Student misidentification of online genres

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ABSTRACT

In the online information environment, new hybrid genres are emerging that resist easy classification into the traditional categories of print formats. However, students are often not equipped with adequate knowledge of online genres, particularly when it comes to finding scholarly sources. Understanding genre provides students a significant advantage in conducting effective research online, because it reduces the cognitive load of information seeking, improves the ability to judge relevance, and helps identify documents whose purpose matches the users' intent. This research explores how well students identify the information genres that they encounter in their real-life online research. 204 undergraduate students were asked to identify the genres of 15 online sources. 60% of the responses were misidentifications, and 64% of scholarly sources were incorrectly identified. Students were also inaccurate in judging which genres were most difficult to correctly identify. However, students who had received prior IL instruction showed significantly higher accuracy in identifying online genres. Suggestions are made for information literacy instruction to better help students identify, understand, and use online genres.

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1. Introduction

While today's students overwhelmingly rely on the Internet as their primary source for information when conducting academic research (Becker, 2003; Costello, Lenholt, & Stryker, 2004; Swanson, 2005), they also face significant challenges in understanding the form and purpose of the sources they find online. Studies consistently show that college students overwhelming rely on Google to the exclusion of many other academic search tools (Hargittai, Fullerton, Menchen-Trevino, & Thomas, 2010; Head, 2007; Head & Eisenberg, 2010). Given these habits, students may assume that search engines and databases are equivalent, being unaware that databases are intentional collections of sources for a particular purpose while search engines are algorithmic indexing programs (Parker-Gibson, 2005). Students may not recognize the difference between library catalogs and periodical indexes (Cockrell & Jayne, 2002). Their experience with searching full-text databases comprised of individual articles from a wide array of sources may mean that students do not realize or understand that a journal article was written for a specific publication that comes out in chronological sequence (Fister, 2002). Librarians know that students often find it difficult to distinguish between journal articles and other publication formats such as magazines or newspapers (Caspers & Bernhisel, 2005; Parker-Gibson, 2005; Rose-Wiles & Hofmann, 2013). Beyond these traditional genres, the Internet is producing novel, hybrid, and emergent genres that present even greater challenges to students attempting to understand their meaning and relevance.

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2. Problem statement

In the abundant information environment of the Internet, possessing an accurate understanding of genre provides students a significant advantage in conducting effective research. The forms of information tell searchers what can be expected and found when seeking information in systems of organized knowledge (Andersen, 2006). Understanding genre provides context by incorporating an understanding of a document's purpose or function, and allows for finding documents whose purpose matches the user's intent and helps them make judgments regarding the document's relevance to their information need (Crowston, Kwaśnik, & Rubleske, 2010; Rosso, 2008). Genre knowledge also provides implicit background information and suggests the cognitive requirements needed to understand a text (Santini, Mehler, & Sharoff, 2010). It reduces the cognitive load of information seeking by making documents more easily recognizable and understandable (Crowston et al., 2010). This knowledge also allows information seekers to make predictions concerning the form, function, and context of information they find, which is "certainly highly attractive when the task is to come to terms with the overwhelming mass of information available on the web" (Santini et al., 2010, p. 4). However, studies have noted that students may be confused about electronic resource types or unable to distinguish among them (Croft & Davis, 2010; Levine-Clark, 2006). Students are often not equipped with adequate knowledge of online genres and need assistance in navigating the current transitional age of electronic and print culture (Sidler, 2002).

While library and information science (LIS) research often explores how students judge the credibility of online sources, and what criteria they use when making judgments, the question of whether students

can accurately identify the genre of information sources they find online has not been investigated. This study addresses this research need by investigating how well students identify the genres that they encounter in their real-life online research. Specifically, the study was motivated by two research questions:

- How accurately do undergraduate college students identify examples of the online genres that they find while conducting authentic research?
- Are students able to distinguish online scholarly sources from non-scholarly sources that they find while conducting authentic research?

3. Literature review

There are many definitions of the term "genre" in different fields of research. The Oxford English Dictionary defines genre as "a particular style or category of works of art; esp. a type of literary work characterized by a particular form, style, or purpose" (Genre, 2014). While traditionally used to refer to literary forms, in the 1980s scholars in linguistics, communication studies, and education adopted the term and applied it to domain-specific rhetorical practices (Simmons, 2005). Swales (1990) identified genres as classes of communicative events which share generally stable features and purpose and are recognized by expert members of a discourse community. This definition has been widely used in academic research to investigate the relationship between discourse and social practice (Askehave & Nielsen, 2005). Other researchers have defined genre as:

- socially recognized types of communication enacted by organization members to realize particular communicative purposes (Orlikowski & Yates, 1994);
- communicative events which share a set of conventions and rules (Vaughan & Dillon, 2006);
- document types based on a purpose, form, and content (Rosso, 2008);
- textual categories that rely on acknowledged conventions and raise predictable expectations (Santini, 2008); and
- recognizable types of information objects differentiated through aspects of form, content, and communicative function (Freund, 2013).

The field of genre theory explores the importance of genre and the role it plays in the understanding and use of information sources, and is studied in the fields of rhetoric, composition, applied linguistics, discourse analysis, and written English instruction (Tardy & Swales, 2008). Genre theory emphasizes not only the content, but also the conventions of a particular discourse community, an important element of the Writing Across the Curriculum movement, which focuses on helping students understand the social construction of discourse by making tacit knowledge explicit (Simmons, 2005). However, students may not yet possess the disciplinary knowledge and experience required to correctly identify genres (Burkholder, 2010). Facilitating students' understanding of genres can also help them become participants in scholarly conversations and provide students with "meta-awareness" of various discourse communities (Simmons, 2005). Gaining this knowledge will help students become more skilled and effective information seekers.

One challenge to understanding online genres is that the transition from print to the Internet has caused an "erosion of information contexts" where all search results have an almost identical look and feel (Tuominen, 2007, p. 2). The fast-changing information environment of the Internet is transforming familiar genre categories, combining them, and creating new genres that resist easy classification (Markey, Leeder, & Rieh, 2014). While print genres have evolved over centuries and remain relatively stable, many of the new electronic genres emerging online appear to be "shuffled, disassembled and then put together again, in a seemingly chaotic manner" (Crowston et al., 2010, p. 72).

Print and electronic paradigms continue to meld together (Sidler, 2002), while at the same time triggering the formation of new genres (Herring, Scheidt, Bonus, & Wright, 2004). Web genres are composite forms in which different genres can be merged into a single document, generating new hybrids (Santini, 2008). For example, blogs are a hybrid genre that draws from multiple sources, including other online genres (Herring et al., 2004). The Internet blurs notions of both a document and genre because web pages incorporate functionality in addition to information (Crowston, 2010), with hypertext links making the larger web itself an integral part of online genres (Askehave & Nielsen, 2005). This blurring of boundaries also means that online information sources may belong to multiple genres, or may resist traditional categorization. Researchers have shown that applying single labels to web pages can be difficult for some users (Rosso, 2008; Santini, 2008). Despite these challenges, however, teaching students to recognize basic online genres is still important, as it helps them understand the purpose and significance of information they find online.

In LIS fields, genre has long been recognized as a key element of categorizing and organizing documents in information retrieval systems (Zhang & Lee, 2013). Traditional bibliographic instruction focused on educating the library user to effectively locate and use library resources (Shapiro & Hughes, 1996; Thomas, 2004), using guidelines primarily based on the material format of print documents (Meyers, Erickson, & Small, 2013; Sundin & Francke, 2009). Identifying the different formats in which information is published, i.e., books, magazines, journals, and newspapers, is also one of the basic components of traditional information literacy (IL). As part of IL instruction, librarians teach students how to develop a critical awareness of the sources they use in their research (Burkholder, 2010). Understanding genre should be part of this awareness. Andersen states that "information literacy becomes equivalent to genre knowledge, as the more we know about the communicative activities we are involved in, the more we also know about how to understand, evaluate, seek, and use the texts produced by these activities" (2006, p. 2250–226). Genre knowledge and literacy are closely related, as genre knowledge incorporates understanding of text organization, disciplinary terminology, citation practices, and content knowledge (Tardy & Swales, 2008).

However, genre theory has been given little attention in LIS research (Simmons, 2005). Andersen states, "Much thinking on document representation in LIS has ignored the purpose of document and its fit to the user's situation; that is, the information provided by genre" (2008, p. 346). Research is needed to investigate ways that genre awareness can be best applied to IL instruction (Burkholder, 2010).

A literature review by Cataldo and Buhler (2012) did not find any studies that addressed how students recognize and label online resources. Other related areas in LIS have been extensively researched. Student research habits have been widely studied (e.g., Asher, Duke, & Green, 2010; Head & Eisenberg, 2010; Rowlands et al., 2008). User studies focus on how people seek information and what sources they use (Andersen, 2008). Web credibility evaluation research examines how users make credibility judgments about online sources (Metzger, 2007; Rieh & Danielson, 2007). Much of the research that addresses genre focuses on the problem of classification (Santini et al., 2010) and IR retrieval systems (Freund, 2013; Freund, Clarke, & Toms, 2006). Automated genre classification research attempts to develop techniques to algorithmically label web pages (Crowston et al., 2010; Rosso, 2008; Santini et al., 2010). However, none of these studies specifically address whether students can accurately identify the variety of genres that they encounter in their real-life online research. In one related study Cataldo and Buhler (2012) conducted a student survey focused on identifying e-books, although this research offered a limited number of other genre examples (journal, article, database, search engine, and catalog) along with the generic category "website or webpage." These broad categories were applied to multiple examples; for instance, "article" covered examples from a newspaper, a journal, a blog, and Wikipedia. Definitions of the genre categories were not supplied to study participants. More