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Paper: Cultural Curation as Classification: The Evolution of the Bibliography and Taxonomy for *The Encyclopedia of Milwaukee*

Abstract: Knowledge organization systems can serve as gateways for human experience, mediating human interaction with knowledge. In this study of *The Encyclopedia of Milwaukee*, we see how concepts arise from literary warrant, but are mediated according to cultural warrant by curatorial activity, including social interaction among the interdisciplinary aggregate of authors.

Résumé: Les systèmes d'organisation de la connaissance peuvent servir de portail pour l'expérience humaine, de médiateur entre l'interaction humaine et la connaissance. Dans cette étude de l'Encyclopedia of Milwaukee, nous étudions comment les concepts naissent de considérations littéraires, mais se façonnent selon des considérations culturelles par le biais d'activités curatoriales, y compris les interactions sociales entre les groupes interdisciplinaires d'auteurs.

1.0 Introduction: KOS and Cultural Curation

Knowledge organization systems (KOS) can serve in many ways as gateways for human experience. When a KOS is the mediating influence in human interaction with knowledge or knowledge artifacts, the experience of determining selection and inclusion or exclusion criteria, as well as determining the boundaries of classes, is essentially curatorial. That is, over and against the act of creating classification, the creator of the KOS also is tending to—curating—a collection of artifacts, whether these are physical entities or bits of knowledge. In this way classification can be seen as always taking place against a socio-cultural backdrop that is influenced strongly by historical precedents and events. Classification theory (Beghtol 2010) tells us that:

- •classification is essentially grouping things in meaningful ways;
- •groupings are thought of necessity to be of mutual exclusivity, but this opinion is increasingly being questioned;
- •warrant is the justification for decisions concerning classification; warrant may be cultural, conceptual, literary, user, ethical, or institutional;
- •classification activity takes place on three planes: idea[tional], verbal, and notational; and.

•the ideational plane is where the concept and determination of its boundaries represent the primary entity and its attributes.

We describe the development of an emergent taxonomy—a small KOS— to undergird the evolution, development, and maintenance of the web-based *Encyclopedia of Milwaukee*, itself a sort of KOS. More than just a collection of stories, *TEM* is the ideational center of a cultural group of historians documenting the living evolution of the cultural milieu of a major city. We describe as a case study the development of the taxonomy that is used to organize the historians' documentary activity. Tennis (2002, 58) suggests encyclopedism as the reflection of dimensionality that grows as classification expands from a simple tree. The dimensionality he suggests is, in fact, the curatorial dimension that arises from this work. Our case demonstrates this dimensionality as a function of the curatorial experience. We intend to use this case to demonstrate the viability of a web-based encyclopedia as a form of KO that is informed by cultural curation.

2.0 The Encyclopedia of Milwaukee

The web-based *Encyclopedia of Milwaukee* project will result in a published reference work, in both print and online versions. Similar projects—Cleveland, New York City, Philadelphia, Chicago and Sydney, Australia, demonstrate the ability to offer an expandable and interactive online edition, which serves as an organic and ongoing archives of urban history. The encyclopedia will consist of the expected alphabetical index of entries, but will also include larger essays to introduce general topics. For example, an overview of transportation in Milwaukee might precede entries for the various individual types of transportation in the city over time. The online edition of the *Encyclopedia of Milwaukee* will be in two parts, the "Underbook" and the "Overbook," both providing information not found in the print edition. The Underbook will introduce readers to the process of historical research, addressing not only what we know about the metropolitan area's past, but "how we know what we know" (Seligman and Anderson, 2011). The Overbook will provide an interactive layer where the community can comment and critique material, and suggest topics for further inclusion. The nature of an encyclopedia brings the work of numerous subject experts in historical research into one resource, providing a circumference of views of the city, its people, places and issues.

3.0 Bibliography Generates Rubrics

The bibliography for *The Encyclopedia of Milwaukee* was designed, first and foremost, to serve as a resource for use by those who would be enlisted to write individual entries for the project. The editors of the encyclopedia are Amanda Seligman and Margo Anderson. The project is headquartered in the history department at the University of Wisconsin, Milwaukee (UWM).

The bibliographic work began with references from three works considered core for this project: *The Making of Milwaukee* (1999) by John Gurda, *Perspectives on Milwaukee's Past* (2009) edited by Margo Anderson and Victor Greene, and *Milwaukee: The History of a City* (1965) by Bayrd Still. Also consulted were a handful of published bibliographies relating to the city, as well as master's theses and doctoral dissertations. As might be expected, each source selected becomes itself a source for further references. A working copy of the bibliography is posted on

the University of Wisconsin-Milwaukee's file sharing site and is made available to the editors and staff working on the project, who can suggest further resources, comment on references, and add rubric designations to entries.

4.0 From Rubrics to Taxonomy

Standard practice for designing an encyclopedia (Anderson 2011) is to create a set of broad categories, or rubrics, into which every possible entry somehow can be captured. To begin, a list of rubrics that had been used in other major city encyclopedias was generated from projects undertaken in Chicago, Cleveland, and Philadelphia as well as the *Encyclopedia of Southern Culture*. A table of all the rubrics discovered across the encyclopedias was analyzed to gain understanding about those that were common to all or most. The 14 rubrics eventually chosen are the result of this analytical process.

Some of the rubric decisions were made for very practical reasons, such as compiling a list of Milwaukee corporations throughout the city's history for the Business, Industry, Labor and Agriculture rubric or developing a list of all the ethnicities with a significant presence in the city over time for the Race and Ethnicity rubric. These lists became agendas for discussions by board members who decided which warranted entries in the encyclopedia. Sometimes entries were grouped into a larger thematic essay and sometimes a particular person, corporation or event was deemed important enough to stand by itself and earn its own entry. Figure 1 shows the rubrics and some notes that Seligman and Anderson (2010) made to help describe their contents. With the addition of the notes this list of rubrics has become the taxonomy underlying the *Encyclopedia of Milwaukee*.

Arts and Culture (AC)	Museums, dance, theater, libraries, music, foodways, visual art
Business, Industry, Labor and Agriculture (BILA)	Companies, industries, trade associations, unions
Education (E)	Universities, public schools, private schools, trade schools, kindergartens, funding, chapter 220?, school choice, freedom schools, German-American academy, medium of instruction debate/Bennett law, Indian Community School
Gender and Sexuality (GS)	suffrage movement, women's liberation, GLBT, prostitution, women's networking and organizations, women religious
Health and Medicine (HM)	Hospitals, health networks, epidemics, sanitation, public health, pharmaceuticals
Media and Communications (MC)	Film, radio, television, print media, magazines, newspapers
Natural and Built Environment (NBE)	Architecture, geology, water, rivers, the lake, topography, weather, climate, parks (the lake means Lake Michigan)
Places: Neighborhoods and Suburbs (P)	Annexation, grid, street naming and street numbering, suburbs, some version of the neighborhoods
Politics, Law and Government (PLG)	Public order and major conflicts, riots, civil rights demonstrations, strikes, socialism, city government, county government, red light district/prostitution/vice, County Grounds
Race and Ethnicity (RE)	Groups of people, defined with minimal numerical threshold (approximately 500 to 1000 minimum) or evidence of institutional presence
Religion (R)	Lumping rather than splitting – Roman Catholicism, Orthodox, Protestantism, Judaism, Islam, Hinduism, Buddhism, Sikhs, etc.
Sports and Leisure (SL)	Festivals, biergartens, gambling, parks, specific stadia (Miller Park, County Stadium, Mecca, Borchert Field, Pettit Center), teams (pro and amateur), kinds of sports (bowling, soccer, basketball, baseball, cycling, sailing, bocce, sheepshead/card games
Third Sector and Organizations (TS)	Social services, charity, philanthropy, particular foundations
Transportation, Infrastructure, and Public Services (TIPS)	Airports, public surface transit, trolley, rail, interurbans, busses, plank roads, streets, boulevards, tollways, interstate highways, bicycling, canals, river and harbor, sewers and water, electric, gas, telecommunications, waste disposal

Figure 1. Rubrics

The scope notes listed above were laid out during the summer of 2010 and subsequently were refined. Sometimes an entry would not belong obviously to one rubric, so the editorial board would discuss it and decide where to place it. An example of this was the entry for Father Marquette, who could aptly fit in the Politics, Law and Government rubric, but also in the Business, Industry, Labor and Agriculture rubric. He eventually was placed in the BILA rubric in association with the fur trade after the board discussed his biggest impact on Milwaukee's history.

Also important to note is the fact that rubric definitions change over time, so scope notes have to be amenable to historical sensibilities. A good example of this is the Third Sector rubric, primarily defined by whether or not an entity is exempt from certain taxes. Third Sector is an economics category and legal category for tax status. The BusinessDictionary.com (WebFinance 2011) defines third sector as a "Voluntary or non-profit sector of an economy; described by Jim Joseph (President, Council On Foundations) as 'an intermediary space between business and

government where private energy can be deployed for public good.' Also called tertiary sector." The state of Wisconsin refers to section 501(c) of the United States Internal Revenue Code to define organizations that are exempt from some federal income taxes and this determines what is included in this rubric, although the BusinessDictionary.com definition cited here helps outline the rubric in history before the confines of today's tax laws. This rubric often includes church-sponsored organizations, social organizations and a large part of the health care sector. Published lists of Third Sector organizations were also utilized to determine inclusion in this rubric.

5.0 Conclusion: Interactively Curating Milwaukee

Our case demonstrates the clear incorporation of classification theory employed in the construction of the knowledge structure that undergirds *The Encyclopedia of Milwaukee*. In this case concepts arise from literary warrant and are based in the attendant carefully curated bibliography, but are mediated according to cultural warrant by the ongoing curatorial activity of the editorial board and research assistants. A list of rubrics, through the aggregate curatorial action of the participants, has become an emergent taxonomy. This is the ideational plane to which we referred in the opening of the paper. Authors, as they write individual entries, will be active in the verbal plane. There will be, of course, no notational plane visible in the encyclopedia. However, as the taxonomy represented by the rubrics expands by the definition and attachment of conceptual clusters, an underlying ontology emerges, in line with Tennis' (2002) approach to curatorial encyclopedism as a form of KO.

Another dimension of curatorial activity emerges from the online and ongoing social interaction among the interdisciplinary aggregate of authors, coming from all walks of life to focus not only on recording but also on disseminating the culture of Milwaukee. We see here a parallel with the evolving domain ecology of living history exhibits reported by Jank (2011), in which "interaction" is the key function in the model, rather than "displaying." The encyclopedia represents a synergistic, interactive and evolving web-based KOS combining classification theory with humanities scholarship in a multi-media environment. As such it is not only a remarkable KOS, it also is a remarkable platform for observing the synergistic interactions among participants as they contribute to an evolving system.

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