TEACHING POWER AND AUTHORITY IN LIBRARY DISCOVERY SYSTEMS

ANDREW BATTISTA

INTRODUCTION

This talk examines the relationship between library discovery systems and academic authority, or the language, conventions, and evidence the academy deems relevant. We must acknowledge that all library spaces, including online discovery interfaces, are constructed assemblages of authority. Like physical spaces, discovery interfaces often disorient, intimidate, or confuse, even as they attempt to provide guideposts for those who are entering scholarly conversations.

We should attune students to these guideposts within discovery interfaces and cultivate skepticism about them in teaching. I argue that whenever possible, instruction librarians should apply critical pedagogy to library discovery system design principles. By discovery systems, I mean “the set of affordances through which users search, explore, find, and interact with the information resources they need, particularly collections held by a library” (Sadler & Bourg, 2015). In this talk, I share how an NYU Libraries working-group report considered critical pedagogy and inclusive design strategies while evaluating the landscape of discovery, within and beyond academic libraries (Lovins, 2017). I also suggest approaches to critique the ideological underpinnings of proprietary and open source discovery platforms.

INVENTING THE UNIVERSITY AND THE ACRL FRAMEWORK FOR INFORMATION LITERACY

The idea that students struggle with library discovery has been the subject of many studies on “library anxiety,” or a sense of being overwhelmed that causes people to feel inadequate about their research skills (Atlas, 2005; Gremmels, 2015). Constance A. Mellon, who coined the term in 1986, believed librarians should develop “warmth seminars” in order to make students comfortable and accepted. Instead of reducing a learning challenge to “library anxiety,” which suggests that librarians should act primarily as nurturing purveyors of information, I argue that we should turn to the body of scholarship associated with first-year writing composition, for it contains discussions about a process of acculturation and cognition that is much more complex and meaningful than “anxiety.” According to Andrea Baer (2016), critical pedagogy from composition studies provides “strong links between writing and information literacy instruction, both of which center largely on inquiry, knowledge creation, and critical engagement with information sources” (Introduction section, para. 3).

This emphasis on process is particularly germane to my interpretation of students’ experience with library discovery environments. Students arrive at college with an understanding that some sources of information are more authoritative than others. Even if students are not yet adept at managing, evaluating, and contextualizing information, they perceive that markers of authority, such as labels of “peer reviewed” content and alt-metrics statistics, can help them engage with “quality sources.” However, while they suppose that a greater, authoritative form of knowledge exists, they inevitably flounder within databases or catalogs and do a less-than-ideal job of finding information, or contextualizing the information they do encounter.

This scenario mirrors the argument of an influential essay, David Bartholomae’s “Inventing the University” (1986). When students begin their college writing careers, Bartholomae suggests, they “try on the peculiar ways of knowing, selecting, evaluating, reporting, concluding, and arguing” (p. 4). Bartholomae sees the texts and information students encounter as the “outward and visible...
signs of tradition and authority, of knowledge and power” (Bartholomae & Schlib, 2011, p. 268). Beginning writers are aware that they don’t yet have the knowledge to adopt the nuances or language of academic discourse, so their flourishes are little more than approximations, usually cumbersome and opaque sentences. However, beginning students are not “bad” writers; rather, they are amidst a “necessary and enabling” process that gives them standing within an academic conversation (p. 6). The challenge of teaching writing, then, is empowering students to continue this process so that they can appropriate the discourse itself while still approaching it critically.

I believe Bartholomae’s principle applies to information seeking as well. When students enter a new community that requires them to gather evidence and integrate it into their own writing, presentations, and research projects, they must approximate a process they know exists but don’t feel qualified to do. The sources students proffer act as currency in an economy in which they are trying to participate. Bartholomae’s concept of “inventing the university” presages the idea of “threshold concepts” that undergirds the ACRL Framework for Information Literacy. Threshold concepts are “core or foundational concepts that, once grasped by the learner, create new perspectives and ways of understanding a discipline or challenging knowledge domain” (Association of College & Research Libraries, 2015). The Framework asserts that “Authority is Constructed and Contextual” and suggests that as a knowledge practice, information seekers “use research tools and indicators of authority to determine the credibility of sources,” and therefore must recognize that “authoritative content may be packaged formally or informally and may include sources of all media types.” According to the Framework:

[N]ovice learners come to respect the expertise that authority represents while remaining skeptical of the systems that have elevated that authority and the information created by it. Experts know how to seek authoritative voices but also recognize that unlikely voices can be authoritative, depending on need. Novice learners may need to rely on basic indicators of authority, such as type of publication or author credentials, where experts recognize schools of thought or discipline-specific paradigms.

Library discovery systems are rife with hidden and visible “basic indicators of authority,” such as search relevancy rankings, icons, help buttons, facets, and ontologies, and instruction librarians often point to these as indicators of authority. A critical pedagogy imagines a gradual transition, in which students manipulate discovery environments with confidence and learn to contextualize the evidence they find, regardless of how it is packaged.

**Library Discovery Interfaces and Signals of Authority**

Since I’ve begun thinking about library discovery, I’ve applied concepts of cognitive design theory to the online interfaces libraries use. Malcolm McCullough’s idea of embodied information, a design principle that dictates that “the intrinsic structure of situation may itself inform, without anything being sent,” is particularly salient (p. 87). “Embodiment,” McCullough suggests, “makes it easier to build tacit knowledge, especially through habituation. Physical elements often anchor and resonate across abstract processes of cognition” (p. 87). Consider Google’s search results, which rely upon the Knowledge Graph, as an example of McCullough’s principle.
The clean design on Google’s page suggests that the information inscribed within the box at the top is privileged and more trustworthy than the definitions beneath it. However, there are no visible indicators about the source of that information, aside from the situated reality of a box that distinguishes the content inside of it. Google’s Knowledge Graph layout is an example of McCullough’s principle: the essence of simple design acts as an unspoken marker of authority.

Library discovery interfaces also signal that some forms of information hold a privileged place within higher education. However, what and how search engines present information is not a neutral process. Safiya U. Noble (2013) implores us to consider the degree to which discovery platforms, commercial or homegrown, can perpetuate patterns of erasure, exclusion, and marginalization. She argues that beneath “the public’s general understanding and trust in commercial search engines like Google [is] a belief in the neutrality of technology—a technologically deterministic blind spot to the embedded social values in technology design itself” (Racial and gender bias in Google search section, para. 3). Google is infamous for privileging some forms of information over others, but library discovery products are implicated similarly. For instance, Ex Libris’s Primo Central deploys Primo ScholarRank, an algorithm that scores results according to “academic significance,” or whether an item is peer-reviewed or has been cited frequently. The more extensively structured data, ontologies, and taxonomies are taken as input into machine learning interfaces, the more deliberate libraries should be in trying to ensure that processes of encoding, modeling, and information-gathering do not reinforce implicit and explicit biases. Discovery tools and data layers should be designed, when possible, to mitigate against this trend.

Designing for Inclusiveness

The NYU Libraries working-group report identifies several design principles that instruction librarians can advance within their institutional settings to produce more inclusive and egalitarian discovery interfaces. First, libraries should be transparent as possible about the choices implicit in system designs. Princeton University explains the rationale for its project to implement a Blacklight interface in terms that most users can understand (Princeton University Library, 2017). By developing an open source...
interface, Princeton has full control over relevancy rankings and can integrate information services from third-party providers more seamlessly than in other solutions.

Second, strive to implement a bento box design. This reinforces the idea that a single concept or search can yield results from a variety of kinds of information sources, each grounded in its own conventions and discourses. Thus, it becomes a spatially significant way to teach about complex information ecosystems. As Thomale, Hicks and Phillips (2016) explain, the bento box principle “presents data in contextualized groupings, or ‘chunks,’ of information [that] allows users to employ a strategy based on pattern recognition and contextualization rather than on the mental gymnastics needed to recall the original query on each result in a long, unforgiving list” (p. 132). By working with systems designers, instruction librarians can advocate for these implementations as a principle of critical pedagogy.

Teaching Alternative Literacies

In addition to affecting design decisions, we can turn introductions into discovery environments into discussions on how interfaces can create or present academic authority. A potential opportunity to have students explore the relationship between a discovery interface and the dynamic of academic authority is a proprietary database like the ACI Scholarly Blog Index. The ACI Scholarly Blog Index presents blog content online in a format that students have been conditioned to recognize as authoritative. For example, it allows users to explore blog content according to a controlled vocabulary, and it even suggests that users should filter their results according to the educational credentials of each blog post author.

Figure 2: ACI Scholarly Blog Index

However, in terms of critical information literacy, the ACI Scholarly Blog Index is regressive. It takes blogs, a medium of information that is usually situated outside of the environment of veritable scholarship, and re-presents it with a veneer of academic authority, appealing to markers like educational credentials as signifiers of quality. The goal is for students to become adept at recognizing that “authoritative content may be packaged formally or informally,” as the knowledge practice states, yet interfaces like the ACI Scholarly Blog Index seem to undermine the potential for blogs to exist as meaningful for students. Blogs are an important source of information because students recognize that they influence public discourse while existing outside the publishing cycle of academic authority. They also understand that blogs can influence political and social discussions in ways that mainstream
media can't always control or predict. In fact, this is one of the specific examples the Framework mentions. A new knowledge disposition is that students will “critically examine all evidence—be it a short blog post or a peer-reviewed conference proceeding—and to ask relevant questions about origins, context, and suitability for the current information need.” The content that's been "curated" on the ACI site is really no different than content that's available on the open web with a Google search. Perhaps the Framework itself would compel libraries to forego purchasing or teaching with resources like the ACI Scholarly Blog Index, but more likely, it could become part of instruction that integrates the concepts and goals of social justice would open up space for a conversation about the role of blog writing amidst an increasingly diverse and fluid network of scholarly communications (Battista et al., 2015).

REFERENCES


