Accidentally Found on Purpose: Information-Seeking Behavior of Historians in Archives

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Wendy Duff
University of Toronto
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Catherine Anne Johnson
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ACCIDENTALLY FOUND ON PURPOSE: INFORMATION-SEEKING BEHAVIOR OF HISTORIANS IN ARCHIVES

Wendy M. Duff[1] and Catherine A. Johnson[2]

This article reports on a qualitative research study of the information-seeking behavior of historians. Based on semistructured interviews with ten midcareer historians, it investigates how they locate primary sources, carry out their research, and use archival material. The study identified four different types of information-seeking activities, including (1) orienting oneself to archives, finding aids, sources, or a collection; (2) seeking known material; (3) building contextual knowledge; and (4) identifying relevant material.

Introduction

Finding information in archives is not an easy task. Archival information systems can be overwhelming and daunting at times. Designing intuitive systems that meet the researchers' needs requires a thorough understanding of the information-seeking behavior of archival users. Until recently, few archivists seemed interested in studying their users. In 1980, Richard Lytle [1] claimed that the reason archivists lagged behind librarians in their study of user behavior may have been archivists' resistance to "social and behavioral science techniques, especially those applied in library and information services" [1, p. 70]. Lytle also suggested that users of archives may be more difficult than library users to study since their "research needs are difficult to assess; the needs

1. Assistant professor, University of Toronto, Faculty of Information Studies, 140 St. George Street, Room 639, Toronto, Ontario M5S 3G6, Canada; Telephone 416-978-3152; Fax 416-971-1399; E-mail duff@fis.utoronto.ca.
2. Ph.D. candidate, University of Toronto, Faculty of Information Studies, 140 St. George Street, Room 639, Toronto, Ontario M5S 3G6, Canada; Telephone 416-978-6581; Fax: 416-971-1399; E-mail johnson@fis.utoronto.ca

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are diffuse and the users are unaccustomed to articulating their information needs" [1, p. 70]. Since then, although several user studies have been conducted in archives [2–6], they are much fewer in number than those conducted in the context of libraries.

Numerous types of users with different needs seek information in archives. While acknowledging the increased presence of genealogists in archives (approximately 45 percent), Gabrielle Blais and David Enns [7] lamented the lack of "hard facts" about the changing makeup of archival researchers [7, pp. 452–53]. Of the occupational researchers whom Ann D. Gordon surveyed in 1990, only 50 percent were academic researchers, while the remainder included freelance writers, museum staff, teachers, and government employees [5, p. 19]. Archivists require a better understanding of the various groups of researchers who currently consult archival material in order to obtain a better understanding of how different researchers seek information in archives. Historians are one such group. This study examines how historians seek information in archives. It reports on a qualitative research study of ten historians that investigated how they carry out their research and use the array of archival research tools, including printed and digital finding aids and the archivist, during the course of seeking information in archives.

Literature Review

Studies of the information behavior of historians have usually examined their use of libraries and have often been included within studies of the information-seeking behavior of humanities scholars. Despite the fact that the heart of historical research involves the use of primary sources [8–9], there are only a few studies of historians' information-seeking behavior that have focused on their use of archives and archival research tools. This literature review is divided between studies that have examined humanities scholars (including historians) and historians on their own in the context of libraries, and those that have studied users of archives in general as well as historians, specifically, in the context of archives.[3]

3. Archival material are records in any physical form created and/or accumulated and used by persons or organizations in the course of their personal and business activities. A finding aid describes all the records in a collection along with a history of the organization or person to provide the contextual knowledge needed to understand the records. "Archives" refers both to archival collections as well as the institution in which they are housed. Besides archival institutions or archives, however, archival material can be housed in all kinds of locations, including libraries, corporations, or private homes.

User Studies of Humanities Scholars and Historians in the Context of Libraries

User studies of humanities scholars, including historians, have usually focused on their use of libraries. Early research by Sue Stone [10] reviewed literature on user studies conducted since 1970 that looked mainly at the use of bibliographic materials and only tangentially mentioned the need for historians to consult primary sources. Elaine Broadbent [11] reports on a questionnaire study that asked how humanities faculty identified needed library materials. Stephen E. Wiberley, Jr. [12] and Wiberley and William G. Jones [13–14] interviewed humanities scholars about their research "habits," their use of academic libraries, and their use of information technology. Marcia J. Bates, Deborah N. Wilde, and Susan Siegfried [15] and Marcia J. Bates [16] examined the terminology used by humanities scholars in conducting searches in electronic databases, specifically DIALOG. Rebecca Green [17] examined the efficiency of following citations in secondary sources for humanities scholars. In Harriet Lonnqvist's [18] study of the information-seeking behavior of humanities scholars, although acknowledging the importance of archives for historical research, historians' information-seeking behavior within archives was not examined as closely as their use of research libraries. While Robert Delgadillo and Beverly P. Lynch [19] also acknowledge the importance of archival research for historians, they focused on the study participants' information behavior within a library and did not explore the particular challenges presented by archival research. While these and other studies [20–23] focus on the use of libraries and bibliographic tools, they also provide insight into the information behavior of historians, which provides a context within which to understand their behavior in archives. The following section explores some of the findings reported in these studies and provides a broad portrait of historians and other humanities scholars' information behavior.

Many studies have noted the preference of humanities scholars for informal channels to information over more systematic searches, including consulting reference librarians or print and electronic bibliographic tools [9, 13, 19, 22, and 24]. A reason given for this preference is that scholars are already experts in their field and do not need advice to find sources in libraries [17, pp. 202–3]. However, while humanities scholars did not consult with general reference librarians or reference collections, they did make use of specialized indexes and subject bibliographers [12]. Their reluctance to ask questions of librarians was explained by Wiberley [12] as being related to their reluctance to ask for help or to reveal that they are unfamiliar with important reference sources [12, p. 18]. Humanities scholars were quite willing to consult

special collections librarians, however, because it is expected that they will need help using special collections finding aids [12, p. 18]. Delgadillo and Lynch [19] report that history Ph.D. students were encouraged by their professors to "cultivate close relationships with subject bibliographers" who could use their subject expertise to find material not easily found through library catalogs or database searches [19, p. 252].

Some of the preferred informal means of finding information in libraries for humanities scholars include reading [8], browsing [9–10, 17, and 25–26] and footnote chaining [9, 17]. Historians also make use of these methods to find information in libraries. According to Donald Owen Case, historians are "expert users of text" [27, p. 660]. To learn about a new subject area, the historian will read all available secondary sources on the subject before beginning primary research [9, p. 83]. While reading secondary sources is necessary to acquire background information about a subject, the main preoccupation of the historian is with the primary material [8–9, 19]. It is the reading and interpretation of these sources that shape the historian's understanding of the past. According to Michael Stanford, "one should read and reread the sources until one can almost hear the voices" [28, p. 86].

Like other humanities scholars, historians often turn to browsing to identify relevant sources in the library. Eleven of the history Ph.D. students studied by Delgadillo and Lynch [19] mentioned browsing as one of their search strategies; it enabled them to identify relevant sources that were often not clearly described through formal bibliographic aids. According to Case [27], "the primary task of historian [*sic*] lies in scanning a textual environment for stimuli . . . that match certain characteristics, and absorbing and interpreting those stimuli in terms of a larger historical theme or theory" [27, p. 660]. Footnote tracing or chaining is often cited as a common means of locating relevant research material for all academic researchers [17, p. 202]. This method is also one of the preferred information-seeking strategies of historians. Delgadillo and Lynch [19] found that all of the fifteen Ph.D. history students in their sample ranked "tracing references in secondary sources" as the most common way of finding relevant materials [19, p. 253]. This finding is supported by earlier user studies conducted by Helen R. Tibbo [9] and Margaret F. Stieg [29]. Footnote tracing involves locating key articles or books and following the references cited to other articles or books. In a study comparing the relevance of documents retrieved through following footnote citations with the relevance of those retrieved through searches of bibliographic indexes and abstracts, Green [17] found that the precision of the citation searches was greater than that of the bibliographic searches. Although this

method may seem undirected and unsystematic [22, p. 162], it appears that it is an effective means of retrieving the most relevant and highest quality secondary sources in the shortest period of time.

User Studies Conducted in Archival Institutions

User studies located within archives include studies that have focused on all users of archives [3, 5], and those that have focused specifically on historians' use of archives [2, 30, and 31]. Similar to studies focusing on humanities scholars' use of libraries, studies of archival users have revealed a preference for informal channels to information sources in archives. Gordon's study [5] confirmed the preference of archival users for informal sources of information over the formally produced guides. The preferred means to find information in the archives was the researcher's past experience, followed by the assistance of reference librarians and archivists and by leads from secondary sources. The least popular method was the use of published guides, although the importance of these sources varied depending on the users surveyed [5, p. 59]. For instance, while 42 percent of the members of the Organization of American Historians considered published guides an important means to find information in archives, only 26 percent of the American Association for State and Local History members did [5, p. 59]. Paul Conway [3] found archivists to be the most frequently consulted source in the Central Research Room of the National Archives, followed by finding aids. One of the early empirical examinations of finding aid usage conducted in an archives setting [32] found that historians rated citations from published material as the best method of finding their way to relevant sources in archives. Their second most highly rated source was other colleagues, while the published National Union Catalog of Manuscript Collections and archivists ranked slightly lower [32, p. 69].

How users frame their archival reference questions has long been a concern of archivists. In an early paper, Richard C. Berner [31] claimed that 90 percent of researchers in the archives were able to associate personal and organizational names with their subjects [31, p. 370]. Other studies have confirmed the importance of names as access points to archival collections. However, other elements, like date, place, and form, were used almost as frequently [3–4, 9, and 33–34]. In a study of e-mail questions sent to archival institutions, we [35] found that the types of terms used in information requests varied with the type of query. Name, however, was the most common element used for almost all types of queries followed by date, place, event, and sub-

ject.[4] Michael E. Stevens [32] found that historians also used both subject and name terms, although names were most frequently mentioned (more than 50 percent of the time).

With the increase in social history research in the last three decades, the use of standard archival research tools has become more problematic. In a survey of researchers in women's history, Diane L. Beattie [2] found that historians used archivists, citations in published sources, and colleagues to help find relevant material more frequently than they used formal research tools [2, p. 43]. In terms of usefulness, however, the study found that researchers ranked published finding aids above other formal and informal aids [2, p. 44]. Beattie also suggests that the adequacy of traditional archival research methods—the provenance method, for example—for social history research is doubtful.[5] Although she found that two-thirds of respondents could associate names with their subject, less than one-fifth of respondents approached "their subjects directly through available indexes or catalogues" [2, p. 45]. That is, while social historians had specific names of people or organizations related to their research, they seldom searched for these names within the finding aids but needed the help of archivists to identify the relevant material.

Information-Seeking Behavior of Historians

Most studies of historians and humanities scholars' information behavior, whether in the library or the archives, have concentrated on their

4. The only question where this situation was not true was the service request, which usually involved asking for a photocopy of a specific document (like a land grant) for which the user had the complete citation.

5. The provenance method is a strategy used by historians and other archival users to find materials in archival collections. Provenance is the guiding principle for the organization of archival materials [36]. Records are organized according to the body that created them and are the record of the activities of that body. The "principle of the power of provenance" states that items in a collection only have meaning within the context of other items in the collection and, consequently, if the items are reorganized much of the original information will be lost [1, 36]. Academic researchers and archivists use provenance to find material when they can relate a subject request to the activities of an organization [36]. The provenance method proceeds "by linking subject queries with provenance information contained in administrative histories or biographies, thereby producing leads to files which are searched by using their internal structures" [1, p. 64]. The subject, therefore, is not explicitly stated but must be deduced from provenance-related information. While subject indexing in a library makes sense since books and other secondary sources contained in a library are usually about something, records in an archives are not records about an activity, but records of an activity [36]. As Bearman points out, the subject of the records can be interpreted differently by different users, and these interpretations are likely to differ as well from those of the creators of the records themselves [33, p. 241].

preferred information sources and channels. Few have actually tried to understand historians' cognitive processes while conducting research. One researcher who has attempted this approach is Charles Cole, who draws on the cognitive models of Brenda Dervin [37] and Nicholas J. Belkin [38] to model the information process of historians.

Cole's model, while specifically describing the information-searching process of history Ph.D. students, is comparable with the model of the information search process of high school students developed by Carol C. Kuhlthau [39] and the model of information-seeking activities of academic researchers developed by David Ellis, Deborah Cox, and Katherine Hall [24] and Ellis [40]. Kuhlthau and Cole describe a progression in the search process from a vague awareness of what information is needed to an increasing certainty about information needs. Both Kuhlthau and Cole recognize the importance of preexisting knowledge, which allows the student or researcher to identify relevant sources more readily. This ability to recognize relevant information increases as the background information grows and the expertise and confidence of the researcher increases. A practice to induce expertise among the history Ph.D. students was described by Cole [41]. This practice involves students noting the name of an individual or a company each time that they came across it in the research material. By "scan reading," they are then able to slice through new material and focus on that name whenever it appears in the text. Through this method, relationships between individual companies or persons and events become clear and patterns emerge.

However, while Kuhlthau and Cole depict the information search process as progressing from one stage to the next, Ellis [40] does not describe stages but, rather, activities that can occur at any time and in any order, depending on the circumstances. Case [8] also observes that stages in historical research are illusory and that different research activities, "choosing and refining topics, planning and conducting studies, gathering and interpreting evidence, and writing and revising manuscripts can go on concurrently, both within and across individual projects" [8, p. 79].

The following section reports on a study that examined the information-seeking behavior of historians in relation to their research in archives. Because the sample size is small, consisting of interviews with ten historians, the findings cannot be generalized beyond this small group. From the interviews conducted with these historians, four different types of information-seeking activities emerged that encompass their research process in archives: (1) orienting themselves to archives, finding aids, sources, or a collection; (2) seeking known

material; (3) building contextual knowledge; and (4) identifying relevant material.

Methodology

In order to further our understanding of the information-seeking behavior of historians within the context of their archival research, we decided to ask historians themselves about their experiences of doing research in the archives. We wanted to interview midcareer historians who were actively involved in archival research. From the history department Web sites of two Canadian universities, we identified the names of those historians at either the assistant or associate professor level. Wendy Duff contacted thirteen historians at the assistant and associate professor level, asked them if they were currently conducting archival research, and invited them to participate in the study. Two refused to be included because of time constraints, and one failed to show up at a scheduled meeting. None of the historians interviewed was personally known by either one of us. The in-depth interviews used a semistructured interview protocol and each lasted approximately fifty minutes. The interviews were audio recorded and later transcribed. The transcriptions were analyzed using qualitative software, NVIVO, to identify themes and concepts. Each of us separately coded the transcripts. Coding was compared and discussed until we reached agreement. We defined concepts as they emerged from the data. Similar concepts were later conflated into broader themes, and the broader themes were used to recode the interviews. Coding was once again compared and agreement reached.

Participants

General background information about the historians was collected through a short questionnaire. The historians specialized in a variety of research areas, including one each in political, legal, aboriginal, intellectual, and cultural history, four in social history (including three in women's history and one in religious history), and one in the history of material culture. The archives visited by these historians included national and provincial archival institutions in Canada and Britain, church archives in Canada, local history archives in the United States and Britain, and private archives in Britain. While some of the historians interviewed used French language sources, all interviews were con-

ducted in English. On the whole, the historians were experienced researchers. Nine had spent more than ten years researching in archives, while one had spent from six to ten years using archives. Eight were very confident in their ability to use finding aids, while two were moderately confident. Eight out of the ten also had used archival finding aids on the World Wide Web. These are also active researchers. Five had visited more than ten archives within the last five years, two had visited from six to ten archives, and three had visited from two to five archives. In the previous twelve months, one participant had been using archival materials daily, five were using materials from one to three times per month, and four less than once a month. Four of the participants were women and six were male. One was in the twenty-six to thirty-five years old category, three were between thirty-six and forty-five years old, and six were over forty-six years of age.

Findings

The data suggests that information seeking in archives is nonlinear and includes a number of different tasks. The assortment of tasks can be grouped into four different types of information-seeking activities: (1) orienting oneself to, or becoming aware of the archives, the finding aids, the sources, or a collection; (2) seeking known material, including known items, known forms, or known collections; (3) building contextual knowledge; and (4) identifying relevant material. How the historian carries out these activities depends on a number of variables, including the availability of secondary sources, previous knowledge of the topic, previous experience using the archives or the records, and the time period of their research topic. During the research process questions get reframed or refined, sources get revisited, and finding aids get reexamined as the historians build their contextual knowledge and increase their understanding of the research topic.

Orientation

Orientation to new archives, finding aids, sources, or collections are activities that occur throughout the research process. No matter how experienced researchers are, from time to time they will find themselves in a new archive, researching a new area, or examining an unfamiliar collection. Researchers in these situations can experience a momentary sense of panic before they became oriented to the new collection or archives and are able to develop a research strategy. One historian (participant 7) described herself as having "an anxiety at-

tack" when she first went into an archive to do research for her dissertation. The participants suggested that they needed to become familiar with an archive before they could start to use it. For some, the feelings encountered when faced with using a new archives can be overpowering, as one historian explained:

Participant 2: Usually when you go into any archives and you haven't been for a while regardless of how often you use that archives, my experience is that the first day is just confusing. Just confusing.

Interviewer: Why?

Participant 2: Because it's so overwhelming . . . it's so overwhelming. There are . . . documentation, regardless whether it's eighteenth century or the twentieth, I mean it's so huge.

When this historian (participant 2) was asked what he did to reduce this sense of confusion, he replied, "I start going through the finding aids." Examining finding aids was a key strategy to reduce uncertainty when visiting a new archive or starting to look at a new collection. Some participants suggested they used the finding aids to get a sense of the whole, or "geography" (participant 4) of the collection. Several commented that they started their information search with the printed finding aids, rather than online finding aids, since print copies helped them better acquire this sense of the whole collection. Although online finding aids usually have the same content as the printed finding aids, the ability to see the whole paper finding aid and to flip easily between sections was considered more useful than the restricted view provided by online finding aids.

For some participants, the finding aids themselves were an object of study. They understood that the finding aids were created at a specific time and place, by an individual with a particular perspective on the material that he or she was describing. The historians examined the finding aids not only to see how the records were arranged but also to understand the specialized language used in the finding aid and how the aid reflects the biases of the time. This historian discussed the process he went through when using a finding aid for the first time:

Oh, generally speaking within the finding aid I usually look at the general introduction to see the way in which the archivist has set it up, what the code words are and what the language of the aid is because that seems to vary from archivist to archivist. Or what was of great concern at the time when the papers were catalogued, because they have a history, themselves. The cataloguing process has built in historical problems. Then I go to the individual sections that I think are necessary, and then if I am lucky and they have an inventory of each document I go through the inventory. (Participant 4)

Most participants indicated that they examined finding aids closely. The introduction was read to get a sense of what was included in the collection, and the agency history (history of the organization that produced the records) or the biographical sketch (biography of the person who created the papers) gave important contextual information about the organization or individual that created the collection. When this information did not exist elsewhere, the finding aid was treated as a secondary source, as this historian explained, "Because sometimes when we go to those records we don't have the whole history of the organization, right . . . But something that says it originated in this date, and its main mandate was this and that, but over the years it expanded or it no longer does this but now it does that is useful. But I think to go . . . so that sometimes in five minutes, you can read through that kind of synopsis of the institution or the person or the organization and it's useful" (participant 7).

Finding aids can be read as closely as the primary material itself. One historian mentioned writing down significant keywords as he read through the finding aids. The list of keywords helped him focus his reading so as not to overlook important references: "Yeah, usually I write down my keywords, just to make sure I am not forgetting any, and then if I realize, 'Oh yeah, there was this Sub Committee on Youth Culture in the "sixties" then I'll add this to my list,' and next time, for instance, if I look at John Robarts' papers, maybe there are files on this Sub-Committee on Youth Culture" (participant 5). This researcher mentioned the fear of having someone point out an overlooked source after he had completed his research, "This is, I think, always a traumatic experience, because you hope that you covered everything, but there is always this possibility that you miss this, so you look bad, because people might say you don't have a good methodology." This fear motivated him to scrutinize the finding aids with particular care: "I looked at each finding aid that I thought . . . was relevant to my research and usually I go through twice . . . Then I'll go page by page. Sometimes I might use a ruler to make sure . . . that I am not forgetting anything. And then when I am done with one, then I'll take another one and maybe the following day I'll do again the same thing, just to make sure I haven't forgotten it" (participant 5).

Time and money were important constraints on how these historians conducted their research. When they have to travel to do their research, the historians made sure that they made optimum use of their time. Information found in the finding aids helped them decide which collections would yield the greatest returns. One historian explained how carefully he went through the finding aids when he was traveling since it would be too costly to return to the archives if he had forgotten

to check for something: "Going somewhere else, it's different from here because here I know the archives, I can go there quite often and it doesn't matter if I forgot the first time to look at this, or look at that, I can go back and do it again. But when you [are] abroad, you have always this danger that . . . you [will] forget something important" (participant 5).

Finding aids served many purposes for these historians. They were used as secondary sources of information about people or organizations, they helped the researcher understand the extent of a collection and the type of material it contained, and they were a source of names. It was also often their first step into a new collection and helped reduce the anxiety of beginning research in an unfamiliar collection or archives.

Archivists were also important in orienting researchers to new archives or collections. Three of the historians interviewed said that the first thing that they usually did when visiting an archive for the first time was to talk with the archivist. One historian mentioned that, although he went to an archives with a list of names he wanted to check into, he did not mention this list when he talked to the archivists hoping they would "suggest things to begin with in case I diverted them in a certain way and that closed down other options that I didn't know about" (participant 1). Because this historian was visiting an archive in a city whose history he was not familiar with, he tapped into the specialized knowledge of the archivists who "knew the local history . . . had a sense of the collections, and a sense of the period and place I was looking for" (participant 1) and so could suggest relevant collections for him to investigate.

Another reason given by the historians for consulting the archivist was that the finding aids were often not set up in a way that facilitated their search. One historian commented that archivists "will point you to records that you can't necessarily find in an obvious way in finding aids" (participant 6). Another historian suggested to her students that they should first talk to the archivist when beginning a research project because "the finding aids are too complex now and they are so different in each particular context that you really need someone to lead you by the hand throughout" (participant 8).

Archivists were also adept at evaluating the usefulness of a collection in relation to a historian's research, information that would be difficult to impart in a finding aid. For one researcher, the archivist explained the difference between two different kinds of war diaries and how one would be better for his research than the other: "G_____ would tell me, . . . unless you want a blow by blow account, these war diaries aren't going to be that useful to you, but if you are looking for the diaries of

individuals, we have this whole section" (participant 4). The historians were aware that not all collections are described in finding aids and that the only way to find out about their existence was to ask the archivist. One historian who regularly visited a British archive described how he would talk to the archivist on his return to the archives and ask if they had received any material in his subject area since his last visit. Although he stated he could probably have found the same information by going through the accession files, he felt it was important to talk to the archivist "because there are always unlisted collections and the very first piece of research I published was from a totally unlisted collection that somebody alerted me to" (participant 9).

The relationship with the archivist sometimes extended beyond the help that they provided the researcher in the archives. Once the archivist knew the type of material researchers were interested in, the archivist may continue to inform them of relevant material as the archivist came across it. One historian commented that after he had established a relationship with an archivist at a distant archives, the archivist continued to monitor the collections and inform him of relevant sources after he had returned home: "so I got material even afterwards, which he thought of simply because he knew that I was interested in this character he had come across, or thought of it afterwards" (participant 3).

Another historian mentioned establishing a relationship with an archivist at an archives he visited frequently as "a strategy on my part, [to] keep a tie with him because he knows what's new, what's coming in and he might keep me in mind and so for an archives that you use frequently and over a long period of time, that kind of relationship is very helpful" (participant 1). Another historian explained the importance of talking to the archivist about her project, because the type of material she was interested in often did not make it into the written descriptions. It was "pretty mundane stuff and it's not fancy enough to have been considered you know, even worth mentioning" (participant 8). In this case it was necessary to talk to the archivist because there would be no other access point to this material. As she explained, "all of the . . . best digitized sources in the world are never going to replace that for me" (participant 8). Archivists were important to historians more than just for their knowledge of collections. The interaction between the archivist and the historian made it possible to make connections to collections, and this was often not possible to achieve from examining the finding aids alone.

Archivists are an important resource in archives as they help researchers orient themselves to new archives and new collections. Often the first thing historians did when visiting a new archive was to consult with an archivist in order to learn about collections that would be relevant to their research when they were unfamiliar with the archives or

the local history. Archivists were also able to evaluate the usefulness of collections in terms of the historians' research. Because not all collections are listed in archival finding aids, talking to the archivist was also the only way to learn about the existence of some materials. Finally, archivists were easier to use than finding aids and could make connections to relevant material in a way that was impossible to replicate in either the printed or online aids.

Known Material Search

A known material search occurs when a researcher has knowledge of a specific item, collection, or material type that he or she wants to look at. Because archival collections are organized according to the authors or creators of these collections, including organizations and individuals, when a historian has a name, he or she can use this name to identify relevant material in the archives. Names of people or organizations connected with an event or subject can be ascertained through secondary sources and other published sources such as contemporary newspapers as well as from reading the primary sources themselves. Almost all of the historians interviewed (nine out of ten) provided examples of collecting names of individuals or organizations related to their research. When names are known, historians can consult union lists of archival collections to discover which archives have sources related to these individuals or organizations. More recently, historians have been able to consult archival Web sites to locate relevant collections. Experienced researchers will often know many of the key people or organizations connected to their topics. This knowledge and where their papers are located are part of a researcher's expertise. As one historian commented, "Sometimes I just know that this politician is important and I know his papers are there, I've known this for years as an experienced researcher in the general field" (participant 1).

With a list of names and citations garnered from published sources and previous research, many historians visit an archive already knowing what they want to examine [3]. Some historians seek information that is contained in a particular kind of source, or genre, rather than a known item. Certain genres are essential for certain types of historical research. For example, the social historians to whom we talked mentioned seeking information about marginalized or less-documented individuals in psychiatric case files, court records, birth and death records, and other similar types of documents. One of the necessary skills a novice researcher must acquire is the ability to identify what kinds of sources will contain the kinds of information for which they are looking. One of the historians interviewed counseled her students to take some time at the beginning of a project to survey the range of sources that might be useful to them "so they can have a better understanding

of the range of things that they might be able to see through a range of different primary sources" (participant 6).

Historians seeking a known item or known material type (for example, wills) often want ready access to these sources. However, because collections are usually described at a high level in finding aids, the whereabouts of particular items are often difficult to determine. A number of the historians interviewed suggested that online systems may facilitate this type of information seeking since, as archives databases are digitized, these items could readily be found through keyword searches. Online systems may also facilitate searching across collections, rather than requiring a search through one collection at a time to find items, as is the case with most print finding aids. One historian commented that he had looked for a particular ballad for years and had recently located it through the Public Record Office online database of ballads: "And there was a simple interface to search by title of tune, or whatever, and I did so. And I had been looking for many years, actually, for instances of this particular ballad and had never been able to find the original materials before" (participant 9).

Searching for known items or known material types can occur at any stage during a research project. Historians can gain knowledge about these known sources (for example, items, collections, genres, or material types) from secondary sources, following leads from other archival material, talking to archivists and colleagues, or previous research experience. These are also the tools that help build contextual knowledge.

Building Contextual Knowledge

Building context is the sine qua non of historical research. Without it historians are unable to understand or interpret the events or activities that they are examining. The historians in this study indicated that they built this background or contextual knowledge in the archives by consulting with an archivist, studying the finding aids, and examining the material itself. In the beginning phases of their archival research, they described their information needs as vague and difficult to articulate. The metaphors they used when describing the early stages of their research reflect this imprecision. They talked about "rummaging around on spec looking for things" (participant 3) or "fumbling my way through this material" (participant 2). They started with broad questions. They talked about going fishing, "you hope that you will catch fish, but sometimes you are not successful" (participant 5). Or they talked about searching for a needle in a haystack, "a lot of us did a lot of needle in the haystack thing where we spent months going through lots and lots of archival collections just hoping we could find something, and sometimes we did" (participant 7). As context in-

creased, they narrowed their information-seeking strategies to locate more precisely defined items. At this point they described their research as detective work, as they "track down potential little pieces, fragments that could be sewn together" (participant 4).

The historians to whom we talked expressed interest not only in the information that was directly related to their topic but also in any information that tangentially threw light on it. These historians wanted to know about the people, organizations, events, and the general background of their topic because they do not merely seek information, they interpret it. No interpretation is possible without a solid appreciation for the meaning of, or the reasons why, records were created. One historian discussed the types of information required to interpret the information found in a letter or government document: "Well, if it's a letter you have some sense of who's writing it and what the context is, and why. It always helps if you know the characters involved and their relationship. If it's a government report on something, then you try to know why the reporting is being done and as much as you can about who the particular person is writing the report, for example" (participant 6).

Contextual information includes more than just facts about who or what organization created the records. Context also includes the organization or the structure of records. The historians wanted to know about the relationships among records. One historian who was examining letters written by farm women suggested that knowing the original order of records provided insights into the record-creating process and that this knowledge helped her with her research even if she did not find any relevant information in the records themselves. She commented that even if she did not use any of the material in a particular collection, the arrangement of the records gave her a sense about letter writing and her subject that "transcends the particular material that you might want to pull out of it" (participant 6).

One of the historians interviewed also emphasized the importance of understanding why gaps appeared in collections. She wanted to know if they occurred because the records were never created or if they were not saved. For instance, when a gap of four years suddenly appears in a person's diary collection, is it because "the person is grieving for four years, or because there is a fire?" This historian was not only interested in what is there but also in what is not there. As she explained, "I made a profession out of trying to read what's not there into things" (participant 6).

The totality of the records provides information that no individual record can. Historians must comprehend the records in their context rather than as separate disembodied items. Without this contextual information, the historian could easily misinterpret the meaning or sig-

nificance of the information in an individual record. Seeing where a letter fits in with the rest of the collection can inform the researcher of the importance of the matter in which they are interested in relation to other things happening at the same time. The following historian explained the importance of seeing everything in a collection, not just the one item he was looking for:

> I mean you dip into the papers and usually I am not just looking for the one letter that is directly related to what I am talking about, but I want to have a sense of what is going across this guy's desk at this time, what are . . . it's usually he . . . what are his concerns. And so to see that other material that's happening at the same time is helpful and may make you re-think the importance of your matter. You know if there is one letter about the political crisis involving the Orange Order during the Royal Tour, and a hundred letters about the controversy over the next bishop, then you know that your matter was small potatoes for this guy at the time, and that kind of information was very helpful. (Participant 1)

The significance of his subject, "a royal tour," was only understood by comparing records related to his topic with other records in the collection. He went on to explain how organizing records by correspondent rather than by date would create barriers for his analysis. Alphabetical order, even if it is the original order, would not have provided the type of contextual knowledge that this historian needed.

Contextual knowledge serves many different purposes. The historians in this study wanted to know something about the people and organizations that created the records and the structure or organization of the records in order to understand the record-creating process. They also wanted to know how the subject they are interested in relates to other events and circumstances that were occurring at the time in order to ascertain its relative significance. The historian's interpretation of the records often depends on this contextual knowledge, but contextual knowledge is also critical for identifying relevant material.

Identification of Relevant Material

Contextual knowledge provides historians with the names of possible record creators, enables them to use the provenance method of retrieval, and increases their ability to navigate relevant finding aids efficiently. Because archives organize their collections by the names of the record creator, historians with a list of significant individuals can usually retrieve relevant sources efficiently. A number of the historians discussed how their name-collecting activity facilitated information seeking in archives. As one historian noted, "I know that every time I see this name in a finding aid, well this is where I'll find some documents" (participant 5). Many of these names were collected prior to visiting an archive, but many others come from archival sources, archivists, or findings aids. For example, one historian described how he discovered

the name of an organization from the records. This information led him back to the finding aids to seek more information about this organization: "And as I mentioned to you, as soon as I order stuff, well sometimes I discover some names or some groups or some institutions that I was not aware [of], that I might go [to that collection] again, maybe looking at the finding aid, to look and see [if] maybe this organization that did not mean anything to me, now makes sense" (participant 5).

Contextual knowledge is constantly being built up during the research process. Out of this knowledge the historian is able to identify significant individuals and use the provenance method to identify relevant records. This historian described how his reading of contemporary accounts of an event helped him identify new primary sources: "the more reading I did in the newspapers and so forth, the more times I saw these Indians coming up, and I began to wonder whether the Indian Department had anything to do with the involvement of native peoples in the spectacles that were put on" (participant 1). Seeing that natives were playing a role in the event led him to search the Indian Department papers for any records that described their involvement. The agency history and biographical sketch often contain information required to retrieve records using the provenance method. The historian's previous contextual knowledge and the information in the finding aids combined and resulted in the formation of correct relevancy judgments. For example, one historian examining the role of women in the dairy industry described how the agency history helped her judge the possible relevance of a collection. Her knowledge that women were rarely involved in large producer organizations led her to examine the agency histories of the papers of dairy producers to identify the papers that belonged to small, local producers: "So if it's a very large organization with large producers, the likelihood of me finding a lot of women in there is less. Whereas if its a small organization of local producers, I might have a good chance of finding women. . . . So I take my knowledge of the subject matter and then use the description of the organization or individual [found in the finding aid] and then I make an informed guess, or informed decision as to whether I think it's worth spending the time to look at it or not" (participant 10). In this case, the contextual knowledge contained in the researcher's head, as well as the information contained in the finding aid, helped her determine which type of organizations was more likely to produce the type of information she sought. Many of the historians were adept at using the provenance method to find relevant material; that is, they were able to connect their information need to the functions and activities of an organization to find useful information. The biographical sketch or agency history helped in this process by enabling historians to locate

the most relevant material within a collection. Knowledge about a person or organization equipped the researchers to pinpoint the records that pertained more directly to their research. Information about the creator of the records guided the use of the finding aids and helped steer the researcher to certain parts of the collection. It also helped the historians to determine what was not relevant and prevented them from spending "a lot of time going through a lot of boxes that weren't useful" (participant 7).

Contextual information allows historians to differentiate efficiently between material that contains relevant information and material that does not. This knowledge is particularly important because finding aids often do not describe the content of the records at the file or item level. Furthermore, the major themes that a collection covers are often not identified, or if they are, they may be themes that were relevant at the time the finding aid was created while subjects of current interest are not addressed. Historians, therefore, need to use their contextual knowledge to deduce whether records contain relevant information. One historian described this process: "But going through most finding aids, the collections and private papers, you certainly have to know . . . the unfolding of that person's life or the different people in the family's life to know if a particular letter written on the twelfth of February 1833 was going to say anything or not, unless the finding aid is more specific about the themes" (participant 6).

Many of the historians interviewed, particularly the social historians, suggested that subject indexes, keyword searches, or identification of themes would help them with their research. Unfortunately, archives rarely provide this type of access. Therefore historians have to use other methods to retrieve the information they seek. Consulting with the archivist was one method practiced by most historians interviewed. One historian followed a clear strategy to tap into the archivist's knowledge about collections. For instance, he made sure his "chat" with the archivist was open-ended so as not to limit the archivist's responses. He described how he would, "talk a little bit about what the project is about and what kinds of themes I am interested in and see whether they can remember something they might have seen somewhere or other. You know, those kinds of discussions, informal discussions, open ended, where you let them talk can be really helpful. I have found good things, for sure, over the years" (participant 1). Rather than ask a direct question that would have limited the response to the terms of the question only, this historian engaged the archivist in a general conversation that opened up the response to any information that the archivist thought relevant. In effect, the historian was attempting to browse the archivist's store of knowledge.

Accessing relevant material requires educated guesswork. Because of the vast amount of reading they do, historians are able to make informed decisions about the kinds of material that will yield the most fruitful results. One historian spoke in terms of searching the most likely sources first and then moving onto less likely sources: "I never think I'm going to be able to read every record in the archives that might relate to something. I'm always creating priority orders of what I think is going to be most useful . . . finding things that you know are going to be bang on, and then as you use up those, then to find things that are perhaps less likely at first glance" (participant 10). Finding aid descriptions, particularly if they are at the item level, contain information about the content of the item, which increases the probability of finding useful material. The more descriptive information that there is, the more readily researchers can identify likely sources, as this historian commented: "Sometimes archivists produce very quick little summaries of stuff that's of an absolutely enormous value to the researcher because it enables you, you'll miss lots of things, but at least you'll have some pieces, some collections that you know are going to be more probable. It's probabilistic always this stuff isn't it? I mean if you can increase the likelihood of a lucky strike, you've done an immense amount of good for a researcher" (participant 9).

Often historians must find indirect ways to locate relevant material when the research topic does not match the major themes represented in the collections, subject access is not available, and the archivists cannot help. We found that the historians to whom we talked frequently go through a process of asking questions that helped them think in terms of other collections that might shed light on their topic. Question asking and question refining appear to be essential tasks for information seeking in an archives. This historian's comments illustrate the question-asking process that eventually led to the identification of a likely source: "There's no collection in the archives that is going to tell you this is the right . . . collection [concerned with] . . . Italian immigrant women working in the garment factories of Spadina. So then you have to start thinking . . . as an historian, right, thinking about what might be in the archives that might be useful to me. So in that case I'd think about 'Are there any union records in the archives? Are there unions that would have female workers in them? Garment unions, textile unions?' " (participant 7).

These historians also did not seem to have a problem changing their questions when particular lines of inquiry did not bear fruit. For instance, when one historian was unable to document a connection between two individuals he was interested in, he simply moved on and pursued other leads, "So just by having that verified [that no documen-

tation existed] let me know that now I had to follow another footpath through some other set of documents, and so I did" (participant 4).

As new knowledge was acquired about a subject area, questions were changed or reframed, requiring a return to the sources or finding aids to reread material previously passed over. With new knowledge, the historians discovered the relevance of material that they had previously rejected as unimportant. One historian described the process, "after I had found a number of letters by a certain person, something that I vaguely remembered having seen in the finding aid, and which didn't have any significance to me at the time, suddenly seemed as if it could be important" (participant 3).

The relationship between building contextual knowledge and identifying relevant material is iterative rather than linear. It is "so dialectic" (participant 6), as one historian noted. The historians' contextual knowledge helped them locate relevant sources. Without this knowledge historians could not judge which individuals were important to their topic and which were not. They did not know where in a collection to focus their attention. Therefore, as their knowledge increased, the historians found that they needed to reexamine finding aids and sources. One historian explained, "That would be something else I'd stress, is to tell the researcher to keep going back to the finding aid because there's a tendency for us to think you go through it, and then you jot down what you think is useful and that's it. But again, as you are going through the records . . . these sort[s] of interesting characters you didn't know about show up, or the papers in this particular box or file referring to activities that you had no idea [what] they were up to" (participant 7).

The identification of relevant material walks hand in hand with building context. As more contextual knowledge is acquired, the ability to identify relevant material increases. And the more one discovers relevant material, the greater is one's understanding of the events and activities of the past.

Discussion

Four different types of information-seeking activities emerged from interviews with ten historians about their research experience in Canadian, American, and British archives. These activities include (1) becoming oriented to a new archive or collection, (2) searching for known material, (3) building contextual knowledge, and (4) identifying relevant material. These activities occur throughout the research process, often simultaneously and in no particular order. Building con-

text and identifying relevant material are activities so intertwined it is difficult to discuss them as separate entities. Becoming oriented to new archives or collections may occur numerous times in a historian's career or several times during a single visit. Searching for known material can occur throughout the process, from first entering an archives to finishing a project.

The findings in this study throw increased light on the research process of historians in the archives. Contrary to previous studies [3, 5, and 29], this study found that finding aids were not only used by historians but were highly valued. They were consulted for a number of reasons: to orient historians to new collections, to provide context and background information for their research areas, to reduce uncertainty when using a new archives or new collection, and to facilitate the identification of relevant documents. This study also confirms previous studies' findings of the use of names to find information in archives [3–4, 31–35, and 42]. Names are used primarily because they are the easiest way into collections since archives are organized by the name of the creator of the records [1]. Cole [42] suggests that novice researchers collect names to affect the expertise of more experienced researchers. From our findings, it appears that experienced researchers continue to collect names to recognize relevant information within the collections and the finding aids and to identify relevant collections as well. Furthermore, collecting names may be a fundamental practice in historical research since the past is often interpreted through the activities of individuals or organizations.

While topic-oriented research can sometimes be problematic in an archives, the historians in this study were adept at circumventing the many obstacles. When there is little subject access, they collect names and consult the archivist for advice on which sources would be most useful for their research. From their contextual knowledge they were also able to make judgments for themselves about the usefulness of records. Finding aids that highlight the subject matter covered by the primary material and describe it to the item or file level will assist them in this endeavor. The historians in this study were also experts at using the provenance method for record retrieval. They constantly thought about their information needs in terms of what kinds of organizations or individuals would produce the kinds of information for which they were looking. As one historian put it, "Well you need to know where things are going to end up" (participant 6). In agreement with Beattie's findings [2], the social historians we interviewed also mentioned the difficulty of using the provenance method and expressed the desire to have subject access into collections. The same historian commented, "There has to be a way that people can find things without having to

know who generates them so that keywords will search across different provenances of things" (participant 6).

The historians interviewed followed similar approaches into their material. Most consulted secondary sources to gain background information and used citations to identify relevant primary sources. They used all the available research tools, including finding aids, archivists, other researchers, and the resource material, to gain valuable leads. While Conway [3] found that researchers' questions were well defined and that their need for documentation narrowed by the time they arrived at the archives, the historians in our study indicated that their questions were often imprecisely defined when they started their archival research. The historians' questions started broad as they gathered all available background information and built up contextual knowledge about their area. Also, the questions changed as they gained more understanding about their subject, and they did not seem to have a problem redefining their questions when one research path was closed off and another opened up.

This research also supports Cole's [42] findings about the relationship between building context and the ability to recognize relevant material. Cole states that the researcher needs preexisting knowledge about the subject area, or context, in order to recognize relevant information. New information constantly reshapes or modifies the picture that is being built up about the past. Our findings also indicate that as new information is found and the picture is reshaped, the historian goes back to the finding aids and the sources to reevaluate information that has suddenly gained new significance.

Without contextual knowledge, the ability of researchers to find and interpret information is difficult, if not impossible. Historians at the beginning of their research may, therefore, appear vague about their information needs. Their research methods seem haphazard and their discovery of relevant material, accidental. Our findings indicate, however, that historians are systematic and purposeful in the way they go about building context, which enables them to find and interpret relevant material. Although the building of contextual knowledge is time-consuming, requiring broad searches through vast amounts of archival material, it appears to be an essential part of the historical method. Throughout the information-seeking process, new information is acquired that builds historians' contextual knowledge and affects their interpretation of sources. Concomitantly, as expertise and contextual knowledge increase, historians are able to devise strategies to lead them to the most likely sources that would yield the best results. Although historians often speak about the role of serendipity in their discovery of relevant material, there is strong evidence to suggest that this process

is influenced less by serendipity and more by the deliberate tactics of the expert researcher. In other words—what appears to be accidental discovery is accidentally found on purpose.

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