

Heather Koopmans. Use of the Web by Visual Artists: An Exploration of How Online Information Seeking Informs Creative Practice. A Master's Paper for the M.S. in L.S degree. April, 2009. 51 pages. Advisor: Diane Kelly.

Visual artists' information-seeking behavior takes place in a broad context, involving interaction with a range of visual, textual, environmental, process-related and interpersonal sources. The World Wide Web (or Web) is one such resource that artists turn to within this vast information setting, but to-date, no known studies have examined how artists interact with information online. The present study addresses this gap by exploring non-academic visual artists' use of the Web as it relates to their creative activity. Diaries and interviews were used in order to understand participants' artistic practices and related information needs, as well as their sources, search strategies, and motivations for Web use.

The artists' overall information needs matched those identified in previous studies. This study discovered that they use the Web primarily as a tool to promote their art, identify opportunities to further their careers, and socially network. Their use of the Web is connected to various offline information-seeking behaviors, showing that it serves to complement, rather than supplant, many of the sources they consult.

Headings:

Artists

Information Needs/ Evaluation

Online Searching

Internet Searching

Art/ Information Services

USE OF THE WEB BY VISUAL ARTISTS:
AN EXPLORATION OF HOW ONLINE INFORMATION SEEKING INFORMS
CREATIVE PRACTICE

by
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Introduction

The creative process is a highly individualistic act, and no two visual artists will approach creating a work of art in the same way. Unsurprisingly, search behaviors and preferred information sources that inform artmaking also vary from person to person. Despite the variety in individual activities, literature shows that on the whole, artists do search for information with several consistent motives, have a preference for browsing, and seek resources that are not limited to the domain of art information.

Yet, gaps remain in the understanding of how visual artists seek and use information to inform their artmaking practices. Few empirical studies (within the field of library and information science, LIS) on this topic have been performed. Furthermore, the majority of existing reports use arts faculty and students as their participants, but not artists practicing outside of academia (Hemmig, 2008; Visick, Hendrickson, and Bowman, 2006). This is an important detail because it is likely that the majority of artists in the United States are not affiliated with academia, and it cannot be assumed that academics use information in the same way as those who are not faculty. Similarly, students in academic studio programs have different motivations for making art than do professional practicing artists, and results from studies on the former population do not necessarily describe the behaviors of the latter (Visick et al., 2006).

There is also a scarcity of research on artists' information seeking outside of the library (Cowan, 2004). Only recently have LIS researchers begun to investigate the total 'information-world' of the visual artist, which may include books, periodicals and other

bibliographic materials but also sources as diverse as personal memories, the natural environment, or the qualities of the medium the artist is using (Cobbledick, 1996; Cowan, 2004). Information could be hypothetically gathered in the studio, walking down the street, at the art store, at a gallery or museum, and in an infinite range of other settings that lie far beyond the walls of the library. A focus on artists' use of library materials and services, provides insight into only one of many possible places in which the artist informs his or her practice.

Even less is known about visual artists' use the World Wide Web (or Web) as part of their overall quest for information. As of this writing, no known studies examine artists' use of this resource in great detail. In the existing research, use of the Web is touched on only briefly, and a portion of those findings are out-of-date in regards to Internet use, due to the recent and rapid expansion of online technology and access. William Hemmig (2008) summarized this problem in his review of artistic information seeking literature:

There has been very little discussion of multimedia and Web-based resources in even the most recent literature. We can guess that use of these resources by artists has increased dramatically in the past decade, but there is no documentation of which resources are used or how they are used, or if they have supplanted more traditional resources (p. 359).

The purpose of the present study is to explore this gap by examining non-academic visual artists' use of the Web as it relates to their overall creative and artistic practice. I wish to only identify some of the ways in which visual artists are using the Web and how these behaviors compare, contrast, and otherwise link to their larger needs as information users and creative practitioners. I propose the following questions:

1. What are the information needs of artists?

2. What motivates artists to turn to the Web to meet these needs?
3. How do artists use the Web to meet these needs?

Literature Review

The body of LIS research on visual artists is sparse, and has a relatively brief history. The first study to examine artists' information needs was written in 1975 by an art librarian observing students at his institution; similar articles were published in the following years (Hemmig, 2008). Although it is limited by reliance on anecdotal evidence and its focus on student artists, this pool of early literature remains important because it established that artists have distinct inspirational, visual, and technical information needs, artists search across many disciplines unrelated to art, and artists compulsively browse library stacks in search of new and useful information (Hemmig, 2008). These patterns appear again and again in the subsequent literature.

Articles focusing on professional artists did not begin to appear until the late 1980s. Simultaneously, researchers began to acknowledge that visual artists' research falls within a broader social and scholarly context. For example, the library is first recognized not just as a repository for information but as a desirable community space for artists as well (Dane, 1987 in Hemmig, 2008). The practice of artmaking was also first placed within the domain of humanist studies, in which subjective evaluation and research-as-creative-process are valued (Budd, 1989 in Hemmig, 2008; Powell, 1995). Researchers also began to distinguish between visual art and art historical research behaviors, primarily finding that historians seek images and information based on specific needs, whereas artists "ask for more general types [of queries]... through which they can browse in pursuit of visual information about a particular subject of interest,

information about a technique, or simple inspiration” (Hemmig, 2008 p. 348). These studies confirm the early findings about the importance of browsing to artists and their need for convenient access to a range of interdisciplinary resources (Hemmig, 2008).

Like earlier studies, much of the data supporting these findings is framed by the authors’ experiences, and/or comes from intermediaries such as librarians, rather than the artists themselves (Cowan, 2004; Hemmig, 2008). A study of studio art students by Polly Frank (1999), who conducted focus groups on 12 college campuses with 181 participants, provides an exception. The author gathered data directly from studio art students on which sources they consulted, but is especially notable for its coverage of their motivations for library use (such as peer recommendation, assignments, and personal creative needs) and search strategies (using and browsing OPACs, Internet use, and combined methods) (Frank, 1999). For example, Frank identified shelf browsing as an essential creative activity for the participants, who selected items based on aesthetic preferences, such as design or color of the book’s exterior, and relevance to issues or topics of interest (p. 450-451). The vivid portrait of the students’ behaviors, interspersed with their own words, broadens the picture beyond the perspective of the librarian, which dominates much of the total literature.

According to Hemmig (2008), Susie Cobbledick (1996) was the first to publish an empirical exploration of professional artists’ information-seeking behaviors. The author interviewed four studio art faculty in order to create a survey instrument fine-tuned to the behaviors of artists, for use in future research (Cobbledick, 1996). Discussing the potentially infinite array of information sources that an artist might consult during the creative process, Cobbledick (1996) stated, “A researcher investigating the information-

seeking behavior of artists cannot simply trot out a standardized user questionnaire, with its standardized array of bibliographic and interpersonal sources” (p. 345).

Based on the interview data, Cobble Dick (1996) categorized the participants’ information needs as technical, inspirational, visual, career, and artistic trends and developments (p. 348). The author asked the artists about their use of sources such as libraries, books, and technology, but also identified their reliance upon “personal life experiences”, “forms occurring in nature”, “live models”, and “artist colleagues” to fulfill information needs (Cobble Dick, 1996 p. 366 – 368). By acknowledging both conventional and unconventional forms of information in her resulting survey instrument, Cobble Dick (1996) was the first to recognize the depth and breadth of artistic research activity (Hemmig, 2008 p. 351). However, the majority of Cobble Dick’s findings remain within the realm of library-centered seeking in that they corroborate much of what was already found in regards to book use and browsing.

The scope of the artists’ information world was expanded even more by Sandra Cowan (2004), who undertook an in-depth, exploratory case study with one non-academically affiliated artist. Openly critical of the library-centric view espoused by preceding literature, Cowan (2004) appears determined to show the complex and multi-dimensional qualities of research in the creative art making process. Cowan (2004) aimed to keep the interview “open ended and conversational”, artist-focused, and unbiased towards her own view of information as an LIS researcher (p.17). Based on the artist’s responses, Cowan (2004) identified five areas that inform the creative process: natural environment (landscape/ the outdoors), the work itself (materials, interaction with the art in-progress), relationships (in the social sense, as well as interactions with the world as

manifested in the art), self-inquiry (inward communication, sketching/ journaling) and attentiveness (openness and receptiveness to all around her) (p.17 – 18).

Cowan's (2004) research signified a conceptual leap in that *none* of these five areas relate to information use in the library, as had been highlighted (whether implicitly or explicitly) in the preceding literature. However, the author kept the paper relevant to LIS studies by linking it to contemporary theories of information seeking as espoused by Case (2002, in Cowan, 2004), in which there is not always a clearly identifiable 'problem' that is waiting to be 'solved'. In conclusion, Cowan (2004) called for future placement of info-seeking in the artistic process within a model that considers all aspects of the creative process, because that "is closer to how the artist herself engages with it" (p. 19).

Use of the Web by Artists

So far, we have seen that the LIS understanding of what is considered "information" by artists has gradually evolved over time from library-centric interpretations based on librarian-mediated data, to a more holistic view informed by direct interactions with practicing artists about their real needs and actions. Discussions with artists in the literature show that almost anything in the world can be considered a source of information, and as such their searching is not limited to just books and periodicals at the library. One area within artists' infinite information setting that requires further exploration is the World Wide Web (Web).

The majority of artist-centered LIS studies took place prior to the rapid spread of home Internet access that most people enjoy today. In 1995 only about a fifth of the population had at-home Internet access; by 2002 that figure had risen to nearly sixty

percent (UCLA Center for Communications Policy, 2003, in Rieh, 2004, p. 743). The number of artists using the Web has risen along with the rest of the populace, and the Web is now a valued source alongside other tools in the artist's information 'toolkit'. Two recent studies on visual artists' information seeking behavior support this assumption.

Tori R. Gregory (2007) surveyed the information needs of studio art faculty in the Southwestern U.S. Although this study is firmly situated within the context of academia, it tested the extent to which the participants used the Internet, among other resources. Gregory (2007) related use of the Internet in her study to the search for visual information: "In the past, many... images came from slides (faculty) and monographs (students). Today, however, things have shifted, and online images are commonplace with artists" (p.62-63).

More than eighty percent of the study's participants reported using the Web to search for images, with the majority of that group (sixty-seven percent) using Google Images as their preferred site for retrieval (Gregory, 2007). Ten percent or fewer reported using ARTstor and other image databases. The researcher wondered why this should be, given that images found in scholarly sources are of a higher quality, with more options for viewing and printing, but did not seek an explanation for this conundrum (Gregory 2007, p.63). In addition, Gregory (2007) did not ask participants about their use of non-visual sources of information on the Web; their queries and use of the Web in connection with other resources were also not addressed here.

Another recent, unpublished study takes the assumption of visual artists' increased usage of the Internet by as one of its central hypotheses. Richard Visick, Jody

Hendrickson and Carolyn Bowman (2006) surveyed non-student artists (including faculty and those without an academic affiliation) about resources they used and valued in the creative process. Echoing Gregory's (2007) findings, the authors discovered that almost seventy percent of all respondents consulted "online resources", and they placed the Web as second-highest in the complete range of information sources discussed. Likewise, approximately seventy percent of the artists surveyed considered online resources to be "essential" or "useful" in their research, and half identified the Web as their preferred source for finding images (Visick et al., 2006). Finally, the majority of artists who accessed online resources did so from home; in contrast a mere one percent used the library for this purpose (Visick et al., 2006). Visick et al.'s (2006) results provide a launch point for my own research, by showing that artists are using the Web outside the library environment to search for both textual and visual information.

Contextual Information Seeking and the Web

As the literature shows, artists consult a variety of sources when seeking information on the creation of their visual art. Just as the library, books, and reference desk comprise only one piece of the overall picture, so too does the Web fit within the whole. Studies examining the total range of information (rather than just one source) used by visual artists have been the most fruitful in understanding the root motivations for their search actions. Taking this into consideration, I have found literature on information-seeking in context and everyday life information seeking (ELIS) to be useful in framing the present study.

A 2003 paper by Jarkko Kari and Reijo Savolainen explores the idea of contextual information seeking on the Web and proposes a philosophical framework in which the

Web and Internet can fit within the larger frame of the seeker's life and needs. They take their definition of context as "some kind of background for something the researcher wishes to understand and explain... in practice, context... refers to any factors or variables that are seen to affect individuals' information-seeking behavior" (Talja et al, 1999 in Kari & Savolainen, 2003). Because seeking does not take place in a vacuum, the authors posit that studies treating the Web as "a phenomenon in itself" miss a large piece of the contextual picture, and thus, a broader view is needed in order to truly understand search behaviors (Kari & Savolainen, 2003 p.155).

To illustrate the context in which Web seeking takes place, Kari and Savolainen's (2003) broad, multi-layered model encompasses all that is perceived as real by the user/seeker, including virtual, social, and physical environments. The model indicates that information-seeking on the Web is not a linear start-to-end process that is divorced from other aspects of reality, and shows how an investigator "would be looking at whole journeys through the Web and how these embody an information-seeking strategy" (Kari & Savolainen, 2003, p.166). This seems to corroborate with discussions of artistic information-seeking in the literature, as artists use an expansive range of sources to inform their inspirational and professional needs, among others, and often go back to certain sources again and again.

In a more recent article, Jarkko Kari and Jenna Hartel (2007) further examine context by drawing distinctions between what is considered "pleasurable and profound" versus what is considered a chore or mundane task in information seeking behavior. The authors argue that enjoyment and pleasure permeates life at many levels and thus, influences information-seeking in a variety of ways, which cannot be parsed into neat

categories of work versus everyday life. For example, the act of seeking can be viewed not as a way to merely fill a knowledge gap, but to “strengthen and develop knowledge” instead (Kari & Hartel, 2007 p.1140). This idea of “information-as-process” rather than “information-as-thing” (Kari & Hartel, 2007, p. 1142) is relevant, as seeking and synthesizing information is integrated into the creative process, rather than being merely a task that must be accomplished.

Such contextual views correspond with literature showing that visual artists’ information-seeking does not exist in a vacuum. Artists extract information both purposefully and serendipitously, and may value a conventional source (such as a book or Web site) just as much as an unconventional one (memories, social networks, nature) (Cobbledick, 1996; Cowan, 2004). Artists interviewed in the literature espouse an open-ended view of what constitutes “information” or a “resource” and do not respond favorably to being asked to parse the complexities of the creative process into linear segments (Cobbledick, 1996; Cowan, 2004; Gregory, 2007; Visick, et al., 2006). As such, it would be incorrect to assume that other areas of the artists’ life do not intersect or affect their use of the Web. I agree with Cowan’s (2004) assessment that researchers must approach artist-participants with an understanding of their world. It is important for me to gain an understanding of the artists’ overall needs and actions – the context for the search – as they relate to use of the Web.

Method

To study use of the Web by visual artists, I examined the behaviors of four non-student, non-academically affiliated artists (characteristics are defined below). The subjects were asked to keep diaries of their Web use activities for a data collection period

of up to three weeks. Data gathered in the diaries was then examined and discussed in individual follow-up interviews with each artist.

The diary collection method represented an attempt to capture data in as naturalistic and unobtrusive environment as possible. Diary-keeping was self-directed by the participants and took place during his/her normal research and creative activities. The participants were asked to record up to ten instances (referred to as “activities”) of creative Web use over a three-week period. Because the literature has established that creative behavior is idiosyncratic and dependent on wide-ranging factors such as environment and personal motivation, the diary data-collection method, used in the home or studio, reflected the subjects' actions more accurately than direct observation in an artificial setting, such as a computer lab. The multi-week, multi-activity span also captured richer data on each artist's Web use than a one-time questionnaire or meeting would have. Follow-up interviews conducted after the diary was completed enabled me to understand the larger context of the artists' research activities that were not necessarily evident in the diary data itself, as well as the thoughts and motivations of each artist as they described some of the individual activities recorded in the diaries.

A sample group of four artists were selected in the order they responded during the recruiting phase. The data generated by a group of this size was manageable enough to handle given my own constraints as a researcher (minimal funding and time), yet provided enough variety in order to compare and contrast behaviors between subjects and identify overlapping patterns. Several relevant studies examined in the literature review above have used samples of a similar size, yet managed to yield rich insights into the

creative process, so I used these as a general model for my own choice of sample (Cobbledick, 1996; Cowan, 2004).

First and perhaps most obviously, this study examined the behaviors of *visual artists*. This population is widely considered to practice “classical” fine arts techniques such as painting, drawing, sculpture, and printmaking; non-commercial media art such as photography, film, and Internet artists also fit within this population. This broad definition helped keep the research focused on the artists’ search behaviors, rather than on sorting their choice of media into minute categories.

And who can be considered not just a visual artist, but an artist at all? Almost all of the studies mentioned so far offer some conceptualization of this term. For the purposes of my study, I used Visick et al.’s (2006) research as a model towards defining this group. They identified artists as those individuals who “consider creating visual fine art to be their vocation, even if it is not their primary financial resource. An artist is considered a working artist if she consistently devotes a significant amount of time to the creation of art” (Visick et al., 2006, p. 9). This definition allowed space for subjects to self-identify as artists while operating within the above parameters of artistic discipline (Visick et al., 2006).

Visick et al. (2006) also discuss motivation as a factor in how their population was defined. They state, “Work created by visual fine artists is self motivated. Intellectual problems that visual fine artists address in their work arise from their own interests and areas of investigation” (Visick et al., 2006, p. 10). This is why students were excluded from the sample in the present study; they are likely to be motivated by deadlines imposed by school assignments and so their behaviors do not reflect that of the practicing

visual artist (Visick et al., 2006). Similarly, practitioners of functional craft disciplines (i.e., jewelry, furniture, pottery) and commercial illustration and design were excluded from the present study, because such work is often created to fulfill a specific purpose or external need apart from personal creative expression (Visick et. al., 2006).

Finally, artists who are also faculty at academic institutions were excluded. The study of faculty-artists has been well-covered in the literature as noted but there have been almost no studies focused exclusively on artists practicing outside of academia. My wish to draw attention to non-academic artists and fill the research gap on their behaviors justified this choice.

To select participants, the non-probability method of purposive/ judgmental sampling was employed. This technique is commonly used when a group of individuals within a larger population can be generally located, but each and every member cannot be accounted for (Babbie, 2007). While it was possible to locate some of the visual artists in the local region, the highly individualistic and often solitary act of creating art means that it was not possible to locate all artists.

This study (number 09-0100) and the accompanying recruiting materials and instruments were approved on February 4, 2009 by the Behavioral Institutional Review Board at the University of North Carolina at Chapel Hill. The call for participants was advertised soon afterwards at visual arts organizations within North Carolina's Research Triangle area (comprised of Chapel Hill, Durham, Raleigh and many smaller communities), a location chosen due to its proximity to the researcher's home institution. Because there are relatively few visual arts organizations in this area, an initial sample of such agencies was not drawn. Galleries, art supply stores, artist guilds, and mixed-use

organizations supporting the needs of visual fine artists were identified and contacted by the researcher, who advertised the study in-person, by telephone, via e-mail, and through dissemination of print flyers and handouts. E-mail announcements in particular were requested to be re-distributed to member listservs and online artist forums, and this request was honored in several cases. Additionally, artists and staff were encouraged to pass the word on to others who may be interested, so informal word-of-mouth advertising provided a supplementary mode of communication. Compensation was not offered as an incentive to participate.

Recruitment materials directed artists to indicate their interest in the study by email. All respondents were required to complete a basic email questionnaire to ensure they met the disciplinary definition of 'visual artists' outlined above. Frequent use of the Web for creative purposes (defined as logging on two to three times per week or greater) was another constraint. Artists who used the Web less often would not likely populate the diary within the three-week data collection period. Artists were also asked to verify that they were over age 18, but other than that age was not a variable in this study. Artists were not allowed to proceed without first completing this step, and those who did not match the sample characteristics were excluded from the study (only one person who completed the questionnaire did not meet all of the requirements, and was thus excluded). Although it had been planned that up to fifteen artists might participate, recruitment was closed after four individuals were confirmed, due to time limitations. Recruitment lasted for approximately one month and was closed after the fourth and final participant was confirmed in early March. The small population was also more manageable for the researcher, who was conducting all aspects of the study without assistance.

Data collection began once the artists' characteristics were verified and once they had an opportunity to discuss the study with the researcher and provide verbal consent. The structured diary (Appendix A) was distributed once consent had been obtained. The purpose of the diary was to record individual activities online as they unfolded: motivations causing the artists to turn to the Web as part of their larger information needs, search practices, sources consulted, and thoughts and ideas on the process. The diaries were portable (paper-based or electronic) enabling the participants to use it wherever their computers were located. Each participant was responsible for accurately recording his/ her own activities, as the researcher was not present for this portion of the data collection. It was communicated to participants (via conversation in advance of the data collection period, and in an introduction on the diary itself) that they need record only actions related to their creative and art-making pursuits. Additionally, participants were instructed not to log personal emails or IM conversations. In instances that this information was provided, the data was not analyzed in the study. Once 10 instances of Web use activities were logged, or 21 days had passed (whichever happened first), the diary was returned to the researcher.

Rieh (2004) used the diary data collection method in her study of how people seek information on the Web at home, and her instrument served as a general model for the diary in the present study (Appendix A). The term "activity" on the Activity Entry Page referred to the purpose for a particular Web task or search. Recording when the activity took place created a timeline and estimated length of time spent provided a clue as to the significance of the activity to the artist. "Starting point" determined if an activity was search-based and provided insight into the extent to which artists actively search, and

how much they simply browse or use preferred sites. “Strategies” provided an area for the artist to explain their search or information use process for an activity, and helped capture motivations and actions taken. Rather than quantifying Web use activities as ‘success’ or ‘fail’ I chose to include the question “How did the activity end” as an alternative.

Participants were asked to contact the researcher when the diaries were complete (after 10 entries had been logged or three weeks had passed, whichever happened first) and to return the diaries using the SASE or email. Follow-up interviews were scheduled with the participants once the diaries had been returned. These meetings were intended to understand the larger context each artist was operating within (in regards to their career, current works in progress, and patterns of creative behavior in general) in order to place the artist’s use of the Web within that context. It has already been established in the literature that artists consult a range of sources pertinent to their creative activities and I anticipated that the current sample would exhibit similar tendencies. Uses of sources outside of the Web were not necessarily referred to in the diary, and so the interview was necessary in order to glimpse the whole of the artist’s ‘information-world’. Interviews lasted one hour per participant and were audio-recorded with permission; one took place in-person, at the artist’s studio, and three were conducted over the phone.

The interview script (Appendix B) was based on the three research questions and served as a guide for conversational discussions. Questions were modeled on Rieh’s (2004) and Cobbleck’s (1996) research instruments and were adjusted slightly for each participant to refer to information in the diaries. To assess the general information needs the artists were asked to describe an artwork that was in-progress or recently created in

order to begin to gather details about his/her creative process and intellectual concerns. This section included questions about needs that have been pre-identified in the literature, such as images, technical guides, and professional information, as well as methods of obtaining such sources. The conversation then led into discussion of Web use and began to refer to data collected through the diaries. The purpose of this section was to understand what motivated the artist(s) to turn to the Web to search for information, and similarly, why they chose not to. Finally, the third section refers to specific actions the participant took while using the Web. Questions attempted to identify behaviors such as searching and browsing, sites visited, and interactions online (e.g., social behavior). Data collection ceased once all of the interviews had taken place.

Data Analysis

Both the diaries and transcripts were iteratively examined and coded for emerging patterns. Data from the diaries and interviews were combined for the final report, below. As researcher I aimed to keep an open mind about the results rather than pre-determining all categories or labels in which the data may fall. Therefore, categories or levels of information were identified based on the preceding literature and also as coding took place.

Four artists participated in this study. As stated in the methodology, none of the artists are affiliated with academia as either teaching faculty or students, although several did discuss pursuing art alongside other day-to-day jobs. All participants self-identified as visual fine artists and create their art on a regular basis; and all use the Web to support this activity at least several times a week. The four participants pursue public exhibition of their art as well, whether online or through shows in brick-and-mortar spaces. The

researcher wished to keep the focus on the artists' creative activities and supportive research, which were likely to vary widely regardless of other variables.

What are the information needs of artists?

The first research question pertains to the artists' overall creative activity, information sources and practices for placing the art into public view. Current art projects, use of materials, technical information, referential sources, inspirational motives, and professional activity are all discussed here. Use of the Web fits within this larger environment, and these connections are discussed in greater detail later in this study.

Artist A is recently retired, and though she has been creatively active at different points throughout her life, she has taken this opportunity to renew her commitment to artmaking. Her frequent use of an artists' social networking website, Art For All (AFA or atcsforall.com), is a major driver of her creative activity. This site's main purpose is to facilitate the creation and sharing of artists' trading cards, which are original art works about the size of baseball cards and can be created using any two-dimensional media. Artist A had been using this website for about one year as of her interview. Within that time she has created dozens of fine art trading cards, for both her own use and for the intention of trading with artists she has met online. She counts the exchange of creative ideas and artworks with the website's artists as a major influence: "It's very inspirational... with so many minds thinking of ideas, I never dry up".

In addition to the trading cards, Artist A creates larger-size works that are often informed by a technique or composition she has explored in trading card format. Several examples closely resembled the original trading card in materials, color, and composition.

In contrast, another work was inspired by a circular motif used in a trading card, but differed in most other regards. For all of her works, Artist A draws with ink pen and colored pencil, and employs collage using Japanese and fine art papers to painterly effect. Occasionally she employs the addition of paint and mixed media alongside these materials.

Artist A has explored a range of subjects in both her large and small pieces. Many of her cards were started in response to a “swap” on AFA, in which a group of artists create and exchange cards exploring a shared theme. The theme can be topical or technique-oriented, and Artist A has been very active in a group that is creating semi-abstract, geometric works in a black-and-white or limited color palette; she has been exploring this group’s techniques in great depth, in both her trading cards and larger works. Varying degrees of abstraction are present throughout her work, and she described the act of choosing which elements to highlight and which to ‘hide’ as an important part of her process. In general, Artist A enjoys variety and the challenge of working with new techniques and themes stimulates her creative activity.

The primary form of creative exchange for Artist A comes through her participation in the artist trading card site. In doing so, she has put her works in the hands of many others and has accumulated a collection of trading cards by her peers. Her exchange network includes artists from as far away as New Zealand. She characterizes some of the artists on the site as “serious” and fine-art oriented, while others tend toward craft and scrapbooking techniques. She has started to become more selective in her sharing in order to connect with peers in the former group, with whom she identifies artistically. A profile on the website, which includes a short biography and images of her

trading card work, serves as her primary Web presence. Offline, she is active within a local art guild and has exhibited work in some of their group shows. However, she also expressed that she'd "rather have fun" creating art than put too much focus on selling and showing it.

Artist B is a full-time, mid-career artist. She is a painter and is strongly influenced by color; her works make use of bright and complementary tones that she associates with time spent in the Southwest and Latin America, but also the subject matter at hand. Her motto is "paint what you know" and she returns to motifs of birds, cats, and still lifes, all in her signature colors. Artist B believes creative activity is something that must be actively maintained: "I have to seek out inspiration, because it doesn't come from a vacuum, it just doesn't come from sitting on the couch".

Artist B has recently been exploring portraiture and as of the interview, and was working on a painting of a woman for inclusion in an upcoming exhibition. This work was initially sparked by a Renoir portrait found in a book. However, this image is not used as a visual reference during the act of painting, so the new work will be radically different than the original source of inspiration. Similarly, Artist B described seeking books about birds at the library in order to gain an initial understanding of the anatomy and appearance of a particular species, but will then make the animal in the painting completely her own. When using models such as this, Artist B never re-creates the image exactly as-is because she enjoys the improvisation that takes place as a painting is created. She frequently paints subjects from memory as well. In addition to using books for inspiration and visual reference sources, she reads art magazines "just to see what's next".

Artist B has maintained perhaps the longest artistic Web presence of all four artists discussed here. Her first web site was launched ten years ago; it was re-designed within the past several years by a professional web developer, and Artist B continues to maintain the site using basic HTML. More recently, she has also begun to upload images of her art to Flickr.com, and has also used commercial commerce sites such as Etsy.com. She is also a member of numerous fine arts associations and leagues, regionally and locally, through which she is able to identify exhibitions and other opportunities to show her work. Although she doesn't keep close artist friends, she enjoys socializing with her peers at events and is an active participant in the art community. She considers this to be an inspirational activity in and of itself.

Artist C pursues his creative activity alongside an unrelated day job and explained that he came to artmaking as an outlet for his creative impulses. He is proficient with imaging software such as Adobe Illustrator, which he uses to create some of his artworks, and also makes drawings and collages by hand with pen and cut paper. He values precision in his choice of materials, eschewing paint and occasionally using a computer-guided paper cutter to get the shapes he needs. He considers the work on paper to be his primary form of art. Often these pieces are relatively small but he would like to begin exploring creating them in a larger format. In comparison he identifies the digital works as “definitely exploratory”.

Artist C takes a methodological approach to his artmaking. He explained he is “not a mathematical person” but enjoys applying logical constraints during the creative process, and is fascinated with games and puzzles. In a recent project he created an abstract symbol for each letter of the alphabet, and is now generating compositions by

creating 'words' from these symbols. For example, he will choose several three-letter words and then arrange the accompanying symbols in such a way as to create a 3x3 design. He finds inspiration in the length of the word and also its independent meaning, and will draw on both to create the composition, select colors, and adjust other elements. He is a frequent doodler, at work and at home, and these sketches sometimes inform his finished pieces.

He spends a substantial amount of his online time browsing favorite art and image sites with the aid of aggregating tools (such as RSS readers) as an inspirational activity. Artist C tends to be inspired by what people are doing with their art in a creative or promotional sense, rather than using the images as references. He has also discovered new art techniques this way, for example, he described in the diary how online browsing led him to find a useful Illustrator tutorial.

Artist C keeps up with the activities of an artists' association in his town, and has exhibited his works in their physical gallery space. He also exhibits his work online via Flickr.com and Imagekind.com., a 'D.I.Y.' retailing site.

Artist D has been a full-time artist for most of her life, and has built a vast network of artist friends, patrons and venues as a result of her sustained professional activity. She is deeply inspired by the North Carolina landscape, especially the coastal region, where she keeps a studio space and primarily exhibits her work. She creates large size acrylic paintings of the coastal scenes she is familiar with, but also reproduces such work as high-quality prints. She strongly regards these prints as fine art and creates them in order to make her work accessible to wider range of patrons.

As a landscape painter, Artist D gathers inspiration from many nuances of the environment around her. She considers herself to be especially sensitive to light and color, for example, and explained that the colors and light of the coast are very different from those inland. She is also very influenced by the seasons and at the time of our interview, she said that the dogwoods in bloom are “so inspiring... gorgeous... you can't help but want to capture it somehow”. She used to do most of her painting outdoors (plein aire) but lately has become more comfortable working from her own photographs as a primary source. She explains that the photos she takes also have artistic elements, rather than being straightforward representations of what she sees. In this sense, the final work may represent a synthesis of numerous creative filters.

Artist D is also much influenced by the work of Impressionist painters, and visiting their paintings in person early in her career made a very strong, life-long impact. At this point, she does not actively seek inspiration from the works of others as much as she used to, but said that she will still examine peer artists' works by attending shows and visiting museums when she has a chance.

As alluded to earlier in this section, Artist D is widely exhibited and her art is represented in numerous online and physical venues. She keeps a homepage highlighting examples of her work; she does not consider herself to be savvy in the creation of Web pages, and the site was designed by her daughter. She is very active in artist associations in her town and beyond. Although she explained she does not pursue exhibiting as aggressively as she has in the past, she still seeks new venues in which to exhibit her work, especially on the coast, and will attempt to learn more about these spaces through a combination of observation and direct contact, virtually and in-person.

What are the motivations for using the Web?

This portion of the data gathering was intended to describe what the artists valued in their use of the Web and how it fits into their practice. This includes how Web use fits into their normal art and creative routines, as well as kinds of information sought online. The artists were also asked about when they would not turn to the Web in order to meet their information needs.

Artist A described her use of the Web as a daily activity, and she logs on several times a day to check up on art-related communication and activity. Her desktop computer is located in her kitchen. This is also her studio space where she creates art and keeps much of her supplies and personal art files.

As mentioned in the previous section, Artist A is an active member of the artists' networking / trading card website, AFA. The site hosts a broad network of forums, groups and member image galleries, and also provides private messaging functions. Browsing recent activity and checking up on private and public messages is an important component of Artist A's daily routine. Although artists were asked not to monitor personal email for the study, Artist A sees email an important daily communication tool because it allows her to subscribe to mass-mail listservs detailing upcoming events and opportunities to exhibit her art. In her interview and diary, she also discussed using the Web to search for specific images, which she will then reference during the artmaking process.

When asked about instances in which the Web is not considered a useful source, Artist A mused that she would not use an image found online as a reference if she were to create a photorealistic artwork. In reference to realistic works by others, she said, "you

can tell whether or not they've had a real life subject”, because working from photos is not conducive to capturing the ‘roundness’ of a real-life subject. However, since Artist A prefers to work ‘flat’, she did not seem to regard this as a barrier to her personal Web use.

Artist B also described her use of the Web as an activity she partakes in multiple times a day. Her computer, a desktop model, is located in close proximity of the painting area within her in-home studio. Although she finds the Web to be a useful creative research tool, she also admitted it can be a distraction to her artmaking: “When I'm painting I have to turn the computer off... it's like a magnet”.

Monitoring Web traffic on her homepage, Flickr page and other online presences appeared several times in Artist B’s diary. She uses statistical information from these sites to fine-tune her marketing and business practices, explained in greater detail under research question (3). In the interview, she described this as one of her most frequent practices, something she will do more than once a day. She also used the Web to search for specific information on art association websites, such as details about a show she would like to enter. She also noted that related entry forms and paperwork are now often completed online, a contrast to years past in which it had to be done on paper. Artist B values the convenience of this process.

Artist B could not think of any instances in which she would deliberately stay away from the Web. “I love the Internet, it's my buddy”, she said in response to this question.

Artist C: Daily use of the Web for creative purposes was also central to Artist C’s routine. He has a computer at his home, but will occasionally browse for creative information at work. Since he doodles and creates his art in numerous places (at home, at

his desk or on his computer itself), Internet access always seems to be close at hand when he needs it.

In his diary, Artist C mentioned spending one to two hours “daily, at various times of the day” browsing images collected in his RSS reader. He will occasionally follow links out from the RSS space to Flickr.com and individual blogs and websites. He bookmarks or downloads and saves these images for later reference. He also frequents the Flickr website to monitor activity on his profile, communicate with other artists and supplement the aforementioned image-finding activity. He also uses the Web to search for and examine technical information on creating art, for example, Adobe Illustrator tutorials.

During his use of the diary, Artist C signed up for a profile on Imagekind.com, a DIY e-commerce site. The digital works he has presented on Imagekind can be sold as prints to those who request them. He came to find this site after seeing artists provide links to Imagekind from their Flickr profiles. Because Imagekind is an e-commerce site, the purpose of his presence here is to sell art, whereas Flickr serves as an exhibition / social sharing space without necessarily making sales. Artist C also examined Etsy as a possible digital storefront, but found that the work there seemed more “reproductive” in nature and not as good a fit for his style of work.

Artist C described the Web as his “primary source” of creative information and was unable to think of any instances in which he would not try to consult it.

Artist D seemed to be the least frequent user of the Web, compared to the other three participants. She keeps a computer in her home; it remains unclear whether she uses one in her coastal studio as well.

Artist D's use of the Web is almost completely goal-oriented. She used the Web with very specific queries which did not take long to answer while online. However, these searches were frequently continued offline. For example, she conducted a search for art matting supplies in a local art store, and then drove there to retrieve the materials. During her interview, Artist D also described a current research project in which she was using maps and business directories on the Web to identify potential galleries, shops and museums in which to show her art within a coastal town. She was then recording contact information in order to follow-up via email, on the phone, or in-person.

Similar to Artist A, Artist D identified a difference in source images found on the Web and referencing a scene or object that is before her. However, where Artist A did not find this conflict to directly affect her work, Artist D said she does not search for images online at all. Perceived image quality is a primary reason, because she does not find the colors presented online to be true-to-life. She feels that she would need to see "the real thing next to the printer" in order to test for accuracy against the colors of a printed Web image. This is at least one reason she would choose not to use the Web.

How do artists use the Web once online?

This question explores specific creative activities and search strategies that the artists took when they were online. The researcher looked for behaviors that mirrored offline creative activity and information search strategies, but also evidence of unique uses of the Web. This is broken into broad categories of goal-based searching and browsing activities, and use of the Web to fulfill specific needs, such as career and self-promotion, and social networking.

Artist A's use of the Web to find referential images serves as a primary example of her goal-based searching. She described being very selective in her use of imagery and does not like to use illustrations or other renderings of objects; instead, she prefers to use "a wide variety of photos so that my drawing will represent my interpretation rather than that of another artist". In the diary, she described searching for photographic images of roses by locating gardening and plant-supply companies in Google, then searching those sites. When performing a more general search in Google Image, Artist A will use the keyword term "photos" in addition to that of whatever subject she is researching. During her time with the diary, she also used Google to look for online art supply stores in a search for her favorite pen and marker brand.

Artist A's browsing activities were often connected to the artist trading cards website. For example, she described spending time browsing images uploaded by her fellow artists there. She also browsed non-social sites and sources, such as a photography tutorial that was linked from an e-newsletter she received.

Artist A uses the Web to network with peer artists on a regular basis. This is largely due to her frequent use of AFA, which in itself serves to connect artists socially around the topic of artist trading cards. She described multiple channels of communication on the site, such as group discussions in both large and small forums, as well as personal messaging functions. One can also rate peer artists and comment on works posted online. She seemed to use all of these features, both to directly speak with other artists and to simply observe what others are creating and discussing. In addition, communication on the site is usually focused on art-relevant topics, which Artist A values; she tends to not get involved with small talk or discussions of personal matters.

When asked to compare her online networking to her offline artist groups, Artist A said, “Being in touch with 800-plus active members is [the] much bigger resource”. She is more inspired by what she sees on the website because the level of activity enables her to come into frequent contact with a wide variety of works.

In regards to career activities, Artist A is wary of selling her works on the Web, because she is concerned about unauthorized use of digital images of her art. She does maintain a profile presence on the trading cards website. She posts images of her creations on her profile and in AFA image collections (for example, a group contest), keeping them at a small but viewable resolution. She did note that amongst the site’s participants, some have links to Flickr accounts, and she identifies those individuals as more likely to be “professional artists”. She is also considering adding her work to the online gallery of a local art organization, and in the diary described evaluating this option by browsing other artists and artworks that are there. Outside of her trading card activity, she does subscribe to the e-newsletters of various artists’ associations and identifies opportunities to show her art in gallery exhibitions through these channels.

Artist B’s goal-based searches, as recorded in the diary, primarily took place on websites she had already identified and preferred. One activity entitled “I want to enter a juried show” involved searching for show requirements on an art association’s website and ended with downloading entry forms and guidelines. She also looked for ideas for art lessons on a preferred site for this information. Although she planned to use this information while teaching a short course for adult learners, Artist B explained that this kind of activity often informs her own artmaking methods because it challenges her to

test new techniques. She also described searching Youtube.com for tutorials to serve this purpose.

Browsing was also an important factor in Artist B's use of the Web, especially in regards to how her work fits in amongst her peers. She remains very aware of other artists who are marketing their works alongside her own on group sites, Etsy.com for example. At these moments she will browse to see "who has the most sales and most feedback". In the diary, she also mentioned browsing an online forum to find out about art events, and ended up seeing an image by a fellow artist she liked, and followed the information to locate the artist's homepage. The activity ended when she contacted the artist to suggest a possible collaboration.

Because Artist B maintains profiles on Flickr.com and Etsy.com, which are image sharing and social commerce sites, she also has multiple streams of communication to monitor. Several times in the diary she described checking up on the activity on the profiles, which includes 'silent' traffic in the form of image hits, but also notifications of comments on her art. When she received messages such as these, she took a moment to see which viewer it came from and followed-up. She values the communication features on Flickr: "I like that you can add comments."

Artist B relies upon the Web as a way to promote, exhibit, and sell her art, and is very conscientious in her use of this resource in order to maximize her art's visibility. By monitoring traffic on her homepage and various profiles, she is able to assess which of these are most often frequented and which may not be worth maintaining due to low use. Furthermore, Artist B also uses statistics to determine which related galleries and associations provide the greatest inflow of visitors to her homepage. For example,

thumbnails of her art are present on the gallery page of a local art association; she “can't believe how many hits I get on my [homepage]” via this site, including visitors from far-flung places such as Japan and India, and so sees this as a valuable and useful resource. “I'm all the time searching for a way to link my website to somebody else's [site] to get more traffic”, she summarized in her interview. In addition to using the Web as a virtual exhibition space, she also keeps abreast of opportunities to show her work offline through a range of e-newsletter announcements sent by art associations and organizations, and by visiting relevant artists' forums online.

Artist C used goal-based searches to inform works of art in progress. He described looking up dictionary words online, both by the word itself but also by its length of characters. He keeps lists of these words by length for later use in his word-symbol compositions. Artist C occasionally uses Google Image Search to find colors to try in his images. He takes the rather unique approach of using the word he is exploring in his art as a keyword, rather than searching by color name. He said that he would sometimes seek specific technical information and art marketing advice as well.

As mentioned previously, browsing seems to comprise most of Artist C's creative Web use. He uses aggregating tools to gather information from his favorite blogs in one place, and will check up on the inflow of information several times a day. He explained that most or all of the blogs he subscribes to in this way focus on images; of these, some are maintained by individual authors, and some are image aggregators where multiple contributors are present. In addition to his RSS reader, Artist C uses a social bookmarking tool called imgfave.com, which allows users to save and share images rather than text information. He explained, “Images that I don't find in Flickr... I will

bookmark and save to that site”. He also subscribes to fellow Imgfave users’ bookmarks using his RSS reader.

Artist C’s use of the social networking tool Flickr is one example of how he keeps up with his artist peers, and also discovers who is interested in his own art. He monitors his activity “obsessively”, looking for hits, and who favorited or commented on his artworks. Receiving feedback is encouraging and Artist C described being “disappointed when there hasn’t been any activity for awhile”. He also reaches out to other artists on the site, and explained that “most of the artists that I regularly comment on... are pretty far flung”, citing Spain and Israel as examples. He mentioned recently coming into contact with another artist in his town whom he met through a local art association’s website, but has not met in person yet.

Flickr and Imagekind profiles comprise Artist C’s primary artistic Web presence. He has also reserved a personal URL but has not yet added content. As discussed previously, his Imagekind profile was set up during the course of the present study. When deciding which works to sell here, Artist C consulted his Flickr statistics and opted to put his most frequently-viewed works up sale. Because his free Imagekind account limits the number of works he may place in his shop, space is at a premium. Artist C also wanted the works to be related to each other, so he pulled images from the same set on Flickr (a ‘set’ is comprised of similar images the Flickr member has grouped together). As a member of a local art association, Artist C keeps up with exhibition opportunities, news and events via their online presence.

Artist D’s searching was primarily comprised of goal-based queries. In her diary, she recorded searches for specific art and framing materials, searching for contact

information of a past patron using a governmental database, and looking up information on Frank Lloyd Wright's Taliesin house in response to an art-related book discussion she had. She also uses the Web to search for new galleries and art venues to present her art. She described using mapping applications on the Web to search for businesses within a certain geographic range. Once she has identified some options, she will look up their webpages and begin to assess whether or not the place presents a good prospect. If the space looks promising, she will write down contact information and will then continue her assessment by following up. Artist D was in the midst of a project such as this at the time of her interview, but explained she has taken this approach with different towns previously, and expected to do so again in the future.

Artist D recognized she tends not to browse for information online. "I don't think I have that much time", when asked about this behavior. "Usually I have some sort of an idea where I'm going with it". She said she does enjoy seeing other artists' works online, but does not seem to spend much time doing this. She also does not use social networking sites with their own channels of communication as a way to monitor her peers' activities, preferring instead to go through the extensive 'in-person' networks she has already developed.

Artist D keeps a personal Web page as a central exhibition space for images of her paintings and prints. She did not mention spending time monitoring traffic or use of the site, or spending time maintaining it. Additionally, her work is sometimes featured on the sites of galleries and shops her art is featured in. She monitors the activities of relevant guild and associations via their websites and e-newsletters. Apart from her own activity, Artist D recognizes that knowledge of Web and digital image technologies are

essential for artists working today. This is true for placing images in online galleries and also for meeting submission requirements for shows in brick-and-mortar spaces. She also believes the Web could enable her to better track who is purchasing her art through various avenues, but is unsure of which tools to use or how to pick up that kind of skill.

Discussion

The primary purpose of this study is to identify and explore how artists' Web use compares, contrasts, and otherwise links to their larger needs as information users and creative practitioners. The diaries and interviews, used in tandem, provide a rich data set showing evidence of these connections.

First, the results support earlier findings on how artists interact with information in the artmaking process. Drawing on Cobbedick's (1996) model, participants in the present study did use information which inspired, served as referential / source imagery, provided technical knowledge of their materials and practices, informed their careers and marketing efforts, and enabled them to keep up with the "art world" in general. The participants also explained what they used to meet these needs and where they located it, generally speaking. Books, memory, language, imagination, landscape, works of fellow artists, photographs, physical objects, art materials and processes, maps, directories, personal information collections such as files and lists, and fellow artists are just a few of the specific information sources used by the participants. Visual, textual, and communicative information was derived from these sources. The artists located information in venues such as the personal studio, at home, libraries, museums/ galleries, art-related social events (such as exhibitions, workshops, and discussion groups), and oneself (insofar as one's consciousness can serve as the 'venue' for memories and

imagination). Much of this supports discussions of sources, forms of information, and venues in the relevant literature (Cobbledick, 1996; Cowan, 2004; Gregory, 2007; Hemmig, 2008; Visick, et. al., 2006). Because artmaking is a complex activity requiring the synthesis of many channels of information, it was initially assumed that a range of sources would be identified by the artists, and the findings from this study support this assumption.

Information needs and sources on the Web

All artists in this study turn to the Web to support promotional and career-oriented activities. A primary way they do so is by exhibiting their work online. Each artist in this study maintains at least one Web presence, which at the minimum includes images of the work and some way to get in touch. Examples include custom homepages with a unique URL (Artists B and D) and/ or a self-created profile or gallery space within a social site, such as Flickr (Artists A, B, and C). Two of the artists (B and C) also present their art on commercial e-commerce sites, in which the art can be viewed and purchased in one personal, virtual shop. Several artists (B, D) also mentioned inclusion of their art on the websites of affiliated galleries and art associations, for example if one's art is featured in a physical space it may also be included on the gallery website's page for the duration of the show.

According to artists A, B, and C one of the main benefits of exhibiting work online is that it exposes the work to a much wider audience than is possible in a physical space. All three of these artists mentioned coming into contact with patrons or artists overseas, as well as within the US and closer to home. Communication seems to be greatly eased online, where a viewer can contact the artist directly and immediately

instead of having to request the information from an intermediary. Unsurprisingly, a great amount of socialization tended to take place on the sites with a range of communication functions, such as Flickr and AFA. This discourse was highly valued by the participants who used these sites. Such social activities are discussed further below.

The ability to fine-tune marketing strategy was cited as another incentive to exhibit art on the Web. Artist B frequently collects information on ‘silent’ traffic to her homepage, such as number of hits, regional (IP address) location of visitors, and associated links using statistics counters. Traffic was also assessed on Flickr (for Artists B and C) and Etsy (Artist B), where a user can assess the popularity of individual images or items, rather than pages. These artists used such information to sell popular work (artist C) and identify related Web spaces in which art could be inserted (Artist B). This level of granularity is simply not possible in physical venues, where the artist is not present to track each person who is coming in, where they came from and which works are being viewed most often.

Not all virtual spaces are equal, though, as some seem to carry more prestige or are better suited to exhibiting art than others. When discussing the options, Artist B commented that placing art on eBay is somewhat tacky and carries a social stigma, although in years past it was the only option for setting up a self-maintained digital storefront. She praised Flickr for its free image hosting, and its interface and multiple image-viewing options: “I like the look of it, I like that you can blow up the picture”. Artist A saw use of Flickr amongst her peers on AFA as a signifier of professionalism, although she was not using the site at the time of her interview. Similarly, Artist C set up an Imagekind profile after seeing fellow artists using the site on Flickr; he didn’t

specifically ask them about their Imagekind activity – simply surveying what they were doing was recommendation enough.

Related to exhibiting work, all of the artists identified opportunities to show their art using online information sources. This was found on art-oriented forums, subscription e-newsletters and the websites of galleries and art organizations themselves. Artist D took this one step further by proactively searching for possible venues using maps and online business directories, tools that do not cater to artists specifically. None of the participants cited print resources as a way of keeping abreast of this information.

Interestingly, none of the artists in the study exhibit their work online only. All of them had recently represented their work in physical spaces, whether in galleries or shops and boutiques, and all continuously work to identify new opportunities in which to do so. It is also clear that these artists value placing their work within their own communities, as all of them participate in the exhibitions of local art associations in which they are members. Perhaps the connection to a geographic community, through ‘in-person’ participation, serves as motivation for keeping up with this activity. It is also likely that such venues serve a different community than do online exhibition spaces, and placing work within virtual and physical communities exposes the work to the widest available audience. The exact extent to which a physical venue is valued over a virtual one was not explored in the present study and so remains unclear.

Technical and process-oriented information was also found online by three of the artists. Artist A belongs to a group of AFA artists who all share an interest in a similar drawing technique. She enjoys learning new ways to create art in this style by interacting with others in this group and observing their practices. Artist A also receives subscription

e-newsletters, which feature technical information that sometimes proves helpful. Artist B described searching for specific techniques that she could use when instructing others, but also to expand her own technical ability. Artist C described using Adobe Illustrator tutorials online, found through blogs he subscribes to but also via fellow artists on Flickr. “I rarely read books for technical information, I always go online for it,” he said of this need.

Other needs that were met through the Web included searches for referential images (artists A, C) and finding inspiration by regularly browsing images and/or the works of other artists (artist A, C). Keeping up with the art world, in this study, seemed to be linked to frequent interaction with a niche community of artists (Artist A using AFA, Artist C interacting with others on Flickr) rather than surveying national or global trends. This online activity was mirrored in all of the participants’ interactions with groups, guilds and associations in their local and/or regional communities, in which they kept up with art events and activities.

Interactions with information on the Web

Prior research shows that artists locate information in various ways. Expanding on the needs and sources identified by Cobbedick (1996), Cowan (2004) described a model of artistic information seeking is rather more concerned with how the artists use information, rather than what it is and where it comes from. She found that attentiveness and self-inquiry, for example, informed artistic practice just as much as the specific sources consulted (Cowan, 2004). The process of interacting with information is also part of the artists’ environments.

Browsing behaviors, in particular, have been the center of much discussion in preceding literature. Research of artists' information-seeking behavior repeatedly has shown that this population tends to start with a more general idea, and then browse for information within that parameter (Frank, 1999; Cobbledick, 1996; Hemmig, 2008). In the present study, several artists did browse for information when needed, whether on the Web or offline. For example, Artist C will sometimes follow links from blog content read within an RSS feed reader as a browsing activity. Artist B discussed occasionally browsing books for inspiration. However, browsing was not found to be the primary way in which artists in the present study gather information. This may be because artists' browsing has been historically linked with their use of books and periodicals or collections of print materials at home or in the library (Cobbledick, 1996; Frank, 1999; Hemmig, 2008). The use of these sources and venues was not as closely examined here as it has been in other studies.

Searching seemed to be more prevalent in the artists' online behavior than browsing. This activity was linked to a need for referential imagery (for example, Artist A's search for images of roses using Google Image as a starting point), for professional information, such as requirements for an exhibition (Artist B searched for guidelines to prepare to enter a show); or to locate artists' materials (Artists A and D) and find technical information (Artist B). Artist D in particular's use of the Web was highly goal-oriented and she felt she had little time to turn to the Web to just 'hang out'. It's not surprising that goal-based seeking did not seem linked to the artists' inspirational needs, which were more likely to be met through interaction with materials and processes, environments and settings, or interpersonal activity. The act of becoming creatively

inspired does not lend itself well to efficiency and convenience; these appear to be the motivation for goal-based searching in the cases described above.

Monitoring, previously unmentioned in the literature, is an information-seeking behavior that appears to be exclusive to the artists' use of the Web. Examples include checking statistics counters to assess traffic on personal Web pages (Artist B), and assessing image views on social and/or commerce sites (Artists B and C). Artists A, B, and C, all active on social networking sites, monitored their profiles for new comments and communication. Artist C's routine monitoring of image blogs via RSS feed could perhaps also be construed as falling within this category. These activities provided information that was used to improve marketing strategy (Artists B and C), but also fed their general social networking and inspirational activity. Because the content being monitored was refreshed constantly, the desire to keep up with the flow of information may have motivated them to check in so frequently. Monitoring also seemed to take place on social sites where they naturally spent much of their time online, so habit and routine perhaps play a role as well.

Finally, building and maintaining social networks is also essential to the artists' use of the Web. For purposes of this study, I characterize this as meeting and interacting with people within a larger community, whether one-to-one, within a small group or larger forum. This differentiates it from email or IM, which in itself does not facilitate participation in a larger discourse (and which was not examined in the present study at any rate).

Three of the four artists placed their artwork in virtual spaces where such interactions were present (Artist A – AFA; Artists B and C – Flickr). Etsy and Imagekind

were also mentioned in this paper and offer social functions, but neither participant using these sites (B and C, respectively) talked about communicating with artists there. One thing that all three artists valued, with regards to their online social networking, was art-oriented discussion. Artists A and B explicitly expressed their disinterest in general chitchat and matters unrelated to art. Artist C described using Flickr's communicative functions to comment on other artists' works, and to find technical information, but not anything that appeared to be unrelated to art-speak. Partaking in and observing activity on these sites also serves as a source of inspiration for Artist A, and all three artists seemed to enjoy the encouragement that comes from receiving positive comments on works they had posted. Complementing their online activity, all three artists interact with peers in-person by attending art shows and events, but not with the frequency with which they do so online.

It is important to note that Artist D, who has the broadest and most robust 'real-life' network, was the only one who did not actively work to socialize with artists on the Web. She described contacting friends and colleagues when needing to find out more information on a gallery in which to exhibit her work, for example. Artist D will also use the Web to search for the contact information of patrons she'd fallen out of touch with, suggesting that most of her promotion takes place offline, once this information is obtained. It is perhaps unsurprising, then, that her online social activity is comparatively minimal. There may be little incentive for seeking out new networks when that need is already met in other ways. The connections and differences between artists' online and real-life social networks may be worth further exploration.

Limitations

This study serves as an initial exploration of how artists use Web to interact with information to support their creative needs. The results are purely descriptive of this particular sample and cannot be extrapolated to visual artists as an entire population. Additional research, on a wider scale, will be needed in order to make such discoveries. Although the diary instrument made data collection in the artists' creative environments a real possibility, the freedom on the part of the artists to tailor the results may have affected the accuracy of this study. While it is not possible to examine the exact extent to which the data were adjusted, there is evidence that this happened. Artists A, B, and C, who use the Web multiple times a day to monitor Web traffic and social activity, could have easily filled up the diaries within a week with these behaviors. However, they all chose to make entries for such activities only once or twice and explain the frequency in the "comments" field of the diary. Although this is not necessarily accurate, it provided a richer data set and perhaps greater validity, which is appropriate to the exploratory nature of the study.

Several of the artists also reported increased awareness of their own Web search behaviors. Artist B stated in her interview, "When I get on the Internet, you can predict what I'm going to do, easily... I'm going to go to the same sites over and over and over again". The process of keeping the diary has compelled her to begin cutting down on repetitive activities that she sees as a mismanagement of her time. Similarly, Artist A mentioned that she was beginning to search new sites rather than rely on the ones she visits most often. Again, this may have affected the 'purity' of the data. On a positive note, all artists seemed to respond favorably to the use of the diary as an instrument, and its potential for increasing self-awareness could be seen as a benefit to participating.

Artists A and B both seemed to view this as a constructive outcome of their contributions to the study.

Conclusion

Empirical study of the artmaking process shows that it is a rich activity informed by input from multiple channels of information. Artists must seek, find, select, and synthesize information with the persistence of any other researcher. The present study supports these observations by helping to fill several research gaps, including a general lack of LIS research on the information needs of artists, and a scarcity of studies on non-academic, non-student artists. Most importantly, this is the first report to examine how artists are using the Web, which has been identified in recent studies as one of their most important research tools (Gregory, 2007; Visick, et. al, 2006).

By describing their creative processes and related Web use activities in personal diaries and follow-up interviews, the participants provided a glimpse into their complex online and offline creative activities. Supporting previous studies, the artists used a wide variety of interdisciplinary information to inform their artmaking, many of which are closely linked to their everyday environment and social landscape. Their needs generally corroborated with those identified in the literature, as well (Cobbledick, 1996; Cowan, 2004). New findings from this study show that the Web was primary to the participants' drive to exhibit and sell work, although it was not the only means by which they do so. Most of the artists also used the Web to seek technical information, and a few used the Web to search for source images. Browsing was not found to be as essential as an activity as has been discussed previously. Instead, goal-based searching and repetitious monitoring of networks and professional Web presences were more likely to be present in

the artists' online activities. Finally, interaction with fellow art enthusiasts, especially when facilitated by participation on social sites, comprised a large portion of three of the artists' online activities. All of the artists interact with their peers offline as well, though for the online social networkers, perhaps not as frequently.

By placing artists' Web use within their everyday creative practice and environments, this study contributes to ELIS research, examinations of information-seeking in context, and explorations of information-seeking as an extension of creative practice. Historically, the audience for LIS literature on artists has been librarians seeking to improve services for this user group. Although the present report does not examine artists' use of the library, such readers may glean new knowledge of how they can target the needs of artists in their own communities, especially because career advancement and social networking were found to be so important. For example, libraries may form alliances with local art associations, promote resources which will enable artists to show their art, and create presences within in the virtual social spaces of artists.

The results presented here are exploratory and limited to the sample described here. However, the study reports some new discoveries which could be re-explored in future research. First, a broader study of artists' Web use could show whether the behaviors identified here apply to a larger population, and which Web-related needs or activities remain unknown. The decision-making process for placing one's work in public could also be explored in greater depth. The participants choose to show work both online and offline, but the value of one avenue over another was not examined here. Finally, the role of community in the artmaking process is also worth examination. All of the artists have support networks (online and offline) which they called upon to meet a

range of information needs. The interpersonal aspects of information-seeking still remain largely unexplored in preceding research, as well.

Appendix A. Web Use Diary: template activity entry page.

ACTIVITY ENTRY

Date/ Time:

Activity:

How long did you spend on this activity:

Starting point:

Other sites visited (if applicable):

Strategies:

How did the activity end?

Comments (optional):

Appendix B. Script for follow-up interviews.

Notes for interviewer:

Turn on recorder. State subject number and date and time.

There is no need to ask every question. Allow the conversation to move freely as needed but try to keep it relevant to sources used.

(Research question 1: What are the information needs?)

Information about the creative process:

Tell me about a project you're working on right now (or recently):

What are the general concepts?

What inspired the artwork?

What has influenced your choices in imagery, materials, etc?

Where do you see yourself in the overall process?

How does this process compare to other art works you've created?

Specific kinds of information:

Are there sources/ kinds of information that you find yourself actively seeking again and again?

Tell me about a preferred tactic or source for this/ these kinds of information.

Do you often search for information with a goal in mind, or just enjoy searching?

Can you describe an instance when you specifically searched for a certain (image, book, manual, etc.)?

Where were you?

What sources did you consult?

How did you know you'd found what you needed?

Can you tell me about a time when you "just browsed" for information?

Where were you?

What sources did you consult?

How did you know you'd found what you needed?

Tell more about your technical process... how do you select and use materials?

How do you find out about residencies, exhibitions, etc?

How do you promote your art?

What's your relationship with other artists in regards to making art?

How do you meet and connect with other artists?

How do you find out about social events and meetups?

How important is it for you to see others' art works?

(Research Question 2: What are the motivations for Web use?)

How do you usually use the Internet?

How often (each day/ each week)?

Where is your computer located? (If I don't see it myself)

Are there other places you use the Internet?

We just talked about some of the kinds of information that you use and search for. Of these, which kinds of information do you often search for online?

Why/ when do you turn to the Internet for this/ these sources?

Which needs would you NOT try to meet online? Describe.

Is (this example from the Diary) an instance of that? Can you tell me about what spurred you to use the Web in that instance?

Was there an example (in the Diary) of a search here that started out or ended as a 'real life' investigation?

Tell me about that process. How did the Web portion fit within that?

Do you every deliberately try to NOT use the Internet in regards to your creative activity?

(Research question 3: How do artists use the Web once online?)

What homepage do you have your browser set at?

How do you typically proceed from there?

I'm looking at (this example) from the Diary, where you (did X). It looks like you had a specific goal there- is that right?

How did you start to search for that item?

What did you have in mind as you were searching?

Did you feel like you needed an 'answer' before you could finish?

How did your strategy evolve?

Do you ever find Internet information to be a source of spontaneous inspiration?

Can you describe a time when that happened (or point to a Diary example if there is one there)?

Are there sites that you use to "just browse" or find these sorts of things? Tell me them- what do you like/ find useful about them?

Tell me about sites you use that bookmark or manage information? (Other than personal calendars, email, etc). Do you find them useful or turn to them very often?

Do you interact with other artists or their work online? Which sites/strategies are useful for that?

How do you use the Web to promote your work or find out about opportunities or events in the profession?

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