Need for Re-Conceptualization of Core Knowledge in the Field of Information Studies: A Case of Information Organization

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This paper calls for a review of curriculum in the discipline of information studies to respond to the recent changes brought by digital information environment, social media, and multidisciplinary initiatives.

This is an opinion paper based mainly on author's extensive teaching experience and research in the area of information/knowledge organization. Relevant literature was reviewed to develop theoretical context and support assertions made and suggestions put forward by the author. This paper makes a case for fundamental changes in curriculum in the area of information organization to expand the scope of core knowledge in this important area. In author's opinion, re-conceptualization of contents has become necessary to respond to changes taking place in the information field in the digital environment. Author suggests that new topics are placed in different courses in the information studies programs (introductory/foundation; core/required; and electives/specialized courses) for a balanced approach. Discussion on possible changes will be helpful in curriculum design and teaching of information/knowledge organization courses in information studies ram to make these courses more useful for professionals aspiring to work in modern information environments.

Keywords Curriculum Reform; Knowledge Organization Courses; Re-Conceptualization of IS Courses

Introduction

Curricula for information studies have always been subject to changes. However, recent disciplinary shifts are making re-thinking necessary in information education. This paper reflects on the need for reconceptualization of core knowledge areas in the information education curricula focusing on courses related to information organization.

The area of information organization is an important element of training and education of information professionals. In the past, these courses used different titles, e.g., cataloguing & classification, bibliographic organization, indexing & abstracting, subject analysis, and other similar titles. In this paper, the term information organization represents all these courses. The term information studies is used as an over encompassing title to include programs in the areas of librarianship/library science (studies), library and information science, information management, knowledge management, records & archives, etc. The labels of 'information studies' and 'information education' are used interchangeably to represent these areas.

This paper aims at reviewing course content covered in the area of information organization with a view to examine if current content is responding to the evolving areas of expertise required of today's information professionals. It identifies topics for addition to information organization courses to expand the scope in response to new changes in the information field. The paper highlights the need for reconceptualization of core areas and

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approaches to curriculum and teaching of information courses in the digital environment.

Theoretical Context

Roggema-van Heusden (2004) pointed out that developments in society have called for a rethinking of LIS education requiring widening of the curriculum. In order to keep up with these developments a remodeling of courses in information education has become crucial. Yu and Davis (2007) asserted that there was a need to reconceptualize education for information in a broader context. They highlighted that re-thinking of information education was necessary because of shifts towards educating graduates to work in broader information environments. This need for a broader context has become more obvious by emerging interdisciplinary connections, collaborations, and converging information disciplines represented by the recent I-School phenomenon.

Anderson (2007) suggested reinventing of information education curricula with greater emphasis on the relation of information studies to digital design. He suggested that there was a need to be more proactive and focus on creative industries. With the rapidity of change in digital environments, imaginative solutions to organizational problems were becoming crucial. A successful information professional in the changing landscape will be the one who is capable of adapting to change. Re-conceptualization of information education curricula will be necessary for preparing graduates for work in such dynamic environments. Educators need to articulate clearly how information studies courses can help their graduates develop skills needed to work in these environments.

Chaudhry and Khoo (2008) highlighted that the information field has unique domain represented by areas such as information organization & reference work and the theoretical framework around these areas. These distinct areas are the strengths of the information field and must remain the focus of our curriculum. While changes have taken place in the course contents, they remain exclusively the territory of the information field – no other disciplines are claiming ownership in these areas. Competencies for information professionals recommended by the various professional forums, such as IFLA, ALA, ALIA, all include information organization as one of the basic competencies in information studies programs. These knowledge areas are extremely important for information work and will always stay the core of the field.

Saumure and Shiri (2010) conducted qualitative analyses for exploration of the dominant knowledge organization (KO) trends in the pre- and post-web eras. They reported that the content of the professional literature in this area has shifted since the advent of the web. Although classic information organization principles remain prominent throughout both eras, the presence of new content areas, such as metadata, denotes a shift in information organization trends. In the pre-web era, the literature was in large part related to indexing and abstracting. In contrast, cataloging and classification issues dominate the landscape in the post-web era.

Chaudhry (2011) pointed out that de-professionalization of information organization work took place in automated environment, as copy cataloging became the main source of bibliographic records. However, a strong comeback was made by information organization courses with the introduction of digital information systems. Emergence of knowledge management required addition of new topics to information organization courses. Subsequently, expansion in core knowledge in this area became necessary.

Review of literature shows that reform and revision of educational programs are essential in order to accommodate the inevitable changes brought by digitalization, social media, and emerging multi-disciplinary initiatives. The literature indicates that changes may be necessary in course contents, program structures, and relationships between

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interdisciplinary areas. This review makes it obvious that changes in course titles and addition of some topics isnot be enough; whole slews of things need to be re-thought. Educators would need to go back to the conceptual building blocks requiring a shift in the mindset – 'what or how it was done in the past' mentality has to be re-thought.

Re-Conceptualization of Information Organization

Organization of information lies at the very heart of IS curricula. As the field rapidly evolves and the digital dimension becomes increasingly pervasive, the role and scope of courses in this area also change. Information organization courses fall under an array of different labels: bibliographic organization, information/ knowledge organization, information processing, etc. These have often taken the place of introductory cataloguing courses. More than just semantics, this shift reflects a level of ambiguity about the topics an information organization course should cover. In general, the topics covered include bibliographic control, classification, metadata, and subject access and vocabulary control. There is, however, a great variation in topics covered and placement of these courses at different levels of programs (core and electives).

Pattuelli (2010) surveyed the course contents of introductory knowledge organization courses in ALA Accredited LIS programs and reported that the dominant topic was bibliographic formats and standards (9.2%). This topic represented a variety of tools ranging from Anglo-American Cataloguing Rules (AACR2) to RDA (Resource Description and Access) and FRBR – Functional Requirements for Bibliographic Records. The spectrum of topics addressed in course readings was far broader than traditional cataloguing classes. Topics also included emerging areas such as thesauri (2%), folksonomies (1.8%) and ontologies (1. 4%).A growing segment of course content was devoted to topics that have direct implications for electronic resources and digital libraries -metadata (11%), information retrieval (8.7%), and knowledge representation (0.9%). Other topics relevant to networked electronic environments were web 2.0(2.8%) and semantic web (2.4%). An interesting finding of this study was the presence of the topic of personal information management (0.5%). This topic broadens the context of knowledge organization outside the traditional institutional boundaries.

Aytac et al (2012) stressed that knowledge organization courses must expand and include topics beyond traditional cataloging. They discussed that early courses in the area of knowledge organization emphasized cataloging, analysis, classification and resource description while emerging trends now encompass courses in metadata creation and organization of electronic resources. Newer courses intersect with natural language processing, the semantic web and social networking. Some of these courses move beyond the description of resources while maintaining linkages to resource description through subject analysis and metadata creation in order to better educate tomorrow's information professionals. The discussions supported the reconceptualization of knowledge organization courses. This panel emphasized that instructors should merge both traditional and emerging trends in the course curriculum in order to prepare information professionals for the digital environment. They highlighted that new topics from information architecture to markup languages and semantic web were becoming integral part of information organization courses. Having information organization skills is becoming fundamentally more important due to emerging demand for innovative information services (UCLBSTF, 2005; Morgan & Bawden, 2006).

Chaudhry (2011) highlighted that information professionals would require to expand their skill set and sharpen their competencies to address the needs of the new environment and to take advantage of the opportunities made available with the initiatives of digital libraries and knowledge management systems. He asserted that in this regard reconceptualization of course contents would be necessary to include topics not covered in traditional information

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organization courses. Topics identified by him included metadata formats and alternatives to MARC; taxonomies and categorization schemes; folksonomies and social tagging; and ontology & topic maps. He pointed out that the placement of new topics in appropriate courses would be a challenging task. Information studies programs are already becoming crowded for accommodating all new areas within a standard 36-credit hour or one-year duration program.

This paper takes the view that topics related to theoretical underpinning and conceptual frameworks are included in introductory or foundation courses. Since all students are required to take these courses, it will help develop a general understanding among all information professionals about the role of information organization activities in facilitating access and use of information. Information organization activities that focus on preparation of bibliographic records and use of relevant tools and techniques should be included in elective courses. For those information professionals who are planning to work in technical services areas, a second layer of elective courses focusing on advanced applications of specific tools, techniques, and tools will be necessary. Specialized courses focusing on new knowledge organization areas will be desirable for information professionals aspiring to work in no-library information environments.

Khoo (2011) suggested teaching information organization with a different mind-set to address the challenges of the new environment. He proposed the following steps:

- Developing theoretical thinking by focusing on concepts related to history and development of earlier codes and schemes
- Acquiring a multidisciplinary perspective by learning concepts from other fields
- Exploring new theories from LIS domain, e.g., FRBF/RDA; faceted classification, etc.
- Exploring theories from other fields: theories and models of human categorisation from cognitive psychology; classifications schemes from different cultures from anthropology; knowledge representation and automatic categorization from computer science.

Chaudhry (2011) pointed out that information organization work in the traditional bibliographic environment emphasized strict adherence to standards and procedures. The new environment promotes flexibility and leveraging of collective (social) knowledge allowing users to contribute towards knowledge through social tagging, etc. The traditional environment focused more on use of tools and systems whereas the new environment encourages information professionals to build and construct systems to suit specific organizations and environments. It also promotes the use of multiple systems and interoperability rather than rigidly following one system. These imperatives of the new environment require that information organization competencies are developed with flexibility, openness, and a sense of entrepreneurship. This will require a new mind-set and rethinking about the information education curricula in general and knowledge organization in specific.

Aytac et al (2012) advised to adopt a holistic approach in teaching knowledge organization courses. Instead of focusing on tactical efforts such as encoding data in a particular way or applying a cataloging standard, the presentation will emphasize a holistic approach to organizing information and knowledge in order to support research, decision-making, and information use effectively in the digital age. Users, information, and technology were the three main areas in information organization curriculum. The panelists suggested that it was important for the profession to stay competitive and relevant by expanding the scope of information organization courses. They also highlighted that the knowledge organization area was in a transitional phase between traditional practices and emerging trends in information discovery and access. It is necessary that information education programs respond more effectively to

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the needs of evolving areas of expertise required of today's information professionals by widening the scope and context of knowledge organization courses.

Chaudhry and his colleagues at Kuwait University conducted a series of studies of information management practices in the private and public sectors of Kuwait (Chaudhry, 2013; Chaudhry & Al-Mahmood, 2014; and Chaudhry, Rehman & Al-Sughair, 2015). Among other things, these studies indicated that patterns of information finding have changed in the new environment. Knowledge workers and professionals in different organizations search information using different strategies and sources. At the same times, they received a considerable amount of information without solicitation. This information is 'pushed' to them by people in their professional and personal networks. These studies indicated that part of this information is 'kept' for future use and managed using different types of knowledge organization schemes and tools. These researchers have concluded from these trends that re-thinking of information organization curricula will help extend the benefits of information organization work if personal information management is included in the curricula.

Conclusion

Information organization has always been a main area of focus in IS curricula. A variety of courses were offered in the area of information organization in major IS programs worldwide under titles such as bibliographic organization, cataloguing & classification, indexing & abstracting, etc. In the traditional environment, information organization work such as description and analysis of information sources has been exclusive to the trained information professionals. User participation in this work has become a reality in the wake of social media and digital information imperatives. IS educators therefore need to redirect their thinking about information organization work (in representing documents & records and using classification and metadata) keeping in view the social implications of information. Adding new topics such as social tagging, taxonomies, ontology, information architecture, etc should, therefore, expand core knowledge in the area of information organization. However, careful strategies will be necessary to integrate new topics in the existing curricula. Topics related to theoretical underpinning and conceptual frameworks are more appropriate for introductory or foundation courses, organization activities that focus on preparation of bibliographic records and use of relevant tools & techniques are suitable for required courses. Elective courses should focus on advanced topics targeted to information professionals aspiring to work in technical services and operations.

Patterns of information finding have also changed in the new environment. While knowledge workers continue finding information using strategies and sources focused in information studies courses, they also receive a considerable amount of information without solicitation from people in their professional and personal networks. They save part of this information for future using personal information management (PIM) tools and techniques. These trends require that information organization curriculum also include PIM, previously considered outside the domain of these courses. Other important considerations in reconceptualization of information organization include strict adherence to standards and procedures versus flexibility; use of multiple systems and interoperability rather than rigidly following one system. Leveraging of collective (social) knowledge by allowing users to contribute towards knowledge through social tagging will be important in courses targeted to digital environment. Changing emphasis on use of tools and systems to build and construct systems to suit specific organizations and environments will also be important consideration in IS curricula. Imperatives of the new environment make it necessary to develop competencies of information organization with flexibility, openness, and a sense of entrepreneurship.

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