Expressive Bibliography: Personal Collections in Public Space

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ABSTRACT: This paper examines collections of citations that individual users contribute to social tagging systems such as Delicious and LibraryThing. I characterize these personal collections, furnished with various forms of metadata and arranged for Web display, as a means of communication, where a particular sensibility molds guiding principles for resource selection, description, and categorization. Using several analytic frameworks from museum studies, I present three brief case studies that interrogate both the substance and the means of expression achieved in such collections, which I term "expressive bibliographies." In considering these case studies, I explore how an explicit rhetorical perspective might inform purposeful design of expressive bibliography.

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A painting of asparagus, a painting of gooseberries, a painting of five shells arranged on a shelf. Exactitude, yes, but don't these images offer us more than a mirroring report on the world? What is it that such a clear-eyed vision of the particular wishes us to convey? A way to live, perhaps: a point of view, a stance toward things.

- Mark Doty, Still Life with Oysters and Lemon

1.0 Introduction

For the poet Mark Doty, entranced with seventeenthcentury Dutch still-life paintings, the enduring significance of these artworks is not as a means of faithful reproduction, or even as a form of historical documentation; no, according to Doty's thinking, the still-life captivates because it reveals a unique, wellformed mode of seeing the world, a perspective that illuminates some heretofore unapparent meaning in the objects, their representation, and their relation. In each composition of apparently mundane items, the artist selectively chooses, arranges, and relates the objects depicted, endowing each collection with a unique interpretive frame. In focusing this particular attention upon the objects, the artist's representation becomes a form of explanation. In the de Heem still life adored by Doty, for example, a lemon peel stands out for its intricacies of color and line, properties that may pass unobserved by most of us in everyday life. In the modern still lifes of Giorgio Morandi, on the other hand, the shape and volume of bottles and boxes is made salient. In selecting and emphasizing attributes of particular interest, the artist interprets,

as well as depicts, the objects. Contemplating a still life, then, may lead the viewer to new ways of perceiving and making sense of the world.

At first glance, the relationship between social tagging systems and still life may seem tenuous. Much of the attention paid to tagging has focused on the potential for multiple users to share content and metadata, producing an aggregate database of networked resources described by a multitude of user-supplied tags or index terms. Instead of the singularity of an artist's vision, which highlights specific item properties in a particular way, the set of contributed tags contains many perspectives, applied to many attributes, all bundled together. It is not evident, however, how best to successfully exploit this collected metadata. Tag contributors may apply the same term in different contexts, with different meanings, making for potentially murky relationships between resources that share the same tag. Moreover, the set of terms for a single resource may include contradictory concepts. Tags submitted by Delicious users to index the Fox News Web site include, for example:

Conservative.
Truth.
Unbiased_news.
Wingnut.
NewsFunny.

As a single set of terms, this set forms an incoherent description. Fox News is variously described as accurate, crazy, and funny, as both neutral and as slanted to the right of the political spectrum. Some of these interpretations may indeed reveal new insights about Fox News to me; however, when confronted with the huge mass of contributed terms, it is difficult to disentangle them from each other, to see the full potential complexity of each tagger's perspective.

However, a somewhat less heralded aspect of much tagging software also enables contributors to create their own unique enclaves within the shared environment. These individual collections of cited resources and associated metadata within the larger network constitute an emerging medium for creative expression, a sort of still life by means of tagged citation. Through selecting and describing a set of resources, each individual user, in a process similar to that of the still-life artist, focuses a particular attention upon the items being described as well as the terms used to describe them. In exploring a particular user's tagged bookmarks, for example, I can discover different interpretations of "cool" or "inspiration," or "activism"

or "feminism," and I may find my own definitions of these concepts expanded through this experience.

In this paper, I examine these personal collections of citations, furnished with various forms of metadata and arranged for Web display, as a means of communication, where a particular sensibility molds guiding principles for resource selection, description, and categorization. In seeking to provide readings of these "expressive bibliographies" and understand the workings of this document form, I first look to the literature of systematic bibliography. Within this body of work, however, I find that a general insistence on comprehensiveness as a design criterion is insufficient to comprehend the element of curatorship that seems necessary to the communicative force of expressive bibliography. I locate a more productive initial conceptual base for expressive bibliography via recent scholarship in museum studies that explores how the selection, arrangement, and description of collections form an interpretation of the objects they hold. Using several analytic frameworks from museology, I am able to shape three brief case studies that examine both the substance and the means of expression achieved in various Web-based collections of tagged citations. The readings produced through the case studies then lead me to consider how an explicit rhetorical perspective might inform purposeful design of expressive bibliography.

2.0 Systematic bibliography and comprehensiveness

The goals of systematic bibliography (sometimes called enumerative bibliography) are, on the surface, closely related to what I've been calling expressive bibliography, or personal collections of tagged citations. A systematic bibliography compiles basic information for a set of publications, often organizing the included items in subject categories. Commonly, a systematic bibliography forms a guide to material published in a particular subject area, in a specific time period, or a certain location. The reader of a systematic bibliography is informed about the existence of various materials, typically in a range of closely related subjects, and learns enough detail about each volume (such as the author, title, and publisher) to be able to locate it in a library catalog, at a bookseller's, or wherever a copy might reside. Because collections of tagged citations may indeed perform a similar function, as they identify, characterize, and make available Web-based resources for their readers, it seems reasonable to follow Hendry and Carlyle's (2006) suggestion for "hotlists," or Web-based lists of links, and consider whether bibliography might provide a productive conceptual foundation to examine such systems.

The literature of systematic bibliography considers such works successful if they comprehensively represent their area of focus, with the idea that comprehensiveness also bespeaks an objectively determined enumeration of items. The notion of comprehensiveness as a proxy for faithful, accurate representation reaches back to the beginnings of bibliography in the sixteenth century, when bibliographers might attempt to list and arrange all published material, and continues forward into present-day bibliography of subject areas as practiced by librarians and other information professionals. In their admiring assessment of the sixteenth-century bibliographer Conrad Gesner's effort to compile and describe all printed works, the historians of bibliography Besterman and Balsamo both imply that any selection principle other than comprehensiveness is ethically irresponsible (Besterman 1936, Balsamo 1983). Balsamo, for example, describes Gesner's approach of including all existing works and providing commentary on them as "without precedent in fullness and accuracy," and notes how similarities between Gesner's concerns and those of modern cataloging and bibliography "confirm the universality of the methodological solution happily achieved by Gesner" (Balsamo 1983, 34 and 41). Drawing on this heritage, practice guides for modern systematic bibliography, such as Robertson's (1979), offer little advice on formulating criteria to assist in selecting materials for inclusion. The goal is simply to collect everything within the bibliography's basic scope (subject area, time period, place of publication, and so on).

However, in tagged personal collections, as with still-life paintings, selectivity is a defining characteristic, with the principles by which items are included in the compilation forming a key element of the work's interest. A search engine will putatively produce all the Web resources that purport to be about, for example, veganism. A particular collection of bookmarks is not going to approach any similar standard of comprehensiveness. Its purpose lies, instead, in implementing a filter of curatorship upon the vast expanse of Web resources. If an author includes citations to Web sites that promote veganism in a collection of bookmarks about activism, it can be seen as asserting that veganism has political aspects as well as dietary ones, and this principle of selection will help shape the reader's experience. Similarly, if an author only includes politically liberal sites in a collection of news bookmarks, then the author, I suggest, makes a claim that conservative media outlets are not, in the author's

opinion, news. Such choices form part of the specificity of attention that makes the collection expressive.

While some early bibliographers did employ specific criteria for selection in their works, as, for example, sixteenth-century Catholic bibliographers, who chose materials based on church doctrine, such an open embrace of selectivity was more often seen as restrictive, or a means of censorship, as opposed to a form of potentially illuminating curatorship. Balsamo (1983) describes the Jesuit author Possevino as the "anti-Gesner," and his work forms a "proscriptive bibliographic canon which would serve as a tool for imposing ideologically correct works" and "a total cultural program, one without alternative ... issuing from a single dogmatic mold, with no provision for individual choice." Possevino's "rejection of Gesner's classification scheme" in favor of a theologically based system of organization and selection is described as "the affirmation of a totalitarian vision which denied the autonomy of human knowledge" (p. 47).

When a particular form of selectivity is enforced by political power, as Balsamo suggests with the Jesuit example, intellectual freedom can indeed be threatened; however, when multiple representations are allowed to flourish, as they are in social software systems, the situation is reversed, and one's perspective can be broadened, instead of limited. (Indeed, Balsamo (1983) also remarks that, even in sixteenth-century Europe when the Catholic church held great social and political influence, those interested in Protestant reforms often used lists of banned books as reading lists, turning a potentially restrictive perspective into a liberating one.)

Further, as Marcia Bates (1976) emphasizes in her extension of Patrick Wilson's (1968) work, a bibliography can never be truly comprehensive, nor objectively sorted and arranged. The bibliographer is always making judgments—about whether an item is really "about" the chosen subject, about whether works widely characterized by some as specious should be included, about the forms of media considered, among almost infinite possibilities. Bates, therefore, recommends that the principles used in selecting and organizing a systematic bibliography be articulated by its author, who may, indeed, not initially be fully conscious of them, and that these principles should be included as part of the bibliography, itself. The reader may then more clearly understand the bibliography's intended scope and purpose, and can then make a more informed decision about how to interpret and use the document. In formulating her design principles for systematic bibliography, Bates, however, does

not examine how selection principles work in concert with category definition and arrangement to form particular expressions of a subject area, and so her work does not fully explain the mechanisms at play in tagged personal collections. Indeed, if the impossibility of true, objective comprehensiveness as a design criterion means that even traditional systematic bibliography must incorporate some degree of expressiveness, as Bates seems to suggest, then greater understanding of how this works in tagged collections may further inform the reading and design of traditional bibliographies, complementing Bates's work in this area.

3.0 Museum collections and interpretation

In the ideal of traditional systematic bibliography, a comprehensive collection does not impose selection criteria upon its contents. The cited resources are gathered pristinely, without judgment, to tell themselves to the reader via objective description. There is no reason, therefore, for the reader to respond critically to the compilation or to doubt its claims (that, for example, a particular resource is about a particular subject). There are distinct similarities in this conception of traditional systematic bibliography and in the object-focused tradition of museum collections and their exhibition. As with bibliography, the goal of comprehensiveness in collecting is of long standing. As noted by Eva Shultz (1994), the term "museum" was initially used to describe guides for accumulating and organizing object collections, and these guides advocated a form of comprehensiveness specific to physical objects, some of which, such as works of art, may be unique. A comprehensive collection of such physical objects would include, instead of copies of key texts, unique representatives from all categories identified as crucial in displaying the full range of variation in collectible instances. The sixteenthcentury guide of Quiccheberg, for example, described categories of objects, from animal specimens to musical instruments, that the collector should pursue in order to establish a comprehensive collection. In effect, Quiccheberg's categories made the meaning of "comprehensiveness" more specific in the context of objects. While a book collector might obtain copies of every item listed in a bibliography, an art collector could not, as only one authentic work would exist. Instead, the art collector would need to amass examples in particular categories. In this vein, an exhibition of objects in an object-focused museum attempts to let the items speak for themselves as examples of fine arts

categories. Descriptive text, for example, would be minimal and neutral in tone: title, artist, place of origin, materials used.

In museums, however, there has been a growing recognition that the idea of letting the objects speak often masks powerful judgments, such as unstated criteria for determining what enables membership in the various categories of fine arts (as opposed to the categories of anthropology or social history, for example). Curators have also noted that the same object can participate in multiple narratives, becoming evidence for various potential assertions. Crew and Sims contend provocatively that things "don't mean much without the help of exhibition makers" (Crew and Sims 1991, 162). The meaning of an object, Crew and Sims claim, can be "entirely reconstituted" by its proximity to other members of the collection; the selection, arrangement, and description of items tells the exhibition's story as much as the object's. Such views permeate recent literature on collections. Hooper-Greenhill (2000) contends that the traditional focus on object appreciation is giving way to critical interpretation, and Hilde Hein (2000) elaborates that by illuminating different relationships between objects, museums can present alternate ways of perceiving the world. Hein believes that the museum's focus should be on creating experiences, in which its collections may participate as raw material. Such accounts dissect the potential expressiveness of museum collections in a manner similar to what I suggest for personal collections of tagged resources. To better understand how Web-based citation collections express ideas about their contents, therefore, we might look to discussions of how museum collections communicate.

Pearce (1994) suggests that, while all collections may tell a variety of stories, collections intended for public display function differently than private collections. Private collections are typically gathered by individuals and may be related to identity construction, as "an attempt to create a satisfactory private universe" (Pearce 1994, 201). One type of private collecting involves the accumulation and arrangement of souvenirs, in which category we may include all mementoes of past experience (photos, letters, journals) and not just the items brought back from voyages or vacations. Another class of private collecting is what Pearce terms "fetishistic," which involves concentration on a single type of item (baseball cards, ceramic pigs, lunchboxes).

In contrast, "systematic" public collections rely on a set of organizational principles, typically established in advance of the collection activity, to structure and interpret their contents. Systematic collecting is, according to Pearce (1994, 201-202):

Usually a positive intellectual act designed to demonstrate a point. The physical arrangement of the finds sets out in detail the creation of serial relationships, and the manipulation implicit in all this is intended to convince or to impose, to create a second and revealing context, and to encourage a cast of mind.

Pearce's distinction between private and public, and her emphasis on the conceptual foundation that a public collection's organizational scheme provides, echoes Susan Stewart, who notes: "To ask which principles of organization are used in articulating the collection is to begin to discern what the collection is about" (Stewart 1984, 154). But Pearce extends Stewart by more emphatically acknowledging the role of the viewer: because systematic collections are intended for display, the potential audience is always an aspect to consider in their composition and structure. A systematic collection seeks to engage a defined public, who may learn from it, argue with it, be amused by it, and so on.

While personal collections of tagged Web citations are certainly publicly accessible, and while, as I will show in the following section, they can achieve the characteristics of systematic collecting described by Pearce, they may also tell the story of a particular identity, as opposed to the demonstration of an abstract idea. In some cases, these goals become entwined; some personal collections use the demonstration of an abstract idea in partial service to the construction of a persona. Each collection may range somewhere on a continuum as regards the properties Pearce describes as public and private, with some being more strongly oriented toward making an explicit point about the world and others being more focused on representing aspects of the author's identity. The ways in which Pearce's characterizations of public and private manifest in different examples may thus be an interesting point of analysis for the personal Web collection.

Hooper-Greenhill's work to examine how the selection and arrangement of museum objects forms a viewpoint also seems appropriate for similar analyses of tagged Web collections. Hooper-Greenhill uses three different strategies in extended case studies of various collections:

- Comparing characteristics across a single collection. This strategy shows how selection contributes to a collection's meaning. For example, Hooper-Greenhill looks at the social class of people depicted in the initial collections of the British National Portrait Gallery and determines that, while royalty forms the largest group, members of the aristocracy and middle class are fairly equally represented, signaling a relaxation of class distinctions in British society.
- Comparing how the meaning of a single object changes according to its placement in multiple collections. This strategy shows how description, categorization, and arrangement contribute to meaning. For example, Hooper-Greenhill (2000, 75) shows how a Maori meeting house, Hinemihi, takes on different meanings "within a range of contexts and viewed from a number of perspectives ... Hinemihi may be placed within a range of discourses, each of which will speak her differently."
- Comparing two collections that hold similar objects but have different purposes. This strategy also explores how description, categorization, and arrangement contribute to meaning. Hooper-Greenhill (2000) shows how two different collections of traditional Maori objects, one gathered by a Maori woman living in England as part of an autoethnography project, and one gathered by an English tourist, tell different stories about the Maori experience, about the practice of anthropology, and about the intersection between traditional cultures and colonial powers.

In the following section, I adapt Pearce's characterization of public and private collections and Hooper-Greenhill's analysis methods to begin looking at what tagged collections are communicating about their contents and the means by which they attain this expressiveness.

4.0 Case studies: expressive bibliography

In this section, I use analytic strategies devised for museum collections to produce readings of expressive bibliographies created on social software systems. My goals here are twofold: one, to demonstrate several possibilities for reading and interpreting such examples of expressive bibliography, and two, to describe both the matter and the means by which some expressive bibliographies communicate. As such, these readings are intended to be illustrative, not exhaustive. There will be more to say about each example than I

am able to include here, and each collection may certainly be approached in additional ways, to produce other readings and reveal yet more communicative mechanisms available to such works. These case studies will, however, show in a basic way how individual collections of tagged citations can "demonstrate a point," as Pearce says, about the material that they gather, relate, and categorize.

4.1 Case study #1: characterizations of a vegan web site in two web bookmark collections

In this case study, I use Hooper-Greenhill's strategy of comparing how placement in different collections leads to different interpretations of a single object. Here, I look at two collections of Web bookmarks in the social bookmarking system Delicious (www. delicious.com), both of which include the site Vegan Freaks (www.veganfreaks.org), which is run by authors of a book by the same name. The book's tagline is "being vegan in a non-vegan world." The site includes a blog, forums, and a podcast, as well as information about the book and its creators. Recent blog posts as of this writing include a discussion of Oprah Winfrey's "vegan cleanse," a piece on environmental veganism, and an article on living without cheese. The site does not include recipes.

The Delicious user GoodTofu has tagged Vegan Freaks with the terms "blog" and "vegan." GoodTofu has tagged 103 total sites with "vegan." While no terms with political associations are assigned to Vegan Freaks, the most frequent related tags that GoodTofu assigns to vegan sites are politically oriented, as opposed to health, nutrition, or cooking-related. These tags include "politics" (used 20 times in conjunction with "vegan,"), "animalrights" (17 times), "globalwarming" (8 times) and "peta" (for the animal-rights organization People for the Ethical Treatment of Animals, 8 times). "Cooking" and "dining" are used with moderate frequency (9 times each); "blog," referring to the genre of the bookmarked content, is also a frequent term (12 times). "Nutrition" is used sparingly (4 times) and "health" not at all. In addition, GoodTofu has included the term "vegan" in a tag bundle, or user-created grouping of related tags. The bundle is titled "action." The most frequently used terms in GoodTofu's action bundle are "politics" (129 times), "vegan" (103 times), and "animalrights" (71 times). Other terms in the action bundle include "environment" (29 times), "globalwarming" (20 times), and "civilrights" (17 times).

From this portrait of tag distribution, we can characterize GoodTofu's presentation of veganism as emphasizing its political aspects, with connections to both animal rights and to environmental issues. As expressed through GoodTofu's collection, veganism is an activist stance, and its practitioners may be interested in a range of political concerns that transcend the ingestion of animal products, with a marked focus on "green" issues. In this collection, veganism's nature as a diet is of secondary importance, appearing mainly a practical matter of cooking and eating for current vegans, and not as a motivation for adopting veganism (to improve one's health, say). In being characterized with GoodTofu's interpretation of the descriptive term "vegan," with its political undertones, the Vegan Freaks Web site assumes some of those political associations as well. "Being vegan in a non-vegan world," for example, in this context, might be interpreted more as advocating and defending the motivations that led you to veganism, instead of quietly finding ways to successfully maintain your diet in a world where animal products are pervasive.

The Delicious user LiveCrueltyFreeNow has tagged the Vegan Freaks site similarly to GoodTofu with the terms "blog," "veganism," and "vegan." LiveCrueltyFreeNow has also annotated the bookmark with the text "tofu-powered blogging." Live-CrueltyFreeNow has 304 bookmarks with the "vegan" tag. While some of LiveCrueltyFreeNow's "vegan"tagged bookmarks are also tagged with terms that represent animal rights, similar to GoodTofu (32 for "animal rights," 35 for "animals" and 19 for "animal"), "politics" is not a frequently co-occuring term for LiveCrueltyFreeNow. Besides the synonym "veganism" (129 co-occurrences) and the closely related "vegetarianism" (used 123 times), the terms that LiveCrueltyFreeNow uses most often in conjunction with "vegan" focus on dietary concerns and not on the political or ethical convictions that might motivate one to adopt veganism: "food" occurs 103 times, with the similar "vegan foods" 49 times; "recipes" or "vegan recipes" combine for 90 co-occurrences; "health" occurs 46 times, and "nutrition" 35 times. Other clusters assigned by LiveCrueltyFreeNow in association with "vegan" seem oriented toward facilitating the successful maintenance of a vegan diet: "shopping" and "shop" combine for 64 occurrences, with "online_retailers" used 54 times and "restaurants" 41 times. Whereas many of the resources tagged "vegan" by GoodTofu might inform upon one's choice to become vegan (such as an article about mad cow disease or an article about potential health problems associated with the protein-heavy Atkins diet, both added to GoodTofu's list near Vegan Freaks), LiveCruelty-FreeNow's "vegan" resources concentrate on information of practical interest to current vegans, such as sources of vegan products, vegan recipes, and dietary advice (examples include information on egg substitutes and vegan diets for pets). As shown in the following illustration, LiveCrueltyFree also has a "vegan" tag bundle; its terms are similar to the terms that cooccur with "vegan" in LiveCrueltyFree's bookmarks, except that animal-rights-related terms are omitted entirely; health, cooking, and shopping terms predominate.

Tags	Options -
▼ Veganism	36
animal_ingredients	15
chocolate	11
cookbooks	1
cookies	5
cooking	38
crock-pot	1
diet	64
digestion	3
dining	32
health	103
meatless	7
menu_planning	7
miso	2
nutrition	56
raw-food-diet	21
restaurants	51
retail_stores	4
seitan	7
Shopping	72
Soy	20
soy_products	18
substitutes	19
tofu	10
TVP	3
vegan	320
vegan_bakeries	9
vegan_desserts	20
vegan_discussion_fo	. 29
vegan_foods	63
vegan_groups	9
vegan_nutrition	30
vegan_organizations	17
vegan_recipes	54
vegan_tv_shows	2
veganism	168
vegetarianism	60

Figure 1. LiveCrueltyFree Now's veganism tag bundle on Delicious.com

Also in contrast to GoodTofu, LiveCrueltyFreeNow does not strongly associate veganism with politics or activism in general, or with green-related issues in particular. (There are a few co-occurrences of such terms with veganism, but the numbers are small, and such terms do not appear in the "vegan" tag bundle.)

From this evidence, it seems that the definition of "vegan" conveyed by LiveCrueltyFreeNow's collection, in contrast to that communicated by Good-Tofu's collection, is a narrower one, limited more closely to following a diet free of animal products. The motivations that might lead one to adopt veganism, along with associated political convictions, are not as closely linked to the diet itself. Which is not to say that political and moral concerns that may motivate veganism aren't also important to LiveCruelty-FreeNow's public persona; indeed, LiveCruelty-FreeNow's bookmark collection abounds with resources tagged with terms related to animals, animal rights, and pets. But in the statements made by the collection's selected resources and associated descriptions, LiveCrueltyFreeNow is able to separate the mechanics of veganism as a diet from the perhaps deeply felt reasons for adopting the diet. The Vegan Freaks Web site, accordingly, is reinterpreted in this context, becoming one of a number of resources aimed at facilitating the practitioners of a particular diet, and not associated with political activism that may encompass a variety of fronts, as in GoodTofu's representation.

While both collections are, of course, accessible over the Internet, they differ in terms of the properties that Pearce (1994) assigns to "private" and "public" collections. The resources gathered by LiveCrueltyFreeNow, as well as the structure of the collection's descriptive terms, primarily focus on constructing a lifestyle that minimizes harm to animals. This consistent theme falls in line with Pearce's characterization of "public" collections, like those formed by museums. LiveCrueltyFreeNow's collection does, however, show some evidence that the initial purpose for collecting was not quite so well defined. The earliest bookmarks tagged with "vegan" in LiveCruelty-FreeNow's collection were described with more politically oriented terms than later bookmarks. Rather quickly, the usage of "vegan" stabilized in a different direction, and the political terms became less salient. This indicates that, instead of beginning the collection with a clear purpose in mind, as Pearce describes for "public" collections, with an organizational scheme that predated the collecting process, LiveCruelty-FreeNow's purpose and accompanying selection and

categorization strategy became more clearly defined and systematic over time. Remnants of the more diffuse early stages of the collection, however, were not deleted, nor were their descriptions edited.

GoodTofu's entire collection, on the other hand, is more eclectic that LiveCrueltyFreeNow's. Two primary areas, politics and science, predominate, but GoodTofu's collected citations also include items of a more directly personal nature, including humor and hobby-related resources. The collection thus mixes aspects of identity construction, associated by Pearce with "private" collections, and systematic, purposedriven curating and classifying, associated by Pearce with "public" collections. GoodTofu's collection does, through the use of tag bundles, maintain some separation between areas that seem to serve different purposes-there is, for example, an "action," a "geek," and a "life" bundle. The "life" bundle is relatively haphazard. The "geek" bundle, in contrast, seems partly systematic. While the descriptive tags used are quite general-"science," "astronomy," "environment," and "evolution," for example—and the selected resources cover a range of topics, some of the supplied annotations to citations cluster around a common theme: an endorsement of the scientific method as a means to debunk irrational thinking. The item Bad Astronomy Blog, for example, while assigned broad subject tags (such as "astronomy," "space," and "science"), is annotated with the phrase "the latest in quackery debunking news." A NASA site on the Apollo moon landing, also given the index terms "astronomy," "space," and "science," is annotated "Just in case you don't believe we went." GoodTofu's science bundle, in other words, may also be in the process of becoming more systematic in its orientation toward a potentially vast number of potential resources.

4.2 Case study #2: two collections of women's materials, and two different definitions of women's and gender studies, in two web book catalogs

This case study uses Hooper-Greenhill's approach of comparing two collections of similar materials. My examples are two sets of citations gathered and described online using the LibraryThing system (www.library thing.com), where users input bibliographic information, as well as tags, for physical books. Both these virtual libraries focus on women and gender studies; however, the selection of resources, and well as the descriptive terms used to tag these resources, contribute to different interpretations of this subject area.

The first collection is attributed to the user "WMGSlibrary." The profile does not indicate whether the user is an individual or an institution; however, "wmgs" is a common abbreviation for "women and gender studies." This collection describes 886 books. The most commonly applied tags in this collection include Feminist Theory (98 uses), Women in History (92 uses), Class and Labor (65 uses), and International Politics and Economy (41 uses). Two similar tags, Women and Education and Education and Curriculum, combine for 81 uses, and a cluster of tags relating to sexuality—Human Sexuality, Women and Sexuality, Sex and Erotica, and Pornography and Sex Work—is used a total of 86 times.

The second collection was created by the user "EUPwomenscenter"; the user profile clarifies that EUP stands for Edinboro University. This collection includes 507 books, and its most popular tags are Biography (63 uses), Women's History (63 uses), Fiction (37 uses), and Major Feminist Authors (37 uses).

Both libraries include a prominent category for women's history. In the WMGS library, the resources in this category are primarily written as the history of a particular group, time period, or social movement, as occurred in a particular location. Examples include histories of women's rights in the United States, histories of the idea of domesticity in the United States, a study of middle-class women in nineteenth-century France, and so on. A few items in this category comprise primary documents from a particular period or place, such as documents in the social history of American women. The EUP library includes books with similar subjects, although there is little direct crossover between the collections. However, the EUP library also includes in this category books that are not written as histories or presented as primary historical documents. These primarily represent feminist ways of thinking about the world, such as Kiss Sleeping Beauty Goodbye: Breaking the Spell of Feminine Myths and Models, Feminist Thought: A More Comprehensive Introduction, and Another Voice: Feminist Perspectives on Social Life and Social Science. While histories may indeed use feminist thought to interpret events, it is interesting to describe such works as, themselves, history; this may imply that such modes of thought are not appropriate means of interpreting the present or envisioning the future. However, a more specific descriptive term for these works does not appear in the EUP library's tags; unlike the WMGS library, there is no term for feminist theory. This descriptive choice suggests that, for the EUP library, women and gender studies centers around concrete descriptions of experience more than abstract ideas. While a few books that take a more theoretical approach do appear in the library, because there is no precise term available to differentiate them, their importance to the whole is diminished.

The EUP library's overall selection of resources and their associated descriptions seem to bear out such an interpretation. The library concentrates heavily on works that emphasize personal experience, with large categories of biography and fiction. While the Major Feminist Authors category includes additional texts that may be characterized as feminist thought, such Kate Millet's Sexual Politics and Luce Irigaray's Speculum of the Other Woman, the means of description here concentrates on the author as a person, as opposed to the ideas being expressed. Other items tagged with Major Feminist Authors include works of fiction (Alice Walker novels, for example) and memoirs (Maya Angelou and Gloria Steinem), and a book of women's quotations; these, as well, reinforce an emphasis on the personal. Moreover, with a few exceptions for major African-American authors (Toni Morrison, Maya Angelou), the experience portrayed is fundamentally a white, middle-class one; there are no descriptive terms present to characterize social class as a subject, and only four resources are assigned to a "racial issues" tag. The biographies included concentrate on notable white women: Eleanor Roosevelt, Jane Austen, Emma Goldman.

In contrast, the WMGS library emphasizes theoretical and political aspects of women's studies. The central category of Feminist Theory includes several of the same books that the EUP library tags with Major Feminist Authors (Kate Millet's Sexual Politics, for example), but does not include memoirs, fiction, or quotations. Moreover, many more titles of this nature have been selected for the WMGS library, and the works span a wider range of analytical perspectives, from feminist interpretations of science (Sandra Harding's The Science Question) to the intersection of feminism, race, and class (Angela Davis's Women, Race, and Class). Books tagged with the Class and Labor term focus primarily on broader social aspects of women and work: feminized professions, domestic activities as forms of work, and women in the labor force; in other words, a greater emphasis on the effects that women's experiences have produced and continue to produce on the labor market, with less focus on the experience of work as undergone by particular women. Such characterizations contribute to a sense, from this collection, of women and gender studies as integrated with the overall social and political landscape. In contrast, the EUP library's collection portrays the subject of women and gender studies as more self-contained, thus of more interest to women only (and particularly to white, middle-class women).

4.3 Case study #3: personal identity and political manifesto in one web book catalog

The third case study uses Hooper-Greenhill's strategy of examining selected item properties to characterize a single collection. The example here is another Webbased book catalog hosted on the LibraryThing system. By creating and describing a library that balances classic works in a variety of liberal arts disciplines with books that take a sober, scholastic approach to the presentation of a potentially controversial political philosophy, the user "CitizenClark" has constructed a collection that extends a sense of validity to both his public authorial persona and to his chosen political orientation.

In his LibraryThing user profile, CitizenClark describes the library as a "Radical Christian libertarian anarchist law student philosophy collection;" he also describes himself as a law student in Boston with an undergraduate degree in literature. These two characterizations set up intriguing contrasts: a "radical" "anarchist" who is also a law student, a "Christian" "libertarian" in liberal Massachusetts, who also majored in English. As a rhetorical strategy, these juxtapositions work to modulate a potentially dismissive reader reaction to positions, such as anarchism, that may be perceived as extreme. Similarly, the composition and description of CitizenClark's collection works to present CitizenClark as intelligent, open-minded, and rational. This serious persona then lends weight to the political opinions that his collection highlights.

With the exception of his most-used descriptive tag, "blog," which indicates books that he has discussed in postings, CitizenClark's most popular index terms represent a scholarly orientation that embraces multiple liberal arts: literature, history, philosophy, law, and ethics. Yet amidst these innocuous labels for basic subject areas, a few less common terms appear: libertarianism and Austrian economics (a school of thought that advocates laissez-faire policies and is popular amongst libertarians). In the company of typical disciplines, these political terms seem more like standard academic subjects than they otherwise might. The selection of resources in each category works to reinforce these effects. The entire literature category comprises books that one might read in college courses: Dostoevsky, Fielding, Kate Chopin. The philosophy category is similar, with works by Aristotle, Wittgenstein, Kant, and so forth. A few less-known books appear in philosophy, as well, however; a Christian guide to science and philosophy, a number of books that provide philosophical foundations for libertarianism, emphasizing free will and reduced government. All of these resources are assigned descriptive terms in a similar manner, with general subject terms predominating. Obvious value judgments are not applied in the indexing. William James's Pragmatism, for example, is tagged with "philosophy," "epistemology," and "Pragmatism." Hegel's Phenomenology of Spirit is tagged "phenomenology" and "philosophy." The Christian guide to science and philosophy is tagged "Christianity," "philosophy," and "theology." Items tagged with the term "theology" provide even more contrasts: along with scholarly books such as anthologies of writings by Simone Weil and Robert Merton (both tagged with "theology" and "religious studies"), the category includes The Answers Book: Answers to the 12 Most-Asked Questions on Genesis and Creation (tagged with "theology," "evolution," "creationism," and "Christianity"). CitizenClark's collection puts all these titles on the same plane: commonly acknowledged classics, scholarly tomes that underlie what some perceive to be extreme positions, and works that many would reflexively dismiss, such as the creationist defense.

The systematic selection of materials in Citizen-Clark's collection and the consistent mode of description combine to make a point not just about the included resources (that libertarianism and anarchism can be regarded with as much intellectual seriousness as canonical philosophers such as Kant and Hegel, for example), but about CitizenClark's authorial persona, as well (if he includes Chaucer in his library, the collection's structure suggests, he must be educated and intelligent, even if he also includes a book that endorses creationism). In integrating aspects of identity construction with a political message, CitizenClark's collection effectively fuses public and private characteristics as described by Pearce (1994). The collection's contents and structure are in some ways reminiscent of a souvenir collection—the books that mark the CitizenClark persona's journey of intellectual development, say-and yet the collection has also been systematically designed for public display. The rhetorical choices seem optimized for a particular audience: people who might initially be skeptical of the positions adopted by CitizenClark and who need to be convinced that such views may have a rational basis. This absorption of the formerly private into the service of public communication is further highlighted by CitizenClark's inclusion of links to other content modalities in his LibraryThing profile: a blog page, a Facebook profile, a page that lists his Wikipedia contributions. Such a network of curated citations to different entities (resources written by others in LibraryThing, resources written by himself in Wikipedia, people that he knows or admires in Facebook), along with additional commentary (supplied by the blog, which also includes further citations to Web sources), can be seen as a complex, integrated, mixed-media bibliography that communicates on multiple levels.

5.0 Rhetoric, reading, and purposeful design for expressive bibliography

The preceding case studies have demonstrated how Web-based collections of tagged citations can express a viewpoint about the resources that they aggregate and have further shown how strategies used to interpret museum object collections can be used to identify the mechanisms by which these expressive bibliographies communicate. The case studies have also suggested that, while enough similarities exist to consider studies of object collections an initial conceptual base for reading expressive bibliography, Web-based citation collections exhibit a more complex mix of "public" and "private" characteristics than Pearce identified for collections of physical objects. The bibliographies of both GoodTofu and CitizenClark show a mix of resources and descriptive choices that relate to both identity construction (or the construction of an authorial persona) and to the systematic presentation of a particular idea. In GoodTofu's bibliography, however, disparate aspects of the collection were kept distinct, so while the material relating to veganism exhibited a consistent, coherent perspective, the parts of the collection relating to science and to GoodTofu's personal hobbies, activities, and amusements were effectively separate entities. In contrast, CitizenClark's bibliography was more integrated so that the collection's work to establish a persuasive persona for its author complemented its work to convey a persuasive argument concerning the rational basis for a set of political beliefs. Moreover, this integration continued beyond one set of tagged resources to include linked sets of additional citations in other systems.

An important element in facilitating this integration for the CitizenClark document set is the sense that a particular audience is being addressed. In establishing his personal credentials as an educated city dweller with a liberal arts degree, the CitizenClark authorial persona seems to be reaching out to those with similar educational backgrounds who might be initially resistant to ideas that they reflexively associate with extremists. This clarity in presentation endows CitizenClark's bibliography with notable communicative power and sophistication. On the other hand, the three predominating segments in GoodTofu's collection—politics, science, and life do not seem to be oriented toward a single audience. It is possible to envision, however, how the identification of a target audience could enable the construction of a unified perspective on the collection in a manner similar to CitizenClark. For example, Good-Tofu's science-related citations seem to indicate an endorsement of the scientific method as a means to dispel irrational thought and identify the best course of action. By focusing on an audience that similarly agrees on careful examination of available evidence and hypothesis testing as the means by which all important decisions should be made (as opposed to reliance on emotional response, for example), GoodTofu might be able to link the political and scientific portions of the collection as two manifestations of this approach. As the scientific theory of evolution is supported by evidence, so is the political response of veganism supported by evidence (that meat eating negatively affects the enivironment, that animals feel pain, and so on). A unified selection, description, and annotation strategy could support such a rhetorical mission.

This discussion suggests that the field of rhetoric—with its analytic focus on the three elements of author, audience, and argument, and how these integrate into a persuasive whole—provides another tool for approaching expressive bibliography. In addition to identifying the substance of the ideas expressed by these bibliographies and the communicative mechanisms that enable this expression, we can read citation collections for the means by which they might persuade specific groups and the ways in which an authorial persona (or ethos, in the audience-focused language of rhetoric) contributes to this persuasiveness. We can also use the active focus of rhetoric to suggest new strategies for systematic, purposeful design of works in this emerging genre. Currently, many of these collections seem only opportunistically public; while they are accessible to everyone on the Internet, they are more often constructed in a manner that seems oriented toward the author's own personal satisfaction, as in the "private" object collections that Pearce defines. However, as these case studies show, such collections have the potential to

become more overtly "public," while retaining elements of personal identity construction, and so more effectively reach a defined audience. In doing so, bibliography authors can provide a means of information access different from that of search engines; similar to the still-life artist, they can, through the combination of curatorship, citation, and classification, provide a directed filter that illuminates the vastness of the network with a new light.

More broadly, this study suggests that multiple, individually distinct and coherent knowledge organization schemes might have advantages over single schemes, even those that attempt to aggregate several diverse perspectives. Although we might, as a field, have abandoned the optimistic idealism that would lead Otlet to hope that a single, universal classification system could not only organize the world's knowledge but also lead to world enlightenment (Rayward 1994), our methods and manifestos still seem to hope that we can, via accurate and complete understanding of subject domains, discourse communities, user identities, and so forth, forge a single scheme to unify and relate all the diverse interests that we might discover (as in Hjørland's deep body of work in domain analysis and in Furner's 2009 exhortation for knowledge organization schemes that adapt to various user identities). While noble, I am not sure that such goals are realistic; as Bates (1976) noted so persuasively, something will always be left out. These grand visions continue to captivate us because we, like Otlet, see the potential for knowledge organization schemes to enable understanding and so bring people together. I think, though, that we might make more progress toward these worthy visions not by trying to find and integrate all the perspectives that we can, but by figuring out what it is to tell a good story with a knowledge organization scheme and to help people, as both individuals and groups, tell their own good stories. Expressive bibliographies, in which audience members become authors, aggregating, annotating, and manipulating citations, can provide a means for many such stories to flourish, to engender, potentially, wide-ranging and spirited dialogue around a set of resources. If we, as a discipline, can discover and teach people how to effectively design, interpret, and criticize individual, limited, contingent knowledge organization schemes, such as these expressive bibliographies, then we might find ourselves, as facilitators of empowerment, proceeding a little farther towards that ultimate goal of enlightenment.

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