Designing Disciplinary Identity: An Analysis of the Term “Design” in Library and Information Science Vocabulary

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ABSTRACT
This poster explores the role of design in the disciplinary identity and positioning of librarianship and information science through examination of the term “design” in two prominent contemporary library and information science vocabularies: the thesaurus for H.W. Wilson’s Library Literature & Information Science Full Text database and the American Society for Information Science & Technology’s Thesaurus of Information Science, Technology and Librarianship. Findings include conflicting and fractured identities, power struggles and paradigm entrenchment. Further research into disciplinary identity is necessary not only to improve controlled vocabularies but also to solidify and unify professional identity.

Keywords
controlled vocabularies, identity, librarianship, information science, design

INTRODUCTION
Librarianship and information science stem from a rich history of scientific tradition. Additionally, theoretical, methodological and epistemological influences from related disciplines such as psychology, sociology, and cognitive science are incorporated as legitimate approaches (Case, 2008). Yet other influences, such as design, have lagged, especially in libraries (Buckland 1996). Given the increasing alignment with design-rich disciplines like human-computer interaction and information visualization, one would expect librarianship and information science to increasingly reflect design as part of their disciplinary identity.

This poster explores the role of design in the disciplinary identity of librarianship and information science by examining language used to describe and classify disciplines and their viewpoints, specifically controlled vocabularies. Analysis of the term “design” in two library and information science vocabularies offers interesting preliminary insights about the identity and positioning of these disciplines, specifically in relation to design.

RELATED WORK
Controlled vocabularies are powerful information access and retrieval tools that offer insight into the scope of a particular domain (Aitchison, Gilchrist, & Bawden, 2004). Vocabulary terms stem from many sources: existing instances in literature and documents (literary warrant); common usage by potential and existing users (user warrant); opinions of experts in the area (scholarly warrant); cultural practice and understanding (cultural warrant); or some combination (Beghtol, 1986). However, selection of terms and scope are not objective activities. Choices in these processes reflect bias and impose identity. From Berman (1971) to Olson (1996, 1998), scholars have identified racism, sexism, religious bias, and other forms of disenfranchisement in controlled vocabularies. Beyond term choice and coverage, the structure of controlled vocabularies can introduce bias. Hierarchy instills particular interpretations by defining relationships to other terms. Cross-references direct users to ‘preferred’ or ‘authorized’ terms for synonymous concepts, thereby stipulating language usage. Olson (2002) points out that these hierarchies are problematic, even offensive, such as her example from the Library of Congress Subject Headings where the term Women was a narrower term of Man (as in “mankind”), implying that women are ‘beneath’ men.

Despite attempts to make controlled vocabularies objective and bias-free, problems still occur. In creating vocabularies and classifications, we essentially create realities. All controlled vocabularies have a point of view that makes an argument (Feinberg, 2008). Therefore, the points of view that librarians and other vocabulary creators bring to their work have an immense impact on the way they create vocabularies and how users interpret and use those vocabularies. In labeling an information resource with a particular subject heading, librarians have the power to define what that resource is about and therefore influence who can or will find those resources and how they will be understood and used (Radford & Radford, 2005). Feinberg (2008) encourages us not to attempt to make our systems objective, but rather to understand and articulate our point of view fully and clearly, and use that point of view to our advantage so long as we are transparent.

Because controlled vocabularies use words, phrases, and relationships to define and express meaning, they are subject to the same ideological formations as language at
large. Therefore, controlled vocabularies can shape the way actors in a domain view themselves in the same way that
day-to-day use of language shapes identity in our lives as a
whole. Language elements like diction, dialect, and accent
are instilled patterns that create class divisions and afford
ideological judgments. For example, communities of
practice—groups who interact regularly and develop unique
ways of doing things together (Lave & Wenger, 1991)—
establish ways of speaking together, from new vocabulary
to inside jokes. These communities also establish identity
through jargon, the vocabulary of a professional or special
group. Specialty professional language stratifies groups and
reinforces identity and belonging (Bakhtin & Holquist,
1981); by using the same terminology as others, we identify
others like us and membership in a group. Jargon can also
enact power over others, such as in the information
technology profession, where the use of jargon is
intimidating to those not in the know (Shortis, 2001).

Controlled vocabularies are specialty languages by nature,
and those that focus on a specific domain even more so.
They are arguably a concrete embodiment of jargon, and
therefore tools of identity and power, regardless of whether
or not they reflect subjectivity or bias.

APPRAOCH

The creation of controlled vocabularies is fundamental to
library and information science, and affords the power to
authoritatively identify, classify and define groups and
domains. Therefore, close examination of controlled
corpora and in ASIS&T, thesauri and thesaurus
are a perfect source of
insight into the identity of that profession. What do library
and information science vocabularies reveal about the
identity and positioning of the discipline, specifically in
relation to design?

Two major controlled vocabularies from information
science were chosen for examination due to their currency,
demonstration to ongoing upkeep, prominence and usage in
the field, scope of library and information science, and
accessibility of the entire vocabulary:

1. The thesaurus from the Library Literature &
Information Science Full-Text Database (LLISFTD)

Created by the H.W. Wilson company, LLISFTD “provides
a clear focus on library studies and how technology and the
development of the Internet have changed the library
experience and research in general, as well as funding
challenges and how libraries meet them, and literacy,
numeracy, and special education issues” (“Library
Literature & Information Science Full Text,” 2012). The
thesaurus is used to index mostly American journal articles
dating back to 1997. Terms, concepts and relationships are
presumed to be based on literary warrant of the materials in
the database. Because the thesaurus is an electronic product,
upkeep is ongoing, although the rate of updating records
with outdated terminology is unknown.

2. ASIS&T Thesaurus of Information Science,
Technology, and Librarianship (ASIS&T)

This thesaurus “serve[s] as a descriptive outline of
information science and technology, available for use by
those active in the field as well as others…” (Redmond-
Neal et al., 2005, p. v). ASIS&T is one of the defining
organizations in American library and information science,
and this thesaurus is used to index publications such as the
Annual Review of Information Science and Technology and
the Journal of the American Society for Information Science
and Technology (also included in LLISFTD). That it is in
its third edition and still used to index the ASIS&T digital
library demonstrates commitment to maintenance.

To explore the conceptualization and treatment of design, a
“rich point” (Agar, 1993) was selected for examination. The
following aspects of the term “design” in each vocabulary
were examined and analyzed:

- presence or absence of the term itself
- presence or absence of definitions/scope notes and, if
  present, the content of such notes
- designated term preference
- term position (where the term is situated in the
  hierarchy—does it have broader terms (BT) and/or
  narrower terms (NT); if so, what are they and what are
  their implications?
- related terms and their context(s)

The implications of these terms and relationships will be
discussed with a focus on how they define and describe the
identity of the library and information science fields as well
as any inferences they offer in terms of class, power, and
social space within the discipline.

FINDINGS AND DISCUSSION

Both LLISFTD and ASIS&T present design in the context
of contemporary technology such as computers and
databases. This is reflected by the descriptor Database
design in both thesauri as well as Web design in LLISFTD
and Computer aided design in ASIS&T. In ASIS&T, both
terms are narrower conceptualizations of design; however,
in LLISFTD the overarching concept of design does not
exist (see Figure 1). In the alphabetical display where
“design” would appear, there are two descriptors that
include “design”: Design of experiments and Design,
System. LLISFTD does have the subheading –Design &
construction but it can only be appended to other preferred
terms. Of the terms it is currently appended to, seven are
types of libraries (Public libraries, Special libraries, etc.)
and the eighth is Library buildings, and an additional entry
with “design” in a subheading: Library buildings—Barrier-
free design. Both the inseparable paring of the word
“design” with “& construction” as well as the juxtaposition
with Library buildings implies the concept of design is
connected to building and construction of physical spaces.
The appendage of –Design & construction to the preferred
terms for types of libraries is inconclusive. Without scope
notes for these headings, there is no way to know if they
specifically mean architectural development, or imagining and creating these types of libraries overall.

LLISFTD and ASIS&T also both include the descriptor Systems design, which is often connoted with computer systems in this increasingly technological age. LLISFTD situates Systems design as a narrower term of Computer science, meaning that despite broad wording in the scope note as ‘design of any functional device or process,’ the inherits the characteristics and implications of its broader term, and therefore does not allow for the design of human workflow processes, classification systems, materials acquisitions processes—all systems traditionally designed by librarians and information professionals. All three narrower terms for Systems design (Database design; Electronic data processing—Structured techniques; User interfaces (Computer systems)) reinforce this technological viewpoint. ASIS&T skirts this issue altogether by avoiding relating the descriptor systems design with design at all. In fact, tracing the hierarchy of design and systems design demonstrates that the only connection between the two descriptors is that they are part of the same thesaurus (Figure 2).

The inclusion of Typographic design in LLISFTD but not ASIS&T reveals a continued connection to print books and related materials, especially with the broader term Printing and the suggestion in the scope note to use a narrower term such as Book design. However, despite reference in the scope note, Book design is not actually included as a narrower term of Typographic design. In fact, the term Book design does not appear in the thesaurus at all! Without further investigation it cannot be conclusively explained. Regardless of the reason, the use of the non-existent Book design is problematic on a practical level for indexers and searchers as well as a conceptual level as a demonstration of identity and domain perception. What does a reference to a non-existent term reveal about the group’s identity? Carelessness in construction of the vocabulary itself, as well as possible confusion about what the identity really should be? Set in the contemporary struggle of defining what libraries in the 21st century should be, this may be an unconscious reflection of a shift from library collections focused on physical books to curated collections of digital information.

The ASIS&T descriptor screen design offers no scope notes, but the related terms human computer interaction, interfaces, video display terminals and web sites offer context about how screen design is intended to be used. While its intended use may be clear, the diction chosen for screen design seems odd and perhaps outdated. The current version of the ASIS&T thesaurus was published in 2005, seemingly current enough to reflect trends in technological terminology, yet “screen design” is not in common usage in the literature of library science, information science, or human computer interaction. This raises the question of warrant: where was the term screen design sourced from, and why? The associative relationship of prototyping to design in ASIS&T helps establish information science as a cutting-edge, innovative discipline. Equating prototyping with design and in turn computer aided design, database design, and the like, asserts that such designs created and represented by the participants in the ASIS&T community are innovative and pioneering. However, the juxtaposition with outdated terminology like screen design reflects an inner conflict that such innovation may be ideal but perhaps not the realistic case.

Forms design is even more challenging to understand. This ASIS&T term lacks scope notes, narrower terms, and related terms, and the only broader term is design. Just as relationships between terms reveal the definition of a term and how it should be used, the lack of any relationships can forestall such understanding. Without such guidance, an indexer or searcher has no way to understand what forms design is intended to represent. One way to understand this term might be to examine actual documents in a collection indexed with this term. However, if indexers do not understand this term as it appears in the thesaurus, then they...
are less likely to apply it to documents, creating a self-perpetuating cycle of non-application. It would be surprising if this term was not eliminated in a future version of the thesaurus. Not unlike the confusion surrounding Book design in LLISFTD, forms design reflects an uncertain professional identity.

Both thesauri include design-related terms that reflect a research focus. LLISFTD includes the preferred term Experimental design, with Research design as a non-preferred synonym, while ASIS&T uses research design directly. Both sets of descriptors include narrower and related terms that are positivistic, such as the narrower term Replication (Experimental design) and related term Experiments in LLISFTD and narrower terms rating scales and research variables and related terms experiments and research methods in ASIS&T. LLISFTD chooses Experimental design as the preferred term for both Research design and Statistical design, essentially stating that research design is equivalent to experiments and statistics. Despite an upswing in qualitative research methods in the LIS field in the last 20 years, LLISFTD still only represents one particular conceptualization of science. This identity is reinforced when librarians and other searchers look for documents about alternative methodologies and come up empty, because there are no terms in the thesaurus to describe what they are looking for, and the scope of Experimental design as established does not cover their needs. ASIS&T’s conception of research design is not as narrow as LLISFTD’s, perhaps accounting for alternative methods arising in technology-related research, such as usability testing in human-computer interaction. ASIS&T also covers the domain of information science, rather than library science alone, and is therefore broader in scope and more likely to include a wider conceptualization of what constitutes research and science.

CONCLUSION
Despite ostensibly describing the same discipline, comparison of the term “design” in two controlled vocabularies reflect different treatments of the term, in turn reflecting inconsistency in disciplinary identity. ASIS&T’s conceptualization of design is closely tied to technology, while LLISFTD’s vocabulary cordon the concept of design into narrow silos of architecture, technology, and graphic arts. The language choices and contextual relationships in both thesauri also attempt to legitimize disciplinary identities by positioning research as a mostly positivistic endeavor. Such identity is not only presented by the vocabulary itself, but perpetuated and reinforced in use. To further understand these issues, future work should examine these and other LIS vocabularies holistically, beyond a rich point, as well as contexts of creation and use such as warrant, indexing, and retrieval. Additionally, statements of disciplinary identity gleaned from vocabulary analysis should be compared with conceptualizations of identity from other sources, such as practitioners’ perceptions, to gain a fuller picture as well as examine disparities.

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REFERENCES