roni’s site, “Omgosh (sic), It's so cute. <3.” Occasionally supportive comments pointed to a particular technique, “I adore your shading” or “And the shading/lights are very interesting - especially on the coat.” An example of a more specific comment that is supportive while highlighting a particular element is found on Xeda’s site: “I really appreciate the way you have rendered the stretching of the skin. It's visually tactile. I enjoy the muted colors as well.” The simple comments and critiques are an implicit expectation of how to interact on the site, although there are no explicit directions. Longer critiques are less common but also occur. Roni specifically addressed this in her interview
saying, “one artist that did this really massive critique on a piece that I did and I really, really appreciated it because it helped a lot.” The process of critique on DeviantArt was developed through a joint enterprise, and subject to both to the explicit rules of the etiquette statement and the implicit rules of interaction and language.

DeviantArt commenting produces conversation that indicates personal relationships, often becoming a conversation that is no longer about the art. For instance, “*stalking* V-chan~ What will you let me buy you for X-mas???” was a comment that appeared on Xeda’s site. DeviantArt also employs an informal language in which inside jokes occur using familiar Internet memes, such as: “Kinda derpy. Derp-derp”, which means “awkward or embarrassing, especially pertaining to a person” (UrbanDictionary, 2012). This social interaction is an implicit norm on DeviantArt where it is understood that interaction does not have to be about the specific content, and can be intertextual and social if the reader understands the insider language. Therefore interaction on DeviantArt is often informal and personal.

DeviantArt is a well-established community. Through mutual engagement and joint enterprise the social interaction on DeviantArt shapes the community. The technical affordances allow for negotiation through a variety of social interactions. The participants who used DeviantArt as their primary community of practice came to understand the implicit rules of mutual engagement as they participated in the community itself.

Film Makers and Video Sharing Communities

There were three filmmakers who participated in this study. Goku who participated in both Vimeo and YouTube, Swift who participated in YouTube, and Robert who was a new participant in YouTube. In this section I will introduce Swift and Goku as well as the communities of YouTube and Vimeo. While Robert was a filmmaker and participating in YouTube, it was only emerging as his primary community. His experience in local digital communities was his primary experience and will be explored later.

Film Makers: The Participants

Goku had a deep interest in movies and filmmaking. He began using a video camera with a mentor when he was 10, and received his first camera at age 12. He interest deepened and he began to engage in filmmaking and editing several years later when he received a computer that had movie editing software pre-loaded. Goku’s experience with filmmaking had begun
outside of school but he had found ways to leverage that interest in the school environment by
taking digital production classes that were available. He did, however, state that he “learned
more outside of school.” His content represented an interest in special effects and animation,
although at the time of his first interview he was experimenting with a documentary.

At the time of the first interview Goku was a new student to his current school
community, and was developing relationships with which to engage in collaborative filmmaking.
Despite the developing relationships he found he spent more time editing his films by himself,
exploring different formats and special effects. This type of engagement significantly lessened
the following year as he became more socially engaged with his school community. The shift in
his interests, as well as his level of engagement could be seen as new content emerged on both
Vimeo and YouTube, and as his content demonstrated fewer special effects.

Swift had been engaged in filmmaking for four years. She began her participation in
filmmaking as a member of an after school arts education program. She had begun the program
because of her interest in filmmaking and had received basic instruction in editing software. She
continued the program because it provided the space and the equipment so she could learn more
advanced techniques, and application of advanced software. After her initial instruction Swift
learned how to use the tools and developed her aesthetic independently. Swift had a
collaborative partner, Salamonde, with whom she made music videos. She also produced films
that promoted the after school program. Her own interests primarily focused on narrative
documentaries regarding social concerns. She posted her videos to YouTube, establishing it as
her primary content sharing community.

Video Sharing Communities

YouTube and Vimeo were the two communities of practice participants used to share
videos. YouTube is the largest and has a wider range of participants and types of videos than
Vimeo. Many participants used YouTube even if their primary content was not film or video
content. For example, the musicians often shared their own music on YouTube. Loli, the
Blogger, posted videos to YouTube and then embedded those videos on her blog. Only Goku
used Vimeo.

* YouTube
YouTube is the largest and most recognizable video sharing community. In 2010, five years after it was launched, it surpassed two billion views a day (YouTube, 2011). There is a wide variety of content on YouTube. Video producers are both corporate and personal content creators. Corporate content producers share advertisements, and professional content. Personal content creators share diverse content including personal memories such as vacation videos, personal diaries, humorous videos of friends, families, and pets, and sports videos of stunts, games, and sports highlights as well as artistic content. There are also educational and how-to videos from both hobbyists and professional teachers. The diversity of content makes describing YouTube’s community difficult; however the affordances of YouTube allowed specific types of mutual engagements to emerge.

YouTube’s primary affordance is the ability to post videos. Posting videos on YouTube is a simple process and the site supports this with ‘how-to’ videos, both official and from users. This provides a technical affordance for users in the form of visual instructions. YouTube allows users to comment on videos, click like and add it to a favorites list, dislike a video, share and embed video, and flag videos for inappropriate content. The technical structure guides the social affordances, for instance the ability to ‘dislike’ a video. This allows members to anonymously express displeasure in ways they may not be able to on other sites, such as Vimeo. The home page highlights popular videos, as well as “videos you might like” based on viewing and posting habits, a technical affordance that may lead to social interaction. It also allows users to subscribe to “channels”, becoming a member of a smaller community built around topics or specific users.

As a large site with a diverse user base the comments on YouTube videos reflect the diversity of the membership and their mutual engagement. Primarily comments are mundane such as “this is a rad video”, a comment found on a “liked” video by Goku. Often the mundane comments can also be construed as supportive, such as this comment found on Sam’s music video “Damn bro, I give you another year or so to really find your voice, and you in there. This is pretty decent.” Occasionally more constructive critique may emerge. On the same video more supportive detail about what was liked can be seen in this comment, “cool flow and harmonys (sic) on this jam man great job and your voice you can hear clear which I really like keep up the sick vibes.” Occasionally the comments can be negative, almost personal attacks, known as flaming in the Internet vernacular, such as this comment “what the heck is_ that???, Fucktards”,
on a video liked by Goku. The process of negotiating what is appropriate while commenting is an example of a joint enterprise. Consider YouTube, which explicitly states:

> It comes down to respect. YouTube is all about sharing and interacting with the community in respectful ways. If you're not sure whether a video or comment you've made crosses the line, follow a simple rule of thumb: if you wouldn't say it to someone's face, don't say it on YouTube. And if you're looking to attack, harass, demean, or impersonate others, go elsewhere. (YouTube, 2011)

However commenting practices reflect a different norm than the official guidelines. It is up to users to delete comments or report harassment. Both Goku and Robert commented on the implicit norm of interaction within YouTube. Goku spoke of comments that were “just racist, and homophobic.” Robert described a video “where someone went too far and it wasn’t funny anymore.” This indicated that norms of interaction did not necessarily reflect the explicit guidelines. So while explicit rules existed, implicit norms relating to the acceptability of comments on videos also existed. This indicated that there was tolerance in the community for disrespectful commenting.

As a large, diverse community YouTube users demonstrated a mutual engagement in posting and commenting on videos. They also posted “response” videos. This often leads to an Internet meme, such as the 2007 video “Leave Britany Alone” which led to response videos, parodies, and additional videos from the original producer. Robert spoke of this practice in a smaller sense “Like one guy had a reference to Magic the Gathering in his movies. So I am thinking of throwing a reference to that into one of mine because it’s like a communication thing.” This implicit norm of interaction demonstrates a joint enterprise as users negotiate meaning around shared topics through videos. As the videos persist, they can be linked to and referenced in future work building a shared repertoire.

**Vimeo**

Vimeo is a smaller video-sharing site. The immediate difference is highlighted on the masthead which states that it is a “respectful community of creative people” (Vimeo, 2011a). This highlights the emphasis on respect, and creativity. On the About page it further emphasizes this notion using words such as “creative work”, “positive”, “encouraging” “inspired” and “friendly” (Vimeo, 2011b). Vimeo has similar technical affordances to YouTube to connect with the community and content. This occurs through liking and commenting on video. As a
video-sharing site Vimeo promotes a more positive atmosphere. Significantly, it does not allow one to ‘dislike’ content, which helps support the norm of positive and supportive interaction. Unlike YouTube it does place explicit restrictions on what can be uploaded. For example, it states no “game play videos”, fanvids, or commercial content. It also “insists” that you are not free to attack people for “personal amusement” (Vimeo, 2011b).

The tools of Vimeo provide many of the same affordances as YouTube; however the practices of the joint enterprise look different on a site that has positioned itself as a respectful artistic community. The first specific indication of the differing social affordances and therefore different practices of the community is an option to build a collaborative video project with other video users. This is beyond the ability to follow a channel, or browse a category as it actively encourages collaboration and interaction. This ability is formalized in a community forum for Projects. In the Project forum users can post a need for a 2D animator, or a video producer for music, or request entries for film festivals. The formalized nature builds connections within the community rather than leaving users to individually make the connection and implicitly emphasizes the goal of a supportive collaborative community.

The tenor of comments on Vimeo also differs. While the mundane, and supportive comments such as “neat” exist, the comments also demonstrate a reflection on specific practices of creating, such as the one below which is representative of most comments:

So, aligning projection around the molded plaster wasn't done in Flame? That projection must have taken a lot of calculation to set up. I'm really interested now.

Commenters also produce longer paragraphs of text with specific critique or information:

Very nice work; great soundtrack; beautiful color. I would have left out the second out-of-focus shot for sky reflection, but other than that, it was perfect.

While the basic practices of mutual engagement, such as sharing and commenting and following members or channels that one likes are the same as YouTube, the communities process of negotiation of the joint enterprise has produced different enacted practices.

YouTube proved to be a more popular environment with a range of participants; it was used both as a site for active participation as well as an information source, and lurking environment. However, the video producers demonstrated a greater awareness of Vimeo, and it was Goku’s preferred community, as he stated, “it is video sharing but more for artistic videos not dumb stuff that is on YouTube, which I like better.”
Musicians and Music Sharing Communities

The two musicians participated in different communities of practice focused on music. Sam was a rapper who participated in a site called ReverbNation. Salamonde was a singer whose primary community was SoundCloud. In the section below I introduce you to Sam and Salamonde and their backgrounds as well as the communities they participated in and the affordances of the communities.

Musicians

Salamonde was a singer but had never taken voice lessons or participated in a choir. She had taught herself music theory. She also participated in an after-school arts program, although it was primarily for access to recording equipment and space. At the time of her interview she was working as a mentor for younger members of the program. The space also allowed Salamonde to collaborate with Swift on music videos, and on occasion with Sam, the other musician. Unlike many of the other participants Salamonde participated in her digital community and singing purely because she enjoyed the process and was not intending to pursue her interest in any formal or professional manner. Over the course of the study as her engagement in her community increased so did her critical comments and requests for mentoring, as demonstrated by this exchange on one of her tracks posted on SoundCloud:

V: This gave me goosebumps
S: Yeah, but Tod, it needs variation and more dynamic and just additions. Have any suggestions for that? I will not be LOOP based, too good for that
V: what if you added like a nice 2 step garage esque beat and just variate every 4 bars.
S: my computers down. garage beat? you say>?
V: yeah like boomchick boomnstchick boom chick

Salamonde’s confidence grew as she added more to her community, and received more feedback.

Sam was a rap musician. She was also a member of the after-school program. She had come to the program at age 12 through a community service and probation program. Her interest in music, particularly rap, was well established as she had begun “banging on a drum” at age 5 while her dad and his friend rapped. Sam’s background was a source of inspiration and motivation regarding her engagement in music. She had not finished high school and had been a
member of a Native American gang in her hometown. For Sam music was a way to explore her identity. It was an opportunity to offer critical social commentary on her life, and the lifestyle she was familiar with. She chose to emulate rap from an era when it “had a message.” She had established a local fan base and had been profiled by an independent newspaper. She was looking to expand her group beyond the local geographic area so that music could become a professional endeavor, which led her to ReverbNation.

**Music Communities**

The two music communities, SoundCloud and ReverbNation, presented different practices, as the stated purpose of the communities differed. Therefore the processes of mutual engagement and joint enterprise differed for members of the community. Unlike other communities Sam and Salamonde were the only participants aware of and participating in the communities.

*SoundCloud*

SoundCloud is much like the art and video networks described above – a social network with technical affordances that allow for sharing and connecting based on a common interest in creating music. Member’s profiles display links to those they follow, or are connected to, and to members who follow them. The links are a technical affordance that provides a social affordance. Linking allows members to explore the site based on common interests, and build communities of practice with other members interested in the same style of music. Salamonde’s description demonstrates how users construct the site:

> It's a music-hosting site where you can put up your tracks and basically it's a community of other musicians who put up their tracks as well. And you can comment on other people's tracks. And they can comment on yours, and they can follow you if they like your style. And you can do your own searching and try to find people that don't even have record labels. And you can find your own music preferences there too. So I like to go there and put up a lot of my music that I make here.

SoundCloud’s technical framework allows members to form communities by following other users and receiving notification of that users updates and comments. This emphasizes a norm of sharing and community built around similar interests. Additional communities are formed around groups that share an interest in a particular musical style, which includes rock, soul, and hip-hop among others related to electronic music such as dubstep.
The norm of engagement in SoundCloud is supportive sharing. This is explicitly stated in their “Dos” and “Don’ts” of their community guidelines stating:

Soundclouders are a diverse group with a lot of different opinions and views. That's great, but it means that everybody needs to be tolerant and respect people whose ideas are different to their own.

And:

SoundCloud enables you to express yourself through your sounds, and lets you share those sounds across the web. So, be creative, be expressive and let the world know how awesome you are. But remember – only share sounds that you have created yourself and have permission to share (SoundCloud, 2012).

SoundCloud allows members to comment on tracks at a specific point in time, as well as overall. Like many sites comments are primarily simple and supportive, such as “this is awesome” and “it feels me good.” However, since comments may be linked to a specific time on the track they allow for specificity, such as “I really like this loop.”

As a community platform SoundCloud encourages sharing on other platforms – such as Facebook, Twitter, blogs, and Tumblr, introducing a norm of reaching out into other digital communities, although they request a link:

Our widgets enable you to take tracks from SoundCloud and embed them on other websites. This is really great, but we're picking up the bandwidth bill each month, so we’d really appreciate it if you could link back to us whenever you post SoundCloud hosted content elsewhere on the web (SoundCloud, 2012).

As the emphasis is on social affordances and connections rather than commercial interests the joint enterprise of the community revolves around mentoring, support and positive participation for interest based engagement.

ReverbNation

By contrast, ReverbNation is a music site that is devoted to marketing one’s music. The common practice of sharing music exists on ReverbNation but the focus of the mutual engagement is on marketing. A fairly large site with over one million registered users it provides tools for artists, labels, management, venues, and fans (ReverbNation, 2010). The home page allows anyone to connect with musicians on a global or local level. Profile sites list the geographic area of site visitors. Members have the opportunity to create a profile in which they share their biography, music, press, recommendations, and sell merchandise. Unlike
SoundCloud one cannot comment on specific songs but can only provide overall comments on the profile. An overview of the tools available for artists reveal the marketing nature of the site: gig finder, street teams, and the online store for selling merchandise. This sends the implicit message that the site is primarily about marketing rather than social engagement. The joint enterprise of the members of ReverbNation revolves around marketing their music but the shared repertoire of music allows participants to connect with both local and like-minded global musicians.

**Fan Fiction**

Fan fiction is stories written by fans that involve established characters and fictional universes. While Loli and Roni were fan fiction readers the fan fiction participant was Eilowyn. In the following section I introduce her and the community she engaged in.

**Fan Fiction: The Writer and Editor**

Eilowyn was fan fiction writer and editor. She spent a great deal of time reading, writing, and editing fan fiction. She also engaged with the original content that provided the foundation for the fan fiction communities she engaged in. The communities primarily revolved around anime, although she also read Dr. Who fan fiction and occasionally popular fantasy series such as Harry Potter. She had been actively engaged in fan fiction for three years. Specifically she had been a writer in fanfiction.net for over a year, and had been working as a beta reader (editor) for just over six months at the time of her interview. She was primarily interested in the beta reading at that time, and had career aspirations to work as an editor. As a high school senior she struggled with balancing her time and preferred to be reading, writing and editing fan fiction despite her academic obligations. Unlike many participants while she had aspirations related to this interest she had not actively or explicitly leveraged her interest into the classroom.

**Fanfiction.Net**

Fanfiction.net is a site with a stripped down design; the entire focus is on the content. This indicates an implicit positioning of valuing content over social presentation. Users do not have profiles, nor are there ways to connect beyond sharing and editing, which is known as beta reading. Commonly accepted as the largest fan fiction site on the Internet, fanfiction.net has smaller communities focusing on the genres of the original content the fan fictions are based on.
These include anime/manga, television, movies, and books. Within the basic subjects are hundreds of smaller communities that focus in on more specific areas, such as specific television shows or manga series. Because the site is so large additional interests within smaller communities exist, such as fan fiction that romantically pairs Frank Hardy and Nancy Drew. While the implicit message of the technical affordances of the site is that content should be the focus, the ability to connect through very specific interest does allow for a social community to form.

On fanfiction.net the forums are the primary social interaction. Forums to discuss subjects are based on the broad topics of media, television, movies, books, etc. In forums users can explore ideas about possible fan fiction topics within specific subjects such as the Frank and Nancy romances. Or they can debate topics such as the best actor to play Dr. Who. It is here that the joint enterprise of establishing norms occurs. Members discuss the particulars of how characters behave, or how a crossover between fictional universes should happen.

Members also negotiate what it means to be “OOC” or “out of character” as a joint enterprise. Being OOC is highly criticized in beta reading, as seen in comments that are reactions to fan fiction. However, the implicit rules that guide the writing of characters are contested. Eilowyn stated, “One of the most important things people always say is whether your characters are in-character or not. That is really important.” Readers display different opinions as to what might be out of character. While some writers and readers prefer characters to remain within a universe they are created in, others challenge this assumption by writing different environments for their characters, or develop the characters in novel ways. At the core of fan fiction is a joint enterprise that is a negotiation regarding how fan fiction is “true” to the original.

Role-playing groups also find a home on the forums. Like fan fiction, role-playing groups are built around common original content such as Twilight. Due to the specific focus of the site on fan fiction, the mutual engagement and joint enterprise are the focus of the users. Specific practices are focused on writing and sharing fan fiction. Social interaction does occur; primarily around a forum focused on a specific topic. However, emphasis on the main site is on the writing and editing. This can be seen in the beta reader’s profiles, which detail their strengths and weaknesses as a reader/editor but very few personal details.
Personal Communities of Practice

Teens also use the affordances of technological tools to create smaller digital communities of practice, often within larger communities. Loli used blogs in order to build a small community of practice focused on Lolita fashion. Hannahsusannah built a website and embedded commenting capacity and tools to use social media to build a community. Robert was an active participant in a community built around Live Action Role Playing and forums. The focus on this section is on the participants and how they build their personal communities using the technical affordances of the sites, and the norms that arose in these sites.

Loli, the Fashion Blogger

Like many participants Loli was a member of multiple communities but her primary content creation was her two blogs. Loli was dyslexic, a fact she was open about and had learned to compensate for both in her online activities and in school. In her middle school years she identified herself as an outsider within the local community, and struggled with that throughout high school, but on the Internet she discovered others with similar struggles:

When I came to high school I had a pretty bad view of school. And definitely on the Internet I could, I got to choose how I got my information, what it was, whether people saw what I was getting out of it or not, and who I wanted to share it with so it was definitely a lot more open and comforting, there were so many other people like me.

This was also true of the community she began to participate in, which was focused on Lolita fashion, a Japanese street fashion. In her local geographic community Lolita fashion was a rarity.

Loli used the follow feature on Blogger to build a community of like-minded Lolitas (a fashion community). While larger communities such as DailyLolita, and Elegant and Gothic Lolita (EGL) existed on the web, the focus on designing and creating one’s own Lolita outfit was specific to the Blogger community that Loli created. She built a community by using the technical affordances that her blog provided her. Blogger allowed her to follow others and upon signing in she could see if they had updated. By following the people who followed her and then following their connections a small circle of Lolita fans interested in sewing and designing their own outfits emerged. Loli described it as a “niche” community as many in the larger Lolita community bought brand name Lolita outfits. This community was important to Loli, who couldn’t afford to buy brand. She was also engaging in an activity (sewing your own) that could be frowned upon in the larger community. (It should be noted that in the past year a category of
“handmade by me” has been introduced on DailyLolita. Furthermore, the nature of the blog allowed for commenting by the community, a technical affordance that built important social relationships that provided support. The positive feedback she received in comments encouraged her continued participation.

The small community developed practices of participation that guided how one commented on each other’s posting. These practices were different than EGL or DailyLolita. The implicit rules regarding Lolita fashion were looser in the smaller community and the commentary more supportive. While comments in EGL could occasionally become personal (despite stated suggestions that they shouldn’t) the members of Loli’s smaller community would provide emotional support, by sending hugs, and hearts, <3, as well as offers to help proofread or hints:

If you’re uncomfortable wearing offbrand, maybe a kind Lolita would let u borrow her clothes for the event?

This social support was significant when one of Loli’s EGL posts was picked up on 4chan’s Cosplay and Lolita boards which resulted in this comment posted by someone who knew her offline:

She's 19 I think. She is dyslexic. Some girls were saying that it's an excuse but I believe her on that. She gets on my nerves but I am not gonna go as far and say that she is making the dyslexia up. It really varies and I have seen worse cases than hers....

As can be seen by the “some girls say it is an excuse” there were more critical posts than the above within that community. Criticism focused on her spelling errors and called her “dumb”, “stupid”, etc. However, within the smaller community responses were more typical of the following quote:

Hi there! I know you may not know me, but if you ever need help on spell checking, I'd be more than happy to do so! It really hurts me to see that people think you're lying about your disorder. I also felt that you were about to cry in the beginning of the video too! Don't let those rude people let you down! I'm rooting for you! ♥

The supportive nature of the smaller community continued as Loli made an effort to provide consistent entries and interact with the other members of the community through commenting.
Websites and Programming

Hannahsusannah and Jack were both creators in the sense that they built static web pages; however Hannahsusannah leveraged tools to drive readers to her site and encouraged commenting on her site, including a tool that allowed visitors to comment. Furthermore, Jack was engaged in a wide range of communities as a lurker including Wikipedia, a beta testing site for an Operating System, and a Programmer’s forum.

Hannahsusannah was interested in graphic design. She, too, was a student at the Arcata Arts Institute, and leveraged her interest in art informally into a more formal education, including participation in AP Studio Art her senior year. This included submission of an art portfolio for evaluation. Her mother also has a professional involvement in art as a small business owner in which she made her own jewelry. Hannahsusannah had a specific interest in marketing her work, and spoke a great deal about “branding” and identity.

Hannahsusannah participated in a number of communities, including MySpace, where she had mastered basic html, but had moved into creating a web site. She chose to use MoonFruit, which provided templates and free hosting. The template was easily manipulated to meet her personal aesthetic. This was an important technical affordance, as the site represented her identity as an artist. As she was interested in establishing her identity as a brand it was also important that she be able to integrate social tools to build a community. She integrated a commenting system on the site. She also advertised site updates through her Twitter and Facebook. This encouraged her social community to visit the site. The ability to connect to additional social networks allowed her to build a community focused on her artwork. The nature of MoonFruit as content creating tool required her to update it frequently with new artwork and graphic design, so the site became a portfolio of the work she was creating. While the community Hannahsusannah participated in was more distributed, the technical affordances of linking provided a social affordance. This allowed her to build and connect to a community of graphic designers working and sharing their artwork online.

Jack had more technical expertise than the other content creators when it came to computer operating systems, computer languages used to code, and computer hardware. He was interested in programming and was planning on attending college to study computer science. Jack had begun building web pages at age 12 when he decided he wanted to learn html. He was an active beta tester for a group that was engaged in reverse engineering the Microsoft operating
In the past three years he had been programming simple computer games, both in school and out of school. He was involved in a programming community that was built around a discussion forum, but shared coding and plans for computer games. He was primarily a lurker in this community, learning from observation. The community shared programs and codes, but also shared plans for games and programs they were developing. The technical affordances of the forum allowed for collaboration, but there was also a more competitive atmosphere than other communities. The community constructed their roles in such a way that new members were not welcome. In some senses Jack was an outlier in his participation as he was acutely aware of the social norms of his community in ways that kept him from participating.

Local goes Virtual: Utilizing Forums

Robert participated in a Live Action Role Playing (LARP) group in his local community. Robert was beginning to explore sharing his videos but his most active engagement in a digital community of practice was an online community that emerged from his offline LARP activities. The nature of his role-playing led to writing online stories, as well as engagement in establishing LARP rules within the community both off and online. At the time of the interview Robert was transitioning from the LARP community, and expressed some embarrassment, particularly around his online LARP identity as fuzzybadger. Despite this, he demonstrated continued engagement over the following year until the LARP group disbanded.

The LARP group had moved their offline activities online through a free forum-hosting site – Myfastforum.org. The site allowed for various threaded discussions that allowed the group to communicate about upcoming events, rules of LARP, and archive summaries of events. It also allowed them to continue the story and role-playing through in-character introductions and talk. In-character talk used the language of the community to advance the story. The in-character market place emerged to exchange character abilities and talents as the rules of the game allowed. This was an important social affordance. In-character talk was the shared repertoire of the community. The ability to engage in continued story telling and role-playing was the joint enterprise of the forum, developing through the mutual engagement of game playing.
The discussion boards on the forum were open to not only the specific local LARP community but also to LARP members from different geographical areas. This was particularly significant around the editing of the rulebook. Robert described the process as:

People disagreeing and getting extremely angry at each other. And we have had that happen. It was a pretty minor difference and then it got huge, someone would read the post and think something to add to it, and it would just pile up like that.

Eventually conflict over the explicit rules led to this announcement:

It's a long story, but to make matters short, Imperium LARP was brought to Eureka by the creator’s little brother when he went to college up here. When he left, the players were left to their own devices and changed the rules over a period of several years. His big brother, the creator, came back almost half a decade later threatening lawsuits, so we decided to just not play his game anymore, and come up with a new game of our own.

For the local community the virtual practices of openness, storytelling and rule negotiation proved to be difficult to sustain. Conflict over the shared repertoire suggested that there was no longer a joint enterprise. It does, however, seem that a new community of practice will emerge.

**Conclusion**

Digital participatory communities are communities of practice, each presenting different opportunities guided by the social and technical affordances. Mutual engagement and a shared repertoire help establish these communities and a joint enterprise develops the norms for interaction and the rules of the community, which are both explicit and implicit. Communities of practices require information and therefore information practices are embedded within the joint enterprise that constitutes the community, and represented by the shared repertoire. The information practices described in chapter eight are impacted by, and impact, the communities of practice described in this chapter.
CHAPTER 6 EXPERIENCES OF INFORMATION

Introduction

In this chapter I introduce five conceptual categories of experiences of information: participation, inspiration, collaboration, process, and artifact. The information actions described in chapter seven enabled experiences of information. However, the experiences of information also affected the information actions. Therefore it should be kept in mind that while these two components of information practices are presented separately, they intersect. The intersection between specific information actions and experiences of information shaped the information practices described in chapter eight.

In this chapter I explore how teens experienced information as members of communities of practice that focused on creating and sharing content. Information was experienced in different ways: as participation, as inspiration, as collaboration, as process, and as artifact. Each experience of information contributed to the overall ability to engage in the discourse of the community, i.e. the “ways of behaving, interacting, valuing, believing, [and] speaking” (Gee, 1996, loc. 155). The discourse of a community of practice is developed through a joint enterprise and represented in a shared repertoire. The shared repertoire is the performances of the community, and meaning of the performances is constructed through a joint enterprise. Therefore as the joint enterprise is occurring information becomes embedded in the practices of the community, and is used in the negotiation of the joint enterprise. The experiences of information represent different ways teens understand and conceptualize information in participating in digital participatory communities.

Experiences of Information

Teens who participated in creating and sharing content experienced information in five primary ways: as participation, as inspiration, as collaboration, as process, and as artifact. The experiences occur through interaction with information and the actions related to information in creating and sharing content. The phrase “information as” represents the experiences of
information as embodied both through physical process and through emotional interaction. Information did not exist as either a cognitive process or as an outside object, rather it was embedded within the entirety of either the process or the encounter with the object or community. Therefore, the representation of information as participation, inspiration, collaboration, process, or artifact was a “whole person” experience, embodied in physical, emotional, and cognitive ways and interacting with objects.

In analyzing teens’ experiences of information I made an assumption that in experiencing information teens are either a) changing what they know or b) representing what they know. For instance, in experiencing information as participation, collaboration, or process, teens experience how a community understands and constructs knowledge from information. This may change what they know, as they negotiate their own understandings. In experiencing information as inspiration or as artifact teens may be representing what they know after they have engaged in constructing knowledge through the community’s joint enterprise. While the experiences of interaction with information are presented independently of one another they interact throughout the creating process. I explore the experiences of information below. In written format the experiences of information may present as a linear progression throughout the act of creating and sharing content. Nevertheless experiences of information are not engaged in quite so clear a manner, rather they are more iterative, and at times, simultaneous.

Information as Participation

Information as participation was experienced as the social interaction within a community that exposed the norms, rules, and tenor of interaction. This occurred both through explicit statements and implicit knowledge. Teens experienced information in the community through the process of observation and interaction. The specific properties of information as participation include an awareness of the community, understanding the audience of the community, and understanding the norms of the community.

Awareness

Awareness of communities in which to share content was not necessarily built through online interaction. Generally awareness developed through participation in creating content offline and developing a need for a way to share that content online. Artists, musicians, and video producers all worked on creating content offline before engaging in digital communities.
For instance, Hannahsusannah was a graphic designer who had a very specific in her need to “brand myself as early as possible”, as it was related to her career aspirations. She looked for a community within which she could do so. Eilowyn was a creative writer before becoming engaged in fan fiction. It was through fandom of Dr. Who that she was introduced to such a possibility of writing fan fiction and the concepts behind it. Her story was more specific but indicative of other stories:

I actually can remember how I got into fan fiction my Dad…introduced me to Dr. Who… and I loved it a lot, and I started watching online music videos of it. … Eventually one of them led me to a fan fiction … and I’ve pretty much been hooked ever since.

As she followed an interest she found a community and she began participating as a reader, writer, and editor. This met her needs for entertainment and her goal to be an editor. Robert engaged in world building offline, by Live Action Role Playing (LARP) before moving his world building and storytelling into online forums – a local personal community of practice. The local, yet online, component emerged from other online sites, “back in the day … wrote up the entire rulebook and we played that, … we just kind of changed the rule book… I don’t think [the original web site] is active anymore.” The awareness of an online component led to a more locally focused component with rules, event summaries, discussion, and online role talk. The musicians practiced their craft offline before moving into specific communities that met their needs, each of them choosing a different community. Thus, teens participated in creating practices before participating in digital communities built around specific content. This indicated that awareness of communities emerged as they experienced in formation as participation in their chosen area of content creating.

When participating online, the design and audience of a site impacted the teens’ understanding of the communities. Xeda described her understanding of Gaia as designed for a younger audience “because of the visuals,” stressing that “instead of having a photo of you, like they’re very an anti photo site, you get a little avatar thing.” This information about the audience was conceptualized through her participation in the site, and the design and norms of the site. Avatars were understood as a way to protect identity of younger members. The younger participants of the site limited its usability for her over time, and she said she “slowly stopped accessing it.” Her experience of information as participation suggested a transformation of engagement. Another example of design affecting a member’s understanding of the norms of
the site is Vimeo. Vimeo specifically states on the front page it is for “a respectful community of creative people” (Vimeo, 2011a). This informed Goku’s understanding of the norms of the site. He defined Vimeo as “video sharing but more for artistic videos not dumb stuff that is on YouTube” referring to the “five-year olds” in describing YouTube members. This was information experienced as participation, as a member of the community. This awareness of audience and environment based on site design underscored participants’ choices to participate in communities.

Implicit Norms of a Community

As teens became members of a community of practice they began to understand how to participate within the community in terms of the implicit norms. This included the purpose of the community or the ethics of engagement within the community. In understanding the purpose of the community through participation Goku’s experience is instructive. He explained the difference between Vimeo and YouTube as a video hosting site in terms of purpose:

My first videos that I put on Vimeo were animation. They were stop motion, which is like claymation with little things. And they were artistic, they came out good and they were arty.

Goku constructed Vimeo as a site for “artistic” videos. This understanding was gained through viewing posted videos and reading the comments. Eventually more active participation helped clarify the types of videos that the community considered appropriate, and he would choose what to post in what community. He specifically stated his criteria related to posting as “one was edited and put with the music and little bit better, and the other was just random nonsense that didn’t belong on Vimeo.”

Sam constructed ReverbNation as having the purpose of building a fan base, saying, “I made one and we got a bunch of fans. Like I've got fans from Texas that really like the music. People from Australia, and the UK, places like that.” It was through participating that she began to construct the role of ReverbNation in her music. The constructions of the purpose of the site were facilitated by information that was experienced through participation, both active and more passive.

Beyond constructing the purpose of a community, information as participation was the construction of understanding the ethics of engagement. For instance, Goku’s choice to post artistic videos to Vimeo was because he expected constructive commentary:
I didn't want to put them on YouTube to where the, I don't know, the ignorant people could comment them and say ignorant stuff I wanted to put them on Vimeo and I got good comments on them.

Roni’s understanding of the ethics of art theft in which artists took others work and claimed it for their own in DeviantArt came from her observation of forums. Her feelings about art theft, that “It's just really absurd,” were formed from watching the conversation and how the community responded. Jack understood the expectations of participation through his observation that:

If you suggest I am doing something and you make this grand extravagant plan you generally get laughed at, and I can completely understand that because there are a lot of people who are idealistic and don't really understand what they are saying and how difficult it is.

This suggests that the implicit norm of the community is not to engage in an ambitious program without demonstrating a capacity for understanding the amount of work such a program might require. In the fan fiction world Eilowyn developed a very specific understanding of the difference in style when writing a novel (something she did every year during National Novel Writing Month) or writing fan fiction:

Novel-writing [is] a difference in style. Fan fiction writing, for me at least, tends to focus a lot on dialogue and descriptions that you wouldn’t write in a novel. A lot of fan fiction is a lot of poking at he did that thing you always see him do or something. I mean, there is less original description, more of oblique reference to the original.

This quotation demonstrates that the information that Eilowyn learned through her which participation helped her clarify what fan fiction was. Thus, experiencing information by participating in the community allowed participants to understand what appropriate content (artifact) would be in the community.

Interaction

Experiencing information as participation also provided information on the norms of interaction within the community. Goku responded to those “ignorant comments” on YouTube in a like manner but responded differently within Vimeo saying:

I treat people how I am treated. Like if people are commenting on my videos really negatively like ‘you’re gay’ I’ll write back more ignorant stuff like that and we’ll fight – that just how we do it – I’ll be honest. Like on Vimeo if people comment like regular good stuff, like I explained before, then I’ll go back and do the same thing. It’s like all right, this isn’t YouTube, you can be mature like an actual person on here.
The norm of interaction on YouTube was to respond in kind, whereas Vimeo discouraged negative interaction. Loli described participating within a specific blog community and building an audience by saying “you want to comment a lot on these other blogs because people are really happy to follow someone who is actively following theirs.” She learned this norm of interaction through participation in the community. Xeda’s participation exposed her to the tools of the community, such as the emoticons, comments and “favorite-ing.” For example, she contributed one of the love icons and “favorited” someone else’s art (Figure 6-1).

Figure 6-1: Love Icon

This was a common way of interaction within this community. There was a language that evolved around emoticons that participants used to communicate implicit values. In another example, Jack’s reading of editing histories on specific entries led to his understanding of the norms and expectations regarding the editing process within Wikipedia:

The thing about Wikipedia is that I look at a lot of the pages of the editors and the admins [sic] and the sys ops [sic] and all of those people, and it was scary, they were really experienced and they had years and years of experience doing that, I didn’t have any, and I didn’t really know that much about it – well I knew about it but I didn’t have the experience of editing stuff and I don’t think I know all of the etiquette for editing Wikipedia pages.

The norms of interaction were learned as teens experienced information as participation. The experiences of information as participation occurred through observation of the interaction a community engaged in and the types of content they shared.

In summary, teens experienced information through participation in the community. The information included the social norms of the community, understanding the community and its expectations, the content of the community and the audience within the community. This experience would inform the information practice of learning community described in chapter eight.

Information as Inspiration

Teen content creators experienced information as inspiration. Information as inspiration had a property of emotional resonance. Teens spoke of information that “speaks to” them, such
as Hannahsusannah who said she developed her aesthetic “through experience, and interaction with other people's designs, websites that I think are really cool.” She remembered and integrated design elements that emotionally resonated. Her specific example was characterized by her enthusiasm: “well, I Feel Fine [website], have you looked at that? Totally amazing!” The “favorite-ing” or returning to sites that “spoke to” them was a sentiment echoed by other teens. Swift specifically referred to emotion, stating, “a lot of my inspiration comes from an emotion or how something emotionally affects me.” Her partner Salamonde echoed this experience of information as inspiration when she said there would be:

A song that plays and then something interesting or unique will happen in the song. That's how I'll get my take on what I could do with that idea. And then I would probably write it down, but I'll probably just hold on to that, and want to go to the studio like right then, and just try to create something like that.

Roni said that when you looked at her art you could tell whom she was “fangirling” on, or who inspired her at the time. Sam discussed using beats that she was “in love” with to create new rap music. Furthermore, she spoke of walking down the street and getting a line for her music, or “having so many emotions” that she needed to write. This emotional response was significant in their experiencing information as inspiration.

Inspiration as inspiration was also characterized by events that participants constructed as “fun.” Eilowyn discussed differences in interpretations as “fun” and a way to begin in her writing of fan fiction:

The only thing that you can really take is you can take are character descriptions, which is totally up to you, two dimensional, animated format, and you can take dialogue and that is also messed up because, obviously, most anime starts out with Japanese. So there are people that watch the dubbed version and people that watch subtitles, and those create differences.

She was open to using the differences as a starting point and took enjoyment in exploring them.

Goku described an event that was his starting point in engaging in filming:

All we were filming was playing with the dog, we do funny stuff, he'd zoom into my mouth then turn off the camera then zoom into the dogs butt and turn on camera and zoom back out and it look like yeah, I just thought it was cool how you could do that with a camera.

There was emotional resonance that represented itself in the subjective notions of enjoyment. As a counterpoint Jack described a time when creating wasn’t any fun, and experiencing a lack of
success. There was no longer information to be experienced as inspiration. A positive emotional response was a property of information as inspiration.

Information as inspiration came from teens’ every day lives. Sam explained the content of her music saying:

What they don't see is the homeless people down the street. And the people like the kids that have to take care of themselves because their mom and dad's are tweaking from the drug epidemic that you're bragging about. And that's kind of what we do. That's what we expose.

Sam and her partner were inspired to create by the experience of information as inspiration that occurred in their day-to-day lives. Likewise, Salamonde and Swift described a process of “riffing” on shared experiences that they found funny:

Salamonde: Yeah. I remember when we went to Reggae On The River and then we came back and we were just being all like reggae guys and creating...

Swift: Kind of like making fun of the...

Salamonde: Yeah. We were making fun of it but we were also really doing what they were doing and we created around that.

They had not attended Reggae on the River (a local music festival) to create content but the shared experience of the event resonated with them. They were amused by the people around them and used that as a starting point, experiencing the people at Reggae on the River as inspiration.

The social structures of their personal communities impacted how the information experienced as inspiration was understood. Sam’s background attuned her to the social issues of homelessness and gangs for example, something she included in her raps, saying: “We have that history, or at least I do, of gangs and stuff”. Loli’s dyslexia in a school that emphasized academic achievement led to an isolation that she embraced by involving herself in a subculture that most of her peers were not interested in:

We weren’t doing very well in school, especially [friend] and I had a really hard time in our families at that time in our lives on top of it, so we just started trying to have fun with our art and stuff. We are both really strong artists and we both have families that couldn’t for some reason or another buy us clothes and we went to a school where everyone had to wear Abercrombie and so [friend] found, I think her dad, her dad gave her a bunch of these Japanese magazines.
If the social structures of their daily lives had been different, they may not have responded to the information they encountered as inspiration.

In summary, information experienced as inspiration was characterized by an emotional response. It occurred within the context of their everyday lives. Simply put, it was “getting an idea” through the physical and emotional experience when information was serendipitously encountered. Information as inspiration represented positive interactions with information. It informed the information practice of negotiating aesthetic described in chapter eight.

Information as Collaboration

Information that is experienced as collaboration consists of shared knowledge and shared skills. It can be understood as what people know together, or what skills, talents, and knowledge they can combine together to develop better content. Information as collaboration is experienced through relationships built on shared interests. The language and tools of the discipline and the discourse of the community of practice is fundamental to experiencing information as collaboration as members negotiate the shared knowledge, or how to integrate shared capacities.

Shared Information and Knowledge

The experience of information as collaboration is sharing knowledge to come to common understandings. It is based on a common interest. Jack discussed experiencing information as collaboration when learning to code with a partner: “We looked at each other's code, we helped each other with problems, we recommended books, we lent books to each other, pointed out websites.” In this way they shared common resources, helped each other with specific content and built a partnership that Jack relied on throughout the programming process. He commented that he was less likely to complete content when working solo. In discussing his current programming project he said: “I would definitely put it online and release the source code if I had someone, if I had at least some of my friends helping me at first.” He wanted a collaborative partner to work with before sharing with a wider online community. This indicates that experiencing information as collaboration increases confidence in the product.

Other teens talked about sharing ideas with one another both on and offline. Goku described sharing ideas as having the potential to improve a product:

One person will come up with an idea and then the next person will be like yeah, yeah but it will be better if we do this. And it just kind of from my
idea it will turn into our idea and his idea it will turn our idea, we just change the idea so much that it becomes perfect.

This experience of information represented a coming together as they created “our idea”. Roni described the experience of information as collaboration while interacting in a fan community which she described as “finding yourself in the middle of a bunch of people who aren’t ashamed to be ridiculous because they like a particular piece of media.” The fan community’s discussion of the characters exposed her to different ideas such as romantic “pairings.” This increased her enjoyment as she experienced information as collaboration.

An additional property of experiencing information as collaboration was the negotiation of content and process. Roni was creating a web comic with partners. Her process of collaborating with a partner was a process of both sharing and negotiating the content:

We each created characters individually. [Her partner] created Felicity, I created Cameron, [Another partner] created Evil, so we sort of automatically let those that created the characters have the majority of the development, though we add in some details. In appearance, however, there’s a lot of inconsistencies. [Partner1] policy to let most of the things slide since it's only the first chapter, … On the fly, though, we give each other slack.

Roni and her partners had to negotiate the characters and plot. The discussion that focused on plot also led to discussions around the larger idea “that there is no such thing as an original idea and that its just how you put together all the other small ideas that come from other people.”

Loli experienced information as collaboration through her writing, particularly around issues related to Lolita fashion sub-culture:

There aren't very many so there is like 20 blogs that everyone follows so you can literally be like I am sure that you guys all have read this post about this or that here is my 2 cents about this and then people will get really excited and then they'll leave their comments about finally people said that or whatever.

Loli described a process of building a common knowledge through blog writing and commenting around a particular topic. For instance, her specific example referred to the use of pets as accessories in Lolita fashion. The community discussed the role of pet as accessory through a series of blog posts and comments from a variety of participants. The experience of information as collaboration clarified the knowledge of the community as it pertained to the issue of whether or not pets should be accessories.
In fan fiction the experience of information as collaboration is common and based in shared understandings of the source material. Eilowyn discussed fan fiction, in which a shared knowledge of the source material is important by suggesting that an “oblique reference to the original...is sort of a wink and a nod to the reader.” She identified solid knowledge of source material, called the canon, as a key component to successful fan fiction. It was the first question a community asked in considering a piece of fan fiction, “how close it is to the original canon, that is really important; like in terms of are the characters acting in a way I can believe. Are they speaking in a way I can believe?” What was important in the canon was determined through “what they [writers] highlight from the canon as being important and how they interpret it.” As writers highlight parts of the canon the community shapes their understanding of the source material. Furthermore, this information as collaboration occurs in the discussions on forums and through beta reading, or editing.

In summary experiencing information as collaboration involves building a shared repertoire of knowledge. Shared knowledge is the sharing of both ideas and resources in order to construct a common understanding that is fundamental to creating content. Being able to read programming code for a game to improve it, sharing ideas about art and what might improve it, sharing knowledge of resources such as source material creates common information within a community.

Shared Skills

Information as collaboration might also employ the sharing of different sets of skills or abilities. In sharing abilities information is shared to increase the quality of content. Sam and Salamonde relied on collaboration to improve their content. For instance, Sam commented:

One time I had written, I had this beat, and it was just really, really good. I just had so many emotions that day. I wrote a verse, natural verse and I wrote a second one. We recorded it and we're listening to it. We're like it's missing, cause it was a really serious song about a lot of the issue we face in our life. I was sitting there like it needs something. Then [Salamonde] come in and start singing and I'm like, "no." We had to record that. We get on the microphone and we have her looped in the background doing a vocal thing just bought so much emotion to it.

In the above scenario Salamonde was able to add her abilities, which in Sam’s opinion improved the final outcome. It was not important to have a shared understanding; rather the negotiation was based in how to share talents to improve content. The shared understanding was represented
in that the collaborators agree it improved the content, as Sam could not have produced the same track without Salamonde’s presence.

Salamonde had another collaborative partner in Swift. Swift provided video-editing skills, Salamonde had music editing skills, and they shared these skills to create music videos. They created content they could not create alone. This also occurred in fan fiction. Eilowyn brought her editing skills to other’s work, working as a beta reader:

Mostly what I do is I go through and fix their grammar, spelling, and mechanics because that is something that I am really good at. I also occasionally mess with dialogue, paragraph breaks, other sorts of style.

Her background knowledge in writing conventions and grammar were employed to edit fan fiction content from writers for whom English was their second language (Swedish, for example). The ability to employ tools, such as specific software, or apply knowledge of the community such as the writing conventions in English were shared as teens collaborated to improve skills and knowledge. Furthermore, shared abilities improved or produced different content.

Building Relationships

In some instances information as collaboration was experienced through access to an expert, or someone who had the necessary information as a mentor. Participants recognized experts in their community and would gather information through feedback. Loli described contacting a blogger she admired for information on hosting sites, as well as using that blog as a model:

Do dear was just becoming famous so she was still really, really into communicating with her people because that is another thing they say to get you more followers is replying to people’s emails, emailing people, commenting back, saying thanks for commenting. And so, she was still really into that so I just asked her, and I knew that I liked the layout of her blog.

She recognized that she could build a relationship and ask questions. Information was experienced as collaboration in the reading, asking, and responding between author and reader. While it may seem that it is just passing knowledge onto to another it required interaction that shaped knowledge. Xeda used DeviantArt to get feedback from other artists, whom she saw as important to her artistic development:
Yeah it really helped [my growth as an artist]. There is a lot of really good feedback on that site. I think that’s because everyone on there has the same goal to improve, get somewhere with what they are doing, not just hey look at this.

In giving and receiving feedback not only did Xeda’s art improve, the community negotiated and demonstrated implicit rules of interaction. Goku received specific advice on software through a mentor who messaged him, which led to some back and forth regarding technique as well as tools:

    Another person actually private messaged me telling me how to make it better, asking me what programs I used, we were talking about programs and he told me about a better program and he told me about a better way to capture the images, and a better way to upload, he just helped me out a lot and after that I got that program and I used that, and it made them a lot better.

The knowledge was distributed through the community, and sharing it improved the shared repertoire of the community.

    In each of these instances the interaction occurred online with people who the participants had not met, and who had established authority within the community. The interaction could be considered one-way; however the information led to what the teen’s felt was an improvement in their work and the experience of information as collaboration was instrumental to their overall process.

    Information as collaboration was experienced emotionally as well. On one hand it could be simple as Swift and Salamonde found, describing information experienced as collaboration as enjoyable:

    Swift: And also it really helps that Salamonde and I kind of have a similar sense of humor.
    Salamonde: Oh yeah.
    Swift: And kind of like thinking. It makes it very easy to make music together when we have a similar thought process.

Their “similar thought process” was shared knowledge that they agreed on, and they had positive experiences. On the other hand, information as collaboration could be an unpleasant emotional experience. This was particularly clear in Robert’s experiences of information as collaboration. In negotiating the rules of interaction for LARP he described the process thus:

    I was one of the reformers. I was pretty much giving my opinion to my older brother who was kind of the lead guy. Then after that we decided to
get democratic because we had some people complaining. And that was the worst decision we ever made. Because we would have meetings at Denny's that would go on for four hours and everyone would leave with hoarse voices.

The experience of information as collaboration as rules were negotiated led to “getting extremely angry.” It did not necessarily result in an agreement. This was exacerbated by online conversations in forums where there “was a pretty minor difference and then it got huge, someone would read the post and think something to add to it, and it would just pile up like that.” Similarly in filming he told of a partnership in which he felt he had superior skills, “I did the majority of the work, the camera work so I feel kind of bad about that now.” In this case there was no negotiation of understanding, rather he took over the process. Goku described similar experiences:

We tried to make a video of a scary movie this summer with Dustin, Ryan, and we were all going to try and be the director and it didn't work, and we were just like lets do this and we'd be like that doesn't really work Ryan or that doesn't really work and even Dustin and I disagreed a few times on that one.

The experience of information as collaboration can produce frustration, leading to an understanding best expressed by Goku when he stated, “there is only one director.”

In summary, the experience of information as collaboration extends the content creator’s knowledge, or capacity to create and share content. It can be seen as ability to create (process) or as something concrete such as a recommendation or even a spoken idea that leads to an artifact. It extends the understanding of the discourse within a community through introducing common language, tools, ways of interacting in reading and responding, and understandings of the community. And while the information may be helpful, it may not always be experienced in a way that produces shared understandings, but rather exposes sites of future negotiation.

*Information as Process*

The experience of information as process involves the use of tools to create. It has two properties, selection and use. Understanding what tools are available to meet the needs of the creator underlies the property of selection. Use requires the application of the tool and the skills to produce an artifact. In this sense information is conceptualized as an ability involving the application of skills. Furthermore, the experience of information as process was embodied; it included both observable physical skills and emotions.
Selection and Use of Tools

In order to create and share content teens must select, learn and use tools. These include the communities they interact in, the tools of that community, the software and hardware they use, and additional creating tools such as video cameras and art supplies. Awareness of tools used for creating was often central to the process of creating content. For instance, Goku began creating videos using Windows MovieMaker, software that was pre-loaded on his computer. “The first program I got for editing was Windows MovieMaker which came on the computer – I found and started playing with that.” He struggled with the software allowing him to create the content he wanted until a community member suggested alternate software, “after that I got that program and I used that, and it made them [videos] a lot better.” Experiencing information as process, described as “playing with”, introduced the editing tools to Goku. As he applied the tools he identified a gap, a need for a different tool. Information was experienced as the process of discovering the difficulties, and eventually new software.

Loli in particular demonstrated an awareness of different tools to create and share her writing and art, and the different affordances of each tool. In discussing the choice to maintain a blog versus a website she framed it in terms of the purpose of the content:

So I tried out Weebly and that looked really easy because I was going for more of a magazine feel and that's really easy to blend like a web site, which I think of in my mind as different from a blog. So it was easy to blend, have a web site that had a blog as a link but it was still part of the blog, and then that wasn't really the feel that I actually ended up wanting. I wanted really just the blog, because I didn't really have enough stuff to fill in all the rest and make it worth it to my reader without it being confusing.

She tried out different tools, experiencing information as process in creating different sites until she determined what she needed. When she selected WordPress over Weebly she did so because of the features WordPress provided her. However, with a different audience she chose Blogger “because I knew most of the Lolitas have their blogs hosted there. And they are kind of like a little pack so almost being on Blogger and they see the word Lolita. And they are like ok and they follow you.” In this instance she learned of the social affordance of the tool, Blogger, which met her needs better. Hannersusannah liked the ease of use of the web hosting site as well as the ability to customize, preferring MoonFruit to her previous use of a blogging host (WordPress), saying it was “more effective.” As they needed tools to create certain content teens became aware of different options and learned to select tools that met their needs.
Use

Learning to use the tools was experiencing information as process. The use of tools was often learned as needed. Robert suggested in the early stages of learning editing software he was “just pressing buttons at random,” a sentiment echoed by Goku, Loli, Xeda, Roni, and Sam in their various uses of tools. All of these participants used phrases that included “playing around”, “making random” content, and “messing around.”

The teens demonstrated more direct methods of engaging with information as process as they became more comfortable with the tools, embodying the knowledge of how to use them. As an illustration, in using YouTube as a tool for “how to” information needed during creating Goku discussed learning how to maximize his search for specific information:

I found that you have to be very specific on what you want. With tutorial videos for a specific program there are always different versions of the program, and things are at different locations so you have to find the right one you have.

Goku learned how to maximize searching on YouTube as he need information and experienced the process of searching. The process of searching provided information.

Xeda learned Photoshop as she went adding new knowledge as needed; “I learn it as I need it. I basically work with; I can work with filters and image editing. I don’t understand the layers, like raster layer, vector layer yet.” In the process of creating within Photoshop she identified what she needed to know, experiencing information as process. Eilowyn was the most succinct when she stated, “writing is always good practice for writing.” In engaging in the activity information emerges. Teens experienced information as process as they engaged with learning and using tools to create content.

Embodiment

The experience of information as process was also related to emotional or embodied understandings. This was particularly clear in Goku’s work when he said “patience” was an important attribute to have. He spoke of this in two ways, the emotional response of struggling to find time and the response of being unhappy with something that was imperfect:

The hardest part is finding time to do it. It takes a long time for some of that stuff. And I wrestle, so I have practice. And sometimes on weekends I just want to relax I don’t feel like doing anything. Sometimes I have to force myself, like you have this video that you want do, just go do it.
I hated it… I was like at 450 pictures just in the beginning part so I had to go take out my card, put it on my computer upload all the photos, take it off and put it back in and then the angle moved a little bit and it ruined that entire shot so I had to delete like 50 pictures and redo that entire thing. And I had to do that like 5 times with this video because it was so much longer and more detailed.

Goku discovered that he didn’t have the patience to redo animation shots, and that time was a factor in the process. Information experienced as process emerged in the doing.

Sam spoke of how creating built her confidence, “I’m like wow, for someone as young as me to have done that, really, really awesome.” Loli also discussed ways “to be more honest about who you are” as she worked through how to represent herself in posts on her blog, eventually choosing to disclose her dyslexia as people questioned her spelling in comments. The lack of negative response to her disclosure emboldened her, although she tried “to siphon out” the mistakes. Roni worked out ownership and her sense of what was original:

You know it's yours because it's like your child. You were there from the very beginning, working blood, sweat and tears into developing it into what it is.

Roni expressed a sense of ownership describing it in terms of effort. In each of these instance information was experienced as process. It was embodied in the emotions of the creators.

In summary, the experience of information as process includes information regarding necessary tools and skills. It suggests to teens that there are ways to experience information as process through messing around. The experience of information as process also includes how the process is embodied in terms of emotions such as confidence, frustration, or a sense of ownership. The act of creating enables the experience of information as process.

*Information as Artifact*

The experience of information as artifact refers to the content participants created which is a concrete representation of their knowledge. It represents both abstract knowledge and the applied skills necessary to be able to create and share. It provides people with an idea of future information needs. Finally it provides insight into what a community values.

**Applied Skills**

Experiencing information as artifact was an explicit representation of the experience of information as process. The ability to create content meant that participants used tools to create
content that reflected their inspiration. They also experienced information as participation and collaboration while they constructed knowledge. Therefore the experience of information as artifact was representative of the other experiences of information.

Experiencing information as artifact had particular implications for those engaged in drafting online by programming, creating a web site or modifying that web site. For instance, Jack wanted a concrete representation of his knowledge as he worked on programming: “So I decided that I would try to make something that incorporated everything that I had learned and some stuff I hadn't yet, and I decided to make a video game for my final project.” In making a video game Jack could apply the skills he had acquired and represent that knowledge within the game. The results were immediately obvious. This was also expressed by Loli who discussed “seeing the results” in applying html to modify her site’s design:

I am reading the code, I am seeing visually behind that it is red, and then I am copying it, which is another kind of meaning to take this piece, and then I am pasting it somewhere and then I am again seeing the result that it changed my thing red.

The ability to see her result was experiencing information as artifact. The experience of information as artifact provided immediate feedback about what a teen could create.

Represented Knowledge

The abstract knowledge represented in artifact was often related to intangible concepts. Thus experiencing information as artifact was allowing teens to consider represented knowledge. Consider the emotion Sam described regarding her identity Looking back at her previous content she discovered she wanted to change the subject of her current music:

When I first started I was like, "I'm the most gangsterish gangster", I mean. Because I came from that background and that's how I really like how it used to be. I just used to be an asshole. And just like coming through, really discovering who I want to be. And how I want to... why I'm even doing this music in the first place.

Sam discovered in her content that this was the identity she did not want to represent and her new content began to represent a different identity. This emerged from experiencing information as artifact. Roni’s DeviantArt gave her “something to look back at and in some ways I can look at it and tell more easily what I am [sic] thinking at the time.” Her DeviantArt site was a record of thoughts represented by the content; therefore in reviewing it she experienced information as artifact. Robert expressed embarrassment at some of his content related to LARP, in relationship
to his online identity, “Typically I'd use something like fuzzydoom, badger boy, something fuzzy because back in the LARP thing I was badger, shameful.” He moved to a more formal identity in which the content he created and shared was under his own name and represented a direction he wished to pursue professionally.

Other experiences of information as artifact were also intangible. Jack had created a website that he eventually stopped updating because it lacked a specific purpose:

I don’t know I kind of didn’t really know what to do with that either and I kind of wanted to run, see if I could do some sort of community tech help exchange forum, that didn’t really work out.

In this case the website was the artifact that represented a developing understanding regarding the need for an audience and a purpose for future programming and website building. Eilowyn experienced information as artifact in her fan fiction as she tried to capture “the spirit of the story in an entirely new environment.” Thus, writing fan fiction was developing a personal writing aesthetic, which was represented within her artifact.

**Future Information Needs**

Artifacts also provide information in terms of future information needs. Much of the process of creating content occurred through trial and error. Each process provided further information from the resulting artifact, using reflection and response. Salamonde and Swift agreed they looked back at content and discussed “this should go further, we should improve it” which is a combination of experiencing information as artifact and information as collaboration. Xeda had a similar melding of experience when she discussed feedback she received from the community that would help her improve:

About 2 months ago I attempted to draw my first man without a shirt, which was interesting because I was drawing from an anatomy book of a man without skin. So I posted that and I got really good feedback like your arm looks a little bit twisted, and I don't think there are that many tendons in the neck.

The artifact provided her with information as collaboration through feedback in the community. Without the information as artifact, information as collaboration would not have occurred.

Goku not only learned better tools for stop motion animation from his artifacts, but also that he “hated it” because of the necessary time expenditure and attention to detail. Loli learned strategies for addressing her dyslexia, such as rereading posts, using tools available, and publicly
disclosing the dyslexia. She was also aware of a need to further manage the problem. Sam discusses a process of experiencing information as artifact when she reviewed her content:

If I'm rapping really, really fast and you can't understand me, even though I'm going really fast and it sounds good, if I can't understand me, I'll delete it and I'll do it again, maybe not as fast

Hannahsusannah said she would “look at something and think about how I did it and how I could take it into what I am working on now.” In each of these cases the participants used their artifacts to examine what they had done, and reflect on what they still needed to know. They experienced information from the artifact.

Community Information

Information as artifact also provided insight into the community. This was seen through the use of statistics and comments demonstrating what the community responded to and was popular within the community. Loli used statistics from how many people viewed posts and who referred to them to determine what content was popular:

It shows you stats of how many people looked at it that day, it shows like if they were referred from like my MySpace page, it shows they were referred from there, it shows what like posts they clicked on, that sort of stuff which I find really helpful.

She then created content similar to her more popular posts, such as posts with instructions on craft items and lists. Xeda used favorite-ing of her art in a similar way determining what was popular on DeviantArt. Her “morbid rabbit” was number three in the search by popularity. And while her art evolved over the years she continued creating art in a similar style. Eilowyn and Sam viewed the countries of their site visitors, which increased their motivation since they were reaching countries other than the United States, such as England, Sweden, and Australia. Eilowyn in particular found it motivating:

My favorite part is down below, there'll be a countries bar and you will see how many different people from how many different countries have seen your work and how many hits you've gotten from each country. And I have gotten countries I didn't even know existed.

Goku removed videos from Vimeo that did not receive comments because he felt it was “not the right place” for them. Overall the responses to artifacts received provided knowledge about the community. Therefore information was experienced as artifact.
In summary, information as artifact represented a concrete form of knowledge, as well as abstract ideas. Information is concrete in terms of skills or tools needed, and abstract in terms of dispositions such as patience (Goku’s stop animation) and resilience (Xeda’s man which needed practice). Information as artifact reminds participants of what they know, who they are and have been, and represents to an outsider their application of information.

Conclusion

Information is experienced in a variety of ways throughout content creating and sharing practices. These experiences contribute to information practices. They give shape to the information actions described in the following chapter by giving meaning to the action. And they are impacted by the actions, which facilitate the experiences of information. Information in the process of creating and sharing content cannot be conceptualized in one way. It is multifaceted. For instance, information is not always represented by an artifact. It is sometimes represented by emotion. It can be represented through interaction, and how teens share the process with each other. It can be represented through the process of producing an artifact that represents knowledge. How participants experience information is only one part of the overall picture of their information practices; the actions involving information interact with these experiences. In the next chapter I describe the information actions that inform and are informed by experiences of information.
CHAPTER 7 INFORMATION ACTIONS

Information actions are a component of information practices. As a component the information actions teens’ engage in are performances within a community. However, by themselves actions do not have meaning. How they are situated in a community, and how the information is experienced, produces space for making meaning of the performance. Information actions enable experiences of information, but how that information is experienced forms the resulting actions. Therefore the experiences of information described in chapter six produce certain information actions. Although the focus of this chapter is the information actions I reference the experiences of information in relation to the information actions as I describe the actions. This is the intersection of experiences of information and information actions that is portrayed in more detail in chapter eight.

The information actions teens performed while encountering and using information are explored below. The actions occurred within three conceptual categories: gathering, thinking and creating. In actions that were primarily focused on gathering information, teens used observation

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1 The contents of this chapter have been previously published. Harlan, M. A., Bruce, C., & Lupton, M. (2011). Teen Content Creators: Experiences of Using Information to Learn Library Trends, 60(2).
and participation, as well as traditional searching actions to gather information in a variety of forms. In actions categorized as thinking, teens engaged information as they mused, considered, planned, and eventually reflected on the information. In actions that are in the category of creating, teens copied information, modeled their content on others to explore their personal aesthetics, and composed personally novel content. In the table below the top row represents the conceptual categories, and the specific categories of actions are below. The color-coding is a basic representation of how the actions are related. Although copy and model represent different colors to indicate they are related to two or more information actions in the gathering and thinking categories.

<table>
<thead>
<tr>
<th>Gathering</th>
<th>Thinking</th>
<th>Creating</th>
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<tr>
<td>Serendipitous</td>
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<td>Encountering</td>
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Table 7-1: Information Actions

Throughout each of the categories of actions information was experienced in different ways. While these actions are presented as a sequence they should not be conceived as a step–by-step process; rather they are iterative and embedded within the structure and discourses of their communities.

**Gathering**

This section explores the range of actions teens used to gather information that assisted them in participating in digital communities. Teens engaged in actions to collect information that included serendipitous encounters, observation (lurking), focused browsing, and direct searching. Information actions that assisted in gathering were both unintentionally and intentionally enacted. The gathering actions often occurred simultaneously with thinking and/or creating actions. The thinking and creating actions are explored separately but the process should not be conceived as separated.
Serendipitous encountering was fundamentally important to the way teens gathered information. It involved encountering information in their daily lives, both on and offline. Serendipitous encounter was characterized by an openness, or a willingness to pay attention to the information that interested them, or ‘spoke to’ them (Hannahsusannah) as a way of filtering the information they encountered. Serendipitous gathering occurred unintentionally and from a variety of sources. “It is usually just compiled from everything I have experienced,” said Roni. In serendipitous gathering information often was encountered just as a participant was recognizing a need. The information shaped both the subject of their content, and the formats they engaged in creating.

Timing

Information came at a fortuitous moment, often from someone with similar interests. For example, Hannahsusannah learned of MoonFruit (a free web hosting site), through an overheard conversation between her mother and a friend who were “talking just about the value of having your own [website] and being able to connect it with social networking sites and how it’s really easy to get out there.” Goku learned of Vimeo (a video sharing community) through his friend’s brother who also participated in filming and sharing videos. Roni learned of DeviantArt from a friend she met through a different content sharing community (fanartcentral.net) just as she was “moving away from fan art.” A hyperlink on a fan video of Dr. Who led Eilowyn to Fanfiction.net just as she was considering how she could contribute to the Dr. Who fan community.

Sources

Serendipitous gathering occurred as teens engaged in the material items of their communities. Xeda’s ideas came from the variety of media she interacted with: books, cartoons, comic books, children’s illustrations. Sam used SoundClicks to gather beats for her rap music, saying, “I don't remember how I found out about SoundClicks...and there's a bunch of producers that had beats. I just like whatever ones were free for download, I downloaded.” Robert talked about Science Fiction B movies as giving him ideas for style and film angles. Goku watched movies to focus on camera angles and editing decisions. He even forgot plots; saying, “I find myself watching movies and watching more of the editing sometimes and I don’t realize what is
“Going on in the movies, I am just looking at camera angles and different cuts and transitions.” Sam and Salamonde were both inspired by music they listened to. Sam spoke of encountering “a beat I am in love with… so amazing I have to write something right now.” Salamonde described listening to her friend’s iPod saying she “can just put it on random and then there will be a song that plays and then something interesting or unique will happen in the song” that she wants to do “something with” immediately. This information was often used to explore ideas about the subject of their content. It was also used to consider the aesthetic of their content.

Information was serendipitously encountered as teens participated in their day-to-day lives. For instance, Salamonde described encountering information through her friendship with Swift: “It seems one of us will say something or sing something random I guess. And then, for some reason it seems to resonate with the other and then we'll just keep going.” In this sense information was “random” but it acted as a starting point. Eilowyn was “really bored one day and picked up Fruits Basket” which was on a shelf in the library she was in. Roni talked about compiling ideas for her web comic ‘randomly’, including what she “overhears at school.” Sam got ideas “walking down the street” and paying attention to what she saw in her social world. Participant’s day-to-day lives were rich sites for serendipitous encounters.

**Content: Formats, Subjects & Aesthetics**

Information encountered serendipitously, or without intentional need, sometimes led to creating content. For instance, Goku described ‘playing’ with Windows Movie Maker, which came preloaded on his computer as an entrée into video editing. In this sense he wasn’t intentionally seeking software for editing but its availability generated interest and ideas in how to edit the movies he was already filming offline. His choice of stop motion animation had similar origins:

> Originally I was watching videos on YouTube, just stumbling, bored just random stuff and I found stop motion. Which is where you take a picture of something, move it a little bit, like claymation. And I wanted to create one myself because I thought it was interesting.

Sam’s introduction to beat making came from her father and his equipment that she played with:

> When I was younger (age 5) my dad had some equipment. And his friend, he had like drums that I would sit there, I would bang on the drums. And I'd do something that sounded good. Or I'd bang on the table. And then my dad set down this thing with a bunch of little buttons on it. And you hit a button it makes a drum sound. And he was like sit there and play with that.
The banging on the drums, and making drum sounds was the beginning of Sam’s interests in beats, which evolved into her interest in rap music. In a different instance, Hannahsusannah overheard a conversation about the importance of ‘branding’ that led her to her interest in creating a web site that represented her art. She had been considering branding and professionalism as she prepared for college, and therefore she was open to the information in the overheard conversation, which met a vague need. It was the impetus needed to start her web site.

While each of the above instances led to a type of content creation, serendipitous encountering of information for creating was also experienced in regard to the subject of the content. For instance, Loli and her friends were given a Japanese magazine that intrigued them, leading to her involvement in the Lolita fashion subculture, both on and offline. Xeda described the source of getting an idea for her content thus:

I spend almost my entire day from when I get home to when I go to bed in front of the TV doing anything, homework, doing the dishes, drawing. And pretty much all I watch is cartoons so I get a lot of ideas from cartoons, and comic books, and other various, I read a lot of children’s illustration books too because they’re so much more interesting than a lot of novels out there.

Jack got his ideas from “reading a lot.” Swift and Salamonde talked about grabbing a book that was nearby and finding an interesting line:

Swift: It was just kind of like we just kind of took the mic and just started. We had this beat that I made and then we just started going off. Then like, there's like a Tolkien sentence in there. We just took it and then Raven made it into a song.

Salamonde: Yeah, we had all this recorded audio of her and me just singing. The phrase was "I'm the black one in the classroom," and then it stemmed from there. We had this recorded beat and then I took that audio and put it on this new song that I created.

Media in the form of printed material like books and magazines, or television and movies was often a source of information. The intent of using the media in this way may have differed. Salamonde and Swift were intentionally looking to media for an idea, although not a specific form, when they grabbed the nearest book, whereas Loli’s experience was entirely unintentional. Eilowyn’s online media serendipitously led her to additional media:

In YouTube videos, I find the music that I love, I love anime music videos or just music videos where people slice footage from something I know of with a song or a song that's something that I know from footage. So I've discovered TV shows by looking for music videos for songs I like. I've discovered songs I love by finding music videos for an anime that I like.
She engaged in the original content because of her passion for anime, or the music of her day-to-day life and it serendipitously introduced her to new information.

The act of gathering through serendipitous encountering was linked to an “a-ha” moment when a piece of information had emotional resonance with the participant. In these instances there was an open-ness to the information. Open-ness allowed the information to not be filtered out by the participant as they navigated a barrage of daily input, even though they hadn’t expressed a specific need.

**Observation**

Gathering actions included observation. Observation was primarily about understanding a community of practice, and in the digital world is referred to as ‘lurking’. While observation was generally an intentional act, and a conscious decision, it was not guided by a specific need, rather it was based in a broad interest. It was generally related to understanding the social structure of a community. This is seen in Loli’s description of a large online community:

There is this community it is called EGL – Elegant Goth Lolita. Lolita started as only a Goth thing and now it’s become this ridiculously sweet... And so it [EGL] is known for being ridiculously catty and evil and people are malicious. And so basically most people will tell you to just lurk on it for a year before you say anything because they’ll get really angry and it is really, really bizarre.

Loli points out that the community environment can be determined by observation as “catty and evil” and that the suggestion is that you “lurk.” Despite this, she continued to observe, “because it is fun to look at people’s outfits.” Loli didn’t have a need, but an interest in the community, and so observation was enough. Jack observed a community that “eats newbies up”; however he also continued to observe in order to learn new coding techniques. Eilowyn used observation to learn the language of the community such as “slash” and ratings. Slash in fan fiction is the romantic and sexual pairings of characters, and is rated similar to television or movies in the United States. Eilowyn described this experience of observing slash fiction rated M(ature): “the first time that I read an M story that was slashing two male characters together it was really very shocking.” It was through this observation that she constructed what “slash” fiction was and how the rating system worked. It was information regarding community values that she needed, without be aware of that need.
Teens also observed the roles of community members, both explicit and implicit. Xeda observed “they monitor very well, they have very good mods [moderators] in DeviantArt”, which represented an explicit role in the community. However, she also identified popular artists as having implicit roles in the community, “a few artists that you know they’ve gotten extremely big over their time on DeviantArt and you can mention them and they already, they have like fan art on the site.” The implicit roles of being a popular artist helped define what was valued on the site. This helped teens construct their own roles within communities and what they wanted it to become as evidenced in this exchange with Xeda:

Xeda: Its kind of amazing how just being on there can get you everywhere [college, professional work, other art sites].
Q: Is that a goal of yours?
Xeda: Yeah, that’s why I am on there now. So right now I’m just pretty much, just another person on there.

Through experiencing information as participation, and acting as observer Xeda constructed both her own role as a member but also where she wanted to be. Thus, observation without interaction in a community is a gathering action as it provides information regarding the discourse of a community.

**Focused Browsing**

Focused browsing represented actions that reflected a more intentional process of gathering, although not one yet characterized by a specific need. This was best represented in browsing for information guided by a diffuse need. Despite the vagueness of the need, a broad subject of interest was often present. Xeda’s use of DeviantArt’s favorite button and flow tools are an example of this process. She would browse galleries to get ideas or find new artists who inspired her:

I usually just go to the feed of, like, what’s being uploaded and just look at what is there because when you log in it is just the page with the feed and I’ll sit there and watch the feed for a couple of minutes and just kind of look at things.

Xeda didn’t have a specific need, rather she had a desire for experiencing new art as potential inspiration. She spent time browsing so she could build a library of information that could be used for future content creation. As she watched the feed she would favorite art she responded to, and therefore could return to later. Goku and Jack both described a process of link surfing, i.e. following links that were tangentially related. Link surfing was a form of focused browsing a
subject of interest. Jack spoke of a “tendency to get lost in [Wikipedia]” by following links. Similar to hyperlinking was tagging of content. Tagging was a user’s way of categorizing content, and teens would browse user tags for similar content. Eilowyn would browse by her broad desires in fan fiction, “Check a drama box, check two character boxes, and hit go.” She also described browsing based on a piece she liked, “if I picked a fic and I love what they've written, I go to their name and I see what they have if they wrote a really good review or if they referenced their works in a review.” Browsing did not suggest specificity, rather a vague need around a general interest.

They also joined smaller interest based communities within the larger community. Xeda and Roni were members of fan-art groups on DeviantArt, as well as original cartooning communities. Loli was a member of a “niche” community within the online Lolita community. Sam was a member of a local rap community on ReverbNation. Salamonde used members’ profiles on SoundCloud to find new music saying:

I'll have a musician that I'm particularly interested in that I know about. Then I can type their name up at the search engine. And then that will bring me probably similar, or people that actually like that musician or who are following that musician. So if they like that musician maybe I'll like them

This process helped her create a small group. These smaller groups provided more focused browsing as they accessed other members’ content within the smaller communities.

There were also specific tools that encouraged focused browsing. Goku, Salamonde and Hannahsusannah discovered Stumbleupon as a tool that led to interesting content that they used mostly “when I am bored.” Stumbleupon is an application that allows users to like or dislike content, and it then recommends further content. Similarly Loli used her Bloglines (an RSS reader) “when [she] was bored” to check in on blogs she followed. Bloglines allowed Loli to gather sites that were of interest to her, and notified her when those sites were updated. Salamonde and Swift had discovered the microblogging site of Tumblr, which Swift described thus: “you can "like" certain things. You can type in key words like foreign films or films, and you can "like" that keyword. And it shows you all these foreign film things that you can follow.” This was a new tool for Swift that she used to gather information for future use. These tools were generally deployed for focused browsing when the participants were “bored.” It is possible that boredom was actually a diffuse need or desire for information that had not yet been
articulated. The tools available entertained the participants while providing them access to information around a general idea.

In summary, focused browsing of information appeared to be guided by a vague need. There was an interest in a broad topic but it was non-specific. It seemed to occur at a time when participants identified being “bored.” Specific tools, of communities or independent tools, facilitated focused browsing.

**Direct Searching**

Direct searching was a gathering action participants engaged in to find specific information. Direct searching occurred as teens created content. Teens often discovered need for information based on a lack of skills; particularly the skills that were necessary to create content that “matched the pictures in my head” (Goku). Direct searching leveraged a number of different sources.

Direct searching occurred when a participant had a specific need. Xeda searched for a community, a “place to get some feedback and see if I was going in the right direction.” She used search engines to directly search for a community in which she could share art. She used simple terms such as “art hosting.” This led to DeviantArt. Jack had a similar experience in finding a community based around software. He describes recognizing that he needed information as part of exploring a new program:

> I use the program and at first I really did not understand it because it was very complicated and it did incorporate a lot of pieces of the Windows operating system on top of a system that was completely different. And it produced lots of unexpected results.

His search to understand the unexpected results took him to a community that shared information regarding the software, and he began to recognize his ability to contribute new knowledge to the community.

The direct search for information was also predicated on a need to know a specific skill. The direct search often leveraged social contacts. For instance, Xeda sought information from her mom for early technical support, “…first I asked my mom because she knew a few technical things,” but found at a certain point she needed to learn on her own. Hannahsusannah used her friends as a source for specific information: “Learning to do colors and stuff was asking my friends.” Robert often accessed a mentor, an older student who established expertise in his ability to assist Robert in using “an expensive and large camera.” Likewise Sam relied on available
mentors, asking specific questions regarding software. In these instances the facility need to use tools, and the information that was required was found through direct searching through social contacts.

Direct searching also used the social and technical tools of a specific digital community. This was particularly true in information needed for technical purposes. Participants used online communities to gather specific information regarding technique and tools. Xeda said, “I use forums a lot, online forums that have to with using online content’. She was searching for information on “bbcode” which was used in Gaia to format bulletin board posts, and later for html codes. Jack spoke of “trying to stay in the same forum because it was a reliable forum” while trying to answer a specific question he had with a technical computer problem. Other direct searches that relied on online social interaction emerged once a mentor was identified. Loli “messaged” a blogger she was a friend with on MySpace for information on potential blogging platforms. This was not a person she knew offline.

Direct searches also relied upon technical affordances that provided visual information. Loli, Robert and Goku described using “how to” videos on YouTube. They used the YouTube search engine to locate needed information. “I would probably find a tutorial on YouTube” was Loli response when asked about needing and finding specific technical information. Goku echoed her when he said if he “didn’t know how to do something I just go on to YouTube and search how to do it and it always showed me.” Xeda, Hannahsusannah, and Loli used the Google image search to retrieve html codes, “it would pop up in Google images a trillion charts, color charts with all the numbers” (Hannahsusannah). Loli articulated this property of direct search when she said:

The wonderful thing about the internet is it gives you every different way of learning all at once, so I am reading these things, I am reading the code, I am seeing visually behind that it is read.

Thus, the multiple formats of information were a technical affordance of search engines and digital communities that teens preferred.

However, teens identified difficulties with direct searching. In particular there was a need for specificity in a direct search as articulated by Robert:

When I typed in “making the stills for final cut” it would, Final Cut has a lot of different versions and I didn’t know what version I was using so a bunch of those would come up. And it would say like go to file and it would have freeze frame, whatever, my version doesn’t have freeze frame.
This was problem also identified by Goku who articulated a need for version information. Loli also voiced a problem regarding spelling, preferring Google as a search tool because “it was easy for [her] to spellcheck.” They modified their direct searching but they did not always perform efficient searches.

Direct searching was an intentional action and took different paths, including asking local experts, but also using technical tools that allowed both for social response and for technical feedback. It was used when there was a specific need for information.

**Thinking**

Thinking actions include the range of actions teens engaged in during and after gathering information. Each of these actions reflected subtle differences and included musing, considering, evaluating, planning and reflecting. Thinking reflected engagement with information, including integrating information into existing knowledge so that it could be used in the creative process.

**Musing**

Musing is subconscious mental process that often began with a serendipitous gathering of information. It is an unintentional action that existed in the background. Swift expressed it most clearly, “Sometimes it gets so wrapped up in your subconscious you forget about it, and it comes out later.” It emerged in other participants as well. Discussing how she used information she had gathered Roni stated that it “involves a lot of pondering.” In discussing the start of her creative process Xeda said “I get an idea in my head.” It wasn’t necessarily clear what the impetus of the idea was, indicating she had been musing. Sam got a number of ideas “walking down the street” and indirectly connected her ideas to emotions, “I mean how it started with me is like I don't necessarily have to be angry or in a certain mood.” The concept of “getting a line” suggested that there was a subconscious action that became conscious in the form of a lyric. The experience of ‘getting an idea in my head’ is an oversimplification of the process, as teens often had difficulty articulating the source of their creative ideas. It does, however, suggest an unintentional engagement with information that shapes future engagement with the ideas.

Often teens did not recognize the source of an idea, for instance, Hannahsusannah shrugged off a question regarding the source of a piece of information as “something that was
out there,” and both Goku and Robert identified movies and videos that affected their work, but they only made the connection during specific questioning during the interview. Robert mentioned “emulat[ing] the editing style” of science fiction B movies, and Goku cited popular directors’ work as his inspiration after a question that specifically asked “You stated you watch a lot of movies, do you get ideas from them?” This suggests that while taking in information they are not necessarily aware of the information. The information is being mused upon until they are ready to use it in a more intentional manner. It is in the background. Furthermore, musing develops over time and through interaction with the shared repertoire of their communities.

**Considering**

Considering occurred when an idea moved from the background (musing) to the foreground. This is primarily related to intentionality regarding content, in which a choice is made regarding the style and focus of new content. During the action of considering the idea is intentionally explored.

Considering was essential to developing a personal aesthetic within the shared repertoire of the community. For instance, Xeda explained considering different images in order to create her own, saying, “I’ll type in an image [into Google images] I want to see, I don’t know, like flower or something.” Hannahsusannah described developing her personal aesthetic as “through experience, and interaction with other people’s designs, and also through looking at stuff” which she then used to “think about how my web site will look.” Sam was particularly conscious of using rap popular in the early to mid-1990s within her personal aesthetic, “trying to take [my rap] back to that era when it kind of had more of a message more than just trying to show off.” Eilowyn said, “You have to adjust a ton. Sometimes, do a little bit of research” in considering the aesthetic and subject of her fan fictions. Considering indicated an awareness of using sources, and engagement in gathering through focused browsing and direct searching.

In considering influences and personal aesthetic teens also explored their role in the community. Roni admitted to knowing which artist she was “fangirling on” at the time of creating. This suggested that the artist’s work impacted her own, using her respect for an artist’s work to think about work she wanted to do, “inspir[ing] her to make more complicated things.” As she considered the artist’s work she gathered more of the work, and thought intentionally about what she would use in her own work, including what she needed to learn. It also helped her understand her role in the community, pushing her to create art that would interact within the
community. Salamonde described interacting “with a whole bunch of things” while considering a specific idea. Eilowyn had specific ideas she’d explore while considering:

   Thinking about what you read, putting yourself in a certain character's shoes, thinking about situations, trying to predict the future, trying to predict what happened in the past before you find out about it.

Loli used Bloglines, a RSS reader, to read blogs to collect ideas for her own blog, both through simply reading more famous blogs within her niche community (fashion) as well as responding through her own blog. For instance, the issue of pets as accessories, an “issue that is circulating around all of the Lolita’s blogs and then I put my 2 cents in.” After reading multiple entries she considered her own entry regarding the community and its discussion. In the instance of reading she considered whether to respond or to emulate the blog.

   Considering was a more conscious action than musing. It helped define the teen’s personal aesthetic and where and how it played a role within the community. Considering was often related to teens identifying what they know and how that was relevant to their role in the community as content creators.

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**Planning**

Planning often demonstrated visible use of information. It was the action of identifying what teens would need to create content. This included the skills and tools necessary as well as brainstorming the substance of the content. Planning was occasionally concrete (i.e. thumbnail sketches); however it was more often marked by a “conversation” or “pictures in my head.” Planning was both an individualized activity that incorporated the social structures of a community, and a social activity that involved interaction.

Planning actions were visible and concrete in some instances, and invisible in others. For instance, Xeda and Hannahsusannah’s actions were visible. Xeda described, “homework covered in doodles, and sometimes I take doodles home and do more to them.” Hannahsusannah employed the use of thumbnail sketches in drafting; however this did not extend to the web page, in which she was more likely to draft online stating, “It is a work in progress.” For some creators planning was an invisible process. The video creators were less likely to draft in a visible manner. They described having a vague idea or “pictures in my head” before beginning creating, and primarily doing the work in the editing process. “I started to cut clips and put them together and it was a lot of fun seeing the story start to make sense and come together” (Robert).
Goku said “the picture in my head is pretty vague” and his videos “kind of formed themselves.” So, while Goku and Robert may have had general ideas, the planning occurred internally.

Other planning activities were social. Roni’s interaction with others was often part of her planning. A verbal conversation with others was a chance to explore what she was considering. She engaged in structured brainstorming with a collaborative partner, “I respond really well to encouragement and bouncing ideas off each other, it has become an exponential force.” She also participated in online discussions about characters in web comics and stories. Sam’s planning was more organic, built around sharing with a partner. She said when she got an idea she would:

> Grab a piece of paper and start writing it down. Whatever verse that will stem from that. And then I'll show it to [her partner] and he'll come up with something that sounds on the same topic. . . . we'll make sure it goes together and it fits in.

She described their process of creating a music video as “we have to do a lot of planning, a lot of brainstorming, and we have to think realistically about our area.” Jack planned programs with his partner although each project was individual. His partner would contribute ideas to Jack’s program and vice versa. Goku received plot ideas from his dad:

> My dad called me one night and said I have an idea for another animation video and I was ok what is it. And he told me about a sandwich that makes itself and then eats itself. And I'm like all right I can figure that out.

Thus, planning varied between individuals and was not formalized, rather it was thinking around what one would create, or discussing the idea in order to solidify the planned creation.

**Evaluating**

Participants engaged in the thinking process of evaluating. They evaluated information based on a judgment of authority. Teens identified authoritative sources of information, or sources that they trusted as providing valued information to help improve their creating process. In some cases authority was established through established markers, such as whether or not the information emanated from a professional source or was a teacher. More frequently teens relied on authority markers such as popularity within a community, self-confidence of the information provider, and whether or not the initial information provided was helpful in which case it was a source to which they would return.

Personal aesthetic was an authority marker that emerged regarding the value of information. In discussing using sources of information, Loli, Roni, and Xeda all cited other
content creators of whom they were fans. These were people whose work they followed and that work influenced their own. Roni specifically used the term “fangirling.” Xeda followed others, describing it in this manner, “I have been fond of their work so I favorite them and then I watch them.” Loli followed blogs she admired, going so far as to model her blogs on their work, saying, “my blog at first was a total copycat of golla and do deer.” Hannahsusannah developed her personal aesthetic based on “stripped down” sites that she liked. Because they responded personally to other people’s content they valued the information, or content that they encountered from that source.

The community also helped determine the authority of a source. Teens referenced the popularity of the source in determining value and authority:

A few artists that you know, they’ve gotten extremely big over their time on DeviantArt and you can mention them and they already have, like, fan art on their site, like other people are copying their stuff cause its just that good, and like dedicating a picture to them. (Xeda)

There is a sense that if the community valued the members then teens could also find value in their content. Loli’s friends introduced her to bloggers that had large followings:

My friends started showing me these blogs there is two of them, golladarling [online identity] or Icing is her blog and do deer [online identity], and they both big deals to me because they were these two kind of oddball girls that were really, and I think its one of the big things, this instant fame thing, its so easy to become famous in two seconds with the Internet, and these girls were doing it for the oddest reasons.

Loli identified with the “oddball girls” and as such found an authoritative model in their work, as others also identified or found interest in their sites. While personal judgment played a role in determining “good”, the popularity of the source within the community also supported this judgment.

In some evaluations the self-confidence of the information provider was a factor. Jack discussed being “intimidated” by the Wikipedia editing community, as these “were serious people with a serious mission.” This indicated that he saw editors as authoritative. Goku, Loli, and Roni had experience with online comments on their work. Roni noted, “It doesn’t happen very often”; however upon receiving a “massive critique…I really, really appreciated it.” The ability of the commenter to provide critique gave her confidence in what the commenter was saying. Goku echoed this with a similar sentiment about a private message that helped him “make it better.” In both these instances the commenter projected a sense of authority. And the
information provided proved useful for future content creation. Thus, while there was a response to established authorities such as directors, paid bloggers, and professional visual artists, authority was primarily established by the popularity of a source within a community, the confidence of the source and the usefulness information, particularly if there was a personal aesthetic response to the information.

Reflecting

Reflecting actions occurred while using information for content creation. As they created content teens reflected on what they knew, what they still needed and/or wanted to know, and how their artifact had meaning within the community. Reflecting actions related to applied knowledge during the process of creating, as well as reflecting on the artifact.

As a thinking activity, reflecting was closely related to process and learning by doing. For instance, Goku described the process of a stop motion animation video he created:

This was like 500 images of this shoe. So I had to throw them all into Windows MovieMaker, shorten them all to about a half a second, ... Then put them all next to each other, put my titles in, play it and realize half a second was too long and then I had to go through each image, every image and shorten it again until I figured out what made it right.

In this case, Goku engaged in an iterative interaction with information marked by trial and error. As he reflected on what worked he adjusted his composing actions. Reflecting for Goku revealed that “patience” was necessary to success in stop motion animation. Furthermore, he learned the software and tools necessary to create. These skills were applied in later videos that utilized animation.

Reflection through trial and error was seen in a number of students. Xeda stated, “I learn as I go” in response to learning a digital editing tools, and listed the pieces of the software she had mastered (filters and image editing, but not layers). In learning as she was using the tools she was reflecting on what she didn’t know and what she needed to know. Similarly, Jack participated in testing software, as well as testing his own creations through trial and error. Hannahsusannah suggested she used “guess and check” not only while accessing information but also in implementing online editing tools. Thus teens’ engaged in reflecting on the process of using trial and error to master a tool, subsequently gaining additional information and learning from it.
Reflecting was a fundamental thinking action embedded in the process of creating. It was characterized by its relationship to information as process. Teens spoke of “learning by doing” but it was through reflecting that they constructed what they knew. Reflecting revealed how they would improve content. But it also produced implicit responses such as confidence and pride that was important to how teens constructed their identities as members of community of practices.

Creating

Creating actions included the range of actions teens engaged in while producing visible content. They were copying, modeling, and composing. Creating actions represented information use in concrete ways. The use of information produced artifacts that were information objects themselves.

Copying

Copying was an explicit reproduction of another’s content. Copying was primarily a way to use information to learn specific skills. This was particularly true for the visual artists and musicians where teens copied another’s artifact in order to master tools and techniques. One benefit of copying was that it provided physical information in terms of body control, which was particularly true of the visual artists. Xeda stated she used information by “copy[ing] the pictures as many times as I can until I feel like I’ve gotten it close enough to what I want it to look like.” In repeating the act Xeda was mastering the physical act of drawing. Likewise, Roni participated in the community of fanartcentral.net, drawing pictures of the same character over and over. Copying also helped build confidence as teens interacted within the community. For instance, Loli’s described her early blogging entries as “a copy of do deer’s” in that they focused on the same content and employed the same style. This helped Loli establish the format and purpose of her blog. Loli, Xeda, and Roni all exhibited elements of building confidence and knowledge through copying, mastering technique, or necessary skills.

Copying also helped teens develop skills in manipulating html and other coding languages. Jack described “kind of screwing around, testing things” with a programming language as providing the information necessary to see how “fluent he was with the language.” He copied code and applied it himself, testing how it worked before applying it in a different
context. Hannahsusannah copied html code and applied it to her site to modify to a “sleeker design” that was more minimalist. Loli copied html codes to change colors and images on her site as well. In music Salamonde stated that when she heard a melody she liked she would “probably want to create something super similar to that because it feels good and I want to see if I can do it.” While “super similar” suggests a move into modeling it still is representative of copying in the degree of similarity. Thus, the process of copying art or style helped the creators develop the physical skills, learn software, and build their confidence as they interacted within a community.

Modeling

Modeling was the intermediate step between copying and the creation of more original content. Modeling involved exploring and applying a personal aesthetic in the creating process. In modeling the source of the idea is apparent, and the application of knowledge gained regarding the tools is explored. Hannahsusannah emphasized this in designing her website, discussing sites that “spoke to” her and using that sensibility in her own website. Robert discussed the skills involved in editing and creating video as “mostly taking things that have been done before and rearranging them, or adding slight differences.” He modeled his editing choices on observable choices in other videos, but applied them differently. This concept of old ideas in new ways also appeared with Roni who described content as “the way things are blended together in the mind that puts a person's stamp on it.” Modeling was using other’s ideas and applying a personal aesthetic. Similarly, Salamonde used music she heard as a model:

So, I can just put it on random and then there will be a song that plays and then something interesting or unique will happen in the song. That's how I'll get my take on what I could do with that idea. And then I would probably write it down, but I'll probably just hold on to that, and want to go to the studio like right then, and like try to create something like that. So usually music will inspire my own spin on what I hear.

Fan fiction itself is built on modeling but has strong norms as to judging success:

It was like this does not seem like just an echo of the story. It's almost like someone took bits of it and rewove it into something like taking a threadbare tapestry and putting in new color and things. But it's still the original it's just not in its…Basically, it’s a balancing act. Its a synthesis between original and not (Eilowyn)

In this community modeling was the norm.
Modeling was a way for teens to continue to explore what they knew within the creating process. It allowed them to build confidence while exploring their personal aesthetic.

Composing

Composing was also a representation of applied information and knowledge. Unlike modeling, composing was marked by the resulting content not being obviously based on someone else’s content. However, some participants were aware of the influences on their composing, and less likely to adopt a position that their work was completely original.

For Salamonde, it was like “making a quilt, you just kind of gather all this stuff and then it looks cool in the end” and because she put it together, it was hers. Sam stated, “it's what's coming from my heart. So for me and for everybody out there, it's pretty original” even if beats came from SoundClick or other producers. Jack in describing where coding is copied but applied in new ways said:

The process of knowing information mostly consists of one’s ability to process things or ideas that they are exposed to and compare them to what they already know. That person can then see how it is relevant to other pieces of information and extract meaning from the comparison.

For Jack composing was about “extracting meaning from comparison” of what he already knew and what he experienced in implementing new code in a program. Roni held slightly opposing views saying, “there is no such thing as an original idea… that it’s just how you put together all the other small ideas that come from other people.” However, she went on to say:

It's true that some fans put a lot of effort into making art for a particular work by someone else, but they know that it's not theirs. It's like they're good friends with the art.

She felt art was hers when she knew she had conceived it from beginning to end.

Composing occasionally lacked intentionality, happening in what appeared to be organic ways. Roni described her process as “playing with them [characters] for a while and they just seemed develop really nice characters so we thought we'd further develop them and then it became a comic just randomly.” Swift and Salamonde’s description was similar:

It was just kind of like we just kind of took the mic and just started. We had this beat that I made and then we just started going off. Then like, there's like a Tolkien sentence in there. We just took it and then Salamonde made it into a song.

Goku also used the word random, “I have done stuff that I have never seen before too, just random like throwing stuff together and I am like wow that came out really good.”
composing unlike modeling and copying teens were less likely to have a specific plan, rather that would “just see where it is going to go.”

In composing teens become producers of knowledge they shared with their community. This had the potential to engage the community and lead to more information that could be used to continue to create and share content. Thus, composing demonstrated knowledge of skills and community.

**Conclusion**

Information actions were the actions teens engaged in throughout the process of creating and sharing content. They included actions within categories of gathering, thinking, and creating. Actions occurred iteratively and often simultaneously and across categories. For example, the actions of serendipitous encounter would occur simultaneously with the action of musing. Or the action of reflection would lead to the action of focused browsing which led to the action of planning. The wide range of actions are embedded within the communities that teens engage in, and meaning is constructed within these communities. The information actions intersected with experiences of information in specific ways that defined information practices.
CHAPTER 8 INFORMATION PRACTICES: THE INTERSECTION OF EXPERIENCES AND ACTIONS

Introduction

This chapter introduces the substantive grounded theory that was constructed from this research investigation. Substantive theory is “developed for an substantive, or empirical, area of sociological inquiry” (Glaser & Strauss, 1967, p. 32). A substantive theory addresses a specific concern in specific areas of study. The substantive theory of this research is a description of information practices of teen content creators and a model of information practices as they related to one another. The context under investigation was participation in content creation in digital communities. The components of information practice are the experiences of information, information actions, and the digital participatory communities the practices are enacted within. The categories of information experience and the properties of those categories are explained in chapter six. The categories of information actions and their properties are explained in chapter seven. Information practices are a representation of how the experiences of information and information actions intersect. However, it is also important to consider these components as situated within a context that has technical affordances and social structures that enable information actions. Therefore the descriptions of the communities in chapter five should be kept in mind.

This chapter describes five information practices. They are learning community, negotiating aesthetics, negotiating control, negotiating capacity, and representing knowledge. It then presents a graphic model (Figure 8-1) of how the information practices intersect as teens participate in digital participatory communities focused on content creation.
I begin the chapter by reviewing the community of practice definition, as the information practices are part of a community of practice. I also review practice theory to provide context to the descriptions of information practices. Then I describe the five information practices and present a model of how the information practices interact with one another.

**Community of Practice**

The framework of a community of practice provided a way to describe the digital communities in which teens participated. The theoretical description of communities of practice suggested nuances to the descriptions of teens’ communities, acting as theoretical sensitivity. This section reviews these concepts as a reminder to the reader of the salient points.

As teens’ told their stories of participation and content creation it emerged that the community structured their participation. Each community was mutually engaged in creating and sharing content, and this engagement was shaped by the practices of a community. The practices of a community are built upon information. A community of practice consists of the elements of mutual engagement, joint enterprise and shared repertoires (Wenger, 1998). A joint enterprise is a negotiation of how mutual engagement is enacted and produces a shared repertoire. Communities cannot engage in the negotiation of a joint enterprise without information. This information is then represented in the shared repertoire of a community. Information is the force that drives the practices that contribute to the structure of a community of practice. In digital
participatory communities these are the social practices and the content creating practices. Information practices are essential to the ability of these practices to operate.

Figure 8-2: Community of Practices

Information is gathered, thought about, and used as communities negotiate meaning through performances that provide a structure to the community. As the actions of engaging information practice occur, they produce experiences of information. Information practices are how the experiences of information interact with the information actions while engaged in the community. Therefore, information practices are the work of a community as they shape their rules, roles, and knowledge.

*Practices as Theoretical Framework*

While practice theory was explored in detail in chapter three, in this section I want to synthesize my understanding of practice and construct a definition that guides the analysis of teens’ information practices that I explore later in the chapter. Practice theory pays particular attention to the social structure of a community including the norms, roles, and discourses, and how that structure impacts the constructed meaning of a performance (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). Practices are socially constructed and built upon interaction within a community (Kemmis, 2011; Rouse, 2006). Interaction is an enacted performance by a member of the community. A performance is an action with meaning because of its location within a particular context (Kemmis, 2011). The meaning of a member’s performance is understood through the discourse, or way of being, within the community (Gee, 1996). Performances are bound by the technical structures of a community (Schatzki, et al., 2001; Wenger, et al., 2009b). This is particularly important within digital communities, in which the technical structures impact the ways performances can be enacted. Practice is situated, both across time and within a community, meaning that it can transform through negotiation (Kemmis, 2011; Rouse, 2006).
This negotiation and construction of meaning is a discursive interaction in the community. Discursive interaction is embodied through physical action and language (Kemmis, 2011; Rouse, 2006).

In this chapter I build a substantive theory that describes how the information actions and experience work together so that teens may participate in creating and sharing content in digital communities. While the following descriptions of information practice may not specifically address these elements of practice they provided nuance to understanding information practices. The actions and experiences as described previously, as well as the description of the communities used practice theory to provide theoretical sensitivity (Charmaz, 2006; Dunne, 2010). These are the information practices of teen content creators.

There are five information practices: learning community, negotiating aesthetic, negotiating control, negotiating capacity, and representing knowledge. In each of these practices the social and technical structures of the community impact the performance of the collective actions. The actions produce information that is experienced in a variety of ways and the experiences of information help produce meaning in regard to the information practice. As teens create content they engage in information practices and produce a performance that can become a space for negotiating meaning.

The five information practices are tied to the five experiences of information, with different embedded information actions. These practices are situated within the context of the community. Therefore the practices are shaped through the community’s social structures and technical affordances. However, this is a dependent engagement. By engaging in these practices teens produce performances that are shared with the community. Through sharing performances teens produce a site of discursive negotiation through which meaning is made. Therefore teens shape community through engaging in these practices.

In *learning community* information is experienced as participation, and the information actions of observing and evaluating are performed. While *negotiating aesthetic* information is experienced as inspiration and the information actions of serendipitous encounter, musing, considering, focused browsing, modeling, and composing are performed. In the category of *negotiating control* information is experienced as collaboration, and the information actions of considering, planning, direct searching, modeling, and reflecting are performed. In the category of *negotiating capacity* information is experienced as process and the information actions of
planning, direct searching, copying, modeling, and composing are performed. In the category of representing knowledge information is experienced as artifact and the information actions of reflecting, copying, modeling and composing are performed. The five information practices occur within the context of a community of practice. They are bound by the technical affordances and shaped by the social structure of the community. However, as enacted performances, they also shape the community of practice by providing the performances that are the communicative space in which meaning making occurs.

**Learning Community**

Learning community is how teens engage with information in order to understand the discourse of the community. In enacting the information actions of observing teens gather information that allows them to perform the thinking action of evaluating. These actions provide information concerning the social structures of the community, which include the roles, rules, and norms of the community. During this practice they experience information as participation. This is represented in figure 8-3 below.

![Learning Community Diagram](image)

**Figure 8-3: Learning Community**

This information practice is at the root of adopting a community, but it is ongoing throughout their interactions within the community. As they produce and share content teens are learning how to be within the community, or the discourse of the community. Learning community underpins their engagement in content creating communities and provides context to the other information practices. In this section I describe how this information practice informs adopting a community, and briefly touch upon how the information practice of learning community is informed by other information practices.
Adopting a Community of Practice

Adopting a community was foundational to content sharing. Therefore a description of how teens chose a community is helpful to understand their experience of creating and sharing content. In this section I explore the intentionality of the process of adopting a community of practice, which includes how information was gathered and thought about during the process, and the role of social and technical affordances. Adopting a community of practice is informed by the information practice of learning community.

The process of adopting a community required making a choice through evaluating their needs and the affordances of a community. The teens’ choice of a community was intentional and reflective, guided by observing the particulars of the culture of the community before choosing to participate. In adopting a community teens were guided by the purpose of the community, the social and technical affordances of the community, and their potential role within the community. Teens experienced information as participation that clarified the purpose of the community. They gathered information through observation, and evaluated the information gathered that produced knowledge concerning which community to adopt.

In using the information practice of learning community to make an intentional choice about which community to adopt the primary criterion was the purpose of the community. It would be irrelevant to participate in a community in which one’s content was not within the shared repertoire and mutual engagement. As a case in point, Xeda specifically wanted an “art hosting” community. Sam and Salamonde as musicians shared content on YouTube but they both also had a need for a community more directly focused on music. And while Loli posted a great deal of photography on her blog, she was concerned that “my blog is turning into a photography blog, but that is not the kind of layouts I am looking for because then you would just use Flickr.” The purpose of the community, or the mutual engagement, was important to the choice of which community to adopt.

Teens also adopted communities based on technical structures. One of the key elements was a “low barrier of access” (Jenkins, et al., 2006, p. 3). For instance, Hannahsusannah mentioned the necessity of free hosting. She also appreciated the ease of manipulating templates to reflect her aesthetic. Xeda, Roni, and Jack discussed the ease of use regarding the tools. They commented that the directions for establishing an account and/or sharing content “seemed easy”; this was a phrase employed by all three participants. These comments point to the importance of
a low barrier such as free tools and ease of use. The information was gathered through creating practices, but experienced as participation as an information practice that could be framed as learning community.

Adopting a community is also based on other technical affordances of a community. Does the community provide tools for sharing or creating content, or both? Does the tool allow for the type of content creation a teen wishes to engage in? Communities that do not provide appropriate technical affordances, such as the ability to build an identity, or produce writing that reflects the intent of the teen, may be abandoned after information is experienced through participation. This was seen in Loli’s transfer of content from web site to blog, and Hannahsusannah’s transfer of content from blog to web site. Each needed a particular set of tools that met their needs of representation and interaction. Adopting a community is an intentional action that uses an evaluating action in regard to technical affordances experienced as information as participation in order to make a choice.

Social structure was also considered in adopting a community. Teens looked for communities that were welcoming, and that had a “strong support for sharing and mentorship” (Jenkins, et al., 2006, p. 3). The teens wanted communities that would support their development. For example, Xeda was looking for feedback. Whereas Loli chose Blogger because of the connections she made through using the same blogging platform as other people with whom she wanted to connect. Loli’s choice of tool for her platform was significant in understanding the intentional choices participants made since she hosted a second blog on a different platform (WordPress) because it had differing technical affordances. However, WordPress did not produce the same social structure, therefore it didn’t meet her social needs. Xeda, Loli, Roni, and Jack used the words “fun” and “friendly” to describe the sites they were most engaged in. The teens were looking for communities that provided positive social support. The information practice of learning community provided information about the social support teens could receive in the community. This occurred as they experienced information as participation, which they gathered through observation.

Observation of communities allowed teens to evaluate the communities based on their developed criteria. When elements such as support were not present teens may have chosen to lurk, or to adjust their presence accordingly. Jack was an example of a lurking participant. He seemed to lack the confidence to share the computer game he was developing offline with the
online community observed. In this particular community there were high standards regarding content:

> These hardcore developers, … if you suggest I am doing something and you make this grand extravagant plan you generally get laughed at, and I can completely understand that because there are a lot of people who are idealistic and don’t really understand what they are saying and how difficult [creating a game] is.

In Jack’s case there was a high barrier to participation as there was not particularly strong support for creating or mentorship. However, by observing the community’s interaction Jack learned the cultural expectations of quality and made a decision regarding the level of his participation. He considered the experience beneficial, and a learning environment despite his reluctance to participate more actively. Loli expressed a similar process in choosing to lurk for a year before active participation in Elegant Gothic Lolita.

Adopting a community was not a haphazard experience, it was an intentional action based on criteria that evaluated the technical affordance and social structure of the community. It was underpinned by the information practice of learning a community.

**Roles in the Community**

The information practice of learning community informs how teens position themselves within their community. This is a reflection of the roles of the community. For example, Xeda positioned herself as "just another member" but with a goal of leveraging her participation in DeviantArt into a more professional role. Through observing while experiencing information as participation Xeda constructed an understanding of the implicit roles in the community, and positioned herself in relationship to the community's roles. Another illustration of this point is Hannahsusannah's defining of "branding" as how she conceptualized positioning herself within a professional community. She accessed information as participation through observation, which allowed her to position herself in the community in the same manner as professionals. Other teens also engaged in learning community to position themselves as artist, member, newbie, beta reader, and/or expert.

**Rules of the Community**

Learning community informs how teens position their creating within a community in regard to the implicit rules of a community. By experiencing information as participation through observation of community performances teens construct the rules of the community. For
instance, what are the ethics regarding copying and/or modeling content and the role of attribution? In Xeda and Roni's art they were careful to attribute credit to the original artist if they were producing fan art. Roni said, “I always put a disclaimer because I don’t want to take credit for someone else’s work.” In the filmmaking Robert perceived it to be very difficult to "do something new" but was unlikely to give credit unless it was to music. This was an outgrowth of his observation of YouTube and was representative of how teens' constructed community response to copyright. Robert was concerned with copyright laws in YouTube; however he admitted to not understanding the law. Whereas Goku admitted to not knowing the laws but assumed he could use music if he allowed advertisements, as this was what he observed within the community. Musicians have a long history of sampling. In both Salamonde and Sam's work they constructed use of pre-created beats available for free download as a tool for making music. This was understood through information as participation, and observation as acceptable creating practices. By learning community teens constructed their ability to use published professional and community content in relation to how the community understood the information actions of copying and/or modeling.

**Norms of the Community**

Learning community informs how a teen positions their content within the community in regard to the norms of the community. Therefore evaluating also intersects with information experienced as artifact and simultaneously with reflecting. While the information action of reflecting is a teen negotiating what they know, the information action of evaluating is positioning their contenting regard to what they know about the community. If a teen chooses to remove content as Goku and Loli did at various times this is a representation of how they constructed the community response to their content, seeing the community as "not the right place.” They were responding to the norms regarding the subjects of their content or the value of the content. Jack responded to norms by not posting in programming communities, perceiving his content to not be "finished" enough to post for feedback. He went so far as to say “I just don’t want to be laughed at.” Xeda’s continued posting of her morbid rabbit in different pieces of art was a response to the fact that it was popular. Other teens considered how community responded to content in in the form of feedback in constructing what the community valued helping them determine what to continue creating.
Concluding Thought on Learning Community

The information practice of learning community allows teens to construct their understandings of the community, adopt a community, position themselves within the roles of the community, and position their performances (creating content) within the implicit rules and norms of the community. Learning community informs the other information practices. And they inform learning community as the teens continue participation within their adopted communities.

Negotiating Aesthetic

Negotiating aesthetic is how teens engage with information to develop and represent their identity and their content. They experience information as inspiration, which they gather through the information actions of serendipitous encountering while performing the information action of musing. This often occurs simultaneously. They also gather information through the action of focused browsing and performing the information action of considering. And they are negotiating their aesthetic through using the information experienced as inspiration through representations developed in the information actions of modeling. This is represented in figure 8-4.

![Diagram of Negotiating Aesthetic](image)

Figure 8-4: Negotiating Aesthetic

This section examines the information practice of negotiating aesthetic as teens engage in the practice to develop personal value of content, develop a sense of originality in their content, and yet still build upon the content of the community.

Defining Personal Value

Information that is experienced as inspiration that is serendipitously encountered is the impetus for the information action of musing. During musing teens are negotiating their
personal values in regard to aesthetics. As an information practice negotiating aesthetic allowed teens to define what they valued in terms of their content. For example, Hannahsusannah's returning to websites whose design "spoke to" her allowed her to begin to define her own design as "sleek and modern." Eilowyn's negotiating her aesthetic was shaped both by the original canon and the community content she engaged in. In this way she identified her personal aesthetic. In describing her definition of aesthetics in a story she said:

It’s a feeling where you can't find anything wrong with a certain aspect of a story. Like, for example, the way that the narrative flows is just really intuitive. Nothing jars you. Nothing breaks you out in a certain way. Aesthetics is a very, very, very intuitive concept. I'm a very intuitive person, so that makes sense. But there's definitely a feeling of it’s just there. There's just this sense of a fit, of no knowledge of a break to begin with. It's just, it's smooth, it's uninterrupted, it’s masterfully done.

At this intersection teens are identifying aesthetics to which they respond.

**Defining Originality**

Teens negotiating aesthetic also did so while engaging in the information actions of focused browsing and considering while experiencing information as inspiration. As an information practice negotiating aesthetic allowed teens to define their content as their own. Focused browsing that fosters considering is how teens gather community information and consider it through the lens of their personal aesthetic. It is how teen’s engage the concept *how will I represent this idea in my own way?* Teens then engaged in the information action of modeling as they represented their own content in relationship to the information they experienced as inspiration. Modeling allowed teens to consciously use content of the community but to manipulate the content to represent what it was they valued within the community. For example, although Loli copied the style and focus of do deers blog posts; she approached the actual written and artistic content as a way to represent her own aesthetic. Goku’s animations built upon the vision of the movie, Sin City, but represented his own aesthetic values in how he manipulated colors in his animations. The nature of fan fiction was to use a work of a “canon” to shape the fan fiction writer’s work, but Eilowyn modeled her writer’s style on the aesthetics not only of the original author, but also on the other fan fiction writers she admired. By gathering through focused browsing, considering the information gathered, and then modeling personal content on the information experienced as inspiration teens were negotiating their aesthetic and defining what they knew to be theirs.
Concluding Thought on Negotiating Aesthetics

The information practice of negotiating aesthetics will overlap with the information practices of negotiating control and negotiating capacity. While a teen is shaping their personal aesthetic, in relation to their community, they are also constructing their understanding of how the aesthetics are represented in the content. This is negotiating control of knowledge. Furthermore, in applying their aesthetic they are negotiating capacity. This should be kept in mind throughout the following descriptions.

Negotiating Control

The information practice of negotiating control is how teens construct their understandings of the community’s knowledge. It is a process of developing ownership of the knowledge, whether it is abstract such as the discourse of the community, physical such as the process of creating content, or concrete such as explicit rules and content. Negotiating control occurs as information is experienced as collaboration and through the information actions of planning, direct searching, considering, modeling, and composing. This is represented in figure 8-5.

![Figure 8-5: Negotiating Control](image)

In the following sections I describe the process of negotiating control of knowledge and control of process. As teens negotiated aesthetics they began the information practice of negotiating control, and so there will appear to be overlap in the practices. However, negotiating control can be understood as the application of the outcome of negotiating aesthetics.

Ownership of Knowledge

As indicated above, engaging in the information practice of negotiating aesthetics helps teens define content as their own since it represents their personal aesthetics. The difference in
negotiating control in regard to ownership of knowledge is that rather than individual negotiation of personal value and knowledge within in the community, it is an overt negotiation between members of a community. The negotiation is to discover and agree on what the community knows. In this manner negotiating control is situated within the social structures of the community.

In negotiating control teens engage in the information action of planning and direct searching while experiencing information as collaboration. In doing so teens identify members of the community that can provide assistance, particularly specific assistance, in the form of community knowledge. While teens were engaged in the information practice of learning community, they also identified members that they leverage while negotiating control. While engaging in planning, teens use what they have learned of community to directly search for information by approaching community members with the necessary knowledge. They ask these members for recommendations or assistance. In doing so they demonstrate an awareness of a need for information and that community members are a source of information. This is a crucial step in negotiating control; by acquiring the information they can begin to construct how to apply information within the community.

Negotiating control also occurs in relation to abstract knowledge, such as an opinion. In the communicative space created by shared repertoires teens were able to experience information as collaboration while engaging in the information action of considering. Considering as an action in this regard was teens shaping information through their own lens, but it also allowed them to interact with others and explore a different lens. Eilowyn shared this experience:

But on the Card Captor Sakura fan board; there was one writer who was very talented. Obviously, they knew their way like inside, outside, upside and down. They read it in the original Japanese; they knew what all the implications meant, sort of writer. So I got in touch with them. OK. It was like, So, I see you don't share my view on this pairing, why? We just got this great conversation going and I learned so much about the series.

Sometimes the individual differences of constructions of knowledge remain, but within the community this presents a richer view of the concept. For instance, Loli described negotiating control of information thus:

I definitely do, you have to be really polite about it of course because the people want you to be referring back to them and they don't mind that you have the opposing opinion but you have to be like I have nothing against
this wonderful blogger but I differ in this view in that and then you add a link because that is the polite thing.

In her contribution and referring back, Loli didn’t change her opinion but she was considering the information she had experienced to shape her own opinion. This is negotiating control of community knowledge.

Negotiating control is also represented in the action of composing as it intersects with information experienced as collaboration. This is particularly true when the action of composing is a partnership and the content represents the knowledge of more than one person. Roni and her partners gave themselves independence in creating the plot of their web comic, but they also had conversations about the direction of the comic and the characters. This formed shared knowledge. Salamonde and Swift’s partnership represented information experienced as collaboration as their composing began with improvisation based on shared experiences. In composing they were constructing common understandings of that shared experience. A specific example is the construction of what they both found amusing in the shared experience of Reggae on the River.

In contrast Robert’s experience in composing explicit rules for LARP demonstrated the difficulty in negotiating control, as the community could not agree upon shared knowledge. He said:

Most everything was agreed upon like the very, very simple foundations things. But as it got higher to the more complex, I guess, the more some people felt strongly one way or the other.

Agreeing upon simple items allowed a foundation for shared information regarding rules, but the more complexity to the shape of the knowledge, the more difficult it was to have one community conceptualization of the knowledge. This indicates that negotiating control is an ongoing process and that it produces difficulties as the information experienced as collaboration increases in complexity.

The teens were composing performances in the community that represented the content of the community, and in doing so they were demonstrating how they constructed the tacit knowledge of the community, such as how to interact or the implicit rules. They were negotiating control through discursive actions that shaped their own knowledge. As information is experienced as collaboration while engaged in the action of composing teens were engaged in the information practice of negotiating control of knowledge.
Ownership of Process

Negotiating control in regard to ownership of knowledge represents abstract understandings of how a community constructs performances. Negotiating control in regard to ownership of process is sharing skills to create content. It represents a common understanding of how to leverage members of a community to compose content, while still applying personal skills. Communities that have a social structure that encourage sharing of the composing process allow teens to negotiate the action of composing in a way that represents their physical knowledge. As a case in point, Sam and Salamonde’s musical collaboration was a negotiating control of the action of composing in a manner that allowed them to represent personal embodied knowledge. In doing so they were experiencing information as collaboration as it intersected with composing. This was negotiating control of the process.

Another example of negotiating control of process exists in the application of the language of a community, particularly when it represents the community. Xeda’s interaction relied heavily on language that was common within her community. For example, “kbai”, to represent ok, bye or “thank youse.” They also used symbols, such as :3, which represented a cat face. In composing response using the language of the community Xeda demonstrated she knew the language, and could control the process of using it. Loli’s community also used symbols in comments to represent physical actions. For instance, {{{}}} represented hugs. Loli suggested she understood this language in how she replied to it. In applying language of the community teens were negotiating control of the language of the community, demonstrating their knowledge of its meaning and using it to represent themselves as members. Therefore the intersection of information as collaboration and composing by applying the language of the community represents an ownership of the process. It is the outcome of the information practice of negotiating control.

In some instances teens reassessed their planning of their content while negotiating control. For instance, film making the subject provides information as collaboration, as Goku discovered:

One person was like I can't have my face on there bro, I'll have my voice and I was like yeah that is perfect so I put the camera next to him and we talked and then all, everyone else heard him do that, and were like I want to do that to.
While he had engaged in the information action of planning, composing provided new information from his subjects that he had to integrate into his new composing actions. Robert experienced a similar negotiating control of the process when he had to adjust an outcome because his partners were “lazy” and “distracting.” The information was experienced as collaboration during the action of composing that resulted in negotiating control of the resulting composition.

Concluding Thought on Negotiating Control

Negotiating control is how teens construct their knowledge of the discourse of community as they represent it in their interactions and their content. As mentioned above it involves negotiating aesthetics. It also involves negotiating capacity. Negotiating capacity allows teens to represent their understandings. In the following section I describe the information practice of negotiating capacity.

Negotiating Capacity

The information practice of negotiating capacity is application of skills to create content. Negotiating capacity is an embodied information practice as it relates to physical skills. It is, however, how teens enable the representation of knowledge. It is enabled by information experienced as process, through the actions of copying, modeling, and composing. This is represented in figure 8-6.

Figure 8-6: Negotiating Capacity

In the following sections I describe the process of negotiating capacity as it relates to embodiment, information needs, and knowledge. Negotiating capacity was creating as a physical act, representing an idea within an object.
Capacity and Embodiment

In negotiating capacity information as process is experienced while engaged in the action of copying, modeling, and composing. It is perhaps the most clearly embodied practice in that the creating actions as they intersect with information as process is a physical action. It is the physical act of learning to create. Whether it is drawing a figure again and again, singing the same melody over and over, or manipulating software to edit a film in a particular way, teens engaged in physically creating and embodied the particular physical necessities to do so. Teens often referred to this as “seeing if I could do it” (Salamonde, Loli) or learning by doing (Jack, Robert, Roni). This is a repetitive information practice. Sam said, “We just go through it and, depending on whether or not, we'll do takes, maybe four or five times before we get it right.” While engaged in physically creating content teens are constructing their understanding of how to embody the skill, and in the actions of creating they are experiencing information as process so as to negotiate their capacity to create the content they wish to create.

Capacity and Information Needs

While negotiating capacity specific information needs were revealed. As teens engaged in creating practices and experienced information as process they discovered specific needs. They then engaged in the information action of direct search. For instance, teens needed to know the programming language of html or how to use the software involved in film editing leveraged technical affordances of the community for information. They used search tools such as Google images, which allowed them to identify exactly what they needed visually, or YouTube, which provided video instructions of how to manipulate the software they were using. The visual aspect of the technical sources such as Google images or YouTube were important to teens as they experienced information as process as this allowed them to mirror the skills they needed. They also relied heavily on Google as a search engine, particularly since it provided spell check in its query algorithm. This was important for Loli, a dyslexic, who struggled with spelling. She said “Google is so easy for spell check for everything. You don't have to get very close to the word for Google to figure it out.” Negotiating capacity as the intersection of direct search and information as process also resulted in changing the way an action was employed. For example, in learning to apply specificity in searching Robert transformed his action of direct searching.
As teens negotiated capacity, they found it necessary to engage in additional information gathering practices; however without experiencing information as process this need would not be visible to teens.

*Capacity and What is Known*

Negotiating capacity also represents the intersection of reflection and information as process. For instance, as teens engaged in the actions of creating they learned not only the specific information needed for creating but how they felt about creating. Furthermore, they learned how to transform the actions involved in creating. Consider this illustration, Goku discussed being unhappy with the quality of his stills for stop motion and needing to re-shoot the pictures. But he also learned through that process that it took “patience” and that ultimately he did not enjoy creating that format of content. This led to a transformation in his content, and the practice of composing. Without the act of reflecting intersecting with information as process, teens would not change or learn new actions, and would be unable to more fully participate within communities.

*Concluding Thought on Negotiating Capacity*

Without engaging in the information practice of negotiating capacity, teens would not be able to engage in the information practice of representing knowledge. Negotiating capacity exposes the information necessary to represent how teens have negotiated their aesthetic, and their control of knowledge. In the section below I describe how the outcome of these three information practices result in representing knowledge.

**Representing Knowledge**

The information practice of representing knowledge is the outcome of negotiating aesthetics, control, and capacity. It engages the information experience of information as artifact and the information actions of reflecting, modeling, and composing. An artifact is a concrete representation of knowledge that is created through modeling or composing, but it is the action of reflecting the produces information as artifact and allows a teen to construct the artifact as a representation of knowledge. This is represented in figure 8-7.
In the information practice of representing knowledge teens are representing their identity through content and contributing to the shared repertoire of the community. In this section I describe the information practice of representing knowledge as related to the experience of information as artifact and the employed information actions. I also reference how the previous information practices of negotiating aesthetics, control and capacity relate to the information practice of representing knowledge.

Reflecting, Creating Actions and Representing Knowledge

While engaged in the information practice of negotiating aesthetics at the intersection of modeling and information as inspiration an artifact is produced. This artifact allows teens to reflect on how they are representing their personal aesthetic in regard to community content. Teens represented that they had knowledge of the original reference in producing an artifact through modeling. For instance, Eilowyn’s acknowledgement that fan fiction still had the “spirit” of the original piece but was your own in the way you “take the characters put them into an entirely new, different world and then try to keep them true to themselves.” Representing knowledge meant teens had negotiated their personal aesthetic through the information actions of modeling and the experience of information as inspiration to create content. In the process they reflected on the information they experienced as artifact to “discover stuff you didn’t know you had in you” (Sam).

The result of having negotiated aesthetic and the further negotiation of what information they controlled, and the capacity they had, was represented in the information action of composing. This produced information as artifact that allowed teens to represent their knowledge. Eilowyn described an artifact that represented her knowledge as “having a certain unique thing about it that is almost impossible to copy.” Teens represented knowledge through
their experience of information as artifact and the action of reflecting by constructing their understanding of content as theirs, “my own beats”, and “my emotions.” Composing was the information action that produced a representation of the information practice of representing knowledge. However, it intersected with reflection as teens experienced information as artifact in how they defined the artifact as original.

Reflecting, Artifact and Identity

Teens also constructed their identity as representing knowledge based on experiencing information as artifact as it intersected with reflection. If the information as artifact reflected their identity, then it was theirs. For example, Loli’s “identity crisis” regarding the purpose of her blog, as she no longer was copying the exact type of posts of do deer but trying to make her own way, was an example of the intersection of modeling and information as artifact. She asked, “What should I do? I really don’t want to have a bunch of websites, so I don’t know, I don’t really see any of them going away because they serve different purposes to me.” As she experienced information as artifact she constructed their meanings or purposes differently and struggled to articulate her own aesthetic. However, what emerged was a sense of representing her knowledge, particularly in her Lolita fashion blog. She had “stumbled into a niche within that niche” where her content represented her identity as the “girl who will find things in thrift stores that can be Lolita.” Roni also reflected on information as artifact in terms of how could she represent her identity as artist as it was “developing it into what it is.” Sam reflected on her information as artifact to be less “gansterish gansta.” Reflecting on information as artifact allowed teens to intentionally represent their knowledge of their identity.

Concluding Thought on Representing Knowledge

In representing knowledge teens are demonstrating the outcomes of the information practices of negotiating. While information as artifact provides information about what their future needs are, it also provides information regarding how they have constructed the tacit knowledge of the community and positioned themselves and their content in the community. They shape their identity through representing themselves through their content. They contribute their knowledge to the community through content, which allows for the community to engage in constructing new knowledge as was seen in negotiating control. Representing knowledge is both
an outcome and a beginning to further the information practices of learning community, negotiating aesthetics, control, and capacities.

The Intersection of Practices

The categories of information practice should not be viewed as independent entities. Teens participated in one or more categories of practice simultaneously. They moved iteratively through practices while they engaged within communities. Furthermore, they sometimes engaged in practices simultaneously. The practices interacted and overlapped as teens engaged in participating in communities of practices that created and shared content.

Figure 8-8: Information Practices Graphic Version

Figure 8-8 represents the intersection of information practices. In the graphic the information practices related to negotiating overlap to represent that they might occur simultaneously with one another. For instance, negotiating aesthetic occurs as teens negotiate control of the information they encounter. Negotiating control of knowledge occurs as teens negotiate their capacity to create content. The negotiating information practices are embedded in representing knowledge. If the negotiating information practices do not occur teens cannot represent knowledge. These four information practices are embedded in learning community. As teens engage in representing knowledge they open up a communicative space in which they are participating in the discourse of the community by leveraging the social and technical structures. They have in representing knowledge produced a performance that allows the
information practice of learning community to continue and transform. The information practices build upon one another; they sometimes occur simultaneously and they rely upon each other to produce information necessary for creating and sharing content in digital communities. This represents a theory of information practices with digital content sharing communities.

**Conclusion**

Information practices interact with other practices in a community. The social practices and the creating practices rely upon information practices. Information drives the practices of content creation and social practices that shape a community (Figure 8-2). Therefore information practices are essential to the practices of a community as a whole. Through the information practices learning community, negotiating aesthetics, negotiating control, negotiating capacity, and representing knowledge the ability to participate in the social practices and content creating practices of a community is formed (Figure 8-3).
CHAPTER 9 DISCUSSION

To review, a substantive theory addresses a specific concern in specific areas of study. This grounded theory addresses the concern of content creating in the context of digital participatory communities. The grounded theory that was constructed proposes that information practices of teen content creators are the intersection of information experiences and information actions as they are situated within a digital participatory community. The digital participatory communities were described in chapter five. The categories of information experience and the properties of those categories were explained in chapter six. The categories of information actions and their properties were explained in chapter seven. In chapter eight I described the information practices of teen content creators and presented a model of information practices of teen content creators. The information practices are a representation of how the experiences of information and information actions contributed to information practices. These practices are situated within the community and subject to the socio-technical affordances of the community. Ultimately, the grounded theory of this research is represented in the model of information practices, and how the practices interact in creating content.

This chapter explores the relationship of my findings to the theoretical framework of practice theory. In addition it explores the connections of my findings to information practice research. This locates my findings within the context of a larger disciplinary understanding. Practice theory and information practices provided insight into the data, and so shaped the emergent substantive theory of the information practices of teen content creators.

Practise Theory & Teen’s Information Practices

Practice theory has common elements in defining practice: performance, the situated nature in regard to time, place, and community, tacit knowledge, embodiment, and the discursive negotiation of understandings (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). These concepts provided theoretical sensitivity to the concept of information practices. In the section below I explore the relationship to the information practices described in chapter eight to the common elements of practice.
Performances

First and foremost creating and sharing content was a performance. As Rouse (2006) observes performances are actions with meaning. This signifies that the information actions would not have meaning if they did not have context, which was provided both by how information was experienced and by the digital community they occurred in. Consider the information practice of learning community. Constructing meaning of what is valued within a community is the intersection of the experience of information as participation and the information action of evaluating. This was done through the performance of observing and evaluating, while experiencing information as participation. It was through the performance of being a member of the community that teens constructed meaning of the tacit knowledge of the community. This was the information practice of learning community. Moreover, the information practice of learning community provided the context to the additional information practices of negotiating aesthetic, negotiating control, and negotiating capacity which allowed for content creating action that were shaped by the information practice of representing knowledge.

Situated Context

Performances are situated within a community (Kemmis, 2011; Rouse, 2006; Schatzki, et al., 2001; Wenger, 1998). It follows then, that information practices are situated within the community. Information practices cannot be understood independent of the context. Particularly since the information is related to the ability to participate in these communities. This is most clearly articulated in learning community. However, the information practices of negotiating aesthetic, control, capacity and representing knowledge are situated within and contribute to the information practice of learning community. For instance, in negotiating aesthetic while teens are negotiating personal aesthetic they do so through the lens of the performances of the community. This indicates what the community values. In the information practice of negotiating control teens are constructing their understanding of community knowledge, including the community aesthetic. Thus the information practices are situated within the context of the particular digital participatory community.

Tacit Knowledge

Underlying the experiences of information and the information actions was tacit knowledge. Tacit knowledge is shared understandings that are so obvious they do not need to be
articulated (Rouse, 2006). In this research tacit knowledge represented the social structures of the community such as the roles of community members, the implicit rules, and the ways information could be used and represented within the community. Primarily tacit knowledge represented how to be in a community. In the information practice of learning community, the tacit knowledge of the roles, rules, and norms of the community was the meaning making teens were engaged in. In the information practice of negotiating control as teens’ demonstrated their awareness of language of community by using it to negotiate meaning of performances. Additionally, they demonstrated they could leverage the tacit knowledge of a community to improve their content. Finally teens demonstrated their ownership of the tacit knowledge of a community in representing knowledge by how they constructed their role in the community based on the performance of sharing content. It should be noted that like performances, tacit knowledge is situated. In this research it changed over time and was different in different communities.

**Embodiment**

Practices are embodied (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). Often the experiences of information were embodied, physically understood and experienced. This was particularly notable in negotiating capacity. When the experience of information as process intersected with the actions of copy, model, and compose teens were physically constructing a performance. They were shaping their physical ability to sing, rap, paint, draw, or hold a video camera. The engaged in the action of copying to improve, and it was the action that produced the experience of information as process. It follows, then, that negotiating capacity was an embodied information practice.

Furthermore Kemmis (2011) reminds us the emotions are an embodied experience in practice. Therefore in exploring the properties of information practices emotion was treated as embodied. For instance, the experience of information as inspiration produced an emotional response. In negotiating aesthetic the intersection if information as inspiration and the actions of musing and considering were engaged in because the information was experienced as an emotion, “being in love” with the information as inspiration. Consequently, the information practice of negotiating aesthetic was understood to be an embodied information practice.
**Discursive Negotiation**

The socially situated understandings of the practices of a community occurred in a communicative space, hence the practices were discursively negotiated (Kemmis, 2011; Rouse, 2006). The architecture and social structure of digital participatory communities encourage sharing performances as a communication (Jenkins, et al., 2006; O'Reilly, 2005a; Wenger, et al., 2009b). Specifically the information practice of negotiating control occurred within the communicative space and through verbal discourse. This information practice was shaped by visual text, which included typed words or emoticons. It also occurred through oral conversation, which included the gradations of vocal tone and body language. As teens constructed ownership of knowledge they interacted through communication with the community. They contributed to the distributed knowledge of the community.

Learning community also related to discursive negotiation. The language of a community needed to learned and understood in order to participate in community practices. As an information practice learning community introduced the communicative space, and the ways communication occurred. For instance, the role of slang was a way of identifying oneself as a member. This awareness of the language of a community was part of the information practice of learning community.

**Conclusion**

The information practices of teen content creators were situated. They used tacit knowledge as information and reciprocally the practices helped teens understand the tacit knowledge of the community. They were embodied, both in visible performance, and in emotional reactions. And they occurred in a communicative space that allowed for meaning to be shaped through discourse.

**Information Practices, as Related to Findings**

While practice was an appropriate theoretical framework, the disciplinary focus of information science suggested that information practice literature should be reviewed in light of the emerging grounded theory. This literature supports the grounded theory in that the findings of my study are consistent with findings of others within the discipline.
Experiences of Information and Information in the Discipline

Teens talked about information use in a different ways. They used information to understand how to participate, to get an idea or inspiration, as sharing ideas and knowledge, as the skills needed, and as a final concrete product they had created. The descriptions of the ways teens understood information developed into the experiences of information: participation, inspiration, collaboration, process, and artifact. In these categories teens experienced information in terms of what was informing to them. This suggested they viewed information as subjective.

Information as subjective, or that which is informing is seen in other’s research and theories as well (Bruce, 2008; Buckland, 1991; Hjorland, 2007; Lloyd, 2006; Lupton, 2008; Savolainen, 2008), although some researchers do not explicitly define information. Buckland’s approach to information is perhaps the most consistent with the emergent findings of this research. Buckland (1991) identifies three common uses of the word information: information-as-process or the act of changing what one knows, information-as-knowledge or what is communicated in the information-as-process, and information-as-thing, or objects that can be regarded as informative. While not using this framework explicitly the experiences of information can be seen in relation to these three areas.

Information-as-process is similar to information experienced as process. Information experienced as process is the use of information, and in using information teens demonstrated their skills and in doing so exposed what they were learning and/or needed to learn. Information-as-process was also similar to information experienced as collaboration. In this category teens were exploring what they knew, what others knew, and what could be considered agreed upon knowledge. In the process they might have been changing what they know. This was true in information experienced as participation as well. Participation exposed the tacit knowledge of the communities and helped teens understand the implicit rules, roles, and ways to interact in communities. In these experiences information could have been conceptualized as information-as-process.

Information-as-knowledge was similar to information experienced as artifact. Buckland (1991) points out that information-as-knowledge is intangible. He suggests that knowledge is “personal, subjective and conceptual” (p. 351). This research takes a slightly different approach in that is suggests knowledge is negotiated within communities of practice through discursive
interaction (Kemmis, 2011; Rouse, 2006). And so while it is subjective, it is more social than personal. However, information experienced as artifact is a representation of what one knows including intangible and personal knowledge. For instance, information experienced as artifact was a representation of a teen’s identity; they were communicating what they knew of themselves.

The process of creating content produced an object that was shared in the community. Information-as-thing represents objects (Buckland, 1991). The object created was a performance that opened up a communicative space where meaning can be constructed (Kemmis, 2011; Rouse, 2006; Schatzki, 2001a). This is the negotiation of information-as-knowledge that occurs while making meaning. Information experienced as inspiration also had a relationship to information-as-thing. Often when referencing where they got ideas teens referenced concrete objects, such as movies, books, or other art work. Teens constructed inspiration sources as information-as-thing. Buckland (1991) suggests information-as-thing is situational, and therefore its value is subjective. This is consistent with information experienced as inspiration, as it was also subjective. The value of something as inspiration was subjective, often determined by a positive emotional response to the object.

Information is a foundational concept in this research. It is necessary to examine its theoretical definitions and explicate my definition in relation not only to the findings but also disciplinary conceptualizations. Buckland’s explanations of how information is used in various definitions demonstrate that the categories experiences of information are not inconsistent with other definitions.

**Findings in the Community of Practice: Information Practice**

The extant literature that shared an epistemological position and common focus of investigation was located within the framework of information practice. Information practice has emerged in the last decade, although it seems researchers have used the terms “information behavior” and “information practice” without considering their use of the term in relation to previous definitions (Savolainen, 2007, p. 111). Information practice focuses on how individuals act as members of a community, and how the community influences their actions (McKenzie, 2003a, 2003b; Olsson, 2010; Savolainen, 2007, 2008; Veinot, 2007). While information practice studies are contextually specific they share elements in common. These elements include a framework that recognizes information practices as socially situated, a description of structured
actions, the recognition that information is embodied, and a consideration of the structures of the context. This constructed substantive theory of this research attempts to address these areas of how teens interact with information. As such it finds common ground with studies using information practice as term.

**Information Practice as Socially Situated**

Information practices are socially situated activities, located within a context (Caidi & MacDonald, 2008; McKenzie, 2003a; Olsson, 2010; Savolainen, 2007). In this research the information practice of learning community demonstrated the socially situated nature of creating content. The actions of observation and evaluation as they intersected with the experience of information as participation provide context to the information practice of learning community. Learning community shaped participant’s understandings of the tacit knowledge of the community. This impacted how they positioned themselves within the community in defining their role as a member. Furthermore, the information practice of learning community demonstrated the tacit knowledge of the community in regard to rules of content creation. The implicit rules concerning copyright, ethics of copying, and the use of other’s content differed in communities. As teens engaged within their community the information practice of learning community exposed these implicit rules. Learning community was also socially situated in relation to the norms of interaction within the community. This information practice allowed teens to construct their understandings of how the community interacted. Furthermore, the information practice of representing knowledge was situated within what was understood through the information practices of learning community. This suggests that representing knowledge is also socially situated.

**Information Practice as Structured Actions**

Information practices are built upon an “organized composite of actions” (Savolainen, 2008, p. 25). This picture of the actions is the starting point for understanding the practices of the community. They are the performances of individuals that are constrained and enabled by the structures of the community (Kemmis, 2011). Furthermore, they are how a community constructs knowledge and makes meaning. Descriptions of these structured actions include information seeking, constructing cognitive authority, and information sharing (McKenzie, 2003a, 2003b; Pilerot & Limberg, 2011; Savolainen, 2008).
Descriptions of information seeking practices are similar to the findings that describe the actions of gathering. For instance, information seeking practices included both intentional and unintentional actions, although presented differently (McKenzie, 2003b; Savolainen, 2008). Olsson (2010) specifically addressed this when he found that there was a “relative lack of importance attached to purposive information seeking” (p. 246). In this research the actions of gathering included both the intentional seeking of direct searching, and the unintentional gathering of serendipitous encounter, as well as focused browsing which represented a move from the unintentional thinking action of musing to the more intentional thinking action of considering while thinking about information gathered. This corroborates the findings that seeking is not always purposive.

Descriptions of actions also include information sharing. Sharing was an essential component to constructing knowledge within a community (Johannisson & Sundin, 2007; McKenzie, 2003a, 2003b; Olsson, 2010; Pilerot & Limberg, 2011; Savolainen, 2008). A common theme in information practice was a preference for social sources, which can be constructed as information sharing. Savolainen (2008) found this was true with his participants for “problem-specific information” (p. 132). McKenzie’s (2003b) participants connected and interacted with a wide variety of personal and professional sources, often referencing people as their sources. Olsson’s (2010) participants suggested the “greatest influence on their understanding…were ‘social’ interactions” (Olsson, 2010, p. 246). Others viewed sharing as essential to their professional practices, establishing a common professional identity (Johannisson & Sundin, 2007; Olsson, 2010; Pilerot & Limberg, 2011). These findings were similar to the intersection of information as collaboration and direct searching found in the information practice of negotiating control. Teens sought information from social sources they perceived as having the necessary information. They sought information verbally by asking, or textually through email. Moreover, the process under investigation in this research was the process of creating and sharing content. Content is a representation of information therefore information sharing is interwoven in the substantive model of information practices of teen content creators. It established a common community of interest, similar to a professional identity.
Negotiation of Knowledge

Practices take place in a communicative space in which meaning is negotiated (Kemmis, 2011). In information practices knowledge is constructed through sharing information and negotiation of meaning (McKenzie, 2003a; Olsson, 2010). Olsson’s (2010) participants suggested that their deepest understanding came from social interactions. Information sharing was a communicative activity. The negotiating practices also represented communicative activities. In negotiating aesthetic the question teens asked while planning on using information experienced as inspiration was how could I make this information my own? Furthermore, in the information practice of negotiating control they engaged in the action of planning and experienced information as collaboration as they constructed knowledge. They engaged the question what do we know? And how can we construct an artifact that represents us, rather than me?

In participating in creating and sharing content teens opened a communicative space (Kimmo Tuominen & Savolainen, 1996; Wenger, 1998). During the information practice of representing knowledge teens demonstrated how they constructed knowledge and then shared it as an artifact. They had negotiated their aesthetic through the lens of the community value and personal response. They had negotiated control of information so that it could be applied. And they had negotiated capacity, demonstrating they had the skills to create content that represented knowledge. They then shared resulting artifacts, which allowed for further involvement in the mutual engagement of a community. The negotiating information practices occur because communication is transparent represented by written comments and visual representations of emotions through the use of emoticons. In sharing an artifact teens contributed to the performances of the community through which knowledge is negotiated. Consequently information practices were discursively negotiated.

Furthermore, information practices that were about constructing credibility were also socially situated and meaning was negotiated within that space (Johannisson & Sundin, 2007; McKenzie, 2003a; Olsson, 2010). For instance, McKenzie (2003a) described the moral positioning of pregnant women, defining moral order as “the institutional aspects of social life that assign roles to people” (p. 270). Her participants justified their authority judgments partially in relation to and through discursive interaction with the moral order. This is similar to the intersection of evaluation and information as participation. Evaluating was a rating of
information often guided by how the community constructed value of information. In other words, the social value of information was determined by a community and played a role in participant’s evaluating authority. This is consistent with other information practice studies.

**Embodiment**

In the resulting theory of teen’s information practices information was embodied through both physical performance and emotional reactions. For instance, information as inspiration was informed by information that was “speaking to” the teen, an appreciation for the aesthetic. Whereas information as process was informed by embodied information such as the need for “steady hands.” Although not common in information practice research, information as being physically embodied has been observed and remarked upon (Olsson, 2010; Veinot, 2007). Olsson’s (2010) theater professionals relied on the ability to embody their knowledge. Veinot’s (2007) vault inspector also considers physical information, particularly in terms of safety. While she did not construct it in terms of embodiment McKenzie (2003a) noted that women used the symptoms of their pregnancy in constructing authority judgments. It should be noted that while embodiment is not addressed in all information practice research it is apparent in some of the studies.

Furthermore, although located in information literacy rather than information practice Lloyd (2006) specifically address the embodiment of information in describing how firefighters use physical information to learn how to fight fires. Lloyd (Lloyd, 2010) has since engaged in describing information literacy practices, arguing that information literacy is “not constituted by a single way of knowing but is a product of many ways of knowing” (Lloyd, 2010, p. 253). She argues that body is a source of information in her description of information literacy practices. Despite the frame of information literacy practices Lloyd’s argument indicates that embodiment, or the ability to physically perform as well as the emotional response to information, is an area we need to consider in our attempts to theorize information practices.

Practices are also formed and understood by the material, or technical, structures of the context (Johannisson & Sundin, 2007; Pilerot & Limberg, 2011; Veinot, 2007). The tools of the community provided technical structure to the context, such as website developed to support information sharing (Pilerot & Limberg, 2011) or the perceived value on the publications of the profession (Johannisson & Sundin, 2007). In this research the technical affordances of the community both enabled and constrained the practices of creating content. Transparency and
access enabled teens in engaging information, but the lack of tools and/or skills impeded their ability to produce artifacts that matched their vision. In recognizing the situated nature of practice, it is important to describe the affordances of the material structure that shape those practices. While the specifics of context limit the ability to specifically suggest that this research supports existing findings, it indicates a commonality in the way practice are shaped by the structures of the context.

**Conclusion**

There is no unified theory of information practice (Savolainen, 2007). However, much like practice theory as a grand theory, there are commonalities. In reviewing the research information is viewed as subjective; information practices are socially situated, impacted by material structures, embodied, and formed in communicative spaces. The constructed grounded theory of teens’ information practices addressed each of these areas. The information practices construct information as subjective, they are socially situated, shaped by the sociotechnical affordances of the community, physically experienced and negotiated through language. While not every practice represents each of the commonalities, the theory as a whole does. In the following section I review each information practice as it relates to these commonalities.

**Summation**

In this section I review the specific information practices as related to the commonalities of information practice research. As each information action does not necessarily represent all commonalities a review is helpful to providing a picture of how the model interacts with others’ research.

To begin, the information practice of learning community occurs when observation and evaluation occur while experience information as participation. It follows then that the information practice is socially situated. The resulting construction of knowledge is dependent on the context of the community. Furthermore the ability to engage in the information action of observing while experiencing information as participation is enabled by the technical structure of a community as transparent. Members’ performances are visible. This includes how members negotiate meaning making. This negotiation occurs as communication, although this is not necessarily language – based. It occurs through icons representing emotional response, textual
communication, and content modeled and in response to others. This suggests that while it is hardly explicit, learning community also has elements of embodiment. Therefore learning community represents all elements of the commonalities of information practice.

Negotiating aesthetic is related to individual identity and knowledge. It contains the elements of being socially situated, embodied, and mediated by technical affordances. For instance, personal aesthetic is understood within the context of the community values. Even when personal aesthetic is in opposition to what others have demonstrated they value in the community it is framed as relating to this value. Additionally, negotiating aesthetic is embodied as an emotional response to information experienced as inspiration. And finally the sociotechnical affordances mediate negotiating aesthetic as they identify what a community values through popularity ratings or search algorithms. Furthermore, the tools used to perform the information action of focused browsing that is engaged in to experience information as inspiration direct teens’ to specific content. Therefore, negotiating aesthetic is mediated by the technical structures (linking, search algorithms, tagging) of the software used for focused browsing. In sum, negotiating aesthetic is situated, embodied, and enabled and constrained by technical structures.

Negotiating control is the construction of understanding in relation to community knowledge. It is socially situated, materially mediated, and discursively negotiated. Negotiating control means an individual has to come to terms with how they understand a performance and how others in the community understand a performance. It is at its core, meaning making. As a result it is situated within the community. Meaning making in negotiating control occurs within a communicative space. The community shares their interpretation, creating a conversation focused on the meaning of a performance, and consequently shapes the knowledge of the community. Moreover it is enabled by technical structures, such as the ability to click an emoticon to represent emotional response, or the ability to comment on content, or the ability to link to other’s content. Hence negotiating control represents the theoretical elements of being socially situated, formed through discourse, and mediated by the tools of a community.

Negotiating capacity is the ability to apply skills to create content. Negotiating capacity is an embodied information practice that is materially mediated. The skills necessary to engage in creating content require physical action. For instance, singing and/or drawing are physical acts. But there is also the ability to use a computer, and to hold a video camera. Accordingly
capacity relates to the physical capacity to create content, and consequently is embodied. (Note: it also relates to cognitive capacity to negotiate what is known and identify information needed.) It is also mediated by the structures of the tools used to create content. For instance, the ability to visualize a process through accessing a video is a tool that assists in negotiating capacity. In short, negotiating capacity is embodied, and materially mediated.

Representing knowledge is a concrete demonstration of the outcome of negotiating aesthetic, control, and capacity. As a result it accounts for all of the commonalities of information practice as a theoretical framing. Representing knowledge is embodied, because it requires a physical performance. It contributes to a conversation, and the meaning of the performance is shaped through discourse. Admittedly the individual’s intention in representing knowledge may be constructed differently by the community as they make meaning of the represented knowledge. And finally representing knowledge is socially situated. It produces an artifact that is response to the distributed knowledge of the community, and it contributes to the coherence of the community.

In sum, the information practices are connected to information practices research and practice theory. The descriptive model shares commonalities with the theoretical framework of practice, particularly in how it is applied in information practice research.
CHAPTER 10 CONCLUSION

This chapter revisits the research question, explains how the methodological approach shaped the research design and question, revisits the model of information practices, explicates the significance of the research, describes the limitations of the study, and makes suggestions for future research.

The Role of Methodology in Shaping the Research

The research interest, how do teens engage information while participating in creating and sharing content, rose from my everyday life observation. Charmaz (2006) states “we are part of the world we study” (p. 10) and frequently research questions emerge from this world (Corbin & Strauss, 2008; Urquhart, 2001). However, the research questions were not fully formed as the data collection began. Urquhart (2001) points out that in a grounded theory study research questions that act as a specific focus are formed later in the process. This was consistent in my research. As data were collected and analyzed the research focus emerged.

Shaping the Research Problem and the Role of the Literature Review

The initial research problem was general, how are teens learning how to create and share content. It was shaped by my observations as a practitioner and by my limited theoretical understandings of information behavior and information literacy. I had a narrow view of information literacy as a set of skills that enable students to access, evaluate and use information. And I did not perceive a difference between the skills of information literacy and information behaviors. This was not an uncommon difficulty as researchers had found “phrases such as library skills, library use, or bibliographic instruction are sometime used synonymously with information literacy, even though they might actually be components of the larger term” (Snavely & Cooper, 1997). So admittedly I came to the research interested in identifying the skills, which I conceptualized as behaviors, of teen content creators as they accessed, evaluated, and used information.
This was complicated by the role of the literature review in grounded theory research. Understanding the role of the literature review in grounded theory is not simple (Dunne, 2010). Glaser and Strauss (1967) had suggested originally that a strategy to allowing for theoretical discovery was “to ignore the literature of theory and fact.” (p. 37). This suggestion has been taken literally, and many interpreted it to mean that a review of the literature should be postponed (Dunne, 2010; Urquhart, 2001). There are emerging arguments that address this position, including both pragmatic and theoretical arguments (Dunne, 2010). For instance, some have suggested that the primary concern of the preliminary literature review is that it does not lead to the forcing of data into pre-existing categories (Charmaz, 2006; Dey, 1999; Dunne, 2010; Urquhart, 2001). Ignoring the extant literature initially ensures that the researcher take an inductive approach to the problem. However, reviewing the literature may also provide the research with important background knowledge, sensitizing them to existing understandings (McCann & Clark, 2003; Urquhart, 2001). In this research the preliminary literature review expanded my theoretical understanding. It explored the field of online communities and digital youth. It also explored the research area of youth information behaviors.

The preliminary literature review that is represented in chapter three was used to provide sensitizing concepts. Sensitizing concepts provide initial avenues of pursuit and suggest particular kinds of questions; they are general concepts that are starting points (Charmaz, 2006). The emerging sensitizing concepts included the problematic construction of digital natives (boyd, 2008a; Palfrey & Gasser, 2008). It also used the definition of a participatory culture as a starting point for understanding the boundaries of the digital communities (Jenkins, et al., 2006). Finally it explored youth information behaviors. However, as Glaser and Strauss (1967) state “it is presumptuous to assume one begins to know the relevant categories and hypotheses until the “first days in the field” are over (p. 34). It was not until interviews were conducted, observations undergone, and initial analysis started that the possibility of applying the formal theory of practice emerged.

An additional review of the literature occurred at this point. This literature is represented in chapter four. It provided theoretical sensitivity. Theoretical sensitivity attuned me to nuances in the data and indicated areas of the nascent theory that needed further investigation (Charmaz, 2006). The literature reviewed in chapter four suggested that I continue to collect data to explicate more completely the categories of teens’ information practices. This is referred to
within the methodology as “saturation” (Charmaz, 2006; Dey, 1999; Glaser & Strauss, 1967). The timing of the literature review was indicated by the application of the methodology but the concepts within the literature review shaped the data collection by suggesting sensitizing concepts, and providing theoretical sensitivity.

The literature review can also suggest a gap in the literature (Dunne, 2010). This means the researcher will not necessarily be replicating research but producing original knowledge. In the preliminary literature review of youth information behavior it emerged that youth were often researched as seekers within school settings (Bilal, 2004; Fidel, et al., 1999; Gross, 2007; Hirsh, 1999, 2004; Kuhlthau, 1995; Large, 2004; Large, et al., 1998; Lorenzen, 2001; Madden, et al., 2006; Nahl & Harada, 2004; Shenton & Dixon, 2003; Weiler, 2005). Research that investigated youth in everyday life settings focused on information needs that were related to problem-solving social issues and concerns (Edwards & Poston-Anderson, 1996; Lu, 2010; Mehra & Braquet, 2007; Pierce, 2007; Todd, 1999). There was little existing research that explored information use (E. Meyers, 2009; Todd, 1999). Furthermore, there was little research that focused on youth’s seeking and use of information for recreational needs (E. Meyers, 2009). This research sought to fill that gap.

As a grounded theory study the methodological approach shaped the study design. The general research problem arose from my role as a practitioner. However, the problem was not specifically focused until data collection and analysis began. The research questions were grounded in the data and emerging categories of data analysis. And while a preliminary literature review was done, it was primarily designed to identify a starting point and a gap in the field. Additional literature review conducted after the construction of the nascent theory provided theoretical sensitivity. Grounded theory allowed the participants to have a voice in the study, while providing strategies for data collection and analysis (Charmaz, 2006). It allowed the data to guide the development of the theory. And while the theory of teens’ information practices while engaging in creating content is located within the theoretical framework of practice, the framework was adopted as the analysis of data suggested it might be an appropriate framework.
Information Practices of Teen Content Creators

The constructed grounded theory of this investigation is a model of five information practices that are the intersection of the experiences of information and the information actions. The five information practices are: learning community, negotiating aesthetics, negotiating control, negotiating capacity, and representing knowledge. These information practices interact as can be seen in the graphic model below (figure 10-1).

[Image: Information Practices Model]

Learning community is represented as the larger circle because it is a necessary information practice to engage in before the other practices can be enacted successfully. The practices of negotiating aesthetic, control, and capacity contribute to the practice of representing knowledge. Representing knowledge in return contributes to learning community. The practices are overlapping and embedded within one another. The information practices contribute to teens ability to participate in both the social practices and the creating practices of digital participatory communities.

Significance of the Research

Knowledge does not exist in a vacuum. Research should produce original knowledge while still acknowledging and interacting with existing knowledge. In this section I outline the significance of my findings in the areas of information practices and youth information behaviors.
Information Practices

Information practice research is an emerging lens on how people interact with information (Savolainen, 2007). There is no simple model, or easy explanation, of information practices despite the studies that employ the terminology (Caidi & MacDonald, 2008; Johannisson & Sundin, 2007; Lundh & Limberg, 2008; McKenzie, 2003b; E. Meyers, 2009; Olsson, 2010; Pilerot & Limberg, 2011; Savolainen, 2008; Veinot, 2007). This research contributes to the emerging lens. The constructed theory of teens’ information practices used practice theory as a framework to represent the elements of information encounters while creating content. The theory was then considered in relation to information practice research. It is both the reflexive use of practice as a theoretical framework and its exploration of its relationship to the literature of information practice that has significance to the field.

There are common components to information practice research: the sociocultural epistemological position, the description of actions that are structured and have meaning within the context, the recognition of information as subjective, the understanding that practices are embodied, and the structures of the community shape actions. While other frameworks recognize these components in their research, information practice may shift the focus from individual to community (T. Wilson & Savolainen, 2009). This research addresses each of these elements and attempts to clarify how the community shapes the individuals’ practice. Each intersection of information action and information experience is shaped by social and technical structure. In doing so it brings together the common elements of information practice research. While it may be difficult to determine the degree of generalizability in different contexts (Bryman, 2008), the thematic commonalities contribute to the discussion of what information practice is.

Youth and Information Research

The majority of youth and information research has been done within the framework of information behavior or information literacy. In chapter three I examined the research in which youth information behavior is investigated. (Information Literacy will be examined below in Limitations and Future Directions sections). The literature review revealed a gap in the research. While youth information behaviors had investigated how they access, and to a smaller extent used, information in academic and problem solving contexts it had neglected information use for
recreational or expressive purposes. Information behavior research tends to construct youth as students (Bilal, 2004; Cool, 2004; Fidel, et al., 1999; Gross, 2006; Hirsh, 1999, 2004; Kuhlthau, 1995; Large, 2004; Large, et al., 1998; Large, et al., 2008; Lorenzen, 2001; Nahl & Harada, 2004; Shenton & Dixon, 2003; Weiler, 2005). And while everyday information seeking behavior research is emerging the focus is on solving problems related to developmental and social concerns (Edwards & Poston-Anderson, 1996; Lu, 2010; Mehra & Braquet, 2007; E. M. Meyers, Fisher, & Marcoux, 2009; Pierce, 2007; Todd, 1999; Todd & Edwards, 2004). There was little research that focused on youth’s recreational information seeking and/or information use, although it seems to be an emerging field (E. Meyers, 2009). This research responds to calls for research that investigates youth’s engagement in accessing and using information for recreational purposes (Bernier, 2007; Dresang, 1999). It also responds to Bernier’s urging that we recognize youth as producers of information (Bernier, 2007). In investigating how teens engage information while creating content it seeks to begin to contribute to the gap in the research on how youth access and use information for creative and expressive purposes as producers.

This research also introduces information practices as a framework for understanding how youth interact with information as it is situated within a context. Very little information practice research is done while investigating youth communities. Youth research tends to construct youth as solo actors, as if there is little impact from the community they are acting within (Bernier, 2007). Findings from this research, as well as from others, suggest this is not the case (Agosto & Hughes-Hassell, 2006; Fisher, et al., 2007; Gross, 2006; Todd, 2003). Meyer’s work with preteens and virtual gaming communities uses “information practice” in describing an attempt to enact a rumor within the game (E. M. Meyers, et al., 2009). And other researchers who use an information behavior framework may acknowledge the role of context in shaping how youth cope with information (Agosto & Hughes-Hassell, 2006; Gross, 2006; E. M. Meyers, et al., 2009). Despite these examples, what may be missing in youth research is an emphasis on the community, and how information is understood and negotiated within the community. A reflexive approach to the framework of practice and how that shapes information practices may assist the conversation in understanding how youth engage information, particularly in everyday life contexts.
Limitations of Research

When embarking on a grounded theory study the limitations of the research may not be immediately obvious. The research findings have limitations in regard to generalizability and in its interaction with the field of Library and Information Science. In this section I outline the specific limitations of this study.

Generalizing the Findings

Qualitative research faces a critique that because of the small number of participants typically included in studies and the contextual nature may make it difficult to generalize findings (Bryman, 2008). However, the purpose of a qualitative study is to provide a rich description and generalize to a theory (Charmaz, 2006). In grounded theory population size and demographics are not a concern, rather it is the richness of the gathered data that is of import (Charmaz, 2006; Glaser & Strauss, 1967). Despite the recognition of the goal of grounded theory research one of the limitations of this research is the small and localized population that participated in interviews. Participants were teens, and lived in a small geographic area. This impacted their understandings of communities of practice, as they brought to their digital communities their experiences as teens living in Humboldt County. Furthermore, the demographics of the teens were primarily white and middle class. This may also impact their existing understandings brought to communities of practices. Had the interview data collection extended beyond the local community into a global community the findings could be considered more generalizable. The act of observation was incorporated into data collection, and in part, alleviates this concern. And there was a range of socioeconomic diversity that indicates that teens’ experiences within this study were generalizable.

One emergent limitation that should be addressed is the shape of the communities of practice. While this investigation focused on teens as they participated in communities of practice, the community of practice did not present as solely teen members. There was a wide range of ages involved in the communities, a fact this research does not address. The question that emerges is: can we generalize teens’ information practice to adults in the community of practice? Community of practice theory would suggest that we can make that generalization, but as it was not a specific concern of this study it remains unaddressed.
Learning as an Assumptive Position

Furthermore, the research was based on the assumption that in participating in communities, and enacting information practices, teens were learning. It did not, however, examine this assumption within the framework of the investigation. Nor did it seriously engage with the literature to theoretically analyze the assumption. Learning is a complex phenomenon that deserves investigation, particularly within informal contexts. The lack of examination of the process of learning presents a limitation to understanding the findings as learning, but presents opportunities for further theoretical investigation.

Addressing Information Literacy

The assumption made in this study is that in applying information practices teens are learning how to participate and create content. In the Library and Information Science discipline learning and information literacy are closely related. An information literate person has been defined as someone “who has learned how to learn” (American Library Association, 1989). This research has not addressed the role of information literacy, choosing instead to focus on a theory and description of the information practices in the research. The lack of review of the extant literature may be a limitation of the study, as the literature may have provided some sensitizing concepts relating to how information practices are learned or how people access, evaluate and use information. However, this limitation suggests a direction for future theory development and research.

Future Directions

The limitations of the research suggest potential directions for future research. The future direction of this research is two fold: 1) Further exploration of information practices particularly in creative areas and 2) Theorizing and investigating the relationship between information literacy and practices. In the section below I suggest potential directions for continued research in the area of information practices and in articulating the relationship between practice, learning, and information literacy.

Information Practice

As has been stated there is no unified theory of information practice (Savolainen, 2007). Although information practice does present as an emergent framework for understanding how
people engage with information (Savolainen, 2007). Further work needs to be done to understand communities of practice in online communities. This work took a general approach to diverse content creating communities, but a more specific focus on one community would suggest richer understanding of information practices involved in content creating. It would allow for exploration of how smaller communities develop, how information is used in terms of specific content such as fan fiction or visual art. This focused description would contribute to further understanding of information practices. As research defines and describes information practices in a variety of contexts it contributes to our understanding of information practices. This may allow commonalities to emerge and clarify the differences between information practice and information behavior.

Literacy and Practice

There is an additional concept that addresses information access, evaluation, and use: information literacy. Up until now information literacy has been ignored in this research. However, the underlying assumption of the research is that in engaging in information practices to create content teens are learning. Information literacy has a close connection to learning. In this section I briefly explore concepts that are relevant to the underlying assumption. I suggest that additional theorizing on the topic of the relationship between information literacy and information practices should occur and that is a direction for continued work.

Practice and Learning

Learning is embedded in participation (Lave & Wenger, 1991; Wenger, 1998). Learning concerns the “whole person acting in the world” (p. 49), therefore it can be conceptualized as situated in a community of practice. Learning is the negotiation of practices and meaning as new members become participants in a community (Wenger, 1998, p. 7). Information practices can describe the actions of negotiations while understanding how the context shapes these actions. This suggests that information practices are related to learning. Engaging in information practices to participate can be conceptualized as learning. Consequently, this is a framework that needs additional investigation and theory building as it relates to this context.

Information Literacy and Learning
Information literacy has also been conceptualized as learning. Researchers have approached information literacy as a framework in different ways. In a review of international research Bruce (2000) identifies different ‘ways of seeing information literacy’ which include:

- An amalgam of skills, attitudes, and knowledge
- The ability to learn
- A complex of ways of experiencing information use
- A complex of ways of interacting with information.

There is a potential relationship between information practices that describes skills, attitudes, and knowledge as situated and the first “way of seeing information literacy.” Furthermore, information practices suggests a picture of a how people interact with information. But what is of potential interest is the relationship between information literacy and learning, and the role of information practice.

There is an emerging construction of information literacy that focuses on information literacy as using information to learn. An information literate person has been described as someone who has “learned how to learn”; however information literacy definitions rely on descriptions of skills (American Library Association, 1989; Doyle, March/April 1995; Towards information literacy indicators, 2008). Bruce (2008) presents a differing definition of information literacy as “being able to draw upon different ways of experiencing the use of information to learn” (p. 6). While the concept of information literacy as learning is embedded in definitions, this emphasizes the relationship between the two. Emerging research has been conceptualizing information literacy and learning (Bruce, 2008; Lloyd, 2006; Lupton, 2008).

I would like to suggest that information practices are closely related to the conceptualization of information literacy as learning. This conceptualizes information literacy as more than a set of skills and broadens our understanding of information literacy beyond academic contexts. However, it is apparent that this relationship is in need of further theoretical exploration.

Application

It is important to investigate the application of theory and to mark a link between theory and its application. The model of information practices should not exist in a theoretical vacuum; rather it should be investigated as it is applied. In doing so the model has the potential to impact that manner in which we engage teens when making connections between their informal and
personal creating in digital participatory communities and more formal, structured content creating. Therefore a future direction for this research is consider it in terms of application, and its relevance to content creating as an enacted practice.

**Conclusion**

This research presented a picture of information practices used in creating and sharing content in digital communities. It contributes to the mosaic of our understanding about how people engage with information. While the focus is on young people, their information experiences and actions are as diverse and varied as others. Furthermore, as we come to understand their information practices perhaps we can begin to construct how they use information in informal contexts in ways that can be leveraged in formal contexts.
CHAPTER 11 APPENDIX A: INTERVIEW GUIDES

Interview Guide #1

Provide a digital tour of your online world. Describe your online activities in a normal day. Describe your digital identity. Who are you online? Compare your online identity to your offline identity.

Describe the content you have created. [Tell me the story of creating]

a. How did you get interested in [content]? Why did you choose this [content]?

b. Describe the first time you created [content]

c. What skills did you need to have?
   
i. How did you learn those skills?
   
ii. Who helped you learn those skills?
   
iii. Describe a time when you got stuck – what did you do to help yourself move forward.
   
iv. Was there a time when you got conflicting information on how to move forward– what did you do?

d. What was the hardest/easiest part of [content creation]

e. Why did you want to [create content]?

f. Why did you continue to [create content]?

Is your [content] part of a community?

g. Describe your role in the community.

h. What role does the community play in [creating content]? E.g. motivation, mentoring, feedback
   
i. Positive versus negative role of the community?

i. Was there ever a time when you broke the community rules? Describe what happened? How did you feel?
i. How did you learn the community rules?

Compare how you “learn” or “create” online v. in the classroom.

Interview Guide: Theoretical Sampling:

Describe your online activities.
Describe your content.
How do you create content?
How did you learn to create content?
Where do you get your ideas for the content?
Where do you learn how the skills? The tools?
How do you learn to improve?
Describe the process of moving from a germ of an idea to a fleshed out plan.
Do you copy others content to learn? What about modeling?
When do you feel like content is original?
CHAPTER 12 APPENDIX B: THEORETICAL MEMOS

Note: These memos demonstrate the evolution of the theory and do not represent the final presented theory.

Example #1:
Pilot Study Findings

In the Encountering Information category three codes emerge which identifies the manner in which participants encountered information: directed searching, focused browsing, and serendipitous encounter. In directed searching an individual has a specific information need. An example of a specific need could be “how do I use code to personalize my profile?” Directed searching can be individualistic and occur through an individual querying a search engine, or social in which the individual queries a friend or family member that they feel can be helpful. For example in order to answer the previous question a participant may query a search engine such as Google, or ask a friend for help. Focused browsing is an individual activity in which tools are used to ‘browse’ a subject area. For example, investigating an online art gallery in a genre, or watching a ‘flow’ of art on DeviantArt based on recent uploads. In focused browsing the information need is more diffuse, less specific. Finally information can be encountered serendipitously. Encountering information in this manner is primarily a social activity as often it is shared information via social interaction, but can occur individually as
well. This is information that is encountered by chance, and has two emerging properties. One property is information that is ‘out there’, in which the individual cannot identify the source. For example, Hannahsuzanna suggested that it was “just something that you hear about, . . . people getting denied internships and jobs because of inappropriate things” in reference to maintaining her online identity. Another property of serendipitous information is ‘speaking to’, the notion that the individual responds emotionally to the information and therefore internalizes it to consider. This notion also relates to focused browsing in which what is remembered is information that meets the diffuse need of the browser.

Information to Learn

The use of information has been separated into two categories to reflect the difference in thinking about or considering information, and the act of creating. While it is difficult to separate notions of encountering information for learning, two codes are emerging that indicate that learning is related to information that ‘speaks to’ the individual. One emerging code is ‘musing’, the idea that when one encounters a new idea they consider it, think about, and occasionally discuss the concept with others. Another code is reflecting/evaluating. The subtle difference is that in this instance a mental comparison, or a planned activity begins to emerge from the encountered information. In both instances participants spoke to encountered information as inspiration for their creating, but not without first reflecting upon what they are encountering. Examples of encountered information in this code are art, lectures, texts, or
movies. In X’s interview the code ‘responding’ as learning also was present, in this instance there was changed behavior or increased practice in response to feedback from the community. *Note – a recent interview has indicated a social component that should be investigated in responding, and a important component not graphically represented is time.*

The creation of content in reaction to encountered information suggested three emerging codes: copying, modeling, and inspiring. The first code is copying, or imitating, in which information is faithfully re-presented in order to master a technique that is admired. Modeling/Changing is the next code, in which the information is transformed to match the participant’s aesthetic, but is still recognizable from its original form. And finally, inspiring, in which the new content has been inspired by encountered information but is creatively rendered in a way that the original content is no longer recognizable.

Example #2

This is the fourth interview, it was done a while ago. At the time of transcription I made some comments regarding emerging ideas, but I just sat down to code it today. These are some initial thoughts: This was an interesting interview in that for this teen content creation (video) began at school, for a school assignment; and he has managed to continue production primarily through school. While it is apparent in earlier interviews that the contexts are not walled off, he is much
less independent in his learning and in his creating. It will be interesting to follow up to see if he is an outlier, or if this appears in other situations.

An emerging theme, however, was in regards to collaborative knowledge, and creation through shared information. While much of his online activity is socially motivated, and occurs collaboratively there is a struggle for control. He spoke of disagreeing, getting angry, different opinions leading to ‘hoarse voices’, changing rules, lack of focus, not knowing enough, being lazy(collaborators), and elements of time. There was a belief in collaboration, and it is possible that the arguing, power struggles, and lack of focus are all part of the knowledge creation process for this person, and the communities he is interacting in.

The questions that emerge are in a distributed knowledge context, or a collaborative information community, who takes control of the information? Is there a truth, or is it negotiated? And if it is negotiated how? and does anyone accept ownership? or do they adopt there own version? how does knowledge get produced in these communities? is it individualistic? or collaborative?

Consistent with previous interviews is an awareness of online identity and representation. A desire to brand oneself. This is more emerging in this interview than earlier interviews. Another common theme is the use of the community as a portfolio, a digital representation of one’s knowledge. While in earlier interviews the community was a learning environment as well, it was less so in this interview.

There were continuing themes of gathering information both through directed search, and browsing. Information is primarily through visual sources. There is also a preferred element of social learning – interaction with mentor or fellow content creators. Motivation is “fun”, also primarily social. The process of creating involves modeling, experimenting, experiencing. There are referential elements that could be considered ‘responding’.

So old codes: modeling, responding, sustainability, focused browsing, direct searching, ‘out there’ information, sharing, imitating, modeling.

New codes: control,

Ideas to explore: establishing authority (mentors), controlling, collaborating,

Must write about: contexts

Example # 3: From iPhone:
Engaging practices incorporate both the cognitive I and the cognitive we, the individual and the social interactions that occur around engaging information. Recognizing that the cognitive I is impacted by the cultural environment of their lifeworld.

This is connected to information use but does not produce an artifact of the performance. Practices include how info is experienced while engaging in specific actions located within a community. The social and technical structures of the community affect the actions and experiences of information. The gathering, thinking, and creating practices include a wide range of actions: list, during which info is experienced as: list. The elements of the community, experiences, and action are intertwined to produce a holistic experience of content creation.
CHAPTER 13 REFERENCES


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