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DISCIPLINARY DISCOURSE: EXPLICATING RHETORICAL AND SOCIOLINGUISTIC NETWORKS IN THE ARCHIVE AND LIBRARY

BY

AMELIA HERB

DISSERTATION

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Doctoral Committee:

Associate Professor Peter Leslie Mortensen, Chair Professor Gail E. Hawisher Professor Janet Dixon Keller Associate Professor Kathryn LaBarre

ABSTRACT

This dissertation explicates the disciplinary rhetoric of the field of Library and Information Science (LIS) and its subsequent impact on the field of writing studies and the teaching of writing. Specifically, this inquiry includes four key aspects: theorizing the field of LIS as a metadiscipline that has similarities in scope and influence to the field of writing studies; illustrating how the rhetoric of the field of LIS can affect historiographic practices in writing studies; analyzing the discourse of LIS as found in the *Library of Congress Subject Headings* in order to reveal its rhetorical and the sociolinguistic import; finally, theorizing a method for utilizing LIS theories to improve the pedagogy of the research paper within composition courses. To accomplish this, I build on and synthesize theories from Stephen Mailloux, Roland Barthes, Pierre Bourdieu, Birger Hjørland, and S.R. Ranganathan. What emerges is a response to specifically how and why writing studies needs to better understand our connection to LIS, as well as more broadly, how and why writing studies must research the influences of disciplines on one anther, specifically the implications of types of disciplines, such as interdiscipline and metadiscipline.

To depict LIS's disciplinarity, I draw from Stephen Mailloux's notion of the interdiscipline to conceive of a new category of discipline—metadiscipline. While Mailloux's notion of interdiscipline stems from writing studies' historical emergence from the fields of English, rhetoric, and communications, the concept of metadiscipline is derived from the function, or object of analysis of both LIS and writing studies. I use key articles from sub-fields within both writing studies (WAC/WID) and LIS (knowledge organization) to argue why the concept of metadisciplinarity is important and how these

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two fields can collaborate in order to better study the disciplinary practices of disciplines from across the university, as well as the interconnections and influences between disciplines.

The rhetoric of the discipline of LIS is perhaps most apparent to historiographers in writing studies attempting to hone archival research practices. To this point, however, discussions of how to improve archival practices by writing studies scholars contain conceptual metaphor of serendipity that has superseded its usefulness. Few current studies of archival practices acknowledge how the structure of archives affects writing studies historiography and none currently acknowledge the link between the archives and its parent discipline LIS. This dissertation aims to begin filling this gap, as well as illustrate, through a case study of the *Carl Sandburg Asheville-Transfer Collection*, and an analysis of the curation of the James Berlin Archive, where and how the rhetoric of LIS within the archives creates barriers to access.

In order to better understand the rhetoric and discourse of the field of LIS, I analyze the *Library of Congress Subject Headings (LCSH)* to reveal the discourse and rhetoric of this document. What is revealed is that the *LCSH* is a hybridized discourse, containing traces of the discourse of the many scholarly fields for which it organizes information, as well as other discourse communities with which it is affiliated and connected. Overall, the rhetoric of the *LCSH* is a scientific one, akin to Darwin's *On the Origin of Species*, which relies on enthymatic argumentation to state its claims.

I conclude by showing how composition teachers can employ what we know about the discipline of LIS to the teaching of the ubiquitous research paper. Specifically, I create a methodology to teach research writing that uses the *LCSH* as well as another LIS

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theory known as facet analysis to help the search inquiries and the invention stage of the writing process. This methodology blends well with Writing About Writing (WAW) approaches to composition. Lastly, I note how the conceptual metaphor of "mystery" colors the way we understand and subsequently teach research writing. Overall, this project analyzes the disciplinary discourses of LIS and writing studies in regards to library and archival research methods.

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my project has been invariably impressive and serves as a benchmark for pedagogical success.

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Chapter 1

Fear, Serendipity, and Mystery: Disciplinary Discourse and the Rhetoric of the Archive and Library

Archives are not "things" but "epistemological experiments;" not [merely] sites of "knowledge retrieval" but sites of "knowledge production."

Lucille M. Schultz (2008, p. vii)

Fantasies are carefully deployed in the hushed library, with its columns of books, with its titles aligned on shelves to form a tight enclosure, but within confines that also liberate impossible worlds.

Michel Foucault (1977, p. 90)

In her foreword to Gesa Kirsch and Liz Rohan's edited collection *Beyond the Archives: Research as Lived Process* (2008), Lucille Schultz highlights the rhetorical complexity of the archives, as well as the complicated role the seemingly mundane organization and rhetorical construction of archives plays in historical research. Schultz, then, not only expresses that the archive is, itself, a constructed text that shapes the researcher to create particular narratives, but also that the researcher comes to the archive with a certain perspective coloring his/her reading of the artifacts. While these issues of archival construction and historiography have been of longstanding importance to the field of writing studies¹, Kirsch and Rohan's (2008) collection and Ramsey et al.'s (2010)

¹ Throughout this dissertation, the term "writing studies" will be used to represent the field also known by other names such as "rhetoric and composition" and "composition studies." The use of "writing studies" calls attention to the action of writing in all its textual and multimodal forms and acknowledges the various subfields present in the discipline. Janice Lauer (1984) was perhaps the first scholar to place emphasis on the multimodality inherent in and various subfields present in writing studies, while Erika Lindeman and Gary Tate (1991) draw attention to the field's attention to the activity of writing. This appellation also calls attention to the growing number of graduate programs who self-identify as departments, centers, institutes, or programs of writing studies (e.g.

collection, *Working in the Archives: Practical Research Methods for Rhetoric and Composition*, are the field of rhetoric and composition's most recent and perhaps most comprehensive texts regarding theoretical and practical issues surrounding the archives.

These texts represent the product of an "archival turn" (Morris, 2006) in writing studies that arguably began with the *College English* special edition "Archivists with an Attitude" (1999). What this term denotes, though, is much more than an attention to historiographic methods, a renewed interest in history from different minority perspectives, or even in creating revisionist histories that challenge pervading assumptions. This term more largely indicates an attention to the archive as an object of inquiry. In other words, the archival turn is as much about what the archive *is* and *means*, as it is about how to use the artifacts within it or which artifacts should be used or recovered. This inquiry into the significance of the archive not only appears in writing studies literature but is also part of the larger movement across the humanities and social sciences that questions the materiality of knowledge creation, the organization and descriptions of primary sources, the structure and discourse in which primary sources are embedded, and how all of these issues mediate access to primary sources and the knowledge that is created from them (Hamilton et al., 2002, pp. 86-89).

This dissertation argues that the next step in the process of understanding knowledge production in archives and libraries is to analyze the discipline, Library and Information Science (LIS), that mediates access to knowledge (both archival artifacts and published texts), in order to understand the community of practice, history, and discourse

University of Illinois at Urbana-Champaign, University of Minnesota, St. John's University, San Diego State University, Saint Joseph's University, Hofstra University, University of California—Santa Barbara, University of Auckland, and California State University—San Marcos, among many others.)

from which the material conditions, mediation, organization, and description arise. I claim that the "archival turn" should mark the beginning of an "LIS turn," because catalogs and databases, along with their often tacit controlled vocabularies, mediate access to secondary texts in many of the same ways that archival finding aids mediate access to archival artifacts. Improving research practices in both libraries and archives, then, requires seeing archival finding aids and controlled vocabularies such as the *Library of Congress Subject Headings*² (*LCSH*) as examples of disciplinary discourse and analyzing them as such.

As I will argue in the second and fifth chapters of this dissertation, pervading metaphors of "serendipity" and "mystery" about archival and library research within the field of writing studies couch these activities in dubious ways, seemingly eschewing deeper technical understanding of research practices and the LIS instruments designed to aid researchers. This study seeks to more deeply understand and challenge these metaphors, arguing that they reveal much about writing studies' lack of understanding about the disciplinarity of LIS. To date, writing studies has not studied the disciplinarity of LIS, as we have other disciplines such as biology or physics, for example. The following central questions guide this inquiry:

How can writing studies use a better understanding of LIS disciplinarity (history, theory, rhetoric, discourse, and argumentation) to improve research practices (archival and library) and the pedagogy of these practices?
What type of discipline is LIS and how do its theories and methodologies affect researchers from across the disciplines?

² The *LCSH* is six volumes totaling 9,432 pages and containing 337,000 headings and references (http://loc.gov).

What do we discover about LIS discourse and rhetoric when analyzing key examples such as the *Library of Congress Subject Headings (LCSH)* and archival finding aids?

To explore these fundamental questions, I draw from a context of disciplinary rhetoric studies, specifically the rhetoric of science, which views disciplines from a social constructivist perspective. In addition to Barthes' semiotic theory of denotation and connotation, these theoretical bases provide a framework for analyzing the controlled vocabulary of an archival finding aid. Further, sociolinguistic analysis based on Bourdieu's notion of social capital informs my analysis of the *LCSH*. Overall, my methodology predominantly relies on social approaches to historicizing and analyzing LIS' disciplinarity and language practices and supplements these with structural analyses when necessary.

In this introductory chapter, I begin with a discussion of archival studies within the field of rhetoric and composition, providing a brief example of writing studies' problematic metaphors for research, which this study hopes to overcome. Then, to begin the process of demystifying the field of LIS, I offer a brief introduction to LIS's many subfields and a summary of the particular subfields that are of importance to this study. In particular, the LIS subfield of domain analysis offers an approach to studying disciplines from across the university that could offer a fruitful collaboration to writing studies' own interest in writing across the curriculum/writing in the disciplines (WAC/WID). Next, in order to provide a context for studying LIS as a discipline, I draw from the rhetoric of science literature and other studies of disciplinarity. Analyzing LIS as a study in scientific rhetoric and disciplinarity reveals new constructions of argumentation and discourse

those revealed by previous research on other fields, such as biology (Gross; Myers) and physics (Bazerman). Before concluding this chapter with an overview of subsequent chapters, I analyze LIS discourse in further depth, illustrating the semi-permeable barrier its hybridized discourse presents for both experts and novices in their respective fields. Overall, this chapter prepares readers for the chapters to follow and presents an argument for writing studies inquiry into the disciplinarity of LIS, showing how it contributes to research in writing studies.

Archival Studies: Ending the "August Mushroom Hunt"

While the writing studies texts such as those of Kirsch and Rohan (2008) and Ramsey et al. (2010) are steps in the right direction, many of the studies within these edited collections reveal and perpetuate troubling metaphors for archival research within our field. Particularly, many scholars focus on "serendipitous" events that take place within the archive and how one should be open to evolving ideas while there, rather than promoting more practical or direct approaches (Kirsch & Rohan, 2008; Mastrangelo & L'Eplattenier, 2008; Birmingham, 2008; Gold, 2008). For example, in her chapter "Archival Survival," Lynée Lewis Gaillet (2010) echoes and invokes Robert Connors' assessment of the murkiness of reading and drawing meaning from the archives stating "archival reading is [...] a kind of directed ramble, something like an August mushroom hunt' (p. 23)—an activity that naturally defies codification" (2008, p. 38). While codification of or creating strict procedures for archival research practices should not the goal, I do argue for writing studies to more deeply understand archives by inquiring into their disciplinary context. Just as a savvy naturalist knows to hunt for mushrooms in the spring, rather than the summer, this dissertation argues that understanding the formation,

curation, organization, and discipline of which archives are a part can better define research practices in archives, helping researchers to "hunt" in the right "season," so to speak.

Part of hunting in the right season involves understanding the activity of organizing and describing an archival collection. Sammie Morris and Shirley Rose's (2010) piece "Invisible Hands: Recognizing Archivists' Work to Make Records Accessible," is an observational study of an archivist's practices for describing and ordering a collection. Scholarship such as Rose's (2010) does well to teach writing studies scholars core principles of archival preservation and curation so that we can identify the choices that were made and how they may affect our access and/or reading of the artifacts. For example, learning about provenance, we then understand that documents are ordered according to the original owner and labeled according to the terminology of the time, thus revealing their historical situatedness. These issues of order and description figure heavily into creating meaning from artifacts and can hold rhetorical and linguistic significance, as well, alerting us to semantic shifts, etymological fallacies, and metaphors or patterns that reveal deeper meaning. Recognizing these sociolinguistic and rhetorical imprints are essential to producing sound historical and rhetorical scholarship especially, in writing studies where attention to rhetoric, metaphor, symbolism, and patterns of discourse are central to building arguments in our field.

While pieces like that of Morris and Rose, as well as Chris Warnick's (2009) discussion of finding aids are steps in the right direction, very few studies within the field of writing studies discuss the practices of archivists or librarians, or how researchers can better navigate finding aids, understand the structure, rhetoric, and logic of how

collections are organized. Oftentimes, these latter "practical" issues can completely conceal important documents or artifacts, and moreover the logic and rhetoric residing in the ordering of the collection or finding aid. This dissertation argues that archival collections reveal not only rhetorical imprints from the originator(s) of the material, but that archival collections and their finding aids have disciplinary imprints, as well.

Following from these analyses, my dissertation provides implications for several subfields in writing studies—WAC/WID, archival research methodologies/historiography, and disciplinary rhetoric, which points to their interdependence. In other words, this dissertation study illustrates how analyzing the rhetoric of LIS necessitates drawing from the traditions of these different writing studies subfields, indicating ways in which they are interconnected. Additionally, by probing the LIS discourse and rhetoric behind research practices (archival and library-based) this study uncovers some confining writing studies metaphors, namely, "serendipity" and "mystery," surrounding these activities. Overall, this study is not only about the disciplinarity of LIS, but also about how the disciplinarity of LIS impacts and dialogues with what writing studies knows about other disciplines' creation of knowledge, as well as writing studies' own disciplinarity and understanding of knowledge creation.

Therefore, my dissertation makes contributions on a number of fronts: a) the disciplinary rhetoric of LIS, b) description of how finding aids for archives are created, c) how rhetoric and compositionists can use finding aids more precisely in their own work and help students to use them more efficaciously, d) how WAC/WID dialogues with domain analysis in LIS, e) how a coalition between scholars of domain analysis and WAC/WID can strengthen humanities research, and f) how all of these areas (WAC/WID,

research methodologies, and composition history), can help us in rhetoric and composition make more informed arguments about how disciplinary boundaries and rhetoric affect us and our students. These implications can most readily be seen when teaching pedagogical genre of the research paper to students from across the disciplines. Due to writing studies' role of routinely teaching research and writing skills to students from across the disciplines, discussions of disciplinary rhetorics and boundaries occupies a central role in how we can teach research writing.³

I argue that methodological training for research in archives necessitates a study of how archival finding aids and documents are produced and then, how they structure the vocabulary and knowledge production of the particular field. Since these documents are produced based on categories suggested by the *Thesaurus of Graphic Materials* (*TGM*), we must understand it in order to fully understand archival finding aids. Because the *TGM* (1995) is founded on the *Library of Congress Subject Headings (LCSH)*, we must inquire into its structure in order to grasp the intuition of the *TGM* (1995). And finally, the *LCSH* (1996) are the product of the discipline of library and information science, which encompasses university and non-university entities and participants. What started as a simple inquiry into understanding archival finding aids, and its guiding

³ The term "research writing" can sometimes be misleading, because all writing necessarily stems from one's current or previous knowledge as gained from myriad textual (e.g. published and unpublished manuscripts, peer reviewed journals, magazines, etc.) and non-textual sources (e.g. archival artifacts, photos, scrapbooks, objects, etc.) and activities (e.g. labs, observations, reflections, etc.). When I use the term "research writing" or "research paper" herein, I mean to represent research conducted through textual or archival analysis, i.e. the discovery of textual or archival sources (texts, images, or objects) and writing about these artifacts. I use the term artifacts to collectively refer to texts (published and unpublished), images (photographs, newspaper images, all manner of visual advertisements, and drawings), and objects (physical, digital, or of a multitude of media).

manual (*TGM*) has become an extended inquiry into the ways in which the field of LIS intersects with rhetoric and composition and all fields within the university.

In conclusion, while rhetoric and composition has carried on an extended, if often tacit or carefully managed partnership with LIS, this dissertation seeks to more fully elucidate the importance of understanding the field of LIS, its documents, boundaries, and debates. I argue that while we perceive the rhetoric of the archive, its mystery, its inconsistencies, its ritual, and its importance, it is but a microcosm of its discipline. This dissertation illuminates the multitudinous ways that studying LIS can impact our field and other fields for the better. Thus, the contribution of this dissertation lies as much in the scope of information about the field of LIS, as it does in the fact that it explicitly connects genres to disciplines and how disciplinary boundaries impact neighboring disciplines. Specifically, this dissertation inquires about disciplinary rhetoric and boundaries—those of LIS and of rhetoric and composition. The Carl Sandburg Asheville-Transfer Collection (CSATC) finding aid and the Library of Congress Subject Headings (LCSH) act as nodes of analysis to this inquiry. Analyzing these texts illustrates how these disciplines negotiate their boundaries in implicit and explicit ways. What emerges are cites of common ground between Domain Analysis (DA) and Writing Across the Curriculum and Writing in the Disciplines (WAC/WID), as well as points of possible uptake of LIS theories (Ranganathan's theory of facet analysis) within writing studies.

Disciplinarity: Heterogenous Activity Systems

Disciplinarity is a term that stems from several different fields (e.g. English studies, genre studies, linguistics, and rhetoric of science studies) that resists the notion

that "disciplines [are] autonomous objects existing in a detemporalized space, as territories to be mapped or systems to be diagrammed" (Prior, 1998, p. 25). Instead, the notion of uncovering a field's disciplinarity evokes a socially oriented approach that regards disciplines as dynamic and heterogeneous (or variegated) systems of activity (p. 26). Stemming from science studies, in particular, which have traced the activity systems and competing factions within fields, a notion of disciplinarity accounts for a fluid and dynamic notion of a disciplinary domain. This perspective is valuable because it draws from a number of aspects of disciplinary practice, synthesizing current activity and situating it in an historical context. In particular, the work of Bazerman (1988, 1991), Latour and Woolgar (1979), and Myers (1990) constitute studies that approach disciplinarity from a social view.

Studies of disciplinarity can be defined as research that inquires into the practices, texts (genre and argumentation), discourse, rhetoric, and history of disciplines from across the university. Such research can inquire into multiple aspects of one discipline or can be comparative, looking at the same aspect, for example, argumentation, across different disciplines. Studies of disciplinarity are then by nature metadisciplinary, not only because they focus on different disciplines as an object of analysis, but also because they focus on these different aspects of disciplinary activity.

Thus, in this dissertation, I build on prominent subfields in writing studies that that regard disciplinarity from a social perspective. In particular, I draw on ideas from the rhetoric of science and composition (including genre studies and WAC/WID), and understandings of discourse and discourse communities existing in a number of fields including, sociolinguistics, anthropology, and cultural studies. With tools from these

domains, I engage the discourse, rhetoric, argumentation strategy, and history of specific texts within the field of LIS. The goal of analyzing these aspects of LIS is both practice and theory oriented. Practically, this analysis is designed to provide information that can deepen writing instructors' understanding of writing from across the disciplines. Additionally, theoretical implications of these analyses can enrich our conceptions of disciplinarity, as well as disciplinary boundaries—how disciplines can influence one another. Specifically, from a practical angle, analyzing LIS can help teacher-scholars in writing studies to better conceive of research practices for themselves and their students.

The studies that influence this dissertation regarding aspects of disciplinary formations and structures of texts are primarily works of Charles Bazerman, Alan Gross, David Russell, Steven Mailloux, and Greg Myers. Not only is it important to capture the textual construction of LIS, but also it is important to understand the historical formation, rhetoric, discourse, and argumentation methods, as well. Therefore, three primary areas of disciplinarity are important to contextualizing the disciplinarity of LIS: textual studies of disciplines (including genre and WAC/WID), disciplinary rhetoric (including rhetoric of science), and discourse studies (including sociolinguistics and social theory).

Rhetoric of science literature often focuses on the relationship between rhetoric and scientific knowledge creation. More specifically, these studies center on how rhetoric is used by the scientist in the creation of argumentation for a particular discovery, how rhetoric manifests in the creation and invention of knowledge, or even how rhetoric can shape the science that is produced. In many ways, studies of disciplinary rhetoric and scientific rhetoric are similar to those of discourse studies. However, studies of rhetoric often center more on argumentation (how rhetoric is employed in argumentation and the

effects of that rhetoric) rather than on the social formation of the rhetoric that is being expressed, whereas discourse studies more often focus on the social formation of the discourse and its social effects.

Charles Bazerman (1988), for example, was attempting a practical goal, that of teaching students to write for disciplines across the university. While his main goal was textual, he quickly realized that the genres produced were part of a system of activity. His work, therefore, draws from the sociology of science, wherein understanding the context for the textual production is paramount (1988, p.4). His text was one of the first that took a social perspective to texts of academic fields. It is in this spirit that this dissertation project emerges. It takes into account the history and formation of the *LCSH* as a central factor in determining the boundaries and inevitable blind spots all texts (and disciplines) contain.

Therefore, in that regard, this dissertation study is quite different than Alan Gross's (1990) Aristotelian approach to the rhetoric of science, wherein persuasion of scientific fact is the primary object. Rather, this dissertation study is concerned with the historical conditions that produced the *LCSH* and what this can tell us about their purpose. The premise is that by better understanding LIS's reference texts, rhetoric, discourse, argumentation, and history, researchers from other fields can more efficaciously use these reference texts and online catalogues that are scaffolded by this classification system.

Another aspect of studying disciplinarity is studies of process, which stem from anthropology and sociology. Studies of this kind are perhaps best exemplified by Latour and Woolgar's ethnography of Jonas Salks' laboratory. As anthropologists and sociologists, they represent a social constructivist view of science studies. Analyzing the

social relations within the lab; they critique scientific "practical" and "speculative" knowledge (Gross, 1990, p. 5). The purpose of this dissertation study is not to analyze the process (or internal reasoning) that cataloguers and archivists engage in to create subject headings, classifications, or descriptions of collections, as do Latour and Woolgar. Rather, the purpose of this study is akin to that of Gross and Bazerman in that it analyzes the texts (*LCSH* and CSATC finding aid), especially to the enthymatic argument employed in the *LCSH*. This study diverges from Gross in that it draws implications about the rhetoric of LIS for researchers outside the field of LIS who encounter these texts. Future studies of LIS may address the "speculative" and "practical knowledge" of cataloguers, archivists, curators, and other library and information scientists⁴ (Gross, 1990, p. 5).

As a field, the rhetoric of science contains studies from a several different perspectives. Some sociologists of science such as Latour and Woolgar analyze the practices, artifacts, and activities within scientific knowledge production, showing how social practices are deeply embedded in the processes of science. Ultimately, their goal is to show how science is social. Moreover, Latour and Woolgar study one lab, from one discipline, not making comparisons across fields. Alan Gross, a rhetorician by training, on the other hand, aims at understanding *texts* of scientific disciplines and does so through individual analyses of scientific texts and through comparative analysis of scientific texts with those from other disciplines. In *The Rhetoric of Science*, he not only conducts rhetorical analyses of Darwin's *On the Origin of Species*, but also in some cases,

⁴ For a description of the process of curation, processing, and description of an archival collection, see Shirley Rose's piece in Ramsey et al. (2010). While her study describes this process, it does not contend the rhetorical nature or social constructivist aspects of how the archivist makes determinations. Rather, this study is purely descriptive of the process.

analyzes political oratory and scholarly argument alongside to show, for example, how fields have different approaches to argument (1990, pp. 21-32). Greg Myers offers another approach that rests between the interest in the scientific activity that is the focus of Latour and Woolgar or Gross's concentration on textual individual and comparative analysis. Myers, rather, concentrates on one discipline, biology, but regards the role of writing in the creation of scientific knowledge, in his words, that "writing *produces* biology" (1990, p. xii). In doing this, Myers can leverage an analysis of the social activity that creates the documents. This emphasis on how the social formation affects and guides the text, deepens both the textual analysis and the analysis of the social activity.

This dissertation study offers yet another approach that synthesizes these three. Like Myers and Gross, this dissertation analyzes texts produced by LIS in an effort to better understand their argument structure, textual devices, and deeper meaning. Deviating from Gross, this study also includes disciplinary history to contextualize the texts and illustrate how these texts are products of their social environments. However, this study is not a social constructivist text like that of Myers or Latour and Woolgar. This dissertation does not aim to analyze the practices of cataloguers or archivists or show how rhetoric (or disciplinary frames) impacts cataloguers or archivists creation of descriptions, subject headings, or classifications.

Rather, more like Gross's analysis of textual devices, this dissertation analyzes the meaning of LIS reference texts from an outsider's perspective since researchers' activities are affected no matter their academic discipline or whether they are outside of the academy. In this way, this study is a departure from other studies of scientific rhetoric, as these other studies are mostly concerned with the social process of how

scientific rhetoric is created, how to understand scientific textual devices, how scientific rhetoric functions within the scientific community, and what scientific texts say about the social world of scientists. Because of the nature of LIS, that it impacts disciplines from across the university and those outside the academy, the aims of this study are focused outwardly from the discipline of LIS, toward how best to understand LIS texts from an outsider's perspective and how LIS texts can affect those outside of the discipline. In order to do this, historical context of the discipline is provided, two LIS reference texts are analyzed, and some ways of using LIS texts are suggested.

The goal of these analyses and outward focus on LIS aims to clarify the role of LIS reference texts in knowledge creation for fields from across the disciplines, rather than understanding how LIS creates knowledge or does work within its field to produce subject headings, archival finding aids, or process archival collections. By focusing on the *products* of LIS knowledge creation (i.e. reference texts like the *LCSH* and an archival finding aid) rather than the *process* of LIS knowledge creation, this dissertation also becomes a story about boundaries between disciplines. In other words, when we view the discipline of LIS as part of the process of knowledge creation for other disciplines, we can see the potential ways LIS impacts other domains, especially writing studies. Additionally, by increasing the writing studies community's understanding of LIS reference texts we can enhance practices of knowledge creation (research writing) within our own field. In essence, we can become better teachers and researchers by understanding how LIS's texts affect knowledge creation (research writing) in our own field.

Discourse Studies: Fear and Boundary Objects

Studies of discourse stem from several different disciplinary traditions, but for the purposes of this dissertation, two are of interest—linguistics and writing studies, as well as historical conceptions of discourse. On the one hand, the writing studies and linguistics traditions conceive of discourse from a similar perspective, that of the subject who is learning or being introduced to a new community or way of communicating (Bizzell, 1982; Swales, 1990). On the other hand, historical concepts of discourse note larger patterns in power and discourse structures across time, paying particular interest to the interplay between power and discourse (Foucault, 1972). For analyzing the LIS community, both the linguistics' and writing studies' notions of discourse, as well as broader historical notions of discourse and power are important.

Linguistics traditions look inward into discourse communities, noting the ways in which subjects learn new linguistic and non-linguistic communication for use within the new communities or analyzing these communities for their characteristics. Dell Hymes (1974) defines these linguistic and non-linguistic skills that new members of a discourse community must learn as "communicative competence" (qtd. in Prior, 1998, p. 16). Communicative competence takes into account not only textual or verbal forms of communication, but also "affect, motivation, and social identity," as well as "ability for use" of these different communications (Prior, 1998, p.11). This means that communicative competence encompasses knowing the context cues for using the target communication at the correct occasion or moment, as well as in the appropriate manner. In terms of the library, then, communicative competence applied not only to librarians participating in the library community, but also to researchers need communicative

competence in order to access texts and knowledge within the library. For the purposes of this dissertation, primary attention will be paid to the discourse of LIS in order to facilitate communicative competence for researchers.

Linguists with a social approach to studying language, such as Dell Hymes (1974), John Swales (1990), and Erving Goffman (1981) attend to discourse communities comprised of individuals who enact similar linguistic and non-linguistic manners of communication. Swales (1990) in particular notes six different attributes of discourse communities: discourse communities have shared goals, activities and governing rules; modes or manners of communication (e.g. verbal, written, telecommunications); membership rules or rituals for joining; genres of communication; particular words, phrases, acronyms, or abbreviations; and continuum of expertise in the community (Swales, 1990, pp. 26-27). It is from this social linguistic view of discourse communities that writing studies' notions of discourse emerged, focusing on the primarily linguistic aspects of the many attributes of discourse communities.

Writing studies' notions of discourse focus primarily on the genres of written communication, modes or manners of communication, and particular lexical elements (words, phrases, acronyms, or abbreviations) of a discourse community. Within writing studies, notions of discourse communities can be applied to different contexts and for different purposes. Some studies, such as those of Bizzell (1978, 1982, 1986), Heath (1982), Bartholomae (1985), and Nystrand (1982) regard academic discourse across the entire academic community as one—albeit heterogeneous—discourse community. These studies often focus on how students entering the academic community acquire academic ways of arguing, writing, and producing effective rhetoric. Other writing studies research

attends to the disciplinary discourses of particular disciplines with the larger academic community; the field of science studies is one such emphasis.⁵ This dissertation, therefore, follows these dual writing studies perspectives of noting discourse patterns across academia and within particular fields. It is important to view the academic community as a whole when approaching how discourse function within the library because the library serves academic and non-academic communities alike. Furthermore, a disciplinary discourse view of LIS and the different academic disciplines that it serves allows us to understand the differentiating attributes of each community separately.

For the discipline of LIS, some have identified cultural discourses that circulate about the discipline that do not rely on how the discipline sees itself, but rather how those outside of it view it. Understanding the cultural discourses that circulate about the library and the discipline of LIS highlight the centrality of the library to latent cultural awareness of the library's role in the relationality of power, knowledge, and discourse. Gary Radford and Mary Radford (2001) depict the library and cultural discourses about it at the very center of a cultural fear of control of discourse. Specifically he notes that within cultural fears about control of discourse, the library is depicted as the "formidable gatekeeper between order and chaos" (p. 299). The library is depicted as a cathedral or an "otherworldy" destination within which the user is routinely humiliated. The power of surveillance pervades the space, as well as the threat of the "consequences of disrupting the sacred order of the texts" (p. 299). Among other texts, the authors draw on Umberto Eco's *The Name of Rose* wherein the abbot explains the "the central role of the library in the eternal holy war between the forces of good and evil, and between religious order and

⁵ See "Disciplinarity" section within this chapter.

satanic anarchy" (p. 300). Here, the library takes on religious connotations exalting it as more than an organizer of knowledge or texts to a protector of good from evil. Hence, the library in cultural discourse has taken on an iconic status, yet despite the association of it with a sacred protector of good from evil, fear is still the pervading discourse about this institution. They again note that this fear lies in the library's labyrinth, both "contents and structure," and "[t]he fear is the same for people of both good and bad intentions" (p. 300). Then, the fear of the library appears to be an indicator of its power, much like Christian biblical fears of the immensity of God's power. Moreover, the authors, invoking Eco, call attention to the library's mysterious "labyrinth" of texts and systems of organization as the seat of fear. Therefore, the power of the library lies not only in its contents, but also its structure and organization. Then, as this dissertation analyzes the structure and organization of the library hopes to quell "the discourse of fear" associated with the library. Too, we can see the discourse of fear surfacing in the aforementioned writing studies' metaphors of "serendipity" and "mystery" surrounding the archive and library.

Radford and Radford's understanding of the library as a seat of "the discourse of fear" draws from Michel Foucault's inquiry into the interplay between knowledge, power, and discourse. Specifically, in The *Archaeology of Knowledge* (1972), Foucault's fundamental project rests on tracing the ways in which discourse circulates about topics, such as sexuality, madness, discipline, and punishment, within and across historical time periods. Furthermore, Foucault's analysis of discourse focuses on particular communities such as the social sciences and medical sciences. An application of Foucault's understanding of the relation between power, discourse, and knowledge is important to an

understanding of the library as an embodiment of these three forces. Hence, Radford and Radford's inquiry into the "discourse of fear" that circulates about libraries is important to underscoring the cultural conceptions of this institution that is the symbolic seat of knowledge, discourse, and power.

The library's dual role of withholding and extending knowledge is key to pervasive perceptions of its power. As Radford and Radford note "within the library, users find themselves in the midst of overpowering 'rituals' with specialized 'methods' of searching and information retrieval. They must learn to understand the 'characters and their roles' (the librarian and the user). They must engage in the 'play of questions and answers' (the reference interview) and the nature of the 'classification system'" (pp. 303-4). Unlike other discourse communities wherein novices must develop communicative competence for a particular community, the library cuts across communities of participation. This requires communicative competence in LIS discourse from both novices (student researchers) and experts (scholars) from across the disciplines. Additionally, LIS redefines or processes discourse for other disciplines in the form of classifications, descriptions, and codifications of knowledge from their domains. Therefore, it is the discourse that filters all other discourses and the discourse in which novices and experts from across all domains must be versed. In effect, it is the *lingua franca* of the academic research community.

Because the history of LIS in the United States is a complex of evolving relationships among government, the practices of librarianship, and the theories and philosophies of knowledge organization, its discourse is also a hybridized one. As later chapters will show, LIS discourse spans different levels of discourse (novice and expert),

while simultaneously containing discourses from different disciplines. While there are Foucauldian discourse studies within LIS (Buchman 2007; Budd 2006; Cooke 2006; McNabb 1999; Radford 1992, 1998, 2003, 2005), it is important to view LIS discourse from outside the discipline to eliminate blind spots inherent to studying one's own discipline.

Fundamentally, what is intriguing about LIS discourse is its multivalence, simultaneously organizing information from across all academic disciplines, as well as providing access to novices and experts, alike. Within the field of LIS, the notion of multiple discourses that pervade the library have been theorized. Susan Leigh Star (1989) conceives of classification schemes a boundary objects; Hanne Albrechtson (1998) deepens these notions, applying the notion of boundary object to the electronic library, while Emily Drabinski (2011) applies notions of the contact zone, from writing studies, to the library.

As Albrechtson notes, borrowing from Star (1989), classification is a "transitional element or 'boundary object,'" rather than "an organizational structure imposed upon a body of knowledge to facilitate access within a universal and frequently static framework" (p. 293). The notion of a boundary object acknowledges "the dynamic role of classification in supporting coherence and articulation across heterogeneous contexts," in particular across disciplines and between novices and experts (p. 293). In this view, the library's role in producing knowledge is influenced by such ecological classification schemes (p. 293); thus, it is important to see designers of classificatory schemes (or librarians who help researchers navigate them) as "epistemic engineers" who can help

researchers find different perspectives on the same topic within the same field or across fields within different knowledge domains (p. 297).

In an attempt to improve classificatory schemes for particular domains, LIS researchers have compared how discourses in specific domains and are represented in the library—for instance, Olsen (1998); Cochrane (1999), Trendler (2001), Beal (2006), and Kam (2007). Cochrane's (1999) is particularly telling of the divide between library discourse and the discourse of a particular domain, in this case medical terms associated with the Alzheimer's Association. These changes merged the terminology within the *LCSH* with that of the *Medical Subject Headings (MeSH)*.

However, this type of analysis between the discourse of a particular domain and how it is represented in the *LCSH* is difficult because fields do not normally have organized, centralized taxonomies of concepts. The closest approach to improving the *LCSH* based on domain-specific discourse similar to that of a discipline is Trendler's recount of the simplification and reassessment of the art and architecture subject headings. This simplification, though, was guided by the *Getty Art and Architecture Thesaurus*, which began in 1970's. Again, when a domain has its own taxonomy, a comparison with the *LCSH* can determine discrepancies, but when not (which is most often the case), defining a domain's discourse is murky. What has emerged from within LIS research, though, are studies of how particular concepts are represented, such as those relating to aboriginals and different ethnic groups (Kam, 2007).

While defining discourse in disciplinary domains has been difficult due to lack of discipline generated taxonomies, a further difficulty is presented by the divergent needs of novice and expert library users. Thinking about the difficulties faced by novices,

Michele Holschuh Simmons (2005) describes librarians as discourse mediators in the context of helping undergraduate composition students access materials in the library. She draws on a number of scholars within or familiar to the writing studies community, including Prior (1998), Giesler (1994), Kress (1994), Swales (1990), and Gee (1996), which makes her study of particular interest to the writing studies community. While she promotes using tenets of genre theory to improving library instruction, she does not discuss a particular method for how to employ genre theory or social approaches to knowledge to library instruction. In this regard, chapter five offers such a social approach to library instruction for composition students from across the disciplines, integrating it within a composition course from a Writing About Writing (WAW) perspective.

In regards to addressing the expert's research efforts in the library, Thomas Mann (2005) notes the ways that even expert researchers undermine their research efforts by disregarding the power of subject searching for keyword searches. With a Ph.D. in English and a librarian, he brings a multidisciplinary academic perspective to how *LCSH* is relevant for expert researchers. His example of a failed expert-level research query details a researcher trying to find linguistic studies of the cockney dialect. The researcher's keyword search "cockney" produced mostly fiction sources at the juvenile level. The Library of Congress subject heading that would have led the researcher to linguistic studies of this dialect was "English language-Dialects-England-London." This one example illustrates that even expert researchers using discourse reflective of his/her field, must have communicative competence in the library discourse, in this case *LCSH*, in order to make his/her search acceptable. Keywords alone are not adequate means to interfacing with the library.

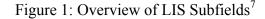
Overall, multiple notions of discourse are significant in regards to the library. First, understanding the hybridized discourse of LIS as a discipline itself is important. Understanding the different disciplinary discourses that circulate within the library and how the library represents them is also fundamental. Then, understanding how expert and novice researchers interact with library discourse as represented by its classification schemes is significant. Finally, understanding the cultural "discourse of fear" indexes the larger implications of the library as a seat of power in Foucault's larger historical understanding of how discourse, knowledge, and power circulate.

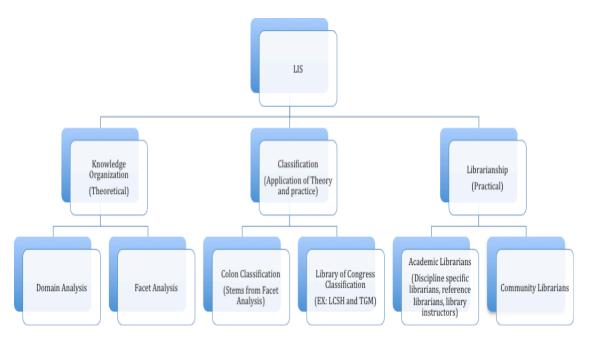
Library and Information Science (LIS): Disciplinary Understanding

Within the field of LIS, there are various branches—knowledge organization, library studies, information architecture, information behavior, bibliometrics, and more (Lørring, 2007, p. 84). In writing studies, we have perhaps most contact with academic librarians and those who conduct library instruction, which fall into the more practical branches of the discipline (See Figure 1 below). This dissertation, however, focuses on the branch of LIS known as knowledge organization (KO) and advocates that writing studies collaborate with and further study the subfield of knowledge organization for our mutual benefit. Focusing on KO instead of the more practical areas of LIS, allows writing studies scholars to see into the theoretical construction of the discipline, which arguably shapes other aspects such as the discourse and direction of LIS as a field. Librarians (academic, instructional, and public) are the practical branch of LIS and are segregated to a degree from the theoretical branches of the field for historical reasons,⁶ although nearly all have graduated from a library program whose curriculum contains courses in knowledge organization. Within the field of writing studies, scholar-teachers (dependence between research and teaching) are an important component, but the same cannot be said of LIS where these aspects are often somewhat at odds.

Within the field of academic librarianship, the research community of Evidence Based Library and Information Practice (EBLIP) has recently developed, in part to prove the value of the library to the university community. This community of researchers takes to studying the practices of library users in order to improve library practices, databases, interfaces, and other library services (e.g. Cooke, 2012; Bickley, 2012; Kandiuk, 2012; Lederer, 2012; Engel, 2012; Currie, 2012; Amos, 2012; Houlihan, 2012; and Koufogiannakis, 2012). For example, Melissa Bowles-Terry (2011) aimed to understand the connection between library instruction and student academic success. In studies such as this, researchers typically survey students or library patrons, to get a sense for how they self-assess their experience in the library. In the case of Bowles-Terry, she correlated students' grades with old and newly installed information literacy instruction. The flaw of this particular study was a lacking description of the pedagogies being assessed. Without a fuller understanding of the theory behind the pedagogy and the particulars of the pedagogy, it is difficult for other libraries to implement successful strategies or for the field of LIS to discern principles that should be instilled in information literacy instruction.

⁶ See Wiegand and Davis "Library and Information Science Research" in the *Encyclopedia of Library History* ed. 338-342. 1994 vol. 503.





Knowledge organization (KO) is a theoretical branch of LIS that focuses on how information is organized and described. Work in this branch develops and refines classification systems for books such as the *Library of Congress Subject Headings*, the *Dewey Decimal System*, Bliss bibliographic classification, the *Universal Decimal System*, and other library organization and retrieval systems. The goal of KO is threefold: how best to represent the materials, how to group materials in a way that represents connections between them, as well as how to improve retrieval for researchers seeking the materials.

More importantly, though, KO has different approaches to organizing information based on different theoretical orientations and objectives. Within KO there are several

⁷ This figure only represents the areas of LIS that are relevant to this dissertation. To read about the comprehensive breadth and depth of subfields within LIS and models of LIS curricula, see Leif Lørring (2007) "Didactical Models behind the Construction of a LIS Curriculum" *Journal of Education for Library and Information Science*, vol. 48, no. 2.

different analytical approaches: facet analysis, domain analysis, user-based and cognitive approaches, among others. Currently, the user-based and cognitive approaches have predominance in the field (Hjørland, 2002a). These approaches rely on methodologies and theories drawn from psychology, which conduct user-studies to see how researchers use the library. This dissertation, however, focuses on the KO approaches of domain analysis and facet analysis due to their similarity in goals, methodologies, and theoretical orientations with that of writing studies subfields such as WAC/WID and science studies. In particular, domain analysis offers a social perspective to the creation of knowledge that is similar to WAC/WID approaches to knowledge creation. Facet analysis offers a way to analyze particular artifacts and/or topics. Together, domain analysis can offer a writing studies audience a broader social framework for how knowledge is created, while facet analysis is a tool for analyzing particular artifacts and/or ideas.

Birger Hjørland and Hanne Albrechtson (1995) were the first to argue specifically for domain analysis. They articulate the orientation as stemming from "social paradigm, conceiving of KO [knowledge organization] as one of the social sciences, promoting a social psychological, a sociolinguistic, a sociology of knowledge, and a sociology of science perspectives" (p. 400). Their paradigm is a multi-disciplinary one, drawing on social paradigms from psychology, linguistics, sociology, and even rhetoric and writing studies. Importantly, then, domain analysis connects itself to multiple methodologies and theories from the humanities and social sciences in order to analyze knowledge creation from different disciplinary perspectives. This underscores domain analysis's metadisciplinary function (discussed further in chapter three) which not only makes one of its key objectives the epistemology and ontology of disciplines from across the

curriculum, but also employs methodologies and theories from diverse sources fields in order to investigate knowledge creation in the respective domains.

The goal of "[t]he domain-analytic paradigm is secondly a functionalist approach, attempting to understand the implicit and explicit functions of information and communication and to trace the mechanisms underlying informational behavior from this insight" (p. 400). This is important, because it makes clear that domain analysis is not merely a philosophical approach to understanding knowledge, but one that provides a theoretical underpinning for functional interventions into how books are catalogued and organized in order for them to be more easily retrieved by researchers. Furthermore, the domain analytic approach that "is a philosophical-realistic approach, trying to find the basis for KO in factors that are external to the individualistic-subjective perceptions of the users as opposed to for example the behavioral and cognitive paradigms" (Hjørland & Albrechtson, 1995, p. 400). Since behavioral and cognitive paradigms have enjoyed predominance in LIS for some time, this offers an alternative to existing paradigms. The problem with cognitive paradigms for writing studies scholars and students is that it supposes that information retrieval is an individual act. This means that it does not account for the discourse of the field (domain) when making cataloguing and description decisions. This can cause inaccurate descriptions of materials according to the field's disciplinary discourse (expert discourse), leading to failed searches by researchers. Also, it can affect searches from the researcher's end by not accounting for the fact that individual researchers (novice discourse or expert discourse) are part of discourse communities that shape their language in predictable ways and for different purposes.

Thus, a researcher may have a failed search because the cataloguing system does not take into account novice level or expert level discourse.

Although Hjørland and Albrechtson (1995) were the first to specifically articulate a definition, function, goals, as well as the methodological and theoretical vision of domain analysis, they note that core ideas of domain analysis have previous roots in KO—that there are historical grounds for this type of scholarship within the field. They, specifically, draw attention to the work of Mote (1962), Saracevic (1975), Taylor (1991), Mann (1993), and Froelich (1989 and 1994) in order to make this historical "quasiexistence" of domain analysis "explicit" (p. 401). These domain analytic studies point to the critical discourse within LIS, which is cognizant of the ways in which the field can improve its theoretical schemas toward a more social view of knowledge creation and access.

Birger Hjørland, in particular, has not only been a proponent for domain analytical approaches to knowledge organization, but has also sought to critique and reinvigorate current LIS theory and methodology. In "Theory and Metatheory of Information Science: A New Interpretation," Hjørland (1998) interrogates theoretical approaches to KO literature. Within, he establishes a palette of theoretical approaches that pose new research avenues for LIS. While not explicitly promoting DA, this work is closely related to that of DA in that it opens roads to studying the epistemological bases of myriad disciplines as a means to hone KO own theories of information formulation and connected issues of retrieval, classification, access, and more. Fundamentally, Hjørland advocates a historical approach to epistemology based on models existing in philosophy, sociology, and historical studies of knowledge. He also draws from primary

writing studies scholars such as Charles Bazerman (1988, 1991), including typology of documents within the disciplines as a central focus of study for information scientists. By sharing WAC/WID approaches with information scientists in domain analysis, such as Hjørland, writing studies can enhance its value to subject disciplines, as well as deepen its understanding of how WAC/WID is useful to scholars across academe. Specifically, these collaborations can aid in having greater control over terminology used to access, classify, and retrieve research in our own field, as well as corresponding systems for these endeavors.

This work is foundational to formation of metadisciplinarity, as it approaches epistemology of the disciplines as a central theme and draws from interdisciplinary sources. Like Hjørland (1995) emphasis is placed on historical and social theories rarely relied upon in KO. This opens avenues for humanities and social science conceptions of knowledge formation to unite with those of KO, producing a firm basis for a field of metadisciplinarity or a metadisciplinary coalition. Even outside of the realm of metadisciplinarity, specialists in KO such as Hjørland can be a strong ally for parent disciplines by helping to procure and develop the "functionality of information systems: analyze explicit and implicit functions and values, look at competing information channels from the users' point of view, and investigate the consequences of commercial and non-commercial conditions and values" (p. 619). In essence, a stronger connection between information scientists and scholars across the disciplines is essential, not only for the teaching of their specialties, but also for the life and vivacity of the learning community. As Hjørland notes, the current IR typologies are created algorithmically, without semantic knowledge of terminologies or structural understanding of the

disciplinary structure (p. 614). Collaboration between KO, parent disciplines, and WAC/WID can be beneficial to all parties.

Hjørland specifically addresses the ways that the domain analytic approach overcomes weaknesses in pervading cognitivist perspectives and outlines ways in which domain analytic and cognitivist approaches can supplement each other in a sociocognitive approach (2002b). Here he addresses the question that many from outside the field of LIS ask: how does a cataloger's subject analysis (subject literatures) affect me as a user to find materials (information retrieval)? They claim that given elementary skills in computer-based retrieval, people are basically interacting with representations of subject literatures in IR. The kind of knowledge needed to interact with representations of subject literatures is discussed. It is shown how different approaches or paradigms in the represented literature imply different information needs and relevance criteria (which users typically cannot express very well, which is why KO cannot primarily rely on user studies). These principles are exemplified by comparing behaviorism, cognitivism, psychoanalysis, and neuroscience as approaches in psychology. The relevance criteria implicit in each position are outlined, and empirical data are provided to prove the theoretical claims. It is further shown that the most general level of relevance criteria is implied by epistemological theories. The article concludes that the fundamental problems of KO and Information Retrieval are based in epistemologic inquiry, which therefore becomes the most important allied field for KO.

What kind of knowledge is needed by information specialists working in a specific subject field like medicine, sociology, or music? What approaches have been used in information science to produce kinds of domain-specific knowledge? Birger

Hjørland defined eleven approaches to domain analysis (2002a). Together these approaches create a palette of skills that information specialists can use to conduct domain analyses. The approaches are: producing literature guides and subject gateways; producing special classifications and thesauri; research on indexing and retrieving specialties; empirical user studies; bibliometric studies; historical studies; document and genre studies; epistemological and critical studies; terminological studies, LSP (languages for special purposes), discourse studies; studies of structures and institutions in scientific communication; and domain analysis in professional cognition and artificial intelligence. Within chapter three these approaches to domain analysis are compared with the methods of WAC/WID in writing studies to elucidate a theory of metadisciplinary predicated on these goals of tracing disciplines' epistemology and ontology.

Chapter Overviews

Within the body of the dissertation, each chapter presents different aspects of the disciplinarity of LIS and how that disciplinarity, expressed through its rhetoric, discourse, or theories, can affect writing studies. Chapter two explores how archival research in the field of writing studies is affected by the endemically rhetorical nature of the descriptions within archival finding aids. The chapter begins by showing how writing studies' own metaphors of "serendipity" do little to help the field understand the multiple issues of access and mediation that surround the archive. Then, the chapter turns to examples from Shirley Rose's (2010) processing of the James Berlin Papers and photographs from the *Carl Sandburg Asheville-Transfer Collection* to expose the rhetorical descriptions of images within the collection. Barthes' construction of connotative and denotative meaning help to provide a context for the types of headings researchers may find there

and specifically how images interesting to an audience interested in rhetoric, affect, and deep meaning from archival artifacts can be affected by the types of descriptors often available within finding aids.

After the case study, which exemplifies the complicated access created by archival finding aids, as well as how writing studies' own tropes of research further complicate our methodologies there, chapter three turns toward the disciplinarity of LIS as a way to understand that field's rhetoric. Following from Steven Mailloux's (2006) notion that the field of writing studies is an interdiscipline, this chapter notes how LIS has metadisciplinary attributes and builds a definition for this class or type of discipline. These attributes stem from LIS's attention to the disciplinarity of other disciplines. LIS, and specifically the subfield of domain analysis, parses through disciplinary construction to note patterns in methodologies and theories within domains (disciplines) that can help library and information scientists type disciplines and provide better access to researchers. In the end, exploring LIS status a metadiscipline also draws out similarities between it and the writing studies subfields of WAC/WID and disciplinary rhetoric. In the end, this chapter argues not only for the existence of the concept of metadisciplinarity, but also that LIS and writing studies are examples of the disciplinary type. Therefore, due to these disciplines' similar agendas, the chapter argues for ways in which these fields can productively collaborate.

Chapter four investigates the discourse and rhetoric of the field of LIS in order to show its sociolinguistic effects. Specifically, this chapter points to examples of the discourse and rhetoric of LIS found within the *Library of Congress Subject Headings* (*LCSH*), noting how particular headings can reveal cultural barriers such as sexism and

racism existing within the reference text. Drawing together the work of Bourdieu, Bowker and Star, with that of Alan Gross, this chapter notes how the *LCSH* are an instance of scientific rhetoric that define non-scientific areas. Furthermore, the enthymematic argumentation within the *LCSH* conceals the reasoning behind the classifications.

Chapter five applies the previous chapters' theoretical discussions to practical applications within the composition classroom. Specifically, this chapter notes how the Writing about Writing pedagogy (WAW), or more generally, a pedagogy centered on learning about discourse and the ways it functions within the university, especially across the disciplines, is the best preparation for research writing that has transferability for students. Surveying previous literature regarding teaching the research paper genre, this chapter excises writing studies' metaphors of "mystery" that pervade current discussions of research writing noting how these metaphors rise from our fields' historical anxiety about research writing excluding students' individuality and voice. While preserving students' voice and highlighting the creative aspects of research are important to the process of research writing, this chapter poses another option that invokes teaching students the LIS technique of facet analysis to promote their understanding of analyzing a topic. In addition, the research method builds on discourse and community of practice based associations, noting how these can enhance invention techniques and provide more fruitful search terms for students. Moreover, this chapter presents library research as a study in parsing through library discourse, disciplinary discourse, and novice discourse, teaching students to be aware of each layer of discourse affecting their searches. This method fills the gap in the writing studies literature around invention and library-based

research methods, as well as what type of pedagogy can best contextualize efficacious research techniques.

Chapter 2

Rhetoric of the Archive: Disciplinarity, Discourse, and Metaphor

Might not an illusion lurk in the highest interpretation of the word objectivity? We understand by it a certain standpoint in the historian who sees the procession of motive and consequence too clearly for it to have an effect on his own personality. We think of the aesthetic phenomenon of the detachments from all the personal concern with which the painter sees the picture and forgets himself, in a stormy landscape, amid thunder and lightening, or on a rough sea; and we require the same artistic vision and absorption in his object from the historian. But it is only superstition to say that the picture given to such a man by the object really shows the truth of things [...]. But this would be a myth, and a bad one at that. One forgets that this moment is actually the powerful and spontaneous moment of creation in the artist, of "composition" in its highest form, of which the highest result will be an artistically, but not a historically, true picture.

Frederic Nietzsche (1949, pp. 44-45)

[The archive is] the place where storage meets dreams, and the result is history.

Robert Connors (1992, pp. 21-23)

Linda Ferreira-Buckley (1999) garners Friedrich Nietzsche's critique of the

perceived objectivity of historiographic methods from The Use and Abuse of History.

Here, Nietzsche questions the notion that the historian should be objective by likening her to a painter who loses herself in painting. And while Nietzsche suggests that the historian should immerse herself in her craft, he calls to the fore the artistic mind of the historian at work to compose "an artistically, but not a historically, true picture." As with all histories, artifacts are incomplete representations and must be contextualized and interpreted in order to cohere—how the historian chooses to do this is her art form—and without it, the simple artifacts would be fallow. Similarly, Robert Connors echoes Nietzsche's attention to the role of the intangible aspects of historiography, but he juxtaposes the "dreams" or abstract aspects of historiography. This chapter juxtaposes the illusory and visionary aspects of history creation with the practical and material aspects by analyzing the rhetoric *about* and *of* the archive. Challenging writing studies' own discourse of serendipity surrounding the archive, I argue that discursive analysis of finding aids can inform writing studies historiographic practices—that by taking stock in these practical aspects of archival creation, our "dreams" can be more grounded in the reality of the archival collection. Deepening our understanding of finding aids, historians in writing studies can more adeptly locate materials to inform our histories.

While both Nietzsche and Connors rely on an individualistic notion of the historian, this chapter offers a social or disciplinary view of historiography and knowledge creation. The rhetoric of the archive has been couched in terms of the rhetoric of the archive, noting how the archivists interact with researchers, and the rituals that researchers must participate in when there. This chapter reframes this notion by taking a disciplinary approach to the archive, viewing it as emblematic of its discipline, LIS, whose discourse circulates in finding aids and other reference texts such as the *Thesaurus for Graphic Materials (TGM)*. Furthermore, this chapter argues that the disciplinary expression of the archive is not a one-way transmission *from* the archive or discipline of LIS *to* researchers. Instead, this chapter views the disciplinary discourse of both LIS and writing studies as it manifests in and about archival research. Specifically, writing studies discourse about the archive, as expressed by individual scholars and collectively, relies on the trope of serendipity and its variants, which occludes meaningful archival research practices. However, this discourse of serendipity is enabled by LIS's discourse

of practicality that presents slippages in meaning that can conceal artifacts' connotative and even denotative meanings.

This chapter establishes how the discourse of LIS establishes itself in the archive via reference texts, which rest on a rhetoric of practicality argued by enthymematic means and supported by layered inscriptions. These characteristics of LIS disciplinary discourse help to establish LIS as a discipline in its own right rather than as a service discipline or conduit to other disciplinary discourses through search terminology. This establishes the basis for the following chapter's inquiry into the disciplinarity of LIS. Chapter five further extends this chapter's attention to the metaphors within writing studies discourse about research practices, pointing to the metaphor of mystery that arises in the library.

Writing Studies: Framing Historiography

Ferreira-Buckley's piece, "Rescuing the Archives from Foucault" was part of the germinal special edition of *College Composition and Communication's* May 1999 issue entitled "Archivists with an Attitude." This special collection is arguably one of the most fertile nodes of discussion about the methodologies that rhetoricians and compositionists employ in the archives. It commenced discussion about the materiality, theory, and practice surrounding the archive. In particular, Ferreira-Buckley argues that graduate students in writing studies should receive better methodological training in archival research—that even methodological training in archival research from English department courses is insufficient to address rhetorical historiography (1999, p. 577). In contrast to Ferreira-Buckley's call to methodological issues regarding rhetorical history,

Steve Mailloux attends to theoretical issues, bringing rhetorical hermeneutics to bear on archival research. In his words, he "[...] use[s] rhetoric to practice theory by doing history," thus using rhetoric to inform his historical inquiry (1999, p. 584). In so doing, he affirms why Ferreira-Buckley's notion that methodological training for students of rhetoric is crucial. Namely, he claims that editing is rhetorical criticism and history because it is an interpretive activity and that its attention to the materiality of the text makes it an apt analogue to the archival interpretation process in historiography. He elaborates:

To interpret is to translate materially one text into another. [...] This process always takes place within a tradition represented materially by the archival evidence being used to establish the latest editor's text. This editor's activity is embedded in an interpretive history, which includes the textual history of the work, and he or she carries out the act of editing within this history while located within the specific disciplinary context of editing procedures, beliefs about authorship, assumptions about discursive practices, views of publishing, and so on. (Mailloux, 1999, p. 586).

Not only does Mailloux underscore the attention to materiality of language that is so important to the construction of rhetorical history, but he also calls attention to the traditions in which the archival materials and the archival researcher are embedded. This intersection between what Mailloux calls "tradition" of the archival text and the differing one of the archival researcher is a crucial aspect of rhetorical interpretation. Understanding the context within which the archival material was produced and the perspective the researcher brings to it is the essence of rhetorical history. This nexus

between the constructedness of the archive, social construction of the archival materials, and the social construction of the researcher are tantamount to producing sound rhetorical histories and have gone under-noticed in rhetorical historiography even since Mailloux's (1999) call. This chapter builds on understanding these three crucial aspects of rhetorical history formation: the constructedness of the archive (namely the role finding aids play in mediating the archive) and the discursive traditions of LIS and writing studies that are performed through the act of historiography. In other words, I argue that the writing studies researcher brings his/her own disciplinary rhetoric and discourse to bear on the archive, just as the archive and its finding aid are expressions of LIS' disciplinary discourse. In the archive then, two disciplinary discourses collide, producing slippages in meaning that hinder access to artifacts, thus affecting historiographic practices and the resulting histories.

Writing Studies' Disciplinary Discourse and Tropes of Serendipity

This inquiry into the disciplinary discourses *about* and *of* the archive begins with the disciplinary discourse writing studies holds for archival research. By analyzing the metaphors that writing studies scholars use to describe aspects of their archival research, we can begin to parse our own disciplinary discourse and rhetoric of the archive. Since "Archivists with an Attitude," conversation about archival interpretation and methodology has burgeoned in the field of writing studies, but few pieces take a disciplinary approach to framing the discussion. Two relatively new edited collections explore the topics of materiality, theory, and practice in fuller depth (Kirsch & Rohan, 2008; Ramsey *et al*, 2009). In their inquiries, they not only sustain a conversation about

how to improve practices in the archives, but also help the field of rhetoric and composition to more fully theorize it. These chapters illustrate the array of practical, methodological, and theoretical challenges posed by archival collections and the concept of the archive. These chapters also establish a pattern of figurative language that exposes the rhetoric and composition's disciplinary discourse about the archive. I argue that despite the depth of inquiry into these issues, the metaphors of serendipity diffused throughout the text, via multiple researchers, sustain a mythic representation of the archive that cauterizes our discipline's knowledge of historiographic practices.

Working in the Archives (2009) firmly establishes the metaphorical language about the archive in the interchapters that punctuate the four main sections. The interchapters consist of personal interviews that focus on, as Lori Ostergaard (2009) terms "the role that chance can sometimes play in [archival] methods," which are distributed between the four parts of the collection that explore archival use, access, interpretation, and process (p. 40). These interchapters, then, pervade the arguably more pragmatic chapters of the text, perhaps illustrating a balance between more practical and more unforeseeable aspects of archival research or perhaps creating a pervasive and sustained narrative of happenstance that colors the more practical pieces of the collection. In other words, while the intention is to balance the personal and practical accounts by providing narrative descriptions of the archival research process, I argue that the interchapters may undermine the practical aspects of the research process. While even in the most physical of sciences not every aspect of the research process is predictable or certain, as evinced by Charles Bazerman's (1999) study of Edison's invention of the incandescent light bulb, the metaphors for research within these interchapters do more

than just prepare researchers for being open to unexpected opportunities in the archive. By their placement throughout the text, they repeatedly underscore and consensualize a myth of serendipity about archival research, even though all of the authors are careful to note the more pragmatic aspects of their research process. In no way do I want to suggest that these texts argue for relying on chance in one's archival research agenda—they do not. Through the repetition of tropes among the pieces and their dispersal throughout the edited collection, though, they reinforce the myth of serendipity in multiple ways, which can mysticize the process of archival research and detract from establishing a more tangible view of historiographic process.

Each of the authors of the interchapters expounds on the metaphor of serendipity in different ways and regarding different aspects of the archival process. Lori Ostergaard establishes the central trope of serendipity, garnering Gesa Kirsch's counsel that "[i]t...helps to have serendipity on your side" (p. 40). Serendipity is almost anthropomorphized, depicted as an ally that one needs on their quest for archival bounty; much like the Romantic poets' muse, she blesses archival researchers with pleasant surprises or unsought treasures. David Gold's piece frames these serendipitous moments as just that, treasure—a "golden moment" (p. 42). He states that these "golden moments" are dispersed throughout his research, noting how the trail of metaphorical breadcrumbs steer him, "convincing him he's on the right track or set[ting] him off in another direction" (p. 42). Through Gold, researchers come to see serendipity not as a companion on the archival journey who at one point or another offers something of value, but as a steady guiding force in the research process. This reinforces the notion that one should allow the trail of "golden moments" to direct his/her process—hence, a researcher should

constantly be looking over his/her shoulder. Consequently, terming them "golden moments" prioritizes them above the other moments of the process, presumably the more technical, ordinary, moments. This metaphor suggests that while all the other moments are mundane, these "golden" ones are more prized, exciting, and meaningful. So, from Gold's piece, serendipitous moments are seen as something one should be constantly watching for and prizing to the highest degree when confronted.

While Lynée Lewis Gaillet extends the use of the "golden" find, her piece uses several different examples of figurative language in her research process and actually frames adept historical and etymological knowledge as a "hunch." During her archival research on Scottish rhetorician George Jardine, she notes that she "happenstanced" upon a reference to his letters. She does not state whether this was in a published book, thus concealing the source of her chance find. Throughout her piece, there is this insistence to mysticize the research process. For example she states, "digging" in order to find a notation that lead her to more letters, but she does not state where she "dug," how she decided where to "dig," or what her practice of "digging" was. Beyond concealing actual practices, she also minimizes a moment of keen historical skill. After trails linking Jardine to Princeton lead to dead ends, she states that:

In the middle of the night, [she] awoke and (on a hunch) decided to try "F"ardine instead of Jardine as a search term-both because of (1) the opposite placement of the "f" and "j" key on the typewriter and (2) eighteenth-century orthographic symbols that don't translate when scanned into online documents. This hunch led [her] to a fabulous online source (citing "Fardine") that effectively changed (and expanded) the trajectory of [her] research project.

This moment is telling of the field's impetus to exalt serendipitous moments, which may have lead Gaillet describe her find in this way. While this was actually a moment of intensive expert archival, etymological, and historical knowledge on the part of Gaillet, she frames it as being a "hunch" cloaked in the dark of night. This instance illustrates that while metaphors of "serendipity," "striking gold," and having "hunches" may seem innocuous or superfluous, they actually can sustain false beliefs about the process of archival research. More importantly, though, they can misrepresent our own research skills—even to ourselves. At the same time that I draw attention to the problematic use of figurative language, I do not want to suggest that there is an ideal way that Gaillet should speak about her own research practices. My intention is to emphasize, the pattern of disciplinary discourse that relentlessly repeats and values the metaphor of serendipity and that it can cause us to view our own and others' practices in misleading ways.

While these instances of metaphoric language displayed by Gold and Gaillet lie within the interchapters, throughout *Working in the Archives*, there are multiple mentions of "accidental finds," "ah-hah! moments," "fruitful tangents," "luck," "randomness," being in the "right place at the right time," and "striking gold" outside of the interchapters. So, while the interchapters create a sustained narrative of serendipity through moments of more personal direct discourse with other archival researchers, there is at least a boundary around these moments distinguishing them as personal accounts and, thus, less practical in nature. Because they are intended to be more personal and idiosyncratic representations of the research process, readers bring this expectation to bear on their uptake of the information. If the metaphor of serendipity were constrained to the interchapters, then, it would arguably display less importance. However, since this strand

of figurative language is not bound to the interchapters, they act somewhat as a system of arteries—to which the use of figurative language branches out and pervades the more "practical" chapters.

On closer inspection, the distinction between the interchapters and the standard chapters breaks down and elides, as one can locate metaphors of serendipity outside the interchapters. For example, in her chapter regarding correspondence about an *Atlantic* Monthly article by U.S. Commissioner of Education William Torrey Harris, Margaret J. Marshall states "luck is always part of the historical process" (p. 145). Nan Johnson, when looking for nineteenth-century advertisements announces, "Call it luck? I call it fate. Collecting 'Dear Millie' was a turning point in my archivist autobiography," when her discovery of this series of advertisements was an unexpected boon to her project (p. 198). Even these two brief mentions illustrate that the tropes of luck and serendipity reside outside the interchapters and permeate the larger discourse. While I do want to critique instances where highly developed research skills are couched as chance or luck, as in the case of Gaillet, I do not want to denounce our field's use of figurative language regarding archives, altogether. Rather, my goal is to call attention to this use of figurative language as a sign of disciplinary discourse about which we should be aware and analyze for its implications. Through widespread tendencies to highly value chance moments in research (Gold; Gaillet; Ostergaard) or to misrepresent moments of deep expert knowledge (Gaillet) we may be colluding to devalue or mask our own acquisition and mastery of skill in archival research processes. In other words, our disciplinary discourse about archival research may to a degree undermine our pursuit of more exacting historiographic methods.

In order to more fully process the implications of our disciplinary discourse about archival research, we need to understand on which levels metaphors can affect disciplinary discourse and what metaphors reveal about their own genesis. Within a wide range of disciplines, metaphors have been analyzed to reveal a given disciplines' discourse. In particular, mathematics (Lakoff & Nunez, 2000), political discourse (Chilton, 2004; Lakoff, 2004; Zinken, 2003), biosciences (Hellsten, 2008), physics (Brown, 2003) and computers and writing (Eldred, 1992) are just a sampling of the disciplines whose metaphors have been studied. Within these different domains, metaphors have been analyzed to reveal different aspects of discourse, cognition, and ideology. Sabine Maasen (2000) notes that metaphors have been studied from these three levels: supradiscursive, subdiscursive, and discursive (p. 202).

Supradiscursive studies approach metaphors as reflecting deep cultural ideologies. Anne Harrington (1995), for example, reveals how metaphors can reflect cultural ideologies, citing holistic metaphors (particularly in the sciences) during the Third Reich. Harrington notes how these "cultural cosmologies" permeated a number of disciplinary discourses (medicine, nature, culture, and politics) of that particular era. Harrington explains that:

[m]etaphors do much more than just lend old lexical meanings to new objects: they are literally ways whereby scientists 'build' webs of collective meaning; create what [she] would call cultural cosmologies or meaningworlds that, once built, for better or worse become 'homes' in which we reason and act, places that constrain without determining any of our particular conclusions or actions. (1995, p. 359)

Then, cultural cosmologies comprised of associated metaphors enact a symbolic haven and habitat for metaphors that familiarize these worldviews, holistically and opaquely guiding action and reasoning. Moreover, her use of "our" referring to non-scientists, underscores the supradiscursive effects of metaphors, which transcend disciplinary domains and can affect a number of different domains (Maasen, 2000, pp. 203-206).

Alternatively, subdiscursive studies view metaphor on a cognitive level, showing how metaphors structure thinking, which influences the minds of the researchers producing discourse within a particular domain. In contrast to the supradiscursive level, which explains how the naturalization of a metaphor expands across communities or disciplinary domains, effecting an era's discourse and understanding, the subdiscursive level attends to how metaphors shape the thinking patterns of individuals or researchers, guiding their perceptions and thoughts. George Lakoff's work on conceptual metaphors is representative of this approach.⁸ In "Metaphor, Morality, and Politics, or, Why Conservatives Have Left Liberals in the Dust" (1995), for example, he analyzes conservative political discourse by unearthing the system of metaphors that construct the conservative world-view. He notes how the conservative view stems from an authoritative father model with the nation depicted as metaphorical family (Maasen, 2000, pp. 206-208). Then, this points to how metaphors layer and inform each other, as well as how they guide the thought processes of the community to derive these metaphors.

The discursive level is the third way that metaphor can operate within discourse. Sabine Maasen explains that in this schema, metaphors actually become absorbed by

⁸ His perhaps most well-known and comprehensive works in this domain are *Women*, *Fire, and Dangerous Things: What Categories Reveal About the Mind* (1987) and *Metaphors We Live By* (1980). Further book length studies of conceptual metaphor and politics can be found in (2004, 2006, 2008, and 2012).

discourse and the trope becomes infused throughout the discourse as the discourse processes or makes sense of the metaphor (p. 212). She clarifies that "[t]ypically, a discourse 'makes sense' of a metaphor by incorporating it into its discourse-specific vocabulary and/or incorporating methods eventually turning the metaphor into a familiar concept. Being a metaphor is thus a *temporary state* of a particular concept within an importing discourse" (p. 212 emphasis added). So while metaphors initially appear as novel and distinct discursive moments, they become naturalized and absorbed by the discourse over time.

Notably, the writing studies metaphors of serendipity in the archive operate at all three discursive levels. On the discursive level, we can see the metaphor of serendipity, finding something good or useful when not specifically searching for it, being naturalized and extended within the disciplinary discourse. In particular, the writing studies discourse appears to emphasize the worth of the find by the "striking gold" trope. "Luck" deepens the significance of the chance moment, inferring a somewhat deterministic view of the archival find. Additionally, the number of variants of the original serendipity metaphor speaks to the naturalization and ubiquity of this metaphor within the discourse on a discursive level.

On the supradiscursive level, the writing studies metaphor of serendipity can be related to the deeper cultural "discourse of fear" about the library. As described in chapter one, Gary Radford (2001) traces how fear circulates in contemporary works of fiction, television, and film. I argue that the writing studies metaphor of serendipity stems from this larger discourse of fear about the library, more generally. Radford notes that the

discourse of fear operates on the larger cultural level implicating the general public as its audience.⁹ However, within the scholarly community where knowledge about the library is greater, and there is an embrace of learning or the metaphorical unknown, it would stand to reason that scholarly metaphors about the library and research would be modified in comparison to larger cultural ones. As Radford notes, the fear metaphor is grounded in the unknown "rituals" or practices within the library, both those of the librarians and those expected of the patrons who enter (p. 304). Therefore, through the metaphor of serendipity, scholars in writing studies retain part of the connotation of the unknown about the library, but to a lesser degree and framed in a positive light. Serendipity still provides the connotation of the unknown, that knowledge itself did not produce the artifact found or the research angle honed, but frames it as a welcomed gift. In this view, writing studies scholars, "the righteous monks who use the library on a daily basis," depicted in Eco's novel, receive chance gifts—sometimes golden—from the "high priests," librarians (p. 304).

On the subdiscursive level, we can see that the metaphor of serendipity shapes researchers' cognitive view of their own knowledge. In the instance of Lynée Lewis Gaillet (2008), she attributes her own historical and methodological expertise regarding the eighteenth-century typewriter characters and eighteenth-century orthographic symbols that are not translated in online documents as a "hunch." This devalues her rhetorical and historical training and undermines other researchers attempts to learn from her example. At the same time, by framing this activity as a "hunch" it reinforces the possibility of future instances of misrepresentation.

⁹ See chapter one for an extended discussion of Radford's argument.

As noted, there are many implications for analyzing the writing studies metaphors for archival research. Not only can we see how on the supradiscursive level our disciplinary discourse is connected to larger deeper cultural ideologies¹⁰, but we can also see how on the subdiscursive level, the metaphors are altering our own perceptions of knowledge. As a discipline, we would do well to be vigilant about distinguishing serendipity from scholarly or methodological knowledge and skill. Moreover, it is important for us to continue to use our own knowledge of rhetoric and discourse to evaluate our own disciplinary domain. Especially in the realm of research methods, I argue that our disciplinary discourse can be a factor affecting our practices. For individual researchers, this analysis has revealed the ways in which we discuss our research practices, and to some extent, our conscious awareness of our research practices in archives. This analysis, then, calls to writing studies researchers to provide even more detailed process accounts of their practices in archives including the planning that they do prior to visiting, as well as accrued knowledge of working in archives. Through individual accounts of the planning and bench practices in archives, the field can begin to establish best practices and accrue knowledge about archival practices.

As the chapter proceeds, the rhetoric and discourse of the archive will be approached from the LIS disciplinary perspective. In particular, I first analyze the *Thesaurus for Graphic Materials*, which is a text, known as an archival standard, designed to help archivists construct finding aids and describe archival materials. By looking at the history and structure of this document, we can better understand its construction, purpose, and importance. In this way, we can see how it and other

¹⁰ Chapter five discusses metaphors of "mystery" in writing studies discourse about library research that are also based on the larger "discourse of fear."

standards¹¹ influence subject access to specific archival collections. Then, I analyze the implications of arrangement, description, and processing including examples from the James Berlin Papers and the Carl Sandburg Asheville-Transfer Collection. This analysis details the ways in which scientific practices of inscription rhetorically inflect an archival collection on a physical and arrangement level. Furthermore, I theorize subject access and descriptions of collections in terms of scientific discourse, showing how connotative and denotative meanings blur, as well as how subjects indexing creates a rhetorical frame on their archival materials.

LIS Disciplinary Discourse as Expressed in the Thesaurus for Graphic Materials

In order for researchers to be able to locate items in an archival collection by subject, an archivist must make a finding aid and create a subject list to provide access to the collections. Archival standards are documents that help archivists describe the physical characteristics and subjects of artifacts. These standards help to make practices across archives more consistent. The *Thesaurus for Graphic Materials (TGM)* was created by Elizabeth Betz Parker in 1980 as a working internal document by the Prints and Photographs Division of the Library of Congress for the purpose of organizing and providing subject access to their collections and was not published until 1986 (*TGM*, 1995, p.5). It was adapted from the *Library of Congress Subject Headings*, which is

¹¹ Archival standards are guides designed to help archivists with descriptive and subject cataloguing for archival collections. There are a variety of different standards that have slightly different foci and users. For example, *Encoded Archival Description* (2002), The Getty *Art and Architecture Thesaurus* (2012), *Describing Archives a Content Standard* (2004), *Descriptive Cataloguing of Rare Materials* (2012), and others exist for helping archivists describe the physical and subject aspects of artifacts. Some of these standards even offer multi-lingual terminology.

designed to subject catalogue books.¹² Because the *TGM* is based on the book collection of the Library of Congress, it provides continuity across the Library of Congress library and archive collections, but also superimposes (at least in its initial implementation) the subject array for books onto the prints and photographs collections.¹³ A subject index in an archive is usually a list of subjects that have been ascribed to particular collections. Therefore, subject indexes will be idiosyncratic for each archive's holdings across its collections, albeit informed by whatever standard (if any) the archive chooses to espouse. By making a comprehensive index of the subjects across collections, archivists and researchers can search across collections based on particular topics. This can be especially helpful to researchers in writing studies that may want to explore particular concepts rather than specific people, places, or events.

Creating uniform indexing and subject terms for mass produced texts is much different from creating a thesaurus that will guide subject indexing or vocabulary control for one of a kind items such as photographs, daguerreotypes, and the like. Mostly, because artifacts often lack text, interpreting them is arguably more or, at least differently, subjective. Further, describing artifacts is arguably even more meaningful because books can be searched by keyword, whereas photos or non-textual artifacts cannot be searched in this way unless they are assigned to a subject category.

There are two parts to the *TGM* in order to address different aspects of describing archival artifacts. The *TGM I* lays out the subject terms that the Library of Congress approves for archivists to use when trying to describe the content of an image, while the

¹² Chapter five discusses the organizing principles behind the *LCSH*.

¹³ This is problematic, because all of the inconsistencies and problematic language of the *LCSH*, then, are also affecting archival collections.

TGM II details the genre and physical characteristic terms archivists use when describing the physical materials and characteristics of various types of artifacts (e.g. prints, daguerreotypes, photographs, and posters) (p. 14). The *TGM*, then guides a twofold explanation of an artifacts, namely content (*TGM I*) and form (*TGM II*).

It could be said that the terms authenticated by the *TGM I* are antiquated or represent vocabulary used by people of particular region, socio-economic status, or discourse community. For example, the term "frankfurter" is listed in the TGM as an approved subject term (TGM, 2012, p. 219). The term "hot dog" is not an approved term for subject descriptions by this standard. Therefore, in archives that espouse this standard, a researcher would have to search for "frankfurter," if say s/he wanted to look for advertisements ball park concessions. Therefore, these terminology issues can preclude access to materials in some cases. Certainly, archivists may assist researchers with subject searches of collections, but in lieu of relying on an archivist's guidance or when s/he is not available, it is important for researchers to be aware of the vocabulary structure behind finding aids. Oftentimes, finding aids (if they are provided searchable access) only offer keyword access. Subject searches, on the other hand, link items of the same category without exactly the same name. Practically, using the TGM or one of the aforementioned standards that have vocabulary control can help researchers create a list of subject terms they can bring to the archives or use online to help navigate their searches. In that way, the TGM is nearly a browsable catalogue of concepts included in the archival collections and can help researchers narrow topics, discover topics, or find items about particular topics of interest.

Besides antiquated terminology, the TGM lacks regard for disciplinary preferred terminology.¹⁴ While the field of clinical psychology has a very defined set of terminology as detailed in the Diagnostic and Statistical Manual of Mental Disorders¹⁵ (DSM-IV), 4th Edition (1994), the TGM attempts to espouse the terminology from the field of psychology but employs it in its own way—showing that it is not directly a conduit for disciplinary discourse.¹⁶ It is interesting that the *TGM* lists many abstract concepts such as "mental states" in their list of approved terms (p. 261). Prior to 1992 "emotion" was a postable term that archivists could use as a narrower term for "mental states" (p. 165). From 1992 onward, the TGM eschewed the term "emotion," while espousing "mental state." However, narrower terms for "mental states" are different emotions¹⁷. The *TGM I: Subject Terms* indicate that "mental states" be used as a category instead of: "affective states, attitudes, emotion, feelings, moods, passions, psychological states, states of mind" (TGM I, p. 261). It also includes terms narrower than "mental states" which are debatably really emotions, but definitely subjective: "adoration, allegiance, anger, anxiety, apathy,¹⁸ avarice, boredom, competition (psychology),

¹⁴ Lack of regard for disciplinary terminology is also a problem with the *LCSH*, as chapter five will illustrate and explain.

¹⁵ The American Psychological Association is currently updating the DSM-IV to the DSM-5 in order to more accurately diagnose and assess psychological illnesses, but the National Institute of Mental Health have recently stated on their website that they would support research based on a new criteria, the Research Domain Criteria.

¹⁶ While the *DSM-IV* is the diagnostic manual for mental disorders usually consulted by psychology clinicians to diagnose patient illnesses, it is also represents the disciplinary discourse of psychology, which moreover, offers a more exacting criteria for description of moods, emotions, and the like.

¹⁷ Because the TGM is a thesaurus and not a dictionary, there is not a definition of the words that the TGM deems "postable." If there were definitions (or the TGM subscribed strictly to the definition found in a particular current dictionary) then the differences between "postable" and "not postable" terms would be clear.

¹⁸ *TGM* indicates that there are even narrower (more specific) terms for "apathy."

contentment, courage, cowardice, depression, despair, disgrace, distress, dreaming, envy, excitement, fear" and the list goes on to include at least thirty more terms (pp. 261-262). This aptly shows the degree of interpretability required to choose between these "approved" content descriptors. Beyond the choice of subject terms, one wonders how archivists can objectively describe an image as showing "depression," "boredom," or "envy"? Are there precedents for such distinctions? These issues will be raised later in the chapter regarding the practices of archivists.

Finally, the *TGM I* does not state why "mental states" is preferred over "emotions," "psychological states," or "states of mind" (pp. 261-262). For instance, these terms are arguably more accurate descriptors of some of the items listed under "mental states." One could contend that "anger" is more aptly categorized as an emotion, while "courage" (also listed under mental state) is a personality trait, "depression" is a psychological illness, and "dreaming" is a mental or physiological activity (*TGM*, pp. 261-262). More importantly, the *TGM*'s terminology does not align with the field of psychology in this regard, either. There appears to be a confluence of different characteristics within this list, including appearance, attitude, behavior, mood and affect, speech, thought process, thought content, perceptions, cognition, insight, and judgment. The terms within the *TGM*, then, intermix adjectival attributions from within these domains. When these distinctions are mapped on to real archives and have to be navigated by scholars outside the field of information science, the "what," "how," and "why" of image descriptions becomes quite important and often quite subjective and complex, as will be discussed later in the chapter.

To the non-archivist, the descriptors and categories within the *TGM* issued by the may be taken for granted. While they are tools that mediate researchers' access, for better

or worse, to texts and documents, they are often not contested in a formal way by researchers (novice or expert) outside the field of LIS. This underscores Bourdieu's concern that "the language of authority never governs without the [complicit] collaboration of those it governs, without the help of the social mechanisms capable of producing this complicity, based on misrecognition, which is the basis of all authority" (Bourdieu, 1993, p. 113). The tacit complicity and widespread usage by the general population, academics, and legal researchers are the fundamental mechanisms by which larger cultural discourses maintain authority through the TGM. Because the TGM is a reference tool, researchers rarely question the utility and its larger function. Beyond the slippage in terminology between disciplinary discourse and the terminology of the TGM that represents library discourse, instances of actual finding aids reveal deeper rhetorical implications, especially regarding the description of images. The following section will illustrate the rhetorical implications of these choices through extended analysis of the processing the James Berlin Papers and examples from the Carl Sandburg-Asheville Transfer Collection.

Enabling Serendipity: the Scientific Discourse Behind the Rhetoric of the Archive

As previously mentioned, the terminology of finding aids is guided by different archival standards, including the *TGM*. Controlled vocabularies such as these can engender or alleviate problems for researchers trying to gain subject access to a collection. As such, these reference texts are instances of LIS's disciplinary discourse. After identifying LIS discourse within the archive, we now turn to better understanding archival practices and construction of archival collections and their disciplinary basis.

Analyzing Shirley Rose's archival processing of the James Berlin Papers helps to combat the myth and metaphor of serendipity so pervasive to writing studies. By studying the practices archivists, deepen writing studies researcher's knowledge of the structure of archival collections. By better understanding the choices inherent to archival construction, description, and arrangement, writing studies researchers can better comprehend the logic of the collection within which they are researching, leading to more aware and knowledgeable research practices.

Through research such as that of Rose, writing studies can begin to better understand the discipline of LIS and how its activities and discourse affect our discipline and others. In this section, I describe archival discourse from the LIS perspective, showing how the rhetoric of practicality that pervades LIS discourse creates slippage or indeterminacy in archival finding aid descriptions and enables writing studies metaphors of serendipity. I argue that studying archival discourse from the LIS perspective draws attention to where these slippages exist, promoting more informed research practices for writing studies researchers. Part of this argument rests on seeing archival construction as more than a Burkean terministic screen (Finnegan, 2006), but rather, as disciplinary discourse. Viewing archival choices in terms of disciplinarity promotes developing a disciplinary profile of LIS, exposing its logic, rhetoric, discourse, and argumentation. Disciplinary profiling of LIS enables writing studies to better understand this discipline and its activities, discourse, rhetoric, and argumentation—all while informing writing studies' research practices in archives.

Looking deeper into the logic and argument of archival construction and description within the Farm Security Administration–Office of War Information (FSA-

OWI) photograph collection at the Library of Congress, Cara Finnegan's (2006) project about how rural poverty was visually depicted relied on a particular image that she needed to retrieve based on a subject search. After an extended and unproductive search, she realizes that she needs to:

read the file on it's own terms," trying to understand its arrangement and subject terminology in order to narrow down the locations for the photograph. Eventually, she does locate the photograph, stating "[her] holy grail is located in the "Homes and Living Conditions" section, filed under the subcategory "Shacks." Indeed, what [she] had initially read as a photograph of a man—a farmer or sharecropper beaten down by poverty yet confidently gazing toward the future—was, according to the FSA file, really just a picture of a *shack.* (2006, p. 117; italics original)

While Finnegan does not explicitly state how she reconceived her search in order to "read the file on its own terms," viewing the collection as a text is important to navigating subject searches within archives. Because the FSA is interested in farmers, then farmers and sharecroppers are in so many photographs that they become untaggable or less important to mark due to their ubiquity. If every farmer or sharecropper were designated, then nearly every photo would be marked, making it a nearly useless distinction. By contrast, the category she found the photograph under "Shacks" within the larger category "Homes and Living Conditions" without reference to the farmer or sharecropper makes logical sense within the "text" of the FSA-OWI file, as it seems to provide access to different living conditions of the farmers. Importantly, subject terms are designated to concepts that repeatedly appear throughout a collection, about significant events, and/or about things that the archivist determines may be of researcher interest—usually

determined by the archivists' situated knowledge of research interest or in relation to the other holdings at the archive.

In other words, the archivist and curator are trying to create continuity in terminology across their collections, likewise, their accessioning is consciously designed to maintain to deepen or broaden particular interests of the archival institution. Thus, reading an archival collection "on its own terms" involves reading it as a text that is part of a collection designed for a larger purpose. Finnegan's detailed description of her experience is notable, because she does not rely solely on the metaphor of serendipity to explain her experience. Instead, she states "[e]ventually by chance or ([she] prefer[s] to think) by training, [she] realize[s] [she] need[s] to read the file not on [her] terms, but on its own" (2006, p. 118). By acknowledging her own expertise and rhetorical training in making this difficult find, Finnegan confounds the myth of serendipity, illustrates where and how rhetorical training can be applied to archival research, and more importantly, acknowledges LIS disciplinary discourse as expressed in the rhetoric of this particular collection. However, I would like to argue that it is in these precise moments of slippage between archival (LIS) discourse and other disciplinary or non-academic discourses that the myth and metaphor of serendipity is tellingly most enabled. Even when accounting for the interest in collection building of the archival institution and carefully approaching the logic of a collection's subject guide and being vigilant about not relying on serendipity, researchers can still find it difficult to locate items. This is due in large part

to the rhetoric of practicality that pervades the discipline and discourse of LIS¹⁹ and its system of scientific inscriptions that illustrate this rhetoric.

LIS shares some important characteristics with scientific disciplines, namely, practices of inscription. Bruno Latour and Steve Woolgar (1979) famously observe the processes of inscription within the biology/virology lab of scientist Jonas Salk:

It seems that whenever technicians are not actually handling complicated pieces of apparatus, they are filling in black sheets with long lists of figures; when they are not writing on pieces of paper, they spend considerable time writing numbers on the sides of hundreds of tubes, or penciling large numbers on the fur of rats. Sometimes they use coloured papertape to mark beakers or to index different rows on the glossy surface of a surgical table. The result of this strange mania for

The material practices of the sciences distinguish them from the humanities and social sciences. Measuring, marking, listing, and accumulating tables, spreadsheets, and reference texts are all markers of scientific rhetoric, which layers these inscriptions in the creation of its arguments. The same, too, could be said of Shirley Rose's description of the archivist's practices. Measuring artifacts and photographs, listing documents, preserving items in acid-free containers, removing and replacing paperclips, and many other material practices of inscription, ordering, and preserving (Morris & Rose, pp. 58-67).

inscription is the proliferation of files, documents, and dictionaries. (p. 48)

¹⁹ See chapter four for further discussion of the rhetoric of practicality, how it manifests in the library, and its historical/philosophical basis.

The practice of inscription is an important one in the creation of scientific argument, as the layers of inscriptions begin to stand in for the original things that they denote. Latour and Woolgar elaborate that:

[I]nscriptions are regarded as having a direct relationship to the "original substance." The final diagram or curve thus provides the focus of discussion about properties of the substance. The intervening material aspects of what is often a prolonged and costly process are bracketed off in discussions about what the figure means. The process of writing articles about the substance thus takes the end diagram as a starting point. Within the office space, participants produce articles by comparing and contrasting such diagrams with other similar diagrams

[...] (p. 51).

This passage underscores the layering of inscriptions and how they conceal or replace the original artifact. Inscriptions seek to simplify the object to measure or record a particular aspect of it (e.g. size, chemical constitution, or another aspect deemed important). Then, in the process of knowledge creation, the inscriptions, which are reductive of the original artifact, are compared with one another. This process, then, conceals other aspects of the original artifact that may or may not be relevant in this or other arguments. By simplifying the original artifact to a few characteristics and labeling it according to a particular aspect, the scientist controls meaning about the artifact. For his creation of argument, the simplified inscription stands in for the original more complex artifact. Using the simplified inscription, the scientist is able to make a more firm argument, as he has controlled how the artifact is being expressed. By making an argument comparing inscriptions, he has concealed his choice of selection of the attributes deemed relevant for

his argument. In essence, he has concealed his argument's assumptions that these attributes are necessary to providing the final outcome. Through the layering of inscriptions, the erasure or concealing of assumptions (enthymemes) may be several layers deep, so that the surface argument does not conceal an assumption but data that the current argument rests on is built on the layering of inscriptions.

The system of inscriptions and simplification of artifacts in the archive are comparable to Latour and Woolgar's claims of Salk's laboratory. In terms of arrangement, while archival practices state an adherence to *respect de fronds*²⁰ or provenance, as Rose describes in the Berlin collection, she made decisions that altered Berlin's original ordering and thus simplified the original contents.²¹ She states that "[r]egardless of how Berlin himself intellectually integrated his work across these categories [research, teaching, and service] or found them problematic, [...] the traditional triad for college faculty work informed [her] decisions and choices for the archival arrangement of these materials" (60). Rose conceals the implications of this choice, however, by not describing in what ways this affected the collection. Likewise, these choices of simplification of the collection into these categories, no matter how common sense they may seem—especially to fellow academics, they are choices of simplification that will be naturalized when a researcher sees the collection, because they were not Berlin's original order. The problem of layering inscriptions is that the simplification process naturally removes some aspects of the original substance, and

²⁰ Retaining the original order of the materials.

²¹ Other changes to the collection involved removing tenure and promotion letters without leaving a "separation sheet" and separating course rosters from their original folders into one folder so that they could be protected for confidentiality. While these are best practices and necessary to maintain the confidentiality of the students and colleagues with whom Berlin worked, these simplification practices still alter the original files.

hence, erases some interpretative value.²² For scientists in a lab, the erasure of some aspects of the original substance, while not unproblematic, can seem reasonable because the same scientists are part of the whole process from experiment to argument. However, in the process of archival arrangement, description, and preservation, the archivist is preparing the metaphorical "lab" of the humanist, social scientist, home researcher—whomever comes to the archive for study. Then, the archivist cannot be sure of what is being lost for the researcher through the process of simplification and erasure of aspects of the original substance.

Even so, in the archive, simplification happens not only at the level of the physical materials and their arrangement and preservation, but also at the naming level, just as it did for Latour and Woolgar. As Rose describes:

description is not simply a matter of listing the contents of boxes and folders; its purpose is to record the information necessary to composing a narrative account of the collection. In other words, description documents [finding aids, scope and content notes, and other reference documents]—which provide information about the creator of the documents and context of their creation provide information from which a story about the collection and its contents could be constructed. (2006, p. 61)

Similarly, in archival description, usually artifacts are described at the box or folder level rather than the item level—yet another simplification that occurs during the process of

 $^{^{22}}$ On the level of physical preservation, Rose discusses removing staples (p. 58), photocopying newspaper clippings onto acid-free paper (p.59), removing the wire spiral, and replacing the original folders (p. 59) to name a few.

inscription. Then, by the choice of what the archivist selects to describe, a narrative is assumed on the materials.

In this way, the process of description and arrangement for the Berlin Papers, lead Rose to accession into six series based on the academic triad of teaching, service, and research. These series were determined by listing all the folders in the collection and then Rose deciding, based on the folder level descriptions, categories in which to bundle them. While the series that Rose created (NEH Seminar Materials; Teaching Materials; Research Materials; Collegial Correspondence; Faculty Governance and Community Activism; and Confidential Student Records, Correspondence, and Committee Work) all seem common sense categories for the materials, the elements of simplification, inscription, and rearrangement apply. This is the illusiveness of the inscription process; because the items have been simplified and arranged in an order that creates a narrative, they appear logical—because they are crafted to appear so.

Another important layer to archival arrangement and description is the background knowledge of the archivist. As a colleague of Berlin, she had much more context for the description and arrangement of the materials than a standard archivist has for an ordinary collection. Rose's categorization of the series around teaching, research, and service is one example of context knowledge that affected the series level organization. Rose's choice to mention William Blundell's *Wall Street Journal* article "The Days of the Cowboy are Marked by Danger, Drudgery, and Low Pay" in the description due to its importance for Berlin's cultural-studies pedagogy for composition courses, shows the depth of her contextual knowledge, which separates her from an ordinary archivist. Then, when an archivist without this level of context about a

collection arranges it, the collection can have a different focus or narrative than what someone within that field would imagine.

These steps of description, arrangement, and subject access²³, then, create the collection's narrative. This is when interpretation is most crucial. The *Modern Archives Administration and Records Management: A RAMP Reader* (1985), an instructional text designed by the United Nations Educational, Scientific and Cultural Organization, describes the fundamental difference in assigning subject terms to or indexing an archival collection, stating that archival records are:

part of transactions rather than *about* them [...]. For example, even the most detailed of articles might be about the recruitment and organization of a contract army in 1337, whereas the records are the contracts made by particular parties for particular purposes on particular days and the accounts recording consequential payments, and so on. In consequence, the provision of an approach to records through indexes of names has been both obvious and obviously helpful, so that such provision has been made regularly, whereas a detailed subject approach has often appear either difficult or out of place. (1985, p. 283)

In essence, the archival community views documents and artifacts as relating much more to the people who produced them and the activities for which they were produced rather than for other levels of meaning. In the case of the Berlin Papers, then, Rose's choice to mention the Blundell article may not have been made by an archivist. Furthermore, the perspective of archival documents being referential of someone or something else is telling of the prioritization of people, places, and activities. Then, during the description

²³ Providing subject terms to a given artifact in order for researchers to search across collections by particular interests.

and arrangement, the person or event that is referenced is the guiding force behind the narrative, just as was shown in the case of Finnegan's FSA-OWI experience with the farmers being the object of the collection so that other descriptions were made in relation to them (e.g. *farmer's* shack).

The *TGM*, however, does detail a more interpretive approach to photographs. Since there are different types of collections, some relating to a particular person or event, the *Modern Archives*' philosophy may hold true for these. However, the Library of Congress' collections relating to particular topics, such as poverty, may lend them a deeper awareness of subject access. It seemingly notes the difference between a photograph's object and subject:

By their very nature, most pictures are "of" something; that is they depict an identifiable person, place, or thing. In addition, pictorial works are something "about" something; that is, there is an underlying intent or theme expressed in addition to the concrete elements depicted. (1995, p.23)

While this statement verges on approving interpretation with photographs, its description of how this gets enacted in practice, shows reluctance toward making these distinctions, especially when the image does not have words that accompany it. For example, the *TGM* gives two examples of this practice. The first is with a political cartoon, wherein it suggests an "of" distinction of "basketball" and an "about" distinction of "international relations" (p.23). However, in the other example—Dorthea Lange's famous "Migrant Mother" photograph—where there are no associated words or caption, it recommends assigning an "of" distinction of "mothers and children" and "migrant laborers" but to not assign any terms for "aboutness." It states that designating an "aboutness" term for this

photograph would be "overly subjective [...] since the caption fails to tell us whether the photographer's focus was on poverty, despair, hardship, survival, or other abstract concepts" (p.23). Hence, assigning a photograph without a caption an "about-ness" term veers into subjective territory. This can cause images without captions to be less likely to be indexed or found during a subject search, and thus makes them another instance of when serendipity is invoked on the part of the researcher.

These notions of "of-ness" and "about-ness" can be theorized in Barthes terms of denotation and connotation. He states that the "denotated message in the photograph is absolutely analogical, which is to say continuous [...] the connoted message on the contrary does comprise a plane of expression and a place of content thus necessitating a veritable decipherment" (1977, p. 20). However, within the archive these distinctions can break down, leaving objective annotations sometimes less descriptive than connotative ones. For example in the Carl Sandburg Asheville-Transfer Collection, where the description is at the item level, the following photograph is described "At Lombard College After the War." While this description is factual in terms of date and location of Sandburg, this label fails to capture many objective details, such as the different "moods" or characters that Sandburg exhibits. This is perhaps the most discernible moment of when the rhetoric and discourse of LIS is evident. The attention to detail of the size of the photograph and the place and time take precedence over other attributes that describe the "of-ness" of the photograph. It is in these moments that the disciplinary discourse of LIS and other humanities disciplines can see their divide. I argue that in these gaps between disciplinary discourses, researchers turn to serendipity to find artifacts with meaning for their projects because the cross-disciplinary communication has failed.

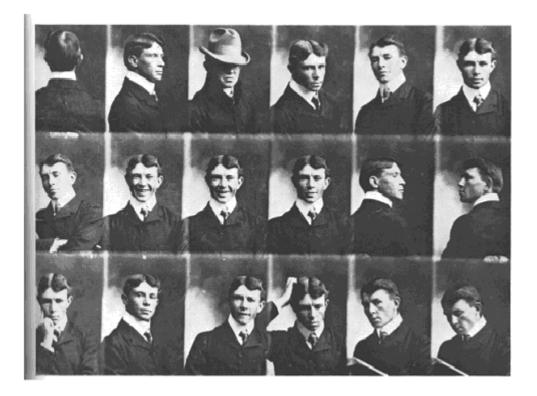


Figure 2. "447-004-001, negatives 5x7 and 8x10. 16.9x11.6cm, series of 18 photos of Sandburg, Carl 'At Lombard College after War'" (Gibson "Series [...]").

In contrast to the more factual description of the series photograph, another photograph within the same collection illustrates a more detailed denotative description. The description "Dog and people panting on beach" describes denotatively what is happening in the photograph, which arguably makes it more meaningful to a researcher who may be browsing the archival finding aid and would want a photograph wanting to reveal a more personal side of Sandburg. Too, this description points to the inconsistency with which artifacts even within the same collection can described, which leaves locating them difficult. What is important to recognize within this discussion of the denotative and connotative value of artifacts and how they are described is how they influence scholarly work. Traditionally, historians were the primary researchers in archives. Relying on dates, names, and places to guide their research, these types of attributes were important to them. As more rhetoricians and cultural theorists have entered the archives, our attention to other details becomes evident. Indexing and providing subject access more perhaps connotatively can engender a different type of archival research that provide insight to different aspects of public figures or about particular time periods. From the vantage of the rhetorician, a connotative description is more valuable than more objective aspects such as the size of the photograph.



Figure 3. "Dog and People Panting on Beach"

Serendipity in the Negative Space of LIS Disciplinary Discourse

As Nietzsche asks in the opening "[m]ight not an illusion lurk in the highest interpretation of the word objectivity?" (1957, pp. 44-45). Indeed, illusions of objectivity abound in the archive—from the neatly arranged archival folders, to the seemingly impartial factual descriptions—the disciplinary discourse of the archive relies on a scientific rhetoric of practicality that, while seemingly utilitarian and neutral, simplifies the meaning of artifacts through their description and arrangement. It is a physical act of editing, which as Steve Mailloux notes, is "criticism and history," as an "extension of the same rhetorical activity of interpretation that results in published arguments establishing a text's literary and historical meaning" and providing "a model for understanding many of the most important aspects of all interpretation, the rhetorical establishment of textual meaning" (1999, p. 58). Thus, by understanding how arrangement, description, classification, and curation enact rhetorical principles and encode LIS disciplinary discourse, we can begin to process the larger implications for the study of rhetoric and discourse specifically and the study of historiography more generally.

As an example of LIS disciplinary discourse, the *TGM* illustrates its divergence from disciplinary discourses (e.g. psychology), thus actualizing itself as a disciplinary discourse in its own right rather than a conduit discourse that serves to facilitate access to disciplinary discourses. Manifest in LIS discourse is a reliance on enthymatic argumentation both in description, subject access, and arrangement that through its layered inscriptions engenders and conceals access according to its disciplinary paradigms. And, it is for these reasons, as Cara Finnegan reminds us, that we must read a collection "not on [our own] terms, but on its own" (2006, p. 117). Recognizing the rhetoric of specific collections, guided by our knowledge of LIS' discourse of practicality, can lead us to more efficacious research practices in archives, as well as informing us about how discourse shapes research activity on multiple levels.

It is, in part, due to the archive's enthymatic argumentation built on layered inscriptions that metaphors of serendipity pervade writing studies discourse about the archive. From this trope's justifiable entry into the discourse, however, writing studies'

has allowed it to pervade, erroneously and significantly valuing these moments or allowing them to obstruct keen research skills. At the same time, larger cultural discourse of fear surrounding the library and archive fuel writing studies' discourse of serendipity. These realizations depict the dialogic of larger cultural and disciplinary discourses and how they circulate throughout the academy via the library and archive.

As a field, then, we must be critical—not only of LIS' discourse of practicality but also our own discourse of serendipity—as they both occlude access to knowledge and/or cloud the processes of historiography and knowledge creation. We must continue to inquire into how these particular disciplinary discourses circulate. What are their scopes? What is their genesis? How do they affect other disciplines? What are their cultural implications? We must attune our disciplinary ears to not only to the rhetoric and discourse of our own field, but to the discourse of LIS, which shapes the archive, histories, and by extension cultural memory.

Chapter 3

Metadisciplinarity: Library and Information Science (LIS) and Writing Studies

In contrast to departmentalized disciplines such as history, sociology, and biology, rhetorical studies is today an interdiscipline, whose pieces form subfields in various departments [...] that have their own independent, professional disciplinary identities.

Steven Mailloux (2006, p. 3)

The imaginary is not formed in opposition to reality as its denial or compensation; it grows among signs from book to book, in the interstice of repetitions and commentaries; it is born and takes shape in the interval between books. It is a phenomenon of the library.

Michel Foucault (1977, p. 91)

For those of us in writing studies, reading Steven Mailloux's observation about the varied intellectual home departments for rhetorical studies seems normal. We have grown accustomed to the liminal nature of our field; in fact, its taken-for-grantedness is perhaps one of the most peculiar aspects of our relationship to it. As rhetoricians who attend to the subtleties of meaning and argument in its varied contexts—disciplinary, cultural, political, literary, and more, it is a wonder that we have not, before Mailloux, taken a rhetorical eye to what our discipline's orientation within traditional departments means for our disciplinary culture. *Disciplinary Identities: Rhetorical Paths of English, Speech, and Composition* (2006) uses rhetoric as a hermeneutical tool to conduct a history of rhetoric programs through their existence in speech communications and English, theorizing rhetoric as an interdiscipline. Here, we see a liminal discipline—which is not a border discipline, but rather sustains itself within each of these fields while maintaining

its own identity. Studies like Mailloux's are important for advancing research into disciplinarity because it demarcates these types of unexpected interactions between and within fields. Too, the reflexive nature of the study, attending to our own disciplinarity, helps us to understand what we bring to our scholarly and pedagogical endeavors, especially as they relate to studying and teaching across the disciplines. By categorizing disciplinary types, we can make comparisons across different fields and note different patterns of activity between and within disciplines. It is in this vein of understanding disciplinary types and more complex disciplinary interactions that this chapter functions.

As prefaced in chapter one, rhetorical studies of disciplinarity have focused on various fields, most notably, scientific ones such as biology (Gross, 1990, 2006; Myers, 1990) and physics (Bazerman, 1985; 2005). While some studies, analyze a particular discipline's modes of argumentation, textual genres, or discourse patterns structurally, noting the rhetorical features that effectively convey meaning in that field (Gross, 1990, 2006; Myers, 1990), other studies engage a contextualizing approach by illustrating how a discipline's history and constitution are mutually constitutive of its texts (Bazerman, 1985, 2005; Latour and Woolgar, 1979). Far fewer science studies attempt to type disciplines or conduct comparative studies of how a discipline's history, constitution, and/or texts distinguish it from other fields. By attending to disciplinary types and comparative studies of disciplinarity, we can begin to note patterns in fields across the university and build profiles of different types of disciplinary activity and function. In addition, since studies of disciplinary rhetoric grew from rhetoric of science studies, what we know about disciplinary expression (and come to expect of disciplinary expression and activity) is heavily guided by scientific fields. Then, in the pursuit of understanding

disciplinarity, an attention to humanities fields, as well as to disciplinary types/functions, appears fruitful because it exposes different interactions between disciplines and illustrates different patterns of activity or disciplinary expression than those we have come to expect from scientific fields. In this way, studies such as that of Steven Mailloux (2006), which create a new category of disciplines from analysis of the disciplinary history of the field of rhetoric, are unique and generative to the field.

As a contribution to the discussion of disciplinary types and interactions, this chapter analyzes the disciplinary constitution of LIS. As the previous chapter illustrates, through the creation of archival finding aids and the controlled vocabularies that inform their terminology, the field of LIS can affect the research practices of scholars in writing studies and across the university to a large extent. By understanding that LIS is not a perfect conduit of disciplinary discourse and rather, has its own discourse as expressed through its reference materials, LIS shows itself to be a discipline that is distinct, yet at the same time, has a compelling complex and deep relationship to other fields. This relationship is compelling, in large part, due to the depth that LIS and other fields are interdependent on each other not only in permeability of disciplinary discourse, but also for carrying out their research agendas.

Importantly, LIS shows us how intimately research practices across the university are affected by disciplinary discourse, as it engenders and precludes access to knowledge in the academy. As chapter two illustrates in the archive, gaps between the disciplinary discourse of LIS and other fields, not only can preclude access to archival materials, but also, these gaps engender uncertainty that affects the historiographic practices in writing studies, which enables metaphors of serendipity. Both these adaptive practices and the

adaptive metaphors come to bear on how our field conducts and conceives of historiography. Moreover, LIS discourse is intimately implicated—practically and conceptually—in shaping the research practices of writing studies and other fields. While the practical level of precluding access appears, on the surface, to be the most impactful, we now see how adaptive metaphors can affect writing studies (and other fields) at the cognitive/conceptual level, impacting the entire discourse, as well as shaping cognition and thought patterns in the field.²⁴ That is to say, LIS discourse does not merely preclude or engender access to research materials—it thickly permeates disciplinary discourses affecting fields on multiple levels—most notably the conceptual or subdiscursive level. It is at this conceptual level that discourse operates within a field governing and sustaining inquiry patterns, in other words impacting a field's discourse changes how researchers think and reason. What chapter two underscores, then, is the dialogic nature of understanding the field of LIS. More precisely, understanding LIS necessitates deducing how it interacts with other disciplines. Comprehending the disciplinarity of LIS necessitates illustrating the connection between LIS's disciplinarity and that of other fields, especially writing studies.

Toward this end, this chapter analyzes LIS's internal self-reflexive discourse and how it is shaped by its theoretical orientations. As the opening quotation from Foucault (1977) reminds us, "fantasies are carefully deployed in the hushed library;" via the texts it organizes, the library engenders access to the "domain of phantasms," as Flaubert calls books (1977, p. 90). Behind the librarian's desk and rows of neatly arranged books lays the even more mysterious world of knowledge organization, the branch of LIS that seeks

²⁴ See chapter two for a discussion of how metaphors affect disciplinary discourse on the conceptual (subdiscursive) level, as well as the supradiscursive and discursive levels.

to engender access to texts via their organization and description.

As chapter one describes, LIS is a multifaceted field comprised of many different subfields and specialties. While there are many different aspects to knowledge organization, this chapter focuses on the subfield of domain analysis as it offers an expressed attention to other fields' disciplinarity in order to improve researcher's access to materials. In the end, this chapter provides an overview of domain analysis and illustrates how the field of LIS is a metadiscipline and how collaborations with writing studies can prove fruitful. Likewise, the discussion of metadisciplinarity is also germane to writing studies, as through writing across the curriculum and writing in the disciplines (WAC/WID) and disciplinary rhetorics, we, too, share metadisciplinary characteristics. These shared interests and disciplinary goals can be points of collaboration for writing studies and LIS. Forging more direct collaborations between writing studies and LIS specifically including each other's literature in pursuits of disciplinary understanding can be mutually beneficial to our fields and the study of disciplinarity across the university.

Defining Metadisciplinarity

As chapter one introduced, studies of disciplinarity draw from a range of fields, including, but not limited to rhetorical science studies, WAC/WID, and discourse studies. From these different vantages, a view of disciplines as "open and heterogenous" rather than "closed and homogenous" emerges (Prior, 1998, p. 26). Viewing disciplines as dynamic systems of people, cognition, affect, texts, activities, genres, and institutions, then, necessitates drawing on the various theoretical and methodological orientations

from the many disciplines that practice disciplinary inquiry. Thus, disciplinary inquiry can involve collaboration to a large extent.

It is from these understandings of discipline and disciplinary inquiry that the notion of metadiscipline and metadisciplinarity are anchored. Simply stated, a metadiscipline can be regarded as a discipline that takes other disciplines as its object of analysis. In this way, any discipline that conducts disciplinary inquiry can be described as a metadiscipline. Metadisciplinarity, then, can be defined as the research activities (various theories and methodologies) of metadisciplines. On the surface, metadisciplinarity seems to be nothing new. It appears to be merely a label or category for a currently existing phenomenon. Practically, though, denoting disciplines across the university with interests in disciplinarity is useful. By identifying specific fields as metadisciplines, they can begin to see themselves as part of a coalition with other metadisciplines rather than being isolated by their disciplinary boundaries and speaking only to a small audience within their home field. Then, what is gained by the distinction of metadiscipline is a way to identify other metadisciplines with which to collaborate, thus widening the audience of disciplinary studies. In turn, increasing collaboration between metadisciplines engenders dialogue between the various perspectives. Juxtaposing these various theories and methodologies can considerably deepen and broaden the dialogue about disciplinarity.

Similarly to Mailloux's (2006) labeling of rhetoric as an interdiscipline, the distinction of metadiscipline denotes a field of study that has its basis in different home departments. Therefore, the field of rhetoric provides an example of how an interdiscipline can generate and sustain itself over time, even when scattered between

departments. While, Mailloux's definition of interdiscipline depends on the location of a discipline (existing within different home departments simultaneously), the definition of metadiscipline depends on the object of study (other disciplines). In this way, the term metadiscipline derives its meaning similarly to how traditional disciplines such as literature, history, and mathematics have been defined—by their object of inquiry. Technically speaking, then, a discipline could at the same time describe itself as both a metadiscipline and an interdiscipline. For our purposes, though, understanding that metadisciplines study disciplinary culture, activity, texts, discourse, and rhetoric is sufficient.

A basis for a coalition of metadisciplines would involve not only scholars from rhetoric of science studies (e.g. Bazerman, Gross, Locke, Myers, Russell), WAC/WID (e.g. Anson, Harrington and Moran, McLeod, Thaiss), and genre studies (e.g. Devitt, Harrington and Moran, Miller, Swales) but also corpus-based applied linguistics studies (e.g. Cortes, Hyland, Samraj, Römer and Wulff) and library and information science studies (e.g. Budd, Hjørland, Paling, Smiraglia) to name a few. Likewise, scholars of education, anthropology, sociology, and history, would also be beneficial to add to the metadisciplinary cadre.²⁵ Whether working as direct collaborators or through cross-circulation of literature, painting a more complete picture of the disciplines that we study can be mutually beneficial to theories of learning, discourse, writing, and rhetoric across the disciplines. Likewise, metadisciplinary inquiry can promote a better understanding of

²⁵ Hjørland (1995, pp. 401-409) widely surveys literature from a number of fields that exhibit what he calls "transdisciplinary tendencies" that would contribute to metadisciplinary studies.

academic research and culture more generally, showing how discourse circulates inside and outside the academy.

WAC/WID, within writing studies, represents a field that is a metadiscipline, as it takes as its object of analysis other disciplines. Historically, WAC/WID has rested on practices and programs that help to gather faculty from different departments within an institution around the issue of teaching writing. Rather than rhetoric of science studies, which examines a field's rhetoric and traces historical shifts in expression and activity, WAC/WID seeks to understand disciplines' writing for pedagogical purposes. Initially beginning with the writing-to-learn movement, WAC/WID has typically sought to aid faculty in their fields make more efficacious writing assignments, set goals for student writing, and learn grading techniques, thus promoting continuity of students' writing across fields.

From these early years, WAC/WID programs have largely maintained its focus on learning and writing. Especially some of the first programs, Colgate's Functional Writing Program (1949-1961) and Prose Improvement Committee at the University of California at Berkeley (1947-1964) were designed to unite faculty and promote education around the teaching of writing and how writing could enhance student learning (Russell, 1991, p. 261). While there has not been a movement for writing instructors to teach students writing across the disciplines, despite the early fear by other departments that this would happen, there has been some team teaching of courses to varied degrees of success. Even today, WAC/WID programs remain focused on creating a community of faculty around writing with an increasing interest in studying the outcomes of programs and understanding specialized skills required for specific disciplines. While writing to learn

was a large impetus in the initial WAC/WID programs, what has evolved through the WAC/WID movement, that is generative to a growing theory of disciplinary praxis and thinking, is the notion of writing and thinking in the disciplines.

Within WAC/WID assessing field's genres is applied to teaching students from across the curriculum to better write in these genres and their respective fields. Furthermore, analyzing fields' genres have been a primary means of deepening writing studies' understanding of textual production more generally, helping us to better comprehend how texts function both to convey meaning via argumentation and organization structures and to serve a social role within disciplinary discourse (Miller, 1984; Bazerman, 1988; Devitt, 2004). As Amy Devitt (2004) states, "genre develops within, embodies, and establishes society's values, relationships and functions" (p. 33). Within disciplines, genre serves an important social function in the activities of the group. Charles Bazerman's (1988) study of the history and development of the scientific report for example, notes how experimental design and laboratory activity were made more consistent as scientific articles gained wider circulation (p. 145).

WAC/WID's current model of genre rests heavily on how it stems from activity and social formation (Devitt, 2004; Russell, 1996, 2001, 2009). Carolyn Miller's (1984) definition of genre established the notion that genre was not only a formal structure of texts, but also directly linked to "social action," stating that "a rhetorically sound definition of genre must be centered not on the substance or the form of discourse but on the action it is used to accomplish" (p. 151). More precisely, genre is not only determined by its formalistic structures but also by the activities it engenders and from which it arises. For example, Charles Bazerman (1988) notes ways in which the development of the

scientific article changed laboratory practices. Hence, genre shapes activity and is shaped by it.

Within the metadiscipline of WAC/WID, Michael Carter's (2007) study presents itself as an example of metadisciplinary inquiry. In "Ways of Knowing, Doing, and Writing in the Disciplines," Carter conducts a comparative study of disciplinary writing. This study is quite comprehensive in the fields that it addresses—specifically, fifty-one programs from all nine undergraduate colleges at [the target] university" (p. 394). It is ambitious in both the breadth and depth of its scope, as it not only analyzes the genres that were produced across all fifty-one programs, but also links these genres to inquiry patterns and activities across the disciplines. By comparing modes of inquiry within the genres of different fields, this study serves as an interesting example of disciplinary inquiry, as few studies compare aspects across fields.

This study's approach is novel in that it discerns both traits that cross disciplinary boundaries, as well as genres. More specifically, rather than juxtaposing genres across disciplines, it analyzes the ways of doing that result in different genres across fields. This type of comparative study can help inform pedagogy for first-year composition or WAC/WID programs based on these transferrable principles. Similarly, it can help to build profiles for disciplines across the university that do not rely on holistic or ideological notions of the field, but rather compares fields on smaller levels, showing how similar ways of doing cross disciplinary boundaries.

Carter's (2007) methodology is a situated analysis of WAC/WID programs at his institution that are designed to assess learning outcomes for various genres in disciplines across the university. From these program assessments, he extracts patterns of similarity

in genres between the disciplines and specific types of writing and skills that he deems are common to classes of disciplines, which he terms "metagenres" and "metadisciplines."

Building on the work of Carolyn Miller (1984), David Russell (1997), and Charles Bazerman (1994), the study conceives of the term metagenre to mean "a structure of similar ways of doing that point to similar ways of writing and knowing" (p. 393). In specific, these metagenres are based on "ways of doing" as expressed by the faculty Carter surveyed, and include: problem solving, empirical enquiry, research from sources, and performance. These four categories, then serve as the basis of types of writing instruction Carter hoped to structure in writing classes. This is important because Carter notes how these different ways of doing cut across disciplinary boundaries. For example, the empirical inquiry metagenre is applicable to both microbiology and political science and instantiates in a number of different genres produced by both of fields (e.g. laboratory report, poster, research proposal, scientific article) (p. 398).

While this study serves as a good example of metadisciplinary inquiry, it is not without its limitations. This study originates the terms metagenre and metadiscipline, but defines them in dubious ways. Carter explicitly defines the term metagenre as "signif[ying] a higher category, a genre of genres" (p. 393), yet characterizes metagenres not as recognizably similar texts, but as collections of texts that display a certain type of inquiry or methodology. In this way, a metagenre is perhaps more aptly described as a genre that is contained in other genres, or social actions contained within social actions. More specifically, the expressed categories of metagenres (e.g. problem solving, empirical inquiry) are actions within individual genres or characteristics of individual genres, not stand alone genres. Comparing the notion of metagenre with other similar

conceptions in the field shows how different conclusions have been drawn in regards to disciplinary inquiry patterns.

Not only in regards to terminology, but also in regards to utility, Carter's notion of metagenre breaks down. While the notion of metagenre evokes Emig's (1982) use of "inquiry paradigms," North's (1987) exploration of "methodological communities," and Susan Miller's (2002) exploration of "modes of inquiry," there are distinct differences. Emig's (1982) concept of "inquiry paradigms" notes "the explanatory matrix for any systematic investigation of phenomena (p. 64). In other words, when a type of "way of doing" research is systematically employed, it can be termed an inquiry paradigm.

In addition, the metagenre schema also fails to take into consideration that there are multiple sub-genres (summary, critique, analysis) and rhetorical modes (exposition, argumentation/persuasion, narration, and description) within any one genre.²⁶ For example, the "research from empirical sources" metagenre, overlaps with the "research from sources" metagenre, namely in the related work section of the scientific article. In this case, I would argue that in any one genre, there emerges a patchwork of rhetorical modes and sub-genres, and this occurs within texts and genres from all disciplines. Therefore, distinct categories do not hold but rather just mark characteristics. Rightly, Carter provides examples of common genres produced by the various disciplines he cites; however, he fails to note the multiple rhetorical modes, sub-genres, or elements (summary, analysis, critique, historical review, definition of term, and more) that co-exist within the genres. Although many site the lacking productivity of Bain's original "modes of discourse," Carter's terminology serves a similar purpose with less utility.

²⁶ Alexander Bain coined "modes" or "forms of discourse" in his 1866 English Composition and Rhetoric, as cited by Robert Connors (1997).

In critique of the categorical aspects of Carter's schema, one notices that "ways of doing," may correspond to modes of inquiry or methodologies (Miller 2002, North 1987). Ostensibly, his term metagenre fails to account for multiple modes of inquiry or methodologies within the same disciplinary cluster. Stephen North (1987) exemplifies this well in "The Making of Knowledge in Composition: Portrait of an Emerging Field," as he posits, history, philosophy, and critique, as scholarship that coalesces around three different methodological communities within the field of composition. In addition, North proposes four types of researchers within these methodological communities, namely, experimentalists, clinicians, formalists, and ethnographers.

At the same time, Carter's definition of metadiscipline deviates sharply from the one established in this chapter, and is flawed upon close analysis. Carter defines metadiscipline as "collections of disciplines that share an emphasis on certain metagenres and are constituted by the various genres within each metagenre" (2007, p. 403), "a metadiscipline, then, is a higher category of disciplines" (2007, p. 393). Again, the prefix meta- is used to denote a grouping rather than an item of the same kind that the meta-object discusses. In other words, a metadiscipline, by definition, must be a discipline; otherwise, it is simply a collection, group, category, or family of disciplines. As such, it deviates from the definition of metadiscipline established earlier in this chapter, which defines it as a discipline that analyzes the activity, texts, people, and histories other disciplines. While, then, Carter's terminology of metagenre and metadiscipline are dubious, seeing this study in terms of expressing our community's metadisciplinary activity is valuable. Through comparative studies such as these, writing studies can contribute to the field metadisciplinary inquiry, not only in what we have to offer about

the features of texts, but also what we have to offer in terms of thinking, teaching, and learning about writing.

As previously discussed, metadisciplinary studies would engender collaboration between a number of fields, especially those that have not traditionally collaborated. In what follows, I offer LIS as a field with which writing studies and other metadisciplines can collaborate. In order to do this, I explain the internal conversations about the discourse of LIS and how it relates to the theoretical and ideological aspects of the field. Then, I focus on one subfield within LIS, domain analysis, and explain two different studies from this approach. By exemplifying the types of disciplinary inquiry already occurring within LIS, I argue that their approach to studying knowledge (both semantic and knowledge creation) can be beneficial to metadisciplinary studies and is relevant to writing studies.

Domain Analysis: Metadisciplinarity in LIS

Within the space of the library, writing studies researchers will likely never encounter a scholar of knowledge organization, so how and why might they affect our teaching or research? I would argue that is precisely because of the vacancy of today's modern library that knowledge organization is so important. As Peter Pierre (2005) characterizes:

banks of computer monitors glow constantly, where indescribable amounts of information can be viewed on screens like photographic light boxes, where information is filtered through search engines and metadata, rather than modulated by knowledgeable librarians, who have now been reduced to

functioning as a help desk for search engines. Now it is the norm, rather than the exception. (p. 152)

Many researchers may encounter the impersonal modern library and increasingly never even enter a library to do research, relying on web interfaces and self-guiding their own searches. In this environment, knowledge of the library seems obsolete. With keyword searches and powerful catalogues, indexes, and search engines that profess scouring hundreds if not thousands of texts, understanding the philosophy behind these tools seems not only daunting, but also unnecessary. This section of the chapter argues for why the disciplinarity of the library matters for and domain analysis' centrality to this issue. First, it provides background into the field of domain analysis—a theoretical discipline within LIS that affects the discipline's discursive formations by offering a social constructivist (domain analytic) approach to knowledge that counters the strong scientific influence within the field.

Within the library community, a cadre of scholars (e.g. Budd, Raber, G. Radford, M. Radford, Wiegand) have analyzed the culture of LIS noting its positivist and pragmatic tendencies. John Budd evokes Pierce Butler's assessment that "[t]he librarian stands alone in the simplicity of his pragmatism; a rationalization of each immediate technical process by itself seems to satisfy his intellectual interest" (2003, p. 3). This pragmatism has come to express itself as a love for technology, echoing Pierre's aforementioned characterization of the modern library whose ratio of monitors to books seems every increasing. The insistence on technology appears to have entirely occupied the proverbial heart of the library. While the library's pragmatic roots began with the

philosophy of Melville Dewey,²⁷ today's library with its glaring "photographic lightboxes" were probably not his ideal, especially coming from the era of social progressivism (Pierre, 2005, p152).

More directly, the "overenthusiastic affinity for technical matters and a deference to technical expertise" is arguably "grounded, to a considerable extent, in ignoring the social and interest-based character of disciplinary work" (Budd, 2003, p. 20). One way to counter the cult of technology stemming from the overzealous pragmatism of the community is to take social approaches to understanding the discipline (Budd, 2003, p. 21). While many have taken up this call (e.g. Raber, G. Radford, M. Radford, Wiegand), much of this scholarship often analyzes the library's relation to culture. For example, Gary Radford has analyzed the cultural discourses of fear that circulate about the library.²⁸ Fewer studies (Budd, 2006; Drabinski, 2011) attend to the internal discourse and rhetoric of the field, and when they do, they do not contextualize it in terms of disciplinary discourse.

While studies of library discourse conducted by librarians focus mostly on two main areas: the role of pragmatism in the discourse or how the library affects and is affected by cultural discourses, discussions of LIS discourse from non-librarians within LIS (mostly those knowledge organization²⁹) aim their attention on the thirst for scientific approaches. Regarding the promotion of a scientific identity, Lyn Robinson cites a foundational study by Farradane (1976) who advocates for a "true information science," rather than an "applied multidisciplinary art" (qtd. in Robinson, 2009, p. 578). This seems

²⁷ See chapter four for a discussion of the pragmatic philosophical roots of the library and their historical context.

²⁸ See chapter one for an extended discussion.

²⁹ More specifically, Robinson (2009) cites the documentation movement.

then, to stem from an anxiety of influence from the perhaps more philosophical roots of the field in librarianship, namely Melville Dewey. So while even library scholars cite pragmatism as a root cause for the over-reliance on technology and discursive tendencies of the field, those in knowledge organization note an even steeper turn toward science in reaction to pragmatic philosophical underpinnings of the library. This presents a double force away from philosophical and humanist perspectives in the disciplinary identity of LIS.

Even more ardently, Farradane (1980) "asserted that [LIS] must be a cognitive science, requiring careful experimental study to identify measures, errors, and controls; a strongly positivist and behaviourist approach" (qtd. in Robinson 2009, p. 579). Certainly, now, the field has espoused cognitive-behavioral approaches to study user access, which in the end informs design of interfaces and other components of access and retrieval. Peter Pierre decries that "[w]hat is needed in the 21st century is a new epistemology of libraries. We need to abandon positivism as the sole guiding light and investigate our own ontology, separated from other discourses" (2005, p. 152). This goal of distinguishing the discourse of LIS from other discourses, I would argue, naturally relies on an awareness of other discourses, as well as espousal of theoretical and methodological approaches from a social perspective that can sustain analysis of them. Unfortunately, while seeing a need for analyzing the internal discourses of the library, scholars in LIS often do not acknowledge the same need for analyzing the discourses of other disciplines. Moreover, the analysis of LIS's discourse does not necessarily translate into an awareness of how their discourses affect their practices or into a goal of changing those practices. Most importantly, because the subfields of LIS see themselves as

separate communities, there is little awareness of how different branches of the discipline affect one another. For example, I would argue that the cognitivist, empiricist, and positivist approaches to knowledge organization indirectly enable those same tendencies in the library.

One way in which cognitivist, empiricist, and positivist approaches pervade the library (and other search entities) in undetectable ways is through search algorithms. As Hjørland notes:

Basically an algorithm must always select information based on some paradigms rather than others (i.e. reflecting some values at the expense of other values). *An algorithm cannot be neutral, but will have some kind of bias that favors some views or needs at the expense of others.* One research goal should be to uncover such biases and to provide a selection of algorithms for users to choose from (but it should not be our only goal to develop algorithms. (Hjørland, 2002d, p. 8; emphasis original).

Algorithms are computations or series of steps that are automated in order to carry out a recurring activity. As such, they are a type of genre, in that they respond to repeated action; however, their rules of application are concealed, offering no direct means of change by the researcher, unlike for participants of a genre.

Within LIS, there are factions that espouse a social approach to disciplinary expression, epistemology, and ontology. While in writing studies, social constructivist approaches similar to domain analysis are currently well supported, in LIS social constructivist approaches to knowledge are in competition with other perspectives such as cognitive user studies, bibliometric paradigms, information retrieval, and others. While

these different paradigms are not mutually exclusive, social constructivist approaches to knowledge, like domain analysis, have had difficulty gaining traction within the research community. An understanding of the history and ideas of domain analysis is important not only for illustrating an approach that can counterbalance the more scientifically oriented views within LIS, answering Pierre's (2005) call for a new 21st century discourse, but also as to provide an awareness of where and how writing studies could find points of collaboration with fellow metadisciplines.

Specifically, domain analysis distinguishes itself from other paradigms in knowledge organization in at least two substantial ways. First, it is a functionalist approach, which endeavors to understand the "implicit and explicit functions of information and communication and to trace the mechanisms underlying information behavior from this insight" (Hjørland, 1995, p. 400). In other words, rather than take an information organization approach, which organizes knowledge by discrete characteristics of documents or texts, domain analysis takes into account the functions of the texts for the domain.³⁰ This functionalist approach not only distinguishes domain analysis from other scientific approaches in knowledge organization, but it also a feature that allows it to contribute to metadisciplinary inquiry. The functionalist approach is comparable to Susan Miller's (1987) view of "genre as social action," wherein genres are "typified rhetorical actions based in recurrent situations" (qtd. in Devitt, 2004, p. 13). Then, a functionalist approach to knowledge organization relies on a view of information in action—information's use for particular purposes.

Secondly, as a philosophical-realistic approach, domain analysis counters

³⁰ Throughout this chapter, domain and discipline are interchangeable.

behavioral and cognitive paradigms for information access, which regard individual researchers as decontextualized from the activity systems and discourse communities of which they are a part. Activity theory, developed by Engström on theories of Vygotsky, takes as its object of analysis the activity system, which emphases the linked activities of group members, both individual and collective, that result within the system (Devitt, 2004, p. 47). In contrast, discourse communities, as defined by John Swales (1990) "are sociorhetorical networks that form in order to work towards sets of common goals" (qtd. in Devitt, 2004, p.37). Furthermore, the philosophical-realist approach of domain analysis marks it as a metadiscipline, and yet another point of fruitful collaboration between rhetoric and composition.

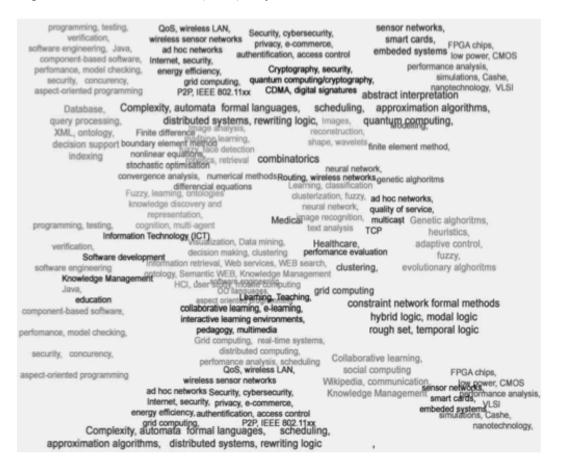
Studies of domain analysis have involved a variety of different disciplines, including computer science (Osinksa & Balla, 2010), music (2011), and nuclear physics (Deokattey, Neelameghan, & Kumar, 2010). In the case of computer science, a better taxonomy was created for the digital Association for Computer Machinery (ACM) library housing 1.4 million pages of abstracts and full-text scientific publications. The new system reflected "every major aspect of computer science and technology as well as the latest technology with practical applications" (Osinska & Balla, p. 157). They created eleven different categories of information about the field: "general literature, hardware, computer systems organization, software, data, theory of computation, mathematics of computing, information systems, computing methodologies, computer applications, and computing milieus" (2010, p. 161). These categories are the organizational apparatus used to categorize the articles—and which reflect the disciplines' values and structure. Unlike, texts that describe the history and organization of the field, this structure reflects

current usage by all members of the community as it redirects to published scholarship directly. In other words, histories or descriptions of a field are inherently rhetorical, while at least part of this taxonomy of the field's discourse is less so due to the multiple points of view that it aggregates. The keyword data set is culled directly from the articles, more accurately representing the whole community. Furthermore, part of a rhetorical or historical analysis of a discipline by writing studies (or any other metadiscipline) could involve an attention to the organizational structure for article indexing in the particular field, as this perhaps, most aptly and currently provides an overview of the important aspects of the field both in terms of subfields, materials, and concepts.³¹

Ultimately, domain analysis projects such as this offer a means by which to caapture an overview of a field's culture, as well as disciplinary discourse. For example, Osinska and Balla (2010) mapped all of the relevant keywords to the eleven different categories that they created (see Figure 1). The resulting cluster map shows a bird's-eye-view of the discourse in the field of computer science. While this is not an exhaustive mapping of the field's discourse, it provides a very functional way for linguists, disciplinary rhetoricians, and WAC/WID practitioners to access the discourse of a particular field. This is another important contribution LIS can make to metadisciplinary studies.

³¹ This illustrates how a taxonomy argues about the important aspects of the field. The role of classifications and controlled vocabularies as enthymematic argumentation will be discussed in regards to the *LCSH* in chapter four.

Figure 4: Osinska and Balla (2010) Keyword Cluster



Within the field of music, Margaret Lam (2011) conducted a domain analysis of a video-sharing site for instructional videos. The analysis included the communities that developed around these sources and how to classify the videos for access to members of the community (both expert and novice). Issues of expert and novice discourse, as well as how to identify visual and audio definitions of terms were crucial to this study. Additionally, since this was a guide that indexed videos across YouTube, this study shows a non-academic environment where disciplinary knowledge and discourse was enacted. Studies such as Lam's are interesting not only because of the concentrated list of discourse for expert and novices within the domain of music, like that produced for the

computer science index, but also for understanding how learning (a new discourse around a skill) could occur for novice learners. Furthermore, unlike the journal articles that were the basis for the previous computer science study, which resulted from expert discourse within the academic setting, Lam's study was a mixture of levels of discourse within a social setting. Studies such as this offer opportunities for collaboration with rhetoricians and linguists about how expert and novice discourse circulate in such online communities. Because LIS specialists constantly interact with an overview of a field's discourse, they can provide context on a differing level than can natural language studies of discourse. Lam's study, in particular, speaks to metadisciplinary collaborations with rhetorical body studies and studies of visual rhetoric.

Implications of LIS's Internal Debates for other Fields

As we can see through the discussions of domain analysis, the field of LIS is arguably "trapped in its own discursive formations" (Weigand, 1999, p. 238). While domain analysis offers a compelling alternative to pragmatic, positivist, and empiricist tendencies within LIS, changing the discourse and culture to adopt these measures is difficult and progress across a field as vast and multi-faceted is slow—particularly because many do not see a need for change. However, there are many implications for LIS and for all disciplines, due to over-insistence on technology fueled by a drive toward science to deflect computer science intrusion (Robinson, 2009, p. 580).

One significant consequence of the culture of pragmatism manifesting into a fervent drive toward technology, is that economic aspects also heavily influence library culture. Because of this monetary focus, "academic libraries are now run as business with

"products" and customers" [and] the librarians in them are directed by managers whose main concern is the bottom line" (Pierre, 2005, p. 152). This is due to the "power of the publisher, manifesting itself through copyright and licensing laws, through spiraling subscription fees for academic journals added to the technology treadmill of buying and upgrading computer equipment, are all factors inhibiting the free exchange of information" (2005, p. 152).

And while the internal debates of LIS may seem foreign or inconsequential to writing studies scholars or those in other fields, they can often have real consequences for us and other disciplines. An increasingly less social view of knowledge organization and espousal of the costly cult of technology within the library community can lead to diminished or altered access to materials for researchers. Even issues of campus building management in relation to library function and purpose are arguably related to a diminishing social view of knowledge within LIS. As Andrew Abbott, University of Chicago sociologist underscores, libraries are the laboratories for humanists and many social scientists. While many scientists and scholars use libraries, for humanists, their *laboratory* is populated by manuscripts, archives, and books (2008, p. 1). Abbott's insistence on the importance of this taken-for-granted relationship between humanists and social scientists stems not only from his own scholarly affiliation, but also from the task force that he chaired at the University of Chicago from 2005-2006. This task force conducted a sociological analysis of the uses of the Regenstein Central Library and the other libraries on the campus of the University of Chicago, as well as collected information about benchmark institutions, Yale, Harvard, Duke, Princeton, and University of Minnesota.

While Abbott's analysis in the task force report showed variability in the uses of the library, especially by undergraduates, the importance of the materials to the core humanist faculty and graduate student users, whose disciplinary structures, not to mention tenure requirements, center around published manuscripts, was supported by the data. This work disproved the assumption that electronic use of the library was replacing its physical use (2006). Additionally, he conducted an historical analysis of research practices relating to bibliographic guides and other library reference materials dating back to the interwar period. Abbott's historical study is even more important than his ethnography of Regenstein. His thorough survey through the library literature lead to a great find, namely, the centralization of libraries during the interwar period (e.g., Berkeley, 1911; Chicago, 1912; Harvard, 1915; Johns Hopkins, 1916; Stanford, 1919; Michigan, 1920; Minnesota, 1924; Illinois, 1926; Yale, 1931; and Columbia, 1934). Previously, libraries were departmental and located physically within the home departments. As Abbott states, "professors had lost control of the books to the librarians" (p. 19). Scholars not only lost their physical proximity to their laboratories, but they also lost the ecology of the laboratories as well. No longer were colleagues propitiously meeting in the departmental library, no longer, were graduate students overhearing more senior scholars discussing important issues in the field, all of the in situ practices residing in and around the departmental library were cauterized. In effect, a field of metadisciplinarity would allow a more conscious awareness of how the practices between libraries and home departments shape the research in various fields. Abbott concluded that the indices preferred by scholars were particularized and those librarians preferred were generalized.

In, "The Traditional Future: A Computational Theory of Library Research," his 2008 article for the Association of College Research Libraries (ACRL), Abbott makes bold claims about the marginal benefits of a more technologically advanced library to the process of research. His argument is that technological advances are not useful to the seasoned researcher, because they fail to account for the research practices of established researchers. Rather, these guides are written for undergraduates and near novices who are learning research methods, which he terms "finding information" rather than researching. While this is a dubious and uncharitable distinction, Abbott's frustration is perhaps more rightly directed toward the cult of technology, spurred by pragmatism (Pierre, 2005). By becoming too reliant on scientific rhetoric and methodologies, LIS has neglected the needs of the humanist researcher, and misappropriated the traces of science it does espouse (e.g., unevolved cognitive research methods).

Within the cataloguing community, there has been a direct attack on resistance to technology and innovation. In "Who Moved My Pinakes," Tina Gross, recounts the rhetoric of technology that depicts cataloguers who find value in more traditional methods as "dinosaurs" (p. 141). She cites Thomas Mann who states "professional librarians who raise objections to the abandonment of cataloguing and classification' are dismissed as dinosaurs whose 'resistance to change' springs not from their concern for the maintenance of high professional standards, but from a selfish fear of losing job security" (p. 141). What we find Gross' discussion of the debate is that one party uses the rhetoric of technology to depict the other side as old fashioned or resistant to change for self-serving purposes--neither party delineates the merits of their particular system. For example, Gross' cites "fear of change' rhetoric as one of the ideological tools that

have been used" (p. 143). In counter to this "fear of change rhetoric," Gross proposes that "people do not generally fear or resist changes that they perceive to be positive" (p. 142). While this is a counter argument, a perhaps more sturdy counter argument would rely on the benefits of the traditional methods.

Conclusion: Engendering Metadisciplinary Collaboration

As we investigated LIS's internal critique of pragmatism turned cult of technology, domain analysis was offered as a way to infuse a non-scientific influence into the library discourse. Furthermore, domain analysis offered points of metadisciplinary collaboration and influence for the writing studies community. Ostensibly, because LIS's object of analysis is the epistemologies and ontologies of the disciplines, and it directly aids all disciplines in cataloguing, accessing, and storing their knowledge, studying how LIS approaches disciplinarity can provide new contexts for the study of disciplinary rhetorics and WAC/WID. Specifically, through visual overviews of computer science discourse, domain analysis showed itself as a means to achieving a more inclusive and totalizing view. Within the domain of music, domain analysis offered access to expert and novice discourse outside of the academy.

Building on the historical tradition of WAC/WID, the opening of the chapter illustrated how writing studies is a metadiscipline that, through studies such as those of Carter (2007) and others, can trace how patterns of inquiry cut across disciplinary boundaries. Metadisciplinary scholarship such as this is important to understanding commonalities between disciplines that can be garnered for improving writing instruction in WAC/WID programs, as well as in first-year composition. Moreover, by seeing

ourselves as a metadiscipline, writing studies can forge important collaborations with other fields such as LIS. These metadisciplinary collaborations can inform our understanding of knowledge creation and organization within the disciplines.

Through the discussion of the LIS subfield of domain analysis, we can see how disciplinary approaches to knowledge organization can complement disciplinary approaches to writing. By forging metadisciplinary collaborations with scholars in the domain analysis community, writing studies can better understand how knowledge circulates within fields, the extent to which library discourse can permeate disciplinary discourse, as well as how disciplinarity can affect knowledge seeking behavior. All of these aspects are important to improving writing instruction, as chapter five will illustrate.

In conclusion, Abbott's work, illustrates the real consequences of viewing ourselves as separable from the LIS community. Too, this may suggest ways in which a field's modes of inquiry and theoretical orientations can influence the activities of the field. Perhaps through metadisciplinary collaboration, domain analysis can gain a wider audience, thus fortifying domain analytic approaches and giving them increased traction within LIS. In turn, strengthening the voice of domain analysis in LIS could influence a library culture that is differently, if not more intimately, attuned to the needs of the disciplinary communities that it affects.

Chapter 4

The Library of Congress Subject Headings (LCSH): Tracing Sociolinguistic and Rhetorical Networks in the Disciplinary Discourse of Library and Information Science (LIS)

There is no social agent who does not aspire, as far as his circumstances permit, to have the power to name and to create the world through naming: gossip, slander, lies, insults, commendations, criticisms, arguments, and phrases are all daily and petty manifestations of the solemn collective acts of naming.

Pierre Bourdieu (1991, p. 105)

In Language and Symbolic Power, Pierre Bourdieu lists "phrases" and

"commendations"—seemingly innocuous examples of naming—alongside "slander," "gossip," and "lies." Despite the perceived arbitrariness or insignificance, of normal daily spoken and written word, Bourdieu (1991) and many others (Bowker & Star, 1999; Foucault, 1972; Fairclough, 1989; Hanks, 1996; Voloshinov, 1973; Vygotsky, 1986) have argued for acknowledging and analyzing the broader and deeper connection between language and cultural ideologies. Many scholars even suggest that these "seemingly innocuous phrases" reveal cultural barriers such as racism or sexism due to the mutually constitutive aspects of culture and language, as cultural mores, dominant class paradigms, and even discrimination become encoded within language. Thus, analysis of categories and taxonomies—in other words, ways of naming and creating the world—sheds light onto the interdependence between language and culture, as well as the degree to which this connection exists (Bowker & Star, 1999; Foucault, 1972). Because categories and taxonomies have traditionally, within the field of rhetoric and composition, not been studied, they offer a new way and a much larger scale for us to view the interconnection between language and culture. Ultimately, deep sociolinguistic and rhetorical analysis reveals that taxonomies are culturally contextualized and embedded arguments for the connection between objects, words, and ideas. Arguably, one of the most influential and well-used taxonomies is the *LCSH*. Too, as the *LCSH*³² is central to research activity in the university, it takes on significance. Since the scope of the *LCSH* is so large, 9,432 pages, these rhetorical and sociolinguistic networks can be traced across and between domains. Analysis of the *LCSH*, then, illustrates how cultural ideologies can be embedded in taxonomies on a large-scale and how these cultural perspectives merge with the disciplinary discourse of LIS and because of its status as a gatekeeping discourse for all of the discourses in the university.

Sociolinguists, however, are not alone in their examination of larger implications of mundane or seemingly utilitarian language. For rhetoricians, too, daily spoken and written language, especially within the public sphere, have long been seen as a battleground of culture. As the rhetorical turn and subsequent work in the rhetoric of science have proven, language ideologies and rhetorical networks can be evinced in scientific texts, especially scientific taxonomies. Hence, beyond pointing out that the *LCSH* has cultural influences, this chapter seeks to understand how this document functions as an example of scientific discourse and rhetoric. For many scientists, the rhetorical mechanics of their own methods of argumentation and syntax often go unnoticed because they claim merely a practical relationship with words. Greg Myers (1990), Charles Bazerman (1999; 2000), Alan Gross (1990; 2006), and others, though,

³² The *LCSH* is six volumes totaling 9,432 pages and containing 337,000 headings and references (http://loc.gov).

have investigated the argumentation, discourse, and genres of scientific texts, revealing the layers of rhetorical fabric that necessitate scientific argument. As a notable example, Gross's study of Darwin's *On the Origin of Species* provides insight into the formation of scientific taxonomy and Darwin's use of it to argue for his theory of evolution. So then, as an example of scientific rhetoric and discourse, studying the *LCSH* offers insight into the field of LIS, which adds to the oeuvre of scientific rhetoric and discourse studies.

As Myers, Gross, and Bazerman have illustrated, the language and rhetoric of scientific disciplines hold implications for the creation of scientific arguments. While other scientific fields such as biology argue through taxonomies, those of LIS are notably different. In particular, the LCSH offers an enthymematic mode of taxonomic argumentation, which not only tells us about how this discipline argues, but also tells us about how enthymematic argumentation structures can function on a large scale. In regard to argumentation, the LCSH is unique and important because it illustrates an example of scientific argumentation that is simultaneously enthymematic and taxonomic, as well as showing us a large-scale example of cultural traces in a taxonomic structure. While analysis of the *LCSH* reveals that this discipline relies on a taxonomic (enthymematic) argumentation structure different from those of other scientific disciplines, LIS also relies on a system of layered inscriptions (LCSH). Library and information scientists Geoffrey Bowker and Susan Leigh Star have studied taxonomic argumentation, analyzing scientific/medical taxonomies such as the International Classification of Diseases (ICD), revealing its inner workings, internal slippages, and embedded rationale. Mostly, Bowker and Star illustrate the implications that the ICD holds for the medical community. Similarly, the LCSH and its descriptions and

classifications preclude, facilitate, and shape research for novice and expert researchers, alike.³³

Beyond examining the rhetoric and argumentation of LIS as a discipline, analyzing the *LCSH* as an example of disciplinary discourse shows us a complex disciplinary discourse that is hybridized. First, the *LCSH* is hybridized in that it contains traces of cultural discourse, its own disciplinary discourse, as well as traces of discourses from across the disciplines. Further, because the *LCSH* is a gatekeeping discourse, these characteristics offer implications for disciplines across the university.

Studying the *LCSH*, then, offers writing studies a unique study of disciplinary discourse, argumentation, and scientific rhetoric, while simultaneously showing how all of these aspects affect research practices for researchers from across the disciplines. As the following chapter will illustrate, understanding the role of *LCSH* in guiding research inquiries is important to informing writing studies research conducted libraries, both from pedagogical and scholarly standpoints³⁴. Hence, there are multiple gains to exploring the disciplinary discourse, rhetoric, and argumentation of LIS as evinced in the *LCSH*. Not only do we find new disciplinary argumentation strategies in LIS's enthymematic and taxonomic structures (*LCSH*), but we can also see how this document affects disciplinary

³³ The term researcher/s is used here to mean experts or novices, academic or nonacademic users/patrons of libraries seeking documents or texts for their own or other uses often presaging writing.

³⁴ Specifically, Berman (2005; 2006; 2007), Albrechtson (1998), Knowlton (2005), Itner (2002) Svenonius (1986), Cochrane (1998; 2000) and others have extensively marked theoretical problems and practical roadblocks researchers face due to *LCSH*, as well as leveling cultural critiques of the document. Each of these scholars illuminates the different options available to the LC upon enhancing, replacing, contextualizing, or reenvisioning *LCSH*. Most recently, the Library of Congress Working Group (LCWG) sponsored discussions across the country to inform LC about how to provide subject access for the 21^{st} century.

research practices across the university. Furthermore, by analyzing the hybridized discourse of the *LCSH*, which contains cultural discourse, disciplinary discourse from every field, as well as library discourse, we are confronted with a highly complex hybridized discourse. This multiply hybridized discourse (*LCSH*) is further important due to its gatekeeping status for facilitating research practices throughout the university. In the end, studying the *LCSH* as an example of disciplinary discourse deepens writing studies understandings of hybridized discourse, gatekeeping discourses, taxonomic argumentation, as well as how LIS shapes research practices for researchers from all domains.

While this chapter will illuminate aspects of the headings that may be undesirable, such as racist or sexist language and headings that do not match to disciplinary discourse, the goal of the chapter is not to critique the headings in order to offer remedies. Rather, the goal of this chapter is to deeply familiarize writing studies researchers with the headings in their current and historical formation. Because it is a disciplinary discourse itself, albeit a gatekeeping discourse that affects other disciplines research practices, this first goal is to understand the complexly hybridized nature of this document in order to fully process how it is constituted and how it shapes research practices. This goal builds from an inquiry about LIS's disciplinary discourse but goes beyond that. In seeing how the *LCSH* combines cultural discourses with its own disciplinary discourse as well as other disciplinary discourses.

Toward these ends, the chapter first provides an historical account of the formation of the Library of Congress (LC) and the *LCSH* showing the basis for its hybridized discourse. Then, it proceeds to discuss the *LCSH* as an example of LIS

disciplinary argumentation, including how it garners ethos from social capital. In order to contextualize the *LCSH* as scientific rhetoric, the rhetorical gestures of the *LCSH*, the rhetorical functioning of the *LCSH* will be juxtaposed with Alan Gross's account of biological taxonomies. Further parsing the hybridized nature of this disciplinary discourse, the chapter argues that contested headings reveal sociolinguistic networks within the *LCSH*. Finally, the preceding information will be contextualized for the writing studies community, illuminating the importance of the *LCSH* in our own and students' knowledge production, as well as promoting rhetorical awareness of reference texts more generally.

This chapter dialogues with the ones preceding and following it in several key ways. Chapter two discussed archival collections and the gap in writing studies knowledge that exists about them. Writing studies' metaphors of serendipity exemplify and naturalize this gap in knowledge. It argued that in order to challenge these pervasive metaphors, we must further study the construction of finding aids and analyze them for their rhetorical significance and status as disciplinary discourse. The key way that writing studies should understand and contextualize finding aids is as examples of disciplinary discourse. Thus, inquiry into the disciplinarity of the field of LIS is the core agenda of this dissertation. This chapter carries out this mission by analyzing the *LCSH* as an example of LIS disciplinary discourse in chapter two, the *LCSH* is seen as an example of disciplinary discourse in this chapter. However, because of the larger scope of the *LCSH* (in comparison to the narrower scope of the archival finding aid) there are deeper and richer implications to draw for the discipline of LIS—namely, how it filters disciplinary

discourses and embeds cultural perspectives. The embeddedness of cultural perspectives in the language of the *LCSH* has implications for disciplines across the university due to LIS's function as a filtering discourse.

A Congressional Audience: History of the *LCSH*

The history of the LCSH and the Library of Congress is important to understanding a large part of LIS's audience, culture, and perspective. While many may assume that the audience for the Library of Congress is the average U.S. citizen and that an academically oriented LIS disciplinary perspective is central to the Library of Congress, these are actually false assumptions, made so by a complicated history. The prevailing culture of the Library of Congress is ultimately a bureaucratic one, growing as a service arm of the U.S. Congress. Organizational changes through the library's history reveal the theoretical orientation of the library and the complicated relationship it shares with the academic branch of the field of LIS. Established on April 24, 1800, the Library of Congress was conceived as part of the legislative branch of the U.S. government, despite its common acceptance as the U.S. national library (Cole, 1975, p. 119). Library historian John Y. Cole elaborates on the double role of the Library of Congress as both the national library for citizens and the national governmental library. He states that "[t]he truly unique feature of the Library of Congress, however, is its dual nature as both a legislative library for the American Congress and a "national" library for the general public, the professional library community, the executive agencies of the U.S. government, and scholars around the world. In this sense, it brings together the efforts of the government, librarianship, and scholarship—an uncommon combination [...]" (Cole,

1975, p. 119). Here, he highlights that the library is serving many different communities: library, U.S. government, and the academic community. Moreover, its multiple functions are compounded by the fact that other libraries around the world have adopted the *LCSH*. So, through its situated practices, the library guides research practices for researchers around the world, governmental, academic, and non-academic.

An important historical fact about the Library of Congress, which further exposes its deeply seated bureaucratic nature, is that the President of the United States of America appoints the Librarian of Congress. This means that the library community does not choose the candidate as a representative of its disciplinary ideals, practices, and research standards. This was especially true early in the history of the Library of Congress, as it was not until 1899 that a practicing librarian was assigned to the role, when President McKinley appointed George Herbert Putnam the eighth Librarian of Congress (Cole, 1975, p. 128). Putnam oversaw the expansion of the library and continued the development and implementation of the Library of Congress. Reporting to the Congressional Joint Committee on the library, held in 1896, Putnam, along with Melville Dewey and four other members of the American Library Association, were central to promoting the restructuring and expansion of the library that was approved in 1897 (Cole, 1975, p. 128). This history illustrates the deeply bureaucratic nature of the Library of Congress, as well as raises speculation about why it eschewed more philosophical approaches to information organization, instead relying on an ethos of practicality.

Since its inception in 1800, the Library of Congress was formed for carrying out the needs of Congress. Throughout his term as president, Thomas Jefferson had a vision of a more comprehensive library that would support the democratic ideals of the nation.

In 1815, after a fire destroyed a large portion of the books in the library, he sold his own collection to form the core of the new library. This was the first time when the boundaries of the library were expanded beyond "the bounds of a legislative library devoted primarily to legal, economic, and historical works" (Cole, 1975, p. 120). While these ideals were in place early on, there was debate in the 1850s from the Smithsonian's Charles Coffin Jewett about the Smithsonian becoming the national library for the citizens. Ultimately, the Smithsonian's secretary, Joseph Henry ended the debate in 1854 by dismissing Jewett from his post. The Smithsonian would go on to become a center of scientific research while the Library of Congress would serve a dual function as a library for the Congress and for the citizens. In 1897, Ainsworth Rand Spofford formally linked the legislative and national functions of the library. However, he guarded against the library providing cataloguing and bibliographic services (Cole, 1975, p. 123).

The *LCSH* are the descriptors given to individual books and stem from the broad classes defined by the Library of Congress Classification. The classification outline has twenty-four classes, ranging from "Class A General Works," to "Class Z Bibliography, Library Science." Within this classification, there are also subclasses that further group like texts into categories. Within "Class P Languages and Literature," there are nineteen subclasses ranging from "P Philology; Linguistics" to "PZ Fiction and juvenile belles lettres." Importantly, these classifications grew from the individual headings given to books, and were not designed with epistemological considerations in mind. In other words, the classifications were made *a posteriori* grouping the books in the collection rather than as intentionally attempting to arrange knowledge epistemologically into individual categories in an *a priori* way. Other classification systems such as the Dewey

Decimal Classification created by Melville Dewey in 1876, and the European Universal Decimal Classification based on Dewey's system, were created on an epistemological basis, meaning that categories are assigned based on a faceted system of tables that was designed to account for the subcategories. This is important because the *LCSH* does not attempt to show how knowledge is created or may logically narrow epistemologically. Rather, the *LCSH* merely accounts for the subject of books that exist in the Library of Congress collection. The books are catalogued by likeness, to other texts already in the library.

This system of headings was adopted in 1897, after the Library of Congress moved from the Capitol to its new building, and is based on Charles A. Cutter's *Rules for* a Dictionary Catalog to the library's collection. The Library of Congress began publishing the headings to share with other libraries in 1910 under the title *Subject* Headings Used in the Dictionary Rules of the Library of Congress (Chan, 1998, p. 1). Importantly, the LCSH was designed from the beginning to only be a practical organizing tool for the Library of Congress collection, not a comprehensive knowledge organization tool for all knowledge. This stems from the fact that the catalog is not a true classification system, but rather a "dictionary catalogue that assign[s] names to information" (Olson, 2004, p. 605). In other words, the LCSH maintains a controlled vocabulary that creates subjects by which a number of books can be identified and then through its syndetic structure may refine these distinctions or connect to another subject. Cutter's syndetic dictionary system is in contrast to Dewey's hierarchical system. As Hope Olson notes, Dewey's system stems from a Hegelian philosophical logic that "implies hierarchy" through its articulation of "the three quantitative moments: individual, particular, and universal" (Olson, 2004, p. 607). While Dewey's system is hierarchical and more complete than Cutter's dictionary approach, Cutter's approach is less labor intensive and practical because it only contains subjects of texts in the library's collection. This is one of the bases of the rhetoric of practicality that follows from the headings. In addition, because it is built on a syndetic structure that cross-references other subjects, it is more easily adaptable (practical) because the whole structure does not have to shift according to new classifications. Rather, new classes can be cross-referenced without a change in hierarchy, because there is no hierarchy.

Having a library that is designed to first serve the needs of Congress, and whose organizational structure (cataloguing and bibliographic services) are not meant to be representational for the country, reserves it from having any necessarily direct responsibility to citizens or to the scholars in academic fields that produce the texts that are catalogued. Therefore, the audience for the Library of Congress is primarily U.S. Congress, secondarily average citizens, and finally, academics and their considerations. Consequently, since its structure is not designed to be comprehensive of all knowledge, it is free to grow very deep in some subjects and shallow in others. As Colin Higgins notes, Charles Martel of the Library of Congress's Cataloging Division during the time of Herbert Putnam wrote: "'The system devised has not sought to follow strictly the scientific order of subjects. It has sought rather convenient sequence [sic] of the various groups, considering them as groups of books, not as groups of mere subjects.' [Rather,] the divisions reflect a description of a physical collection, not a coherent epistemic ideology'" (Higgins, 2012, p. 251).

This history of the Library of Congress, illustrates the bureaucratic nature of this community and its emphasis on practicality due to Cutter's influence. Hence, the headings follow under this logic of practicality rather than philosophical understanding (or disciplinary understanding) of the topic area. This reveals the *LCSH* as a discourse that relies on a rhetoric of practicality, sometimes at the expense of precision or disciplinary accuracy. In terms of disciplinary discourse, the non-hierarchical structure creates an environment where topic areas may be related through the syndetic structure, but not through a hierarchical structure that would allow headings for the same field to be placed together.

In this way, the *LCSH* acts as a gatekeeping discourse mediating and filtering disciplinary discourse through its own lens. Since the Library of Congress has a bureaucratic function and history, it is another example of the distillation of state sponsored discourse being distributed through the disciplines, or scientific societies. In their article, "Methodologies of Peer and Editorial Review: Changing Practices," Gail Hawisher and Cynthia Selfe (2012) draw attention to the peer review process (as noted in the field of writing studies) as a vestige of state licensing and censorship systems (p. 676). As they state, "in a gradual process, then, as Kathleen Fitzpatrick (2011) notes, scientific societies absorbed an altered version of the state's disciplining responsibilities, making way for a transition from 'state censorship to self-policing,' while at the same time 'creating in the Foucauldian sense, a disciplinary technology' (p. 11) that laid the early groundwork for a related system of peer review in later academic disciplines (p. 676). So, while the disciplines instated a system of "self-policing" in the nineteenth century, modern states in some ways instill another layer of "discipline" over knowledge creation

through national library systems, specifically, the United States, whose library is effectively a bureaucratic arm of the government. Therefore, the discipline of LIS has, in effect, embodied a state sponsored approval system, to some degree, through the cataloguing process.

Ethos and Enthymematic Argumentation of the *LCSH*

In other scientific disciplines such as biology and chemistry, discoveries of new phenomena, atoms, species, or theories are primarily debated and created by researchers within the same or bordering disciplinary domains. In contrast, the work of LIS (*LCSH* and archival finding aids) is the organization of others' work. Hence, it plays a mediating function that makes it instrumental in the creation and dissemination of *all* disciplines' knowledge. While other fields' theories do circulate outside of their disciplines, for example as feminist science studies analyze scientific theories, the *LCSH* is different because it plays a direct mediating function to all other discipline's research. Birger Hjørland (2010), professor of knowledge organization at the Royal School of Library and Information Science, Denmark, notes that:

For LIS [Library and Information Science] and KO [knowledge organization] the implication is in both cases that classification is not constructed within our field but is dependent on subject knowledge produced outside LIS. The pragmatic view emphasizes that LIS/KO should consider the purpose of its classification and the activities, that classification is made to support. (p. 9)

Hence, Hjørland acknowledges the metadisciplinary function and universal scope of the cataloguing systems such as the *LCSH*, Dewey Decimal Classification, and Universal

Decimal Classification, among others. These classification structures organize other field's knowledge and in so doing, mediate access to it. So when feminist science studies analyze and critique evolutionary theory, for example, feminist science studies do not organize and mediate access to the evolutionary theory texts. This is important because these classifications organize and mediate access to texts from all disciplines for expert and novice researchers alike.

For example, Thomas Mann notes how a linguistics scholar's keyword search for literature about the cockney dialect produced mostly juvenile fiction references missing nearly all references within linguistics (2005, p. 38). The correct subject heading "English language-Dialects-England-London" would have produced many more entries including those with different keywords (but the same subject). This example illustrates that while many researchers, even expert scholarly ones, do not use the *LCSH* directly; their searches are affected by not finding the information that they need. Even if they do locate some references, arguably their searches could be more powerful if they would utilize the LCSH. In terms of disciplinary discourse, though, this example illustrates how the LIS discourse (as represented by the *LCSH*) does not necessarily reflect the linguistics discourse precisely. While it is arguably true even from a linguistics perspective that English language dialect in London, England is not a misrepresentation of the category of dialects to which cockney should belong, the terminology "cockney" is not reflected in the headings verbatim. Hence, even expert researchers need to be mindful that keyword searches alone do not gather all relevant references and that LIS discourse, as reflected in the *LCSH* does not match their disciplinary discourse perfectly.

If even expert researchers have difficulty in locating sources, one wonders how the LCSH garners its rhetorical ethos. Classification systems generally, and the LCSH in particular, are promulgated and sustained by widespread unreflective usage. In other words, in order for classification systems to persist, many people must support them often without questioning them. Through this widespread and often unchallenged usage, classification systems become imbued with multiple forms of capital, which continues to enhance their centrality and further discourage reflective usage. In "The Forms of Capital," Bourdieu (1986) states that "the volume of social capital possessed by a given agent thus depends on the size of the network of connection he can effectively mobilize and on the volume of capital (economic, cultural or symbolic) possess in his own right by each of those to whom he is connected" (p. 51). Under this definition, the centrality of the Library of Congress to U.S. government functions has garnered the nation's participation. The only large-scale competitor to the *LCSH* is the Dewey Decimal Classification, which is used by a fraction of the libraries in the U.S. that use the *LCSH*. More importantly, there is economic capital supporting the use of the LCSH, as the Library of Congress assigns all books published in the U.S. with headings, which are printed on the inside cover of texts. Using the LCSH, then, frees library resources (economic capital) that would be used for classification if taking part in the Dewey Decimal Classification 35 . These economic advantages of using the *LCSH* can also be seen as libraries in other nations subscribed to LCSH.

³⁵ The library at the University of Illinois, Urbana-Champaign has recently (2011) decided to end cataloguing new books with the Dewey Decimal Classification, in favor of the *LCSH*. While some books were re-catalogued in *LCSH*, some books will remain in Dewey Decimal Classification for monetary issues. See chapter three for a discussion of funding issues at the University of Chicago library.

Through this symbolic, cultural, and economic capital, the Library of Congress comes to represent the members of the group who subscribe to it. Bourdieu (1991) states that "the mystery of performative magic is thus resolved [...] in the alchemy of *representation* [...] through which the representative creates the group which creates him: the spokesperson endowed with the full power to speak on behalf of the group [...] is the substitute for the group, which exists solely through his procuration" (p. 106). Accordingly, because the Library of Congress, is a government representative and is supported by citizens' usage, it represents all of these groups³⁶. Through this status, it is afforded the social capital to represent the people and knowledge through the subject terms given to books and the descriptions given to archival collection finding aids. Consequently, the LCSH is an individual, yet a collective act of naming, because the Library of Congress has been given the cultural, linguistic, and social capital to perform these functions (Bourdieu, 1991). When a cataloguer catalogues a book and an archivist describes an item or box of a collection, his/her inscription (Latour, 1986) becomes authorized language, imbued with symbolic capital. In other words, while the headings do not appear to have the same import as a law or statute, bill or other governmental communication, they are nonetheless culturally and politically significant. They go unnoticed as such because they are depicted as utilitarian and construed as unquestionable truths. Since the *LCSH* are inscriptions, which name or label all knowledge in a seemingly unquestionable way, they present a tacit argument for how concepts, topics, and subject areas are perceived. Due to the multiple forms of capital

³⁶ Whether or not all citizens agree with the headings is immaterial, because the act of using them is a means of support. Without widespread usage any system, especially taxonomic systems, lose importance (ethos).

afforded the *LCSH*, as well as their status as reference texts, they present an authoritative account of "truth" and "fact."

Despite their socially accepted authority, in effect, taxonomies and classifications like LCSH are arguments, not objective truths; however, their argumentative nature is further concealed by the fact that each descriptor is essentially an enthymeme, an argument with no premise. Silvae rhetoricae defines enthymemes as "a 'truncated syllogism' since either the major or minor premise found in that more formal method of reasoning is left implied. The enthymeme typically occurs as a conclusion coupled with a reason" (para. 1). Usually, an argument proceeds by stating a claim such as "bears are mammals" and supporting it with evidence through major and minor premises such as all mammals produce milk to feed their young (major premise), bears produce milk to feed their young (minor premise); therefore, bears are mammals (claim). Clearly, within the genre of the LCSH these types of syllogisms are not possible. Therefore, these claims are supported through whole-part relationships or by placing certain subjects in categories with others that share some unstated (seemingly common sense) characteristics. In the example of mammals, one gets a main heading of "Mammals" and subheadings such as "dolphin," "bear," and "human." While these determinations may seem common sense, they are actually enthymematic arguments that have concealed the logic of their making. They are often culturally specific and rely on cultural knowledge and norms to fill in the missing premises: thus, the political act of naming a classification of animals based on female milk production rather than other characteristics—an act laden with cultural ideologies about gender and the animal world (Schiebinger, 1993)—becomes invisibly embedded within widely circulating language.

We can recognize the cultural specificity of subject headings by tracing the shifting practices of naming across cultural contexts, and across different points in history. For instance, including a type of religion within the category of religions is an argument that the particular denomination is in fact a culturally legitimated religion, rather than a sect, cult, or a simple belief. This is often a cultural determination wherein different regions largely acknowledge certain religions as legitimate, while others do not. Specifically, in the United States Mormonism has been recognized as a denomination of Christianity; while within France, it is often referred to as a sect.³⁷ In addition to contrasts between cultures, these distinctions can change over time within the same culture and researchers need to be mindful of these distinctions. While there is not unanimity within cultures about these distinctions, documents such as the *LCSH* make these distinctions more concrete or seemingly agreed upon. Due to the *LCSH*'s authority as a reference text and the multiple forms of capital that it holds, such distinctions as religious groups and other culturally flexible distinctions are portrayed as being static or objectively true.

Cultural distinctions such as these are embedded throughout the *LCSH* and orient researchers to culturally constructed ways of understanding the world. Because subject headings are arguments with unstated premises, they are difficult to refute because the basis for the distinction is not present. The invisibility of cultural construction of subject headings can create barriers for researchers from other cultural orientations or for novice/student researchers who are learning information in new areas who may not look for certain subjects under certain headings. In an applied setting, this could impact a foreign exchange student who was writing about religion in his/her composition course.

³⁷ For more information on the sociology of religion see Émile Durkheim and Max Weber.

S/he may be quite surprised to find the Mormon religion regarded as a denomination of Christianity rather than as a religious sect. Ostensibly, the headings present an interesting case for culturally embedded arguments that linguistically represent culture in a seemingly uncontestable genre. Fortunately, there are scholars within the Library Science community who have been able to see barriers to access for researchers. Hence US perceived US cultural norms are argued through this enthymematic structure, which makes them difficult to refute. Additionally, the social capital afforded to the Library of Congress and the *LCSH* make provide authority for the text. As a reference text, now often opaquely embedded within a catalogue interface, the *LCSH* stands as a difficult text to argue against, especially for those outside the LIS community.

Scientific Rhetoric and Discourse of the LCSH

This section will compare biological taxonomies found in Darwin's *On the Origin of Species* with the *LCSH* in order to show how the *LCSH* is a unique example of scientific rhetoric. This contributes to deepening our rhetorical understanding of how the sciences argue through taxonomies, as well as how they form the inscriptions, which populate the taxonomies.

In his analysis of Darwin's *On the Origin of Species*, Alan Gross traces the criteria that Darwin uses for delineating different species (Simmons, 1990, pp. 91-115). He traces the underlying rhetoric to Darwin's motivation to underscore the existence of evolution. Gross details the ways in which Darwin uses visual analysis to detail "family resemblances³⁸" (Simmons, 1990, p. 94). Darwin states,

³⁸ Compared and contrasted with other species in the same taxonomy.

There are crustaceans at the opposite ends of the series, which have hardly a character in common; yet the species at both ends, from being plainly allied to the others, and these to other, and so onwards, can be recognized as unequivocally

belonging to this, and to no other class of the Articulata. (Simmons, 1990, p. 94) Here, part of Darwin's argument for this particular class is based on resemblances that are visually incrementally additive or comparative³⁹, hence his statement that the species at either end may not seem related but that their relation to the others of the group allies them. Ostensibly, he places the specimens in a spectrum or array based on visual characteristics in order to place it in the proper family and genus, while differentiating it as a separate species.

Similarly, a book's subject heading placement is not pure description of the item itself, but a comparative descriptor that links it to other items that are subjectively determined to be of its type and which is translated into the discourse of the *LCSH* to maintain internal consistency of that document. As Michael Mai notes, through his Peircean analysis of headings and their creation, cataloguers go through several steps that are purely mental and may or may not be recognized as separate especially for the expert cataloguer. He lists three steps for the formulation of a subject descriptor:

- 1. determine the subject matter of the document;
- 2. reformulate the subject matter in a natural language statement;
- 3. reformulate the statement into the vocabulary of the indexing language;
- 4. translate the subject matter into the indexing language.

³⁹ Gross uses this as support for Darwin reinforcing his theory of evolution through taxonomy, even though the taxonomies are not historical evolution, but family resemblance within the same time period.

These steps are important because they are all internal (mental), meaning that there is no formal argumentation or account for the processing. The determination of the subject matter is the first step in the chain of processes that will result in the descriptor. Determining the subject matter of the document necessarily takes into account the cataloguers' general knowledge, as well as the domain specific knowledge. Reformulating into natural language means explaining in a non-expert discourse that would be accessible to novices. Then, the cataloguer must begin to apply the vocabulary of the indexing or cataloguing language onto the subject matter, and in the end, creates a subject. Most experienced cataloguers may not even realize that they go through all of these steps when assigning descriptors to a text. This is important, because even if they had to create an argument for why they classified a text a certain way, it would be difficult and not as deliberative as the taxonomies created by biological scientists.

Gross accounts for the steps scientists use to make arguments for the inclusion of a new species. Alan Gross "at any time, in any science, scientists must make up their minds about what needs to be explained, what constitutes an explanation, and how such an explanation constrains what counts as evidence. When scientists think about matter of explanation, they are deciding what it is to do science. In rhetorical terms, they are using *stasis* theory, which is an established part of invention: a set of questions that call for a persuasive response" (1990, p. 7). Likewise, when the Library of Congress decides what subjects need their own heading, how to translate that subject into a lexicon in keeping with the *LCSH*, and how such a subject heading unites it to the other sources within the heading, they are defining domains in modes of argumentation and terminology appropriate for their own field (LIS). This is crucial because these determinations impact

researchers in other fields. For example, the text *Picturing Poverty: Print Culture and FSA Photographs* was written by a scholar in the field of visual rhetoric, but the subject headings do not include any mention of visual rhetoric. This can be important for tenure and promotion cases as well as for merely for other researchers within the same subfield to be able to locate the text.

While in scientific taxonomy there is public debate and written argumentation through journal articles about existence of new species or creation of a new category, in library classification, there are no such written justifications for classifications or hierarchies. The LC does not offer explanations or arguments for their rationale or use of vocabulary in the subject headings. Because they are reference texts, the *LCSH* and *TGM* fall under much less scrutiny than biological taxonomies. Typically, biological taxonomies and identification of new species are reported in articles that are peer reviewed by the scientific community. In contrast, the *LCSH* is only critiqued or challenged after the fact through letters to the Library of Congress or articles. Moreover, since item descriptors are produced by typically just one cataloguer and taxonomic distinctions are often the product of research teams and/or are published accounts that can be debated in an open forum and across time periods, there is more room for error or variability with classifications than with taxonomies.

Historically, the only means for making changes to the headings is through dissent about particular headings via letter or through journal articles; however, because the LC self-identifies as outside the LIS academic community, they have been resistant to accepting critiques. Specifically, Berman (2005; 2006; 2007), Albrechtson (1998), Knowlton (2005), Itner (2002) Svenonius (1986), Cochrane (1998; 2000), Mann (2005,

2006), Studwell (2001, 2003), and others have extensively marked theoretical problems and practical roadblocks researchers face due to *LCSH*, as well as leveling cultural critiques of the document. Each of these scholars illuminates the different options available to the LC upon enhancing, replacing, contextualizing, or re-envisioning *LCSH*. Most recently, there has been some movement on the part of the Library of Congress to hear concerns about the headings. In 2007, the Library of Congress Working Group sponsored discussions across the country to inform Library of Congress about how to provide subject access for the 21st century. While this is a step in the right direction, the pervading culture of the Library of Congress will be difficult to change and sheer volume of existing headings makes advances incremental rather than fundamental.

Taxonomies of organisms are designed by biological scientists for others within the same community,⁴⁰ while LC cataloguers give classifications for expert and novice, academic, non-academic, and governmental researchers. This is a significant distinction, because the LC needs to be more attuned to the differing levels of discourse from the different factions who are accessing materials than the biological community who is only reaching their own discourse community. Information scientists such as Birger Hjørland recognizes the boundary that LIS crosses into other disciplines stating:

For LIS and KO the implication is in both cases that classification is not constructed within our field but is dependent on subject knowledge produced outside LIS. The pragmatic view emphasizes that LIS/KO should consider the purpose of its classification and the activities, that classification is made to support. (Hjørland, 2010, p. 9)

⁴⁰ This is an example of intra-domain classification. Arguably, these classifications have much less impact on non-scientists than the LCSH have for non-librarians.

As stated in chapter two, knowledge organization (KO) and domain analysis (DA) can be helpful tools for making the headings more inclusive and accurate for disciplines. Aligning with these goals, writing studies work in both rhetoric and composition can help to accomplish these endeavors by contributing what we know about written discourse, argumentation, and how students become enculturated into their respective disciplines⁴¹.

On the one hand, Sanford Berman argues for a vocabulary that reaches the novice, non-academic researcher. He cites uses of *dysmenorrhea* and others as expert terminology that will obscure information for novice researchers. On the other hand, Cochrane *et al.* (1999) note how the *LCSH* could be upgraded for better use by the Alzheimer's Association, while others argue for a better use of scientific terminology (Gil-Leiva, 2007), Native American terminology (Herman, 2007), and art and architecture terminology (Trendler *et al.*, 2001). Already, the *MeSH* and *LCSH* have been mapped to facilitate researchers in medicine using both of the systems (Olsen 2008; Olsen and Strawn 1997).

As these examples illustrate, the *LCSH* reach researchers from diverse fields. This is a fundamental difference between biological taxonomies, which are designated for organisms being researched within one domain⁴². The *LCSH* should have internal consistency, but do not, which is part and parcel of their *a posteriori* orientation. Regarding the organization of information from different domains, information scientists

⁴¹ See chapter three for more information regarding knowledge organization and domain analysis.

⁴² Relates to Dewey's argument for a philosophical taxonomy of knowledge rather than the ad-hoc government centered approach of the Library of Congress. Ultimately, the Library of Congress prevailed due to cost concerns for cataloguing in other systems.

such as Birger Hjørland do not promote internal consistency across all the headings, but instead, promote organizational structures that reflect the different fields. He states that

[...] classifications [should reflect] the purposes for which they are designed and that different sciences, theories and human activities classify the world (more or less) differently. Both the practice of science and the practice of information science are thus seen as more constructive. (Hjørland, 2010, p. 9)

He promotes the field of Library and Information Science to develop their understanding of fields (domains) more rigorously, taking into account the epistemology of the fields when designing classificatory schemes for their knowledge (texts).⁴³

Therefore, scientists and the LIS community share skepticism about the rhetorical and sociolinguistic underpinnings of language. What has been true of analyses of taxonomies until now is that they have often been written for and used by members of their own highly specialized community.

Prejudices and Antipathies: The Sociolinguistics of the LCSH

Sanford Berman, to date, has been the most outspoken opponent of the *LCSH* and has sought more useful, modern, inclusive, and innovative terminology to help researchers gain access to the universe of knowledge within libraries. Not a Library of Congress (LC) administrator or internal cataloguer accountable to the culture of LC, he spent most of his career as head cataloguer of the public library in Hennepin County, Minnesota from 1973-1999. Prior to his extended time there, he earned a B.A. in political science with minors in sociology, anthropology, and English, as well as a M.S. in library science. Afterwards, beginning in 1955, he spent four years as a librarian to the U.S.

⁴³ For more information on Hjørland's concept of Domain Analysis, see chapter three.

Army Special Services in West Germany. Later, he worked for a year at the UCLA research library, two years at the University of Zambia library from 1968-1970, and year at the Makerere University library in Uganda, before carrying out his career in Minnesota at the Hennepin County library for the remaining sixteen years (Dodge 1995, xx). Due to culmination of academic subject matters with which Berman was familiar as an undergraduate, as well as his time abroad, it is unsurprising that he would be interested in the cultural and linguistic implications of reader access. At the same time, his opportunities living abroad provided insight into how subject access was impacting people from around the globe and access to the cultural connotations of specific word choices within the *LCSH*.

Most importantly, Berman proposed that the catalogue is a form of censorship, proposing that it is "something that 'reveals' what is in the collection at hand, what materials are available to the pursuit of scholarship [and] wisdom. The intelligently conceived catalogue orders the universe of information, and guides us toward what is to be learned, and used" (1993, p. 4). Here, he underscores the function of the catalogue, as the gateway between the collection and the reader without which, the reader would be unable to find. Specifically, his use of "reveals" in connection to the function of intelligently conceived catalogues, offers that the unintelligently conceived catalogue may *conceal* information from researchers, which, significantly guides their understanding of the subject. Therefore, the catalog not only acts as a gatekeeper of information for researchers, but also as a primary means of how researchers produce knowledge.

Applying Berman's notions to undergraduate researchers in composition classrooms, who may be researching topics on their own and in fields or domains with which they are to varying degrees unfamiliar, a catalogue that does not immediately reveal the relevant items in the library's collection can conceal the existence of an entire topic area. This is often a key reason why composition students change research topic, because they and their instructors are unable to find the correct entry-level term to access the topic.⁴⁴ Likewise, the sub-categories of a topic area can reveal or conceal the breadth of a topic area. In particular, the earlier "poetry" example showed twenty-one different types of poetry, but it was certainly not all-inclusive to every type that exists. However, especially student researchers, who may not have previous knowledge or context for a particular subject, may be inclined to use the headings, or the texts a catalog search leads to as representative of all the knowledge in the topic area or field.⁴⁵ Seeing the breadth of a topic area allows researchers to further narrow or sub-divide their research focus and process the depth and breadth of information. Hence, a researcher's understanding of a topic area is necessarily comprised of the information to which s/he is exposed and can affect how s/he perceives the sub-topics and key concepts within the topic area, altering how the researcher invents and narrows a subsequent text's topic and the relevant concepts within it. Hence, the unintelligently conceived catalogue creates a false understanding of the topic area (and the entire domain), its relevant parts, and key

⁴⁴ See chapter five for a further discussion of how *LCSH* can be used to help student researchers narrow and invent topics for textual compositions.

⁴⁵ As will be discussed later in the chapter, the *LCSH* affects all searches that researchers do in a catalog, as relevance criteria are determined, in part, by matching with *LCSH*.

concepts, which may greatly affect a student writer's ability to produce a text from the information.⁴⁶

Understanding Berman's extensive critiques of the *LCSH* is important for considering the variety of ways in which the catalog terminology can conceal information from researchers.⁴⁷ In his 1971 treatise critiquing *LCSH*, entitled *Prejudices and Antipathies: A Tract on the LC Subject Heads Concerning People*,⁴⁸ Berman has advocated replacing terms that are: outmoded, too specialized, racist, and sexist. Additionally, he has noted Christian cultural centrality within the headings. Some of the most important critiques of the *LCSH* have been related to racist or culturally insensitive names for groups of people, fiction headings, headings for teens (adolescents and youth), and those that place Christianity as the centered, non-qualified term.

Regarding words that are antiquated or no longer current, the *LCSH* contained the term "water closet," until 1971. Changing "water closet" to "toilet" and "incandescent bulb, electric" to "light bulb" were also replaced around that time. Especially in times when catalogs were not digitized, such terminological fossils could prevent researchers from locating materials. Even in the present day, the use of antiquated terminology can

⁴⁶ While this chapter does not claim that the *LCSH* is unintelligently conceived, it does suggest problems that exist within the current structure and illustrates solutions that other members of the LIS community have offered. These solutions will be discussed in the section "Classifications in a Google World." The goal of this chapter, however, is to deepen knowledge about this document, especially as it exists as an expression of LIS discourse.

⁴⁷ Likewise, LIS specialists in information display note the ways that a catalogue's interface can also affect reader access. For a discussion of information display, consult Martin A. Seigel (1993) *Design and Evaluation of Computer/Human Interfaces: Issues for Librarians and Information Scientists*, Pauline Atherton Cochrane and Eric Hilary Johnson (1998) *Visualizing Subject Access for 21st Century Information Resources*.

⁴⁸ This text is a compilation of individual letters that Berman wrote to the LC and submissions to Library Journal.

prevent researchers from locating materials if the antiquated term is not applied to the item with the newer terminology.

He also advocated removal of the politically charged Zambian term "kafir" or "kaffir" which correlates in American cultural terms to the charged "n-word" (Dodge & DeSirey 1995, p. 14). This term is an Arabic Islamic term used to reference unbelievers, who cover the truth or deny God's existence. In the subdivisions below South African History⁴⁹, Berman found "Kafir Wars, 1811-1878." The term was also being used throughout the headings in other locations such as: Kafir Language (Bantu), Kafirs (African people), and Hymns, Kafir (Bantu) (Berman, 1993, p. 89). As Berman states "There appears to be two principal aspects to the problem of nomenclature. One might be termed the dimension or imperative of intellectual honesty and scholarly accuracy, while the other revolves about the sociopolitical import of names, embracing questions of ethics, effects, and human justice" (Berman, 1988, p. 4). On the one hand, the LCSH demonstrate problems of understanding the knowledge that they classify, as well as adequately terming it within their taxonomic structure. On the other hand, scholars have called into question the Library of Congress' sensitivity to, awareness of, and structural accommodation for cultural awareness and the sociopolitical import of its headings.

Berman called into question the Library of Congress' statement of utility as the sole basis for its terminology, as well as its stance that it is culturally sensitive. He sardonically suggests that "It is common knowledge that Jews have been opprobriously labeled "Kikes" or Judsau," Italians "wops," Asians "gooks" or "slopes," Germans "krauts," Americans "gringos," etc. While the ethnic group or nationality so named can

⁴⁹ Africa, South—History

be easily identified, no fair-minded person would suggest that such defamatory rubrics merit employment simply because of utility" (Berman, 1988, p. 5). While Berman's example is extreme, it shows that when the cultural tables are turned it is obvious that while certain terms are used and known, they are culturally unacceptable for use. These terms reinforce stereotypes, "de-humanize the subjects, transforming them into unsavory or at least worthless *objects*" (Berman 1988, p. 5). Terminology for social groups should come from the group's self-identification. Consequently, the heading "kafir" was later revised to Xosa, how that particular group self-identifies (Kam, 2007).

There has been a host of other revisions, including the heading "Jewish Question," to which Berman offers a fiery indictment stating, "[this specific] phraseology [Jewish Question] is that of the oppressor, the ultimate murderer, not [that of] the victim" (1999, p. 7). In her historical text, The War Against the Jews 1933-1945, Lucy Dawidowicz details how this phrase "Jewish Question" was first used in Enlightenment England (1750) as a way to describe the rising friction between Ashkenazi Jews in Europe and what could be done about these conflicts (pp. xxi-xxiii.) As a "question," the phrase presupposes an "answer" or "solution." This euphemistic use of language follows from Heinrich Himmler's terminology "die Endlösung der Judenfrage," which refers to the Holocaust as the final solution to the "Jewish Question" (Furet, 1989, p. 182). Through these examples, it is evident that there are multiple considerations to navigating the LCSH and the texts that it describes. Beyond the linguistic considerations of the headings, there are further perceptual problems relating to how texts' subjects are determined, which will be discussed in the following section. As writing studies researchers, it is important for us to consider these blind spots when conducting our own research.

Subject Access for Researchers from Across the Disciplines in a Google World

Despite the real barriers that some may concede follow from the flaws endemic to the *LCSH*, today, in the world of Google, many researchers and instructors may feel unfettered by the *LCSH*. They may assume that keyword searching overrides subject searching; that subject searching is obsolete in the digital age. In fact, some of the world's libraries have ceased classifying their books altogether. Both *The Royal Library* in Copenhagen and the *State Library in Aarhus*, Denmark have mostly concluded book classification (Hjørland, 2010, p. 1). In large-part, this may be because they rely on the Library of Congress classification for books in English, as many libraries around the world do to defray costs. Moreover, many libraries may hope that full-text scanning projects, like those of Google, will make subject control obsolete. Innovative techniques such as user tagging (folksonomies) may seem a viable substitute for subject control, or libraries may assert that users are finding other means of searching for materials (such as web searches—specifically, Google scholar or open Google searches) than the OPAC (Hjørland, 2010, p. 2).

Hjørland suggests that classifications must take into account the discourses from the disciplines and domains that it represents:

The widespread philosophy that classification can be standardized and thus reused in different contexts seems problematic because different discourse communities develop special terminology, special meanings, and special relevance criteria. Strong arguments can therefore be put forward for the view that classification should be tailored towards different domains, epistemic communities, and user groups. (Hjørland, 2010, p. 4)

While Hjørland is trying to change the practices within the LIS community, as writing studies researchers and teachers, we can do our students a great service by making them aware of the discourses (library, domain/discipline) that exist within these taxonomies, which will increase their research efficacy.

By illustrating the different discourses and domains represented in the *LCSH*, and how to navigate them, we can show students how:

[...] classifications [...] reflect the purposes for which they are designed and that different sciences, theories and human activities classify the world (more or less) differently. Both the practice of science and the practice of information science are thus seen as more constructive. The periodic system of physics and chemistry seems to be the ultimate challenge to this view. (Hjørland 2010, p. 9; Dupre, 1993)

Teaching students these skills, can lead them to a better understanding of knowledge seeking behaviors across the disciplines.⁵⁰

In contrast to Birger Hjørland, Sanford Berman discouraged expert terminology, but I argue that it is crucial that there is a place for both expert and novice discourse—it is a way to give the library more of a teaching function, even for non-students, creating a populous with deeper knowledge. Having only novice discourse puts somewhat of a ceiling on a novice researcher's understanding of a topic, preventing him/her from learning the correct terminology. Likewise, if expert terminology is not used in the

⁵⁰ These issues of pedagogy will be further discussed in chapter five.

headings, then researchers at differing levels of expertise would find it difficult to locate texts. Fundamentally, the Library of Congress needs to be explicit about whether they are attempting to reach novices or experts. Currently, there appears to be an undefined audience and a Library of Congress stated lack of interest in comprehensibility, at least for the collection formation or at least for their mission.

Ultimately, headings are necessary because keywords are not always indexical to objects. Subject headings cluster a concept and provide synonyms that are appropriate for different occasions. This allows for access through differing levels of discourse and over time as words' meanings change. Folksonomies are Web 2.0 technologies are ways to be inclusive of differing levels of discourse and accommodate etymological change, as they allow readers to input subject terms that describe an item in the library collection.

Specifically, LibraryThing.com is one of the most well-known and used online cataloguing systems that include reader tagging. Using folksonomies has many advantages for readers and scholars, alike. For readers, it allows them to create meaningful categories for their books that make sense to them and help them order and understand their collections and topics of interest. For researchers, folksonomies create a dynamic user-generated system of tags that can be used in a number of ways. Tagging helps LIS researchers see popularity of tags, compare tags with *LCSH* or Dewey Decimal descriptors, and understand how to keep search terminology current. All of these functions are crucial from an access standpoint because they help to correct problems of inequality like those that Sanford Berman noted. By the use of user generated tags, cataloguers could have the ability to monitor the related terms for an item and get a sense for how novice discourse compares with the library approved term or specialized domain

term. In addition, tagging can help cataloguers and the Library of Congress determine when terms are outdated, inaccurate, or offensive.

The use of tagging and folksonomies could be especially productive for writing students in order to show them how the *LCSH* is different from the user generated terms. Student researchers could see the range of the possibilities of terminology (at differing levels of discourse) that occur just within their historical time. Bradley Dilger and William Thompson (2008) note that services such as LibraryThing.com point to the "ubiquity" of cataloguing and draw on Ian Bogost's (2006) notion that it is a "'unit operation'" that this skill is becoming increasingly prevalent in interactions with technology (p. 40). They further note the contemporary blurring between online library catalogs and other book finding websites such as Amazon.com, which draw from other means (such as purchasing statistics) to help patrons find books of a similar topic. Such social approaches to information retrieval and access point toward ways that the subject headings can be enhanced or supplemented without being replaced altogether.

Conclusion: Connecting the *LCSH* to Writing Classrooms

As Artistotle reminds us in the *Rhetoric*, a rhetoric analysis is designed "to find out in each case the existing means of persuasion" (p. xx). On the rhetorical front, the LC maintains a rhetoric of utility wherein function, expediency, and objectivism pervade the classificatory and descriptive choices its cataloguers and its classification system defines. It defines its purpose to be service oriented, first toward Congress and secondarily toward a generic "patron," who is classless, genderless, and without affiliation to government, academe, or any other vocation. Heading descriptions are akin to species designations in

Darwin's *On the Origin of Species*, where subjective classes are determined based on a non-categorical analysis. However, unlike *On the Origin of Species* the *LCSH* make no arguments for new headings or for the rationale behind their system. In fact, the system professes to be *a posteriori*, cataloguing books rather than the constellation of all knowledge, as does the Dewey Decimal System.

As Berman's critiques underscore, the problem with objectivist and utilitarian rhetoric is that it is blind to its own function. In other words, due to its direct avoidance of the semiotic, philosophical, and cultural function of knowledge classification, the Library of Congress cannot account create texts that are efficacious on these fronts. In the end, what results, is a paradigm that is merely self-reflexive, dialoguing little with the domains that it facilitates access to or with the "patrons" seeking that knowledge. By its restrictive definition of its function as a service arm of Congress, it opts out of the responsibilities of meaningful KO, choses a myopic audience, and by nature of that audience, creates a lexicon that has little regard for specialist or novice discourses, or for expediting access. What results is a lexicon that relies on a mixture of specialist terminology and antiquated terminology (especially in the cases of "dysmenorrhea" and "water closet," respectively) as a means of demonstrating authority. Sociolinguistically, the headings show little awareness as to the cultural aspects of language and minimally, to cultural sensitivity.

Writing studies scholars must adopt critical perspectives toward all reference texts, specifically the *LCSH* and the *TGM* for in order to adopt better research practices in archives in libraries. Meeting this goal will allow for a deeper understanding of the discipline of LIS, its rhetoric, and boundaries, as well as how those boundaries influence knowledge creation with disciplines. This understanding can build writing studies

understanding of disciplinary rhetoric, rhetoric of science, and knowledge creation. In the end, a deeper understanding of the library's structure, history, and guiding logic can help us to reach our ultimate goal of becoming better writing pedagogues. As writing studies scholars, we must understand the *LCSH* rather than necessarily trying to change it. Teaching its utility, shortcomings, rhetorical and sociolinguistic implications are crucial to teaching students reflective use of sources and research methods.

Chapter 5

Pedagogy of the Research Paper: Discourse, Disciplinarity, and Library and Information Science (LIS)

Academic discourse can only attain [a] justifying significance, and escape being judged all as jargon, if learning academic discourse can give access to real knowledge [...].

Patricia Bizzell (1992, p. 137)

Knowledge [...] necessitates the curious presence of subjects confronted with the world. It requires their transforming action on reality. It demands a constant searching. It implies invention and reinvention. It claims from each person a critical reflection on the very act of knowing. It must be a reflection, which recognizes the knowing process, and in this recognition becomes more aware of the "*raison d'être*" behind the knowing and the condition to which that process is subject. [...] Thus, in a situation of knowing, teacher and student must take on the role of the conscious subjects, mediated by the knowable object that they seek to know.

Paulo Freire (1973, pp. 100-101)

Bizzell and Freire call to attention how researchers are embedded in the process of knowledge creation and that this process is recursive, self-reflective, and mediated by the knowledge that they seek. If, as composition instructors, we endeavor to teach students efficacious library-based research methods, we must keep these principles in mind. Freire, specifically, draws on the realization that researchers are being "mediated by the knowable objects they seek to know;" a sentiment akin to that raised by Sanford Berman about the *Library of Congress Subject Headings (LCSH)*, which was analyzed in the previous chapter. Bizzell, on the other hand, brings a discussion of academic discourse to the consideration of how knowledge is sought, especially by student researchers. She offers the hope that academic discourse can be positively implicated in the act of knowledge creation. These are the very goals of this chapter: to show how the preceding

chapter's discussion of the library and its organizing structure, the *LCSH* (an example of LIS discourse), can be used in a robust way, especially by student researchers who are just beginning to acquire academic and disciplinary discourses. In the end, this chapter will provide a methodology for teaching research writing aimed to guide students' self-learning through individual pursuits of library-based research as they begin the process of using and assimilating the various discourses they encounter in the library to appropriate and apprehend the knowledge that they seek.

As discussed in chapter four the *LCSH* is a hybridized discourse that contains influences from the disciplinary discourse of LIS, the various academic fields that are represented, different historical and cultural discourses, as well as an enthymatic argumentation structure. Due to the thickly hybridized discourse of the *LCSH*, student researchers are especially unaware that their own discourse about a topic is not the same as the discourse the library or academic field may use. It is through this web of multiple discourses or hybridized discourse within the library that the student is unknowingly navigating and through which the composition teacher is attempting to guide them. This is the reason why, so often, students and composition teachers create research topics that they believe will be easily researched only to return minimal search results.

While the library does not seek to actively conceal knowledge, chapter four reveals the sociolinguistic and rhetorical networks within the library and how these networks can promote or conceal information (for example the promoting the term "kaffir" while concealing that group of people's chosen name Xosa). The fact that, within the library, there are multiple discourses that simultaneously coexist, makes it a heterotopic space

(Foucault, 1967). Foucault⁵¹ defines heterotopic spaces as those that have "[...] the curious property of being connected to all other emplacements, but in such a way that they suspend, neutralise, or reverse the set of relations that are designated, reflected or represented [*reflechis*] by them [...] (Foucault, 1998, p. 178). The library is such a space because texts from all disciplines reside there, texts from across all many historical times and different languages, as well as academic and non-academic texts and fiction and nonfiction texts. By drawing on Foucault's notion of heterotopia, we can see the complexity of what is contained in the library, as well as understand how the library and its organizing structure (LCSH) must in some way "neutralize" these objects so that researchers from the current time period and from all interest groups (e.g., different discourse communities and disciplines) can access the materials. Therefore, a pedagogy of the research paper necessitates teaching students about discourse, as well as how, when, and where a particular discourse operates, especially in the university to which they are being enculturated.⁵² In order to fully comprehend the heterotopic space, wherein discourses from various disciplines, cultural and historical discourses, as well as library discourse, are all simultaneously circulating, students need the context of a composition course that introduces the concept of discourse, especially disciplinary discourse, in order to foreground the hybridized discourse of the library.

Within writing studies, the writing about writing (WAW) pedagogy encourages

⁵¹ For a discussion of Foucauldian studies of the library more generally, see Buchman, (2007), Cook (2006), Radford (2003), Radford, G. & Radford, M. (1997), Hannabus (1996), and Radford (1992).

 ⁵² For a discussion of the issue of discourse in library instruction see Frohmann (2001),
 Simmons (2005), Olsson (2009), Drabinski & Kumbler (2010), and Drabinski (2011), as well as about library discourse more generally, see Budd (2006) and Radford, G. & Radford, M. (2001).

discussions of discourse that can provide context for researching with an attention to the hybridized discourse of the library. Elizabeth Wardle and Douglas Downs, creator of the WAW pedagogy, (2009) notes, the research paper genre is a "mutt genre," containing a smattering of different disciplinary attributes and including faint calls to the student to use "academic discourse," which necessitates encounters with terminology of the field in which student researchers are finding academic sources, and also involves an array of pedagogical goals for the composition instructor (p. 774). In turn, the student researcher begins to ascend and straddle the levels of multivalence (different discourses within the library) when s/he begins the research process, often vaguely aware of the notion academic discourse.

While only partially agreeing with Wardle that the goal of first-year composition (FYC) may be teaching students "*about* writing in the university" rather than "*to* write in the university," I see teaching about writing in the university as an important step on students' journey toward learning to write in the disciplines, and perhaps the best unified perspective for FYC that the field currently has to offer. My purpose for discussing the WAW pedagogy, here is not necessarily to debate its value generally, but rather I discuss it as a means to offer a type of pedagogical context that can best foreground library research methods within composition courses, as well as promote library-based research skills which are more likely to transfer with students to classes in other disciplines and life after college.

While WAW curriculum offers a good foundation for later writing across the curriculum and writing in the disciplines (WAC/WID) approaches, as well as attend to transferring writing skills more meaningfully to other courses in other fields, the process

of research and research writing has not yet been well integrated into teaching about disciplinary writing conventions or disciplinary discourse within the WAW approach. To this point, within the field of writing studies, discussions of research writing rarely, if ever, take into account library discourse, or how to use the *Library of Congress Subject Headings (LCSH)* to navigate through multiple disciplines. This chapter argues that, within WAW curricula for first-year composition (FYC) leading into WAC/WID for upper-division courses, teaching students to recognize how discourse functions through the library is essential preparation for library research-based writing.

In accordance with teaching writing with an awareness to the multiple discourses within the university, this chapter presents a method for teaching students how to parse disciplinary discourse from library discourse. Teaching students how to identify their own novice discourse for concepts as different from terms used by the library or the terms used by different disciplines for similar ideas can enrich their knowledge seeking outcomes. This discourse-based approach also contains a step that uses a Library and Information Science (LIS) theory known as facet analysis to enhance the invention and drafting processes of research paper writing. Together, a discourse-based approach to searching, coupled with an invention process that is scaffolded by facet analysis and attention to other reference tools such as the LCSH and LC Classification Outline, student's self-learning through library-based research is better supported. This method creates a firm base of library based research techniques that will hopefully follow students to courses in other disciplines. Endeavoring to show new research tools at the disposal of the writing instructor, this chapter proposes this methodology that can benefit students from across the disciplines.

Building on the preceding chapters, this chapter leverages the analysis of the *LCSH* and research methods for teaching efficacious research practices. As previously discussed, in chapter three, writing studies is a metadiscipline that analyzes the writing practices, methods, discourse, and rhetoric of other fields; therefore, this chapter aims to demonstrate how writing studies pedagogy can contribute significantly to undergraduates' understanding of the writing that they will do in future courses across the disciplines. By integrating knowledge of LIS theories regarding information organization and subject access, students can be best prepared to write research papers in other fields and research topics beyond freshman composition.

Importance of Teaching Disciplinary Discourse

Discussions of discourse within WAW and WAC/WID are also important to the field of writing studies because discourse and terminology about writing has not often transferred to other disciplines. Thus, WAW approaches teach students to be aware of discourse and WAC/WID approaches address both teachers' and students' knowledge of writing terminology in the hopes of transferring and building skills about writing throughout the curriculum. William Keep (2005), professor of marketing and advertising, notes how his discipline has failed to adopt the language of composition or English. Students do, however, possess familiarity with mathematical fundamentals and terminology, so that Keep and his students have a shared understanding of how to apply what was learned in previous mathematics courses, and can build on these fundamentals in marketing and advertising coursework. This process offers an opportunity for students to see how their knowledge is building from their core courses to more specialized ones (p. 13).

Keep's awareness of composition terminology and discourse arose as he began voluntary participation in the university's WAC/WID program. His attention to vocabulary and conceptual knowledge of the discourse of writing studies is an important feature, because he notes that prior to the WAC/WID experience, he was neither able to fully describe the purpose and features of the writing assignments that he was already assigning, nor was he able to take advantage of the writing knowledge his students had acquired in their previous composition classes, despite the fact that he knew they had previous skills in these areas (Keep, 2005, pp. 12, 16). Keep's experience is a reminder of what functions WAC/WID programs can serve for faculty. Similarly, the transfer of skills and concepts from core writing classes into other disciplines depends on how and if students are prepared to apply what they know from these core writing courses. Therefore, I submit that when writing studies promotes integrating a study of disciplinary discourses into required writing courses, these courses can prepare students for an awareness of disciplinary discourse that they encounter throughout the university. Within such a program, students can perceive and acknowledge the different ways of writing in different fields: use of passive voice, ways of expressing an argument, how thesis statements vary between fields, even how words within everyday discourse are used with specialized meaning in different fields. Providing them with the tools to understand their own enculturation into the university and into their chosen fields allows them to understand how the learning in their freshman composition class can be carried over into other courses. This learning, then, is as Richard Grusin (2010) may identify it, a "premediation," of their writing and learning in other disciplines. Moreover, this learning

is an introduction to their enculturation to the entire university and provides a metaunderstanding of their student life in college and beyond. Therefore, through this example of transferability, discourse emerges as a key to sustaining knowledge learned in composition courses.

Linking knowledge between different writing classes and levels, as well as connecting writing knowledge between composition courses and courses from across the disciplines through library-based research methods is crucial to growing students' writing abilities. One predominant way that writing instructors can enhance this growth is by foregrounding how the skills students are learning in their composition courses can carry over to other disciplines (Wardle, 2009; Kutney, 2007). Especially in first-year composition (FYC), students may not expect where or when they will be able to apply the knowledge learned from their required composition course. Combining a composition course that discusses discourse (such as WAW) with a library-based research method that uses discourse can help the goal of transfer. If students learn about how discourse circulates in their WAW courses and how different discourses circulate within the library, then it may help students to transfer discourse or terminology about writing when teachers from other disciplines employ it in a WAC program. In this way, a WAW course prepares students for discussions of discourse generally, then through the library-based research component of that course, students can see how discourse circulates within the library, and finally, through their WAC/WID courses students can not only transfer discourse about writing to other courses, but also identify the discourses of other disciplines they learn. In this way, teaching research writing as a part of a WAW program helps promote transfer of writing and research skills across the curriculum.

Why Teaching about Discourse is Important for Teaching Library-Based Research

Bruce Herzberg defines discourse much practically, tying it to the ways of speaking, thinking, and writing by a community. He states:

that the term "discourse community" testifies to the increasingly common assumption that discourse operates within conventions defined by communities, be they academic disciplines or social groups. The pedagogies associated with writing across the curriculum and academic English now use the notion of "discourse communities" to signify a cluster of ideas: that language use in a group is a form of social behavior, that discourse is a means of maintaining and extending the group's knowledge and of initiating new members into the group, and that discourse is epistemic or constitutive of the group's knowledge. (Herzberg, 1986, p. 1)

Here, he encapsulates the key components of how the WAW curriculum understands discourse: that it is used by a community of people who shape it, that it reifies the boundaries of the community, that it is at the center for how the group creates new knowledge. Without this knowledge of how discourse and discourse communities, students and teachers are unable to parse the multiple discourses operating within the heterotopic space of library.

While there are studies within the field of LIS noting how discourse impacts knowledge seeking behaviors and library management (Samuelsson, 2010; Johannisson & Sundin 2007; Olsson 2007; Budd 2006; Jashapara, 2005; Hjørland, 2002), and some studies even acknowledge the ethics of competing discourses between librarian and student researchers during one-on-one consultations (Drabinski, 2011), discussions of how to frame information seeking in terms of discourse communities is lacking. Often, students rely on instinct and basic keyword searching across multiple fields via instruments such as *Academic Search Premier* that contain as many as 8,500 journals from the sciences to the humanities when attempting to cull articles and manuscripts that approximate their research topic.

Within a course that discusses disciplinary discourse, students can better understand how Library and Information Science instruments such as *Academic Search Premier*, as well as their institution's catalogs can add another layer to creating search terminology that lead to fitting books and articles for their topics. Such discussions would involve acknowledging LIS as a metadiscipline, as well as providing background in the history and structure of the *LCSH*, which would more adequately prepare students for research writing at all levels of their academic careers and can help them understand the differences between writing inside and outside academic contexts.

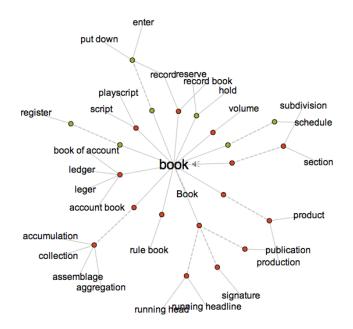
Within a course that gives context for these topics, students can learn to formulate the level of discourse (as well as discipline) their keywords or subject searches are approximating. They can learn to ask and answer questions such as: From which discipline(s) am I attempting to ascertain sources? What disciplinary-specific terminology is used for these ideas? What library terminology (keywords and/or *LCSH*) are used for these ideas within the respective field and within the library catalogue? What multiple subject areas contain ideas related to my topic? Can my research topic and paper structure be broken down into different sub-topics that necessitate information from different disciplines? How can I use the *LCSH* to help me narrow my topic or formulate

sub-headings within my paper? Are there other tools of LIS that can help me organize or invent my research topic?

Using Discourse and the LCSH to Aid Student Library-Based Research

Teaching about LIS reference tools such as the LCSH and LC Classification Outline is a natural component of a composition course that teaches a writer's conscious awareness of discourse when communicating. Raising awareness about the affordances and constraints of the headings can help undergraduates to navigate the library better. The first assignment (Appendix A) asks students to become familiar with their research topic or keywords that are part of their research topic and to search for alternative keywords through Google searches and a classroom activity that uses timed, looped, individual, and collective brainstorming to produce word clouds about the concepts (Elbow, 1975; Goldberg, 1986). In this exercise, students learn that the words they use to describe ideas can evoke other ideas from readers, as well as can be described in alternative ways, associate to many different contexts, and can be substituted with synonyms that may expose different levels of discourse. During this exercise, students also link the resulting words together to form groupings much like word clouds that can be found in visual thesauri (see Figure 5). Seeing all the synonyms together allows students to see the different associations of various synonyms, which can guide searches in particular directions.

Figure 5: Visual Thesaurus rendering of "book" http://www.visual thesaurus.com



For example, if a student was interested in researching "war music" s/he may think of synonyms for "war" (e.g., battle, conflict, hostility, fight) and for "music" (e.g., song, anthem, melody) separately or together "war music" (e.g., battle cry, cavalry call). This allows the student to use these in different combinations when s/he begins the search. The next round asks students to think of examples of their topic, so that if their search is lacking, then they can enter an example and use the *LCSH* or descriptor that applies to this topic. In the case of "war music" a student may brainstorm "Battle Hymn of the Republic" or "Over There." Additionally, s/he may brainstorm specific wars such as the First or Second World War, the Civil War, or the Gulf War to find music for these specific conflicts. Between the different rounds of brainstorming, students pass their papers to other students to in order for the task to be repeated by their classmates. This allows students to draw from other students' knowledge and discourse community and community of practice associations. Following the in-class brainstorming activity, students then use an application of S.R. Ranganathan's facet analysis theory⁵³ to further narrow their ideas. It should be noted that the purpose of these sequences of exercises is to produce a range of keywords and narrowing options that can then be further honed by the resources that students find; students should not feel tied to a topic based on these brainstorming activities. Moreover, it is worth mentioning that while each part of the PMEST activity has specific purposes or attributes, students and instructors should not be concerned with the accuracy of conforming to a particular attribute so much as using the activity to explore different aspects of the topic.

The four aspects or parts of Ranganathan's facet analysis are personality (P), matter (M), energy (E), space (S), and time (T). These different attributes are added to one another (separated by different punctuation) to narrow the topic. Personality refers to the most prominent attribute of the topic (e.g., war music). Matter describes the material, property, or medium of the topic (e.g., Hindi). Energy designates the action that may be related to the topic (e.g., protest). Space indicates the location of the topic (e.g., India), while time indicates a historical period, time span, or phase in a process related to the topic (e.g., revolution 1880-1957). When all of these attributes are added together, it creates a very specific topic that helps students in their search queries and to organize

⁵³ Originally a mathematician, he was also a university librarian at the University of Madras in southern India from 1929-1957. Most famous for his *Five Laws of Library Science*, Ranganathan's facet analysis method for classifying books, revolutionized library science in 1933 when it was first published (Ranganathan, 1933, p. 12). Rather than accepting the Dewey Decimal system of classification, so in vogue in the western world, Ranganathan sought to develop the Indian library system on much more intellectually rigorous grounds. His method seeks to provide consistent facets or aspects of subjects (books), which a cataloguer expresses in order to improve both users' location of relevant materials, as well as make cataloguing more precise.

their papers (e.g., War Music, Protest; India: revolution 1880-1957). While this exercise usually comes before doing an actual search query in an article database, index, or library catalog, the activity can still be used while searching in library reference resources to help the student give boundaries to their topic.

After collecting keywords and thinking about the contexts for these keywords, students use the *LC Classification Outline*⁵⁴ to determine the broad subjects used to categorize the ideas within their topic (see Appendix C). The *LC Classification Outline* is a good tool for beginning to situate the topic within an academic discipline or disciplines⁵⁵ in order to make finding books and articles easier, and can be used to address how to translate students' non-specified discourse into the library and disciplinary discourses. For example, with the topic of "Hindi war music of protest during the revolution," there are several classifications that would be applicable. Class M "Music," subclass ML198-360.6 "History and criticism of music by region or country," would be perhaps the best place to start (see Appendix B). Additionally, students can use the outline to help them further narrow their topics and to note down the library discourse about the topic. Some colleges and universities have library catalog interfaces that allow students to browse the library collection using the *LC Classification Outline* (see

⁵⁴ The *LC Classification Outline* lists the classes into which books are grouped. Researchers will recognize it as the first two letters in front of a Library of Congress call number (e.g., T11 .B375 1988). This outline begins with a one-letter class, two-letter subclass, and then can narrow from there into numbers. The difference between the *LC Classification Outline* and *LCSH* is that the *LC Classification Outline* groups large classes of books, whereas the *LCSH*, which fits into the structure of the *LC Classification Outline*, is more descriptive and is given to individual books.

⁵⁵ It should be noted that the *LC Classification Outline* does not map perfectly onto specific disciplines. Disciplines may have information in more than one class. For example, the discipline of history spans classes C, D, E, and F; additionally, there are subclasses of history for particular topics. For example, within class L for "Education," there is subclass LA for the "History of education."

Appendix E). Through this method, students can browse the library classes in order to help find applicable areas for their topics.

One important aspect of this exercise is that students realize their topics can be subdivided into different concepts that may cover different terms and will be represented under different areas of the *LC Classification Outline*. The *LC Classification Outline* is the students' first attempt at thinking about which field they would place their topic within. Then, by finding the class, subclass, and subsequent subclass, students can see ways to narrow or broaden their topic. Also, students can add the terminology from the *LC Classification Outline* to the list of keywords they discovered during the exercise, which helps them begin to translate their concepts into the discourse of the library.

Decentralized library systems, such as the one at the University of Illinois,⁵⁶ can reinforce the differences between disciplinary discourse within the library by showing a different physical space for different disciplines or branches. As a consequence, this allows students the possibility of making appointments with research librarians specializing in different fields in order to gain keywords, subject terminology, journals, and databases that are specialized for their areas. My assignments promote the use of disciplinary specific databases and discourage the usage of instruments such as *Academic Search Premier* that cut across multiple disciplines at one time. By using the same databases as academics in their areas do, students can begin to understand the discipline specific terminology, as well as other features about the discipline (such as research methodologies) that their topic may require. For students who have not yet declared a major area of study, teaching from a discoursed-based disciplinary perspective is even

⁵⁶ See chapter three for more information about how library systems have historically migrated from decentralized to centralized.

more important because, they learn skills that will apply to whatever area they choose. Often instruments such as *Academic Search Premier* can overwhelm students by producing a number of articles from a variety of disciplines that may use concepts in different ways, further confusing students.

Overall, through the steps of this assignment, students learn how disciplinary discourse, within the articles and books they locate, relates to non-specific discourses, from their classmates and harvested from the group brainstorming, relate to library discourse, as found in the *LC Classification Outline* and the *LCSH*, as well as that of the research librarians with whom they consulted. From this exercise, they can begin to think in disciplinary discourse by seeing how the library and the field categorize ideas and what other concepts are associated with the one that they are studying. This exercise also allows them to see how certain concepts that co-exist in different disciplines or how these concepts can differ between disciplines or be expressed in different terminology between disciplines. Overall, one of the primary benefits of this exercise is in helping students to see how they can independently acquire knowledge from specific fields toward a goal of research writing [Table 1].

Table 1

Aims of a Contextualized Disciplinary Discourse Research Activity

- Learning disciplinary discourse
- Thinking within disciplinary discourse
- Awareness to different categorizations of discipline
- Independent knowledge acquisition
- Use the keywords, categories, and subject information in their own library catalog
- Meet individually with subject specific librarians rather than generalists
- Become "experts" on disciplinary libraries/zones within main library, even freshmen, can transfer these skills later to new disciplines and subjects

- Students learn disciplinary discourse in context
- Students think within disciplinary discourse
- · Awareness to different sub-fields of and topic within disciplines

Changing Misconceptions of Teaching Research Writing

In their (2000) article, Robert Davis and Mark Shadle describe the multivalent associations writing studies has towards research writing, stating that it "is disrespected and omnipresent, trite and vital, central to modern academic discourse, yet a part of our own duties as teachers of writing that we seldom discuss. For nearly thirty years, the conventional construct of research writing, the 'research paper,' has seemed ready to collapse, undercut by the charge that it is an absurd, 'non-form of writing.' Still, the research paper goes on" (p. 1). While Davis and Shadle's depiction of the research paper may be apt, I would argue that these multivalent associations are a result of the fact that scholars within the field have not fully researched the pedagogical functions that this genre can embody. Therefore, I see this genre as simply misunderstood by students, teachers, and scholars alike, and one about which writing studies needs more study. Surprisingly, though, despite it being deeply misunderstood it has not waned in usage. To be sure, due to its ubiquity, the significance of the research paper to the field of composition and FYC courses more generally needs further investigation. James Berlin acknowledges that this genre has been present since the times of current-traditional rhetoric (1987).

Throughout the teaching of composition, writing a research paper has nearly always been present, and early on the object of critique. Richard Larson's is one of the first and foremost criticisms of the research paper (1982). He argues that the "generic 'research paper'" as assigned in English departments is indefensible (p. 812), believing that since it

is out of context of particular disciplinary modes inquiry that it lacks context and direction. While his recommendation for the research paper is simply to remove the genre from composition courses, other approaches may also be successful. Ultimately, what Larson labels as indefensible about the research paper may be its status as a pedagogical genre—a genre that exists to teach certain skills that can be applied in other contexts. This genre may not be expressly stated as one that serves these purposes, but it nonetheless can function in this way. This is precisely the goal that the research paper has often had to this point, albeit the goals and means of this genre have not been well expressed. Therefore, a WAC/WID modeled research paper or a WAW research paper addresses Larson's critique of ambiguous context for research paper writing. Whether as part of a composition course that takes into account WAC/WID or WAW means of viewing writing, an assigned research paper would be contextualized by discussions and analyses of particular disciplines' practices regarding genre, argumentation, support/evidence, and discourse, which deepens students skills of analyzing audience, exigency, and means of writing production that will be helpful to them in the future. While the whole debate over transfer is outside the scope of this dissertation, Keep's earlier comments regarding a building on mathematics discourse, but lack of awareness to writing discourse, nods to the fact that as part of a WAC/WID curriculum, faculty can be attuned to helping students apply skills learned from composition courses. In the end, Larson's critique of the research paper actually lends support for a WAC/WID or WAW modeled research paper.

Secondly, Larson contends that supporting the "generic concept' of the 'research paper'—[composition teachers] mislead students about the activities of both research and

writing" (1982, p. 812). This point is directed less toward viewing the research paper as a pedagogical genre and more so toward directing students' attention to producing WID modeled genres. While the WAW curriculum, and to an extent WAC curriculums do not always place students as creators of these genres, creating genres that require research can be effective to teaching students what types of research methods are possible across the disciplines.

The piece that gets deemphasized in Larson's critique, and to an extent in Wardle's (2009) account calling the research paper a "mutt genre" (p. 765), is observing how library-based research is integrated into academic articles produced across the disciplines. It is this fact that is most crucial to modeling a research paper that can better meet students' needs. Students will be expected in their future classes to produce literature reviews on certain topics, analyze and argue from textual sources, and synthesize arguments from different authors. These are the basic skills that research papers need to address. Whether we in writing studies call them research papers or literature reviews, these are the skills that students want and need. Hence, a newly conceived research paper would stem from an analysis of literature reviews across disciplines and invite students to view their research paper from this perspective. Effectively, the research paper assignment does not need to be removed, but reconceived and differently contextualized so that students see which parts are literature review, which parts are analysis or synthesis, and how these different types of writing fit into academic articles (or disciplines) within which they will be participating.

Cara Hood's (2010) article on the status of the research paper across "four-year coed, secular, liberal arts, private and public colleges and universities in the United States"

offers insights into the form and function of the research paper more recently (p. 5). She found that many schools still teach a "genreless" research paper. Hood found that "in fact, [the research paper's] genreless form could be considered its most significant virtue—as the traditional research paper assignment specifically, and simply, provides the occasion for students to demonstrate a set of transferable research skills, genre conventions not among them" (p. 12). Her results indicate that context for the research paper is not as crucial as Larson claims, and instead, they advocate for a space for a more pedagogical focus that allows students to compose without constraints of genre and disciplinary discourse in order to isolate skills so that they can be transferred to courses and situations that require these other multiple techniques. This supports the claims of a WAW curriculum wherein students learn about the disciplinary discourses but are not required to participate in them within the bounds of composition courses.

While her study did find support for keeping a "genreless" version of the research paper, what was more interesting was the number of programs that still rely on some form of the research paper. Since Ambrose Manning's (1961) study where 83% of programs participated in a "traditional" research paper assignment and James Ford and Richard Perry's (1982) study where 78% included it, Hood's 2010 study found only 6% of schools (out of 166) included a traditional research paper assignment, but the remaining 94% rely on some alternative form of the research paper. These results show that 100% of schools use some form of research paper assignment for their FYC courses. What is interesting from these results is that it appears that the requirement of the research paper (either traditional or alternative) is actually increasing. As McDonald (2000) corroborates from his study "the [traditional] research paper remains the 400-

pound gorilla in the first-year composition course, probably the most institutionalized undergraduate writing assignment in higher education" (pp. 137-38). Both of these studies underscore the centrality of the research paper not only to FYC, but also as an integral part of nearly every college student's higher education experience. Hence, the research paper, whether "traditional" or "alternative" form, appears to be the most promulgated genre within the American college experience. Yet, it is perhaps the least contextualized of all assignments, and arguably one that lies most on the boundary between LIS and other disciplines. Therefore, a better understanding of ways to use the research paper to prepare students for other disciplinary writing and better knowledge of the library and its discourse could not only improve the quality of student writing across the curriculum, but also impact a tremendous number of students.

The types of research writing assignments vary, reflecting different purposes and outcomes. Increasingly alternative research paper assignments are being promoted which may promulgate an undefined notion of the purpose of research writing. Specifically, Robert Davis and Mark Shadle (2000) suggest that "[a]lternative research writing may offer hope for resisting the will to possess without returning to illusory claims to detachment, objectivity, and pure reflection. Such research writing does not seek claims to constant truth or an unassailable perspective, but instead asks us to take comfort in *contingency*, and *thrill* at *mystery*" (p. 422 emphasis added). Their conception of the research paper promotes a metaphor of "mystery" surrounding the research process rather than directly furthering student's library-based research skills or their attention to discourse. Their conception seems to place a binary on the rhetoric about researching that revels in a romanticized mysterious notion of research while eschewing a scientifically

objectified notion of research.

The discourse-based and library discourse aware method that has been put forth in this chapter hopes to offer another option between these two extremes conceptions of what it means to teach students to write library-based research papers. Here, the research paper is promoted as a means to teach students to assess alternative perceptions of a topic and how one participates in a conversation about them. Discourse-based research writing assumes that there is already a conversation in progress about a topic and that one needs to be aware of how the topic is defined and discussed in order to better understand it. Then, research writing prompts the researcher to come to his or her own conclusions based on the community's understanding, often prompting the researcher to conduct primary research into the area. While it is important to build curiosity in our students around the research process, suggesting that research writing is about "thrill" "mystery," or "contingency" establishes a romanticized and ultimately confusing view of what students can know about the research process. Why must we sentimentalize the research process in order for it to gain value?⁵⁷ In contrast, I argue that research writing is fundamentally about participation in a disciplinary community and using the community's knowledge as a tool to understanding.

Davis and Shadle go on to build on a hyper-romanticized notion of research writing by promoting research curiosity as desire, in a conquest of sorts. They state "[d]esire [read: research] here is enacted as a restlessness reversing the libidinal economy of ownership; instead of wanting to possess, or even 'know' the other, we want to sustain the experiential excitement of not knowing, the seductive wonder we feel at discovering

⁵⁷ See chapter two for sentimentalization of the archival research process where a metaphor of serendipity is promoted.

that the other is beyond us, unknown, inexhaustible. The ideal of alternative research writing is exploration freed from its historical weight of conquest and enslavement" (p. 422). This is a hyper-romanticized ideal that delights so much in the excitement of not knowing that it fails to build understanding of a research process. While the process of research should naturally contain healthy curiosity, this rhetoric of sentimentalized "wonder" leaves students with little grounding or objectives. This portrayal of research writing may be ultimately confusing to student writers and provide a misconception of the research process, even though attempts to be fundamentally progressive, trying to overcome the pitfalls of the type of paper Larson (1982) reproved. Ultimately, Davis and Shadle's conception of research leaves one wondering why we need a romanticized ideal of research in order to prevent the type of research paper that Larson critiqued? Moreover, why must Davis and Shadle couch research in terms of modernism/romanticism? I argue that this framing merely gestures to literary studies and ultimately doesn't release writing studies to exist on its own.

These tropes of "mystery" and "thrill" may, ultimately, lie in an anxiety of influence of the research paper that was the target of Larson's critique, wherein students synthesize and analyze other literatures but do not produce new research on their own from primary sources. Therefore, as a field, our notion of the research paper is expressing trends in thinking that are intimately connected with our field's values. McDonald validates this notion that the traditional research paper is "connected to unsettled questions" about first-year writing/composition courses more generally; consequently, he advocates widespread review of "the content and function of the course." In his opinion, it is impossible "to expect easy reform [of the research assignment] or abandonment of

research paper instruction" to address all of the issues raised in the history of complaint about the assignment (2005, p.145). Larson's and McDonald's critiques, taken into consideration with Sharon Crowley's (1990) call to reconceive the centrality of FYC to writing studies, asks writing studies scholars to fundamentally reassess our mission and methods. It seems that since the 1960s, at least, scholars have been calling for an end to the research paper, yet its usage in either a traditional or alternative function continued to grow. Therefore, it seems that defining the purpose of the research paper within FYC reflects on our discipline's goals.

From Hood's study, what emerges in perhaps a better definition of the types of research paper assignments, but other studies seem to just include documented paper, not necessarily if the research methods were primary or secondary sources or what the goals and context for the assignment were. Further research needs to take into account these contextualizing and defining features of research assignments in order assess them more accurately and ascertain more direct pedagogical functions of the assignments that are currently circulating. Assignments can look very different and serve different purposes yet be called by the same name. We need to parse through these. Regarding the definition of research assignments, Hood found that "although respondents' researched argument assignments [alternative assignments] are quite diverse, they distinguish themselves from the traditional research paper assignments because, as one respondent notes in a researched argument assignment description, "this essay is to be an argument, not a report" (p. 8). Hence, rather than as a literature review over a particular area, it appears that the paper assignments request students to use secondary sources to put forth their own argument, which is much more akin to secondary source use in the humanities rather

than the sciences.

The assignments actually tend to use the papers as a means to teach argument rather than contextualizing them in any meaningful application to disciplinary genres (Hood, 2005, p. 8). The current function of "alternative" argument based assignments of research writing site: "locating, evaluating, and synthesizing research, outcomes relevant to all research paper assignments including the traditional research paper assignment but also to make choices about how they use research to suit the rhetorical purposes of their essays, the genre, and their argumentative stances" as the primary goals" (p. 8). Therefore, the research paper seems to be a method for teaching decontextualized (outside of disciplinary audience) function. If we intend to more deeply contextualize research writing, then it ultimately takes into consideration our treatment of disciplinary argumentation and audience. In some ways, then, the "traditional" definition of the research paper that synthesizes arguments from a particular field or topic aligns more deeply with disciplinary conceptions of writing than does the current argument-based version. On the one hand, this dissertation concedes that there can be multiple goals for library-based research writing.

On the other hand, it notes that discussions of argumentation necessitate discussions of audience, which within WAW or WAC/WID curricula is clearer because the audience is a disciplinary based one and genre is also more precise in this context. Ostensibly, the lesson of Hood's study is the definition of the assignment and how it aligns with the goals of FYC. The teaching of argument out of context of the academic disciplines is enacted through the current "alternative" (argument based) conceptions of the research paper. While it is outside the scope of this dissertation to discuss the best guiding practices for

FYC, I would argue that transfer is perhaps more transparent to students within the framework of a disciplinary based curriculum, whether that is WAW, WAC, or WID. Also, while the respondents of Hood's study claimed that "attention to audience" was one of the required features of the research assignment, without qualifying who the audience was. They did not state if the assignment was directed toward an academic or non-academic audience.⁵⁸ If the audience is academic, then how can the audience be devoid of discipline? If the audience is disciplinary, then there are typical genres that are expected. Therefore, it makes sense to contextualize this assignment within a disciplinary context toward a specific genre—most likely a literature review genre (for scientific or social science writing) or framing introduction to an academic article (for humanities fields). Even if the audience was non-academic, it is still reasonably likely that the argument may fall into a genre with expectations for argumentation (e.g., letter to the editor of a newspaper).

Conclusion

While anchoring the purpose, definition, and genesis of the research paper is complicated and multi-faceted, looking at it through the lens of disciplinary discourse practices and theories of LIS can provide a context and grounding for students and composition instructors, alike. When we contextualize FYC in terms of disciplinary writing habits and introductions to genre—whether or not these are couched as an "Introduction to Writing Studies" (WAW) course, as in the case of Wardle (2009)—

⁵⁸ There is much debate about audience with regard to argumentation and multiple interpretations of the argumentation theories of Aristotle, Toulmin, and Olbrecht-Tyteca in regard to audience; see Eemeren & Grootendorst (1995), Crosswhite (1995), Andrews (2005), Prior (2005), Aiken (2008), and Tindale (2010) for further reading.

students can begin to understand how writing is contextualized for their (disciplinary) audience and how these practices form. Likewise, contextualizing academic writing in terms of disciplinary discourse makes it easier for students to comprehend each discipline to which they are being exposed, as undergraduates.

Doubtlessly, though, writing studies needs to further research the meaning of the research paper to the field and FYC, as its pervasiveness, yet ability to draw critique, is ubiquitous. What we find when we parse the history of this genre in our field are binaries between romanticized notions of "mystery" or current-traditional notions of robotic regurgitation that are attached to our fields values. What we find is that the research paper genre is a microcosm of our field that reveals how we perceive FYC, teaching of argumentation, tropes of research. Therefore, defining research writing helps us to better understand the values of our field. Said another way, the values of our field toward research are expressed through how we teach and conceive of the research paper.

While through innovative assignments, the research paper is gaining usage as a means to teach general argumentation, this method still leaves bare an attention to disciplinary audience and usage after FYC. Furthermore, attention to how discourse affects library search is a novel approach that when contextualized within a WAW or WAC/WID curriculum can enhance student understanding of how discourse functions, as well as increase the likelihood of transfer to other courses across the curriculum.

Coda

The Library and Information Science (LIS) Turn for Writing Studies

Modern humans, [posited Max Weber], are constrained at every juncture from true freedom of action by a set of rules of our own making. [...] Information infrastructure adds another level of depth to the iron cage. In its layers, and in its complex interdependencies, it is a gossamer web with iron at its core.

Bowker and Star (1999, p. 320)

Throughout this dissertation, I have begun to untangle the gossamer web of information infrastructure by analyzing the discipline of LIS. This metadiscipline weaves together research activity across the university and affects every discipline's discourse. As I have argued, reference texts such as archival finding aids and the *LCSH* are rhetorically imbued, carrying traces of LIS's disciplinarity. As such, the descriptions provided in these reference texts are a mélange of LIS discourse and various disciplinary discourses. Therefore, it is essential to consider LIS as a discipline when undertaking studies of disciplinarity. Studying the discourse, rhetoric, argumentation, and sociolinguistic networks of LIS contributes to what the field of writing studies knows about scientific rhetoric, disciplinarity, composition pedagogy, and historiographic practices. In conclusion, this chapter underscores these contributions, draws implications from them, and provides future directions for research in these areas, showing how we can extend the LIS turn in writing studies.

Contributions to and Directions for Archival Studies

Chapters two and five exemplify the common metaphors for archival and librarybased research that pervade the field of writing studies. I argue that these metaphors of serendipity for archival research and mystery for library-based research, collude to cloud our scholarly and pedagogical research practices. Too, they fuel the colloquial myth that humanities research, especially in archives, is undirected, undefined, or haphazard. In an attempt to move beyond these metaphors, I have argued that a disciplinary approach to LIS that attends to the discourse, argumentation, theories, and rhetoric of the field offers a novel lens to understand how writing studies can improve our pedagogical and scholarly practices in archives.

The goal of challenging these metaphors is not to systematize research methods or instill a rigid set of best practices, but rather to understand our field's collective use of these conceptual metaphors for archival and library research. This allows us to more positively channel the curiosity that lies at the heart of these metaphors. By leveraging the curiosity with which scholars and students come to research in libraries and archives into learning more about how information is organized, including an understanding of LIS and its practices, we can see how conceptual metaphors and the rhetoric of information infrastructure shapes research narratives. In turn, we expose how writing studies' disciplinary rhetoric as expressed through these conceptual metaphors blends with the disciplinary discourse of LIS, as expressed through their reference materials. In the end, the gaps or unknowns in the archive are partially due to our conceptual metaphors about the space and partially due to the misunderstanding of archival arrangement as a text, that too, comprised of LIS discourse.

Part of this agenda includes the recognition of the rhetorical nature of information organization, not only for its expression of disciplinary discourse, but also for its connotative and denotative meanings, as well as its layers of inscription. As Cara Finnegan has noted, these descriptions are often "connotations masked as denotations," creating a terministic screen through which researchers must navigate (Morris, 2006, p. 114). As I have shown in its application to Shirley Rose's descriptions of the curation of the James Berlin archive, archival inscriptions have both connotative and denotative meanings. Additionally, chapter two states that even the mundane can be rhetorical as exemplified by archival descriptions based on physical attributes alone, such as size or type (black and white or color) of photos, which can conceal artifacts that hold rhetorical significance. This is especially true for archival artifacts that require interpretation in order to be described substantively, such as the emotions exemplified in the "Attitude Portraits" photograph of Carl Sandburg, also discussed in chapter two. Conscientious researchers will be aware to not only read finding aids closely for the spectrum of descriptions that lie between these two extremes (the mundane/physical and the interpretive/substantive), but also be aware of the significance and meanings born by both. In other words, researchers should be aware of trying to derive meanings from all types of descriptions, whether they be physical descriptions and seemingly insignificant or detailed and seemingly idiosyncratic.

While a rhetorical approach to the archives can help researchers circumvent the obfuscation of mundane descriptions, it can also help researchers recognize a (perhaps) more important point: that, much like inscriptions like found in other sciences (Latour and Woolgar, 1979), the accumulation of inscriptions, or labeling of phenomena or

objects, libraries and archives name and create reality. As the number of inscriptions grow and layer, they constitute a system that is self-contained and which is difficultly navigated by those not trained in its complexity. In other words, these layered inscriptions form an implicit text. However, as Latour and Woolgar (1979) state, once a scientific inscription is made, "all intermediary steps which made its production possible are forgotten" (p. 63). Similarly, the archive presents this problem, as the practical aspects of collection organization and description are often opaque, unless researchers speak with the originating archivists, which may or may not be possible. Researchers are guided by the finding aids and organization of an archival collection in ways that can mold their findings and conclusions, as discussed in chapter two. Additionally, an added layer of historicity embodied in etymological fallacies exists within the archive, which further complicates the researchers' navigation. In other words, etymological fallacies, wherein a word's historical meaning differs from current day usage, can cause further difficulties for archival researchers. Furthermore, period specific terminology and colloquialisms also affect access to materials.

This project has focused on documents that reveal the discourse within the fields of LIS and writing studies. For LIS, the focus of these textual analyses has been on critical discourse—the way in which members of this field are arguing for and against particular practices and methodologies, as well as critiques of reference texts in the library and archive. For the field of writing studies, the textual discourse analysis has focused on writing studies metaphors and tropes for research and the ways that these tropes can obfuscate our research practices in archives and libraries. Too, it has explored the discourse of LIS as expressed in reference texts (finding aids and *LCSH*), as well as

the critical discourse within the field. Through these textual discourse analyses, this project aligns itself with other textual analyses in the field of writing studies that seek to explicate disciplinary discourse (Myers, 1996; Gross, 1996; Mailloux, 2006; Devitt, 2004; and Hyland, 2004). Textual analyses such as these prove to be useful in studies of disciplinary discourse because they afford the opportunity to trace arguments in the field across multiple authors and allow for sampling the different strains of discourse present in the field and allowing for analytical distance. As a writing studies scholar, it was my goal to analyze the discourse of the field of LIS in order to draw conclusions about its disciplinary construction. In future work, there is room for using methods involving human subjects, especially to follow up on the conclusions drawn in chapter five, in order to gauge the pedagogical impact of the proposed research curriculum therein. Too, interventions to the LCSH could also be studied through research involving human subjects; however, I would add that big data approaches to the subject headings would be most effective for tracing the disciplinary discourse and analyzing the texts large-scale argumentation. In the future, I hope to approach studies of the field and its documents through further textual analyses, as well as big data analysis and human subjects studies in order to understand how the discipline and discourse of LIS is operating, as well as to understand how scholars and students from across the disciplines interact with its documents, especially the LCSH.

Contributions to and Directions for Studies of Disciplinarity

As I have argued, studying LIS deepens our conceptual understanding of discourse and disciplinarity. Yet, the field of Library and Information Science has been

overlooked in science studies and in studies of WAC/WID. Failing to see the discipline of LIS as little more than a discipline that is in service to other disciplines not only minimizes that community of practice, but it also conceals the expression of this unique discipline and thwarts our knowledge of disciplinarity. As I have argued throughout, examining the disciplinarity of LIS is crucial to completing our picture of disciplinary expression, since LIS argues through different means that other disciplines (enthymematic argumentation) and interacts with disciplines differently, giving us new models of interdisciplinarity. Furthermore, since LIS is central to the dissemination and advancing the creation of all disciplines' research, it is important for discerning how all of the disciplines in the university interact with this field.

In terms of argumentation, LIS presents a novel case of enthymematic argumentation as expressed through the taxonomy of the *LCSH*. Since library and information scientists created the *The Library of Congress Subject Headings (LCSH)* as a thesaurus, it functions as a system of synonyms and antonyms for different terms, which naturally order ideas and concepts. Thus, the *LCSH* provides a conceptual mapping of all terminology and concepts within the library—across all fields, which undergirds searches for information by students and scholars from across the disciplines. In essence, it acts as a boundary object, or discourse map across fields. As illustrated in chapter four, due to the fact that it is a thesaurus, listing synonyms, antonyms, related terms, and preferred terminology, the genre does not allow for traditional argumentation with premises, warrants, claims, or conventional data. Therefore, the premises or bases for making relationships between terms are enthymematic, as they are concealed or unstated. Because the *LCSH* conceals premises, it is difficult to refute and to analyze for two

reasons. First, researchers navigating the library without knowing that this structure is guiding their search. Second, because researchers directly using the *LCSH* or who are being guided unknowingly through search queries are not members of the LIS community, they lack the authority and knowledge to challenge the headings.

Furthermore, as I have argued in chapter four, the argumentation found in LIS through documents such as the LCSH is exceptional even in comparison to taxonomies found in the field of biology. Even in fields such as biology, which create taxonomies, the taxonomies are not the same vehicle for argumentation that they are in LIS. In fields such as biology, arguments for classifications are made via article length publications or manuscripts and debated by the community. In LIS, subject headings and cataloguing classifications are not argued for in a publication or debated before they are installed. A heading or classification could be challenged within the community or from outside of it in special cases, but routinely, this is done without explanation. Finally, the argumentation presented by LIS through the *LCSH* is novel in that it is a text designed to aid the research of other fields, and as such, is used by researchers of all fields for this purpose. Other scientific fields' taxonomies, while being taken up by those in other fields, are not designed expressly to facilitate research in other fields, as is the *LCSH*. Likewise, the LCSH is novel because other fields' taxonomies do not have its scope, which reaches all disciplines.

In regards to disciplinary discourse, studying the *LCSH* shows us the extent to which disciplinary texts can be hybridized. Within most disciplines, genres are hybridized, meaning that they contain elements from other genres within the same discourse community or across different discourse communities. However, the *LCSH*

shows us a form that is highly hybridized, not only in terms of discourse or terminology, as it contains discourse from all academic fields, as well as other domains such as government. This hybridization of discourse is indicative of this discipline, which combines discourses of all fields and is shaped by U.S. government and American cultural influences. In chapter four, I argue that not only is the *LCSH* a hybridized discourse containing discourse from all domains, but the *LCSH* functions as a master discourse or gate-keeping discourse, which mediates access of novices and experts alike to all disciplinary discourses as expressed in published scholarship. This means that because disciplinary discourses are featured in the library via published scholarship, the LIS discourse in terms of the *LCSH* and other reference tools mediates or controls access to disciplinary discourse.

Also, because LIS discourse stands-in for disciplinary discourse (e.g. when the library gives subject headings to books that do not use disciplinary discourse) it can shape research in any field. In other words, I argue that the *LCSH* shapes disciplinary knowledge expression (if not formation) and guides (if not conceals) student learning of the target disciplinary discourse and respective knowledge domain. Especially when students are being introduced to a new field, they are often learning the terminology through their library searches. These searches rely on alchemy of LIS discourse and the target disciplinary discourse in order for the student to find relevant materials. To further complicate matters, the *LCSH* also embeds cultural ideologies, as illustrated chapter four's examples of terms for race and placement of certain religious denominations. Therefore, LIS discourse is hybridized, melding its own terminology with academic discourses from across the disciplines, as well as cultural constructions.

LIS's hybridized discourse is in part emblematic of the fact that it is a metadiscipline. As described in chapter three, metadisciplines study the disciplinary constitution and expression of other disciplines. Because LIS studies the epistemology and ontology of other disciplines, its research can be helpful to that of other metadisciplines, such as writing studies that also research disciplines' expression, history, and community. Collaboration between metadisciplines such as LIS, writing studies, and education, can enrich depictions of all disciplines' practices of knowledge creation, written expression, and disciplinary enculturation processes. In other words, through this collaboration with each other, in our metadisciplinary endeavors, we can see points of similarity and divergence in how we characterize particular disciplines.

Additionally, we can draw on our disciplines' differing methodologies and foci to create a fuller profile of the disciplines we study. Second, understanding the ways in which metadisciplines can affect particular disciplines is another fruitful line of continued study. The gap in discourse between particular disciplines' discourses and that of the *LCSH*, reveals that metadisciplines are not neutral arbiters of knowledge about the disciplines they study. Thus, within WAC/WID and science studies, our own disciplinary residue may color our depictions of other disciplines' writing practices. As I have argued throughout this dissertation, studies of disciplinarity are implicated in the very fabric and purpose of the university's research mission: knowledge creation and research practices.

Contributions to and Directions for Pedagogy

This research enhances writing studies pedagogical practices in several key ways, as well as enhancing our disciplinary self-understanding and promotion. As chapter five

details, approaching the teaching of writing from a discourse-centered method such as Writing About Writing (WAW) can help students' enculturation into the university and enhance the transfer of writing skills across the curriculum. Integrating a discourse-based approach to library research methods within WAW curriculum is a natural fit for this curriculum, extending its utility. Additionally, showing LIS as a master discourse completes the picture of how disciplinary discourses circulate through the library improving students' approach to research practices and enhancing their understanding of discourse and disciplinarity.

While collaborations have long existed between librarians and composition teachers, chapter five calls for deepening connections to LIS by engaging with the theoretical side of the field, particularly, the theories of knowledge organization, such as domain analysis and facet analysis. Applications of these LIS theories can be useful in two ways. First, they can help students organize and plan their papers more efficaciously. In addition, composition teachers can use these LIS theories to scaffold discussions about knowledge formation and organization on a conceptual level, helping students better understand how knowledge is created. Furthermore, these connections between librarianship and the more theoretical subfields within LIS, namely knowledge organization, domain analysis, and facet analysis, help to forge a stronger connection between subfields in LIS. Perhaps, through application in composition classrooms, librarians and knowledge organization theorists can find ways to enrich library theory and practice.

Conclusions and Future Directions for Explorations of Disciplinary Identity

The focus of this dissertation has been on understanding how the field of LIS expresses itself and interacts with other fields in the university in order to deepen research in writing studies. Underlying this project, though, is a fundamental inquiry into how all disciplines operate singularly and within the fabric of the university. In other words, by better understanding LIS, we can better comprehend library-based research in all disciplines. By analyzing LIS's unique modes of argumentation, we can better conceive of argumentation more broadly. By better understanding LIS's hybridized discourse, we can better know the nature of seemingly more homogenous discourses, as well as how discourses can regulate one another. Another implication of researching LIS lies in knowing how fields can ascertain a better understanding of their own functioning and identity. Seeing that LIS discourse is at times a gate-keeping discourse, partly concealing disciplinary discourse and by extension disciplinary identity, fields can become aware of how to train researchers in their respective fields to navigate through LIS discourse. In future, hopefully, innovations such as user tagging, as discussed in chapter four, will aid disciplines in having a more direct hand in contributing to search terminology.

The next frontier in LIS, though, relates to promoting this field as more than "in service" to other disciplines. As discussed in previous chapters, even within writing studies, LIS has not been recognized as a field, which means that we know relatively little about its writing practices and how they affect writing practices across the university. However, the challenge for LIS, I would argue is internal. In order to promote itself as a discipline akin to other disciplines requires acknowledging itself as a discipline,

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instead of a service unit to other disciplines. Arguably subfields such as informatics, knowledge organization, and others may recognize their disciplinary importance; however, this disciplinary self-promotion should happen as a united field, both the practical and more theoretical aspects of the discipline.

This quest for disciplinary self-promotion was undertaken by writing studies as recently as 2008. As Louise Phelps and John Ackerman claim, "A disciplinary identity is necessary for [work in rhetoric and composition to be taken] seriously within the meritocracies of higher education and to help sustain the working identities of practitioners, scholars, teachers, and administrators across the United States. Yet, on the anniversary of our flagship journal [College Composition and Communication], the search for recognition remains a work in progress" (2010, p. 181). This project promoted adding writing studies in higher education information codes and databases. In particular, the project found success with adding itself to the National Research Council's taxonomy of research disciplines and to the Classification of Instructional Programs (Phelps and Ackerman, 2010, p. 180). Projects such as these show the importance of promoting a discipline's identity within the academy and how arguing through taxonomies is of crucial importance. Whenever any discipline's identity is in doubt, we lose perspective on the gossamer web that unites the whole university and impoverish our understanding of disciplinary argumentation, rhetoric, and discourse. Writing studies researchers and teachers, therefore, must continue their study of LIS, as well as increase collaboration with this crucial discipline.

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APPENDIX A

(Re)search Strategies

Keeping track of keywords that relate to your topic is very important. It is important to know what person or source led you to a subject heading or keyword--this is called **literary warrant--** when it comes from a book, article, or other recordable medium.

The point, is that writing is a conversation. In your Research Essay, your knowledge is being linked to authors and others to form a conversation. This is a special conversation, because it can reach across the boundaries of *time and place*. You can be at the same table with Rumi, Stalin, Julius Cesar, and Bill Clinton, for example! (See Burkean Parlor quotation)

It is important in research to not go to **databases** or **indices/indexes** unless they have been recommended by a reliable source (departmental librarian). This is important because different databases and indexes have different specialties and are limited--even if they contain hundreds of journals--*no database or index has them all*. Usually, academic indexes are specific to the **branch** (sciences, humanities, social sciences) or **discipline** (biology, Finnish literature, anthropology).

Sample of some steps you may take for researching Research is a recursive, a process in which you may go back to some steps or repeat some steps. The guidelines below are merely suggestions about how you might go about researching.

- 1. classroom topic brainstorm (5 mins) for keywords/media.
- 2. Google keyword search, Wikipedia, del.ici. ous, Library Thing, and/or others to check keywords and find more.
- 3. LCSH Classification Oultine--search for topic(s): Class (single letter), Subclass (double letter), Sub-subclass (double letter and numbers) to find the controlled vocabulary or subject heading. This is important, because they are sometimes different. (Example: bi-polar disorder = DSM-IV term, but manic depressive disorder=LCSH). Subject headings are not common sense--they are derived from a particular audience-- essentially librarians who act as 'support staff' for the Library of Congress of the USA. It is important to notice the global political and social positioning of this body.
- 4. sample essay topics--using community and LCSH keywords--(e.g., "War" is far too broad)
- 5. how to narrow those topics using LCSH—online
- Example of BT/NT/RT: http://bullpup.lib.unca.edu/library/lr/lr101/greene/lcsh.html
 - WNCU search via LCSH: http://bullpup.lib.unca.edu/scripts/lcclass/outline.htm • War
 - War and Music not "War Music" or "Music War" (Boolean searches)
 - o War and Music Bibliography

7. Aqua Browser lft/rt navigation:

http://aqua.queenslibrary.org/default.asp?c_over=1

• Try finding source titles through these interfaces, then plug in titles and/or authors to UIUC, I-share, and/or **WorldCat**

8. **Sample essay topics** emerge--narrow enough to begin academic search (e.g., "War and Music" is narrow enough, but "Hindi music about war or using war in its title" is even better.)

9. **UIUC specific** departmental library/ies considering "War and Music" or "Hindi music about war or using war in its title.")

- Which different departments would you include? You most probably will have more than one.
- Online Research Resource page categorized by disciplines 10. **UIUC specific** books, database, index, academic journals, other reference materials (e.g., maps, bibliographies/annotated bibliographies, etc.)

Round 1---"Local" community Provides information about audience or discourse the final text will fit into. Above instructions tell about a possible path your research might take. Family, friends, community contacts (librarians) Encyclopedia/Wikipedia Websites "Histories of X" Maps Published Bibliographies Other reference materials

Round 2--Where do you stand?

Search for narrowing topic to region, aspect, locality, etc. What do you already know about the topic? What would you like to know? What are you instincts about where to go to get the best information?

Round 3--Working bibliography

Find 3-5 articles/books that are "ideal" Note their LCSH and keywords Plug these subject headings and keywords into search box **Create: Working Bibliography**

Round 4--Annotated Bibliography

Read, annotate, and look at Works Cited for "Top 3" sources Begin creating Annotated

Bibliography with "Top 3" Search for vocabulary, authors, titles, subjects rendered from Round 3

Update: Working Bibliography

Tips for annotating texts: http://www.bucks.edu/~specpop/annotate.htm

There are also a range of software and online tools to help researchers with correct production of various style and documentation methods: Endnote, OneNote, RefWorks, BibTex, Library Thing, and more.

APPENDIX B

(Re)Search Strategies: Articles in the Disciplines

Previously, we have discussed how keywords relate to the community to and about whom you are writing. It is important to remember that (Re)search stems from the metaphor of conversation.

Ranganathan's Facet Analysis: Narrowing A Research Topic It makes sense to use Analytico- Synthetic classification system (Facet Analysis) for generation of research paper topics, because it allows the writer knowledge organizational ways to analyze and synthesize information. (see Analytico/Synthetic description)

```
Categories or facets of a topic are (PMEST):

Personality (prominent attribute)= War Music

War Music

Matter (material, property, or medium)=Hindi

War Music: Hindi

Energy (action)= Protest

War Music: Hindi: Protest

Space (location)= India

War Music: Hindi: Protest: India

Time (period)= 1880-1957 (revolution)

War Music: Protest: India: 1880-1957 (revolution)
```

There may be more than one concept per facet if necessary. Below is another example, the most common, which is used to explain Facet Analysis—derived from Colon

Classification (6th Edition) by S.R. Ranganathan: Main classification is Medicine (Medicine)

Within Medicine, the Lungs are the main concern (Medicine, Lungs)

The property of the Lungs is that they are afflicted with Tuberculosis (Medicine,Lungs;**Tuberculosis**)

The Tuberculosis is being performed on, that is the intent is to cure (Treatment) (Medicine,Lungs;Tuberculosis:**Treatment**)

The matter that we are treating the Tuberculosis with are X-Rays (Medicine,Lungs;Tuberculosis:Treatment;**X-ray**)

And this discussion of treatment is regarding the Research phase (Medicine,Lungs;Tuberculosis:Treatment;X-ray:**Research**)

This Research is performed within a geographical space (.) namely India (Medicine,Lungs;Tuberculosis:Treatment;X-ray:Research.India)

During the time (') of **1950**

(Medicine,Lungs;Tuberculosis:Treatment;X-ray:Research.India'1950)

"Research in the cure of the tuberculosis of lungs by x-ray conducted in India in 1950s"

It is important to note that one may add facets as one goes along, being sensitive to the amount of data available for a particular facet. An overabundance of data indicates that further faceting is needed. Faceting is a natural occurrence in research processes.

APPENDIX C

(Re)Search Strategies: Understanding Sources

Books--One Author

- **physical characteristics:** variable in length ~100+ pages. **location in library:** next to other books of the same topic--you may want to browse the
- shelves yourself!
- affordances: discusses an idea in depth and is usually influential in its domain/field.
- constraints: takes much time to read.
- **reviews:** reading book reviews is helpful to finding books that specifically meet your needs (time saver).

Books--Collections

- physical characteristics: variable in length ~100+ pages.
- **location in library:** next to other books of same topic that may study the topic from one perspective in more depth.
- affordances: each chapter is like an article, it can provide many perspectives on a topic.
- **constraints:** may only provide illusion of many perspectives--many collections are written by authors of a similar orientation and time period.
- **reviews:** will provide a sense of the importance of the collection and which chapters may be most relevant.

Academic Journal Articles

physical characteristics location in library affordances constraints authority

Magazine Articles

physical characteristics location in library affordances constraints authority

Websites

affordances constraints authority appearance sponsor

Archives and Rare Books

physical characteristics location in library affordances constraints authority

APPENDIX D

Subclass ML

ML1-3930	Literature on music
ML1-5	Periodicals. Serials
ML12-21	Directories. Almanacs
ML25-28	Societies and other organizations
ML29-31	Special collections
ML32-33	Institutions
ML35-38	Festivals. Congresses
ML40-44	Programs
ML45	Circulars and advertisements
ML46	Scrapbooks
ML47-54.8	Librettos. Texts. Scenarios
ML55-89	Aspects of the field of music as a whole
ML93-96.5	Manuscript studies and manuscripts
ML100-109	Dictionaries. Encyclopedias
ML110-111.5	Music librarianship
ML112-112.5	Music printing and publishing
ML112.8-158.8	Bibliography
ML159-3785	History and criticism
ML159-161	General works
ML162-197	By period
ML198-360.6	By region or country
ML385-429	Biography
ML430-458	Composition and performance
ML459-1380	Instruments and instrumental music
ML1400-3275	Vocal music
ML3300-3351	Program music
	-

APPENDIX E

http://www.loc.gov/catdir/cpso/lcco/

Listed below are the letters and titles of the main Classification. Click on any class to view an outlin classification. Click on any class to view an outlin classification Service. Online access to the compl Classification Web, a subscription product that in Distribution Service. Cataloging Tools, Documentation Catalogs, Authority Records Shelflisting Cooperative Cataloging Programs Comparison Catalogs Authority Records Shelflisting Cooperative Cataloging Programs Control Listop Control Contro	e of its subclasses. The complete text of the be purchased from the <u>Cataloging</u> tet text of the schedules is available in may also be purchased from the Cataloging indPerfect format (noted as WP version) and <u>version</u> - <u>WP version</u> - <u>Word version</u> <u>P version</u> - <u>Word version</u> <u>ROPE, ASIA, AFRICA, AUSTRALIA, NEW</u>
Home in Word format (noted as Word version). About the Organization in Word format (noted as Word version). Contact > A GENERAL WORKS - WP version - Word version FAQs > B PHILOSOPHY. PSYCHOLOGY. RELIGION News > D WORLD HISTORY AND HISTORY OF EU Zataloging Tools. > D WORLD HISTORY AND HISTORY OF EU Documentation > E HISTORY OF THE AMERICAS - WP version Cataloging tools. > E HISTORY OF THE AMERICAS - WP version Cataloging tools. > E HISTORY OF THE AMERICAS - WP version Cooperative Cataloging > G GEOGRAPHY. ANTHROPOLOGY. RECREATION Yergamms > H SOCIAL SCIENCES - WP version - Word	version - <u>WP version</u> - <u>Word version</u> P version - <u>Word version</u> ROPE, ASIA, AFRICA, AUSTRALIA, NEW
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