

A Group Discussion on Information Literacy

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Abstract Main ideas presented in the information literacy seminar held in Wuhan University was reviewed. Core thoughts of the group discussion was manifested by seven leading speakers. Primary conclusions deduced from the discussion are: information literacy brings more efficient organizations; data curation should be highlighted in information literacy; librarians shall undertake the duty of teaching information literacy; the related education needs reform especially the curriculum set; deductively test existing theories and inductively generate concepts are two orientations for future China information literacy research.

Keywords Information Literacy · Data Curation · Information Literacy Education · Library 2.0 · Learning Organization

Note: The author ranking is based on the presentation order.

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During the Information Literacy (IL) seminar held in Wuhan University, professionals as well as amateurs who are interested in information literacy had demonstrated their thoughts on the topic, which showed the charming facets and practical usage of information literacy on people's daily life, business, education and individual well being. Despite the various illustration, the discussion can be well manifested by the following seven parts.

Jason Phelps's View: Information Literacy Makes More Efficient Organization

After graduating 3 years ago with my MBA, I now find myself back in the academic world trying to solve a major problem that I have encountered throughout my career. This major problem is the lack of Information Literacy, and even more important, professional information leadership in the business world.

I quite often hear from people that a business man like me should not worry about information management and let the IT folks handle IT. The problem is that IT departments have lost focus on the information side of the profession and are just technology professionals. Today's IT people are only the "T" in IT and we need to find the "I" in order to complete the organization.

I currently manage a factory for a fortune 500 company. When I came to this multi-billion dollar Hi-Tech company I did not think that information would ever be an issue. The sad truth is that I see a lack of information literacy and professional information leadership on a daily basis. Today we need people that are information literate in order to drive the company to make proper decisions in the most efficient manner. In today's world of globalization, companies more than ever need timely, accurate and relevant information in all aspects of business. Competition has grown a great deal and customers have grown into educated consumers. Businesses also need to grow and must develop into learning organizations in order to compete in the ever changing information age.

Today companies need people from i-schools like Wuhan University and the University of Washington in order to compete at the highest level. Today's employees need to quickly turn data into information by applying context, and information into knowledge in order to take action and make proper data driven decisions. These

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same people also need the capability to quickly share this knowledge as data with others in the organization in order to speed up the data to knowledge transfer.

This is where we, as current and future information professionals come into the picture. We, as a collective diverse worldwide group, are positioning ourselves as the future leaders of organizations. We will lead by providing the knowledge and skills in information management to help our colleagues of other disciplines grow their information literacy. We will provide leadership to make proper data driven decisions that will drive the most efficient organizations the world has ever seen.

Steve Van Tuyl's Insight: Data Curation is Crucial in Information Literacy

We create information when we conduct research, and when that information is used to generate transferrable data (e.g. publications, datasets, images) we find ourselves in the position of caretakers. Given that the data we assimilate to create new information (and data) has been preserved by and provided to us by someone, the only fair turn one can conceive of is to preserve and provide this newly birthed data for others. I propose that we need to append to the information acquisition models (e.g. Big Six) the additional step of information curation. The process of preserving and disseminating newly created information for others to use should be integrated into the information literacy education curriculum in order that responsibly created data, information, and knowledge can be shared with others in a responsible way.

According to information literacy theory, when we gather data we create information and knowledge. This information and knowledge can be converted back into data and conveyed to others in many forms (as text, audio, images, etc.). That data has been filtered through our information and knowledge gathering processes and in return carries with it the signature of our unique analyses and biases. These are useful signatures both to the original searcher and to other searchers and is part of the collective learning experience that we have come to see as an important component of the information age.

What we do with our data, then, is important to the continuing function of the information culture in which we live and as responsible members of that culture we must take responsibility for ensuring that our data is properly cared for and made available, whenever appropriate, to other users. This process of data curation can take many forms depending on the peculiarities of the situation at hand. Indeed, casual researchers and academic researchers have very different data curation needs, but the need is still there - to share our collective information in a way that allows access for others for the lifecycle of the information therein.

Gladys Joy E.'s Thought: Librarians' Duty on Teaching Information Literacy

As Melvil Dewey (1876) said, "The library is a school and the librarian is in the highest sense a teacher." Wilson (1987) said that the abilities, skills, and professional knowledge of librarians are needed in the teaching and promoting of the library's resources and services to the clients. The focus on literacy and on strategies necessary for creating competitive literate communities permeates the research literature related to all types of libraries (Lingren 1981). Information literacy has been in the field of library and information science since 1970's, but it was just in 1990's that information professionals become interested with it. Liesener (1985) stresses the value of teaching critical thinking and problem solving "throughout the learner's school experience," because "the cumulative effect of many of these kinds of experiences is what leads to the development of a self-directed learner able and motivated for lifelong learning."

From conducting library orientation and library tour, the roles of librarians have evolved to providing library instruction and bibliographic instruction, and finally teaching information literacy among its library users.

Information literacy, as defined by the American Library Association (1989), is the skill to recognize when information is needed and should have the ability to locate, evaluate, and use the needed information effectively. There are key skills involved in information literacy. These are skill to recognize the need for information, skill to find and evaluate information, skill to think critically to synthesize and assimilate information, skill to communicate information effectively, skill to comfortably use the necessary tools and technologies, and skill to understand and apply ethical principles (Lapuz 2008).

The teaching function of librarians is on a working plan. Professional teaching competencies should be developed so that librarians can become efficient and therefore knowledgeable enough to pass through this new phase in the fields of library and information science. This needs reengineering and redesigning of LIS (library and information science) curriculum emphasizing the inclusion of IL (information literacy) education to prepare the librarians for the teaching role (Batiandila 2010).

Martin Julius Perez's Analysis: Factors that Must be Included in Information Literacy Education

Information, as we all know, is vital to man's existence. It plays an important role in human life in the aspect of learning, working, surviving, etc. As we begin the twenty first century, people experience 'information explosion', wherein vast amounts of information is available almost anywhere and anytime across different formats for free. In the case of the students, 'information anxiety' and 'misinformation' are some common problems they encounter. People facing information anxiety panic

and can't manage the abundant information present. Misinformation, on the other hand, leads people to be wrongly informed due to the abundant information present. To address such problems, one of the objectives of higher education is to make the students 'lifelong learners', wherein it enables them to be equipped with the right and necessary skills to make relevant, effective and responsible use of information. To this end, in the academe, information literacy is then integrated to the curriculum for the development of these students. Information literacy programs in the higher education suggest a positive output on the students' development for lifelong learning and competitive competencies. Kasowitz-Scheer and Pasqualoni (2002) listed some specific characteristics of successful information literacy instruction programs from the literature review: *the use of student-centered, active, and collaborative learning methods (from Wilson), *the adherence to instructional design principles during planning (from Hinchliffe & Woodard), *the relevance to particular course goals and, ultimately, the overall curriculum (from Breivik, & Dewald), *the formation of partnerships between library, faculty, and other campus departments (from Stoffle), *the support of faculty learning and development (from Wilson), and, *the scalability for large numbers of students (from Stoffle). Satisfying these characteristics, one successful information literacy instruction program is an information literacy course integrated on the curriculum. In the development of an information literacy course, several factors are being considered and should be focused into. From the collected information from the literature and the experience of the researcher, the different factors/elements to consider in developing or designing an information literacy course in the higher education can be drawn. It includes the following: (1) Need for the course, (2) Target audiences, (3) Nature of the course, (4) Course handlers, (5) Pedagogy/Teaching style for the course, (6) Course title, (7) Course objectives, (8) Course outline or topics to include, (9) Requirements of the course, (10) References/Reading list for the course. These factors are then extended to the development and proposal of an information literacy course for the University of the Philippines-Diliman.

Joseph M. Yap's Prediction: Library 2.0 Tools' Role in Academic Service

Library 2.0 tools have helped the librarians by marketing the services and programs of the library and also by sharing and spreading knowledge even if the student or faculty member is off-campus. Libraries use these tools for communication, interactivity, sharing and storing information. The increasing use of social media sites particularly social networking services and microblogging sites such as Twitter, make information dissemination collaborative and flexible. The way university libraries deal with their users in this contemporary age and time is a sign that we are concerned with our users learning and knowledge acquisition as expressed in the online environment. Academic libraries exhaust this kind of service to promote interactivity and easy communication with their clients. It's been said that today's users are

impatient when it comes to getting information rapidly. In order not to sacrifice the loss of misused and abused information and by preserving the students' information literacy skills, this paper discusses Library 2.0 tools, its principles and practical usage in the Philippine academic setting. There were three examples enumerated in this paper as to how they practically manage to conduct information-reference services and include information literacy. These academic libraries utilize social networking sites, blogs and instant messengers to communicate with their patrons. It all boils down that to be librarians, one should be user and service-centered and that one should implement ways on how to best communicate with their users. Lastly, these tools improve the interaction between the librarian and its users. It gives a way to provide an effective and efficient service that the library can offer. Librarians continue the knowledge sharing and extending e-learning services in the realm of online environment, thus, incorporating and enhancing media and digital literacy skills as well.

Lihong Zhou and Yiwei Wang's Research: Two Orientations of China Information Literacy Framework

Since the 1970s, Information Literacy (IL) has been an area of increasing interest to information professionals and researchers from various disciplines. However, in China, IL is still a relatively new topic and not very well developed.

Many researchers have attempted to establish nation-wide IL frameworks that are deemed to be compatible to Chinese specific social characteristics (Zhang 2008). However, these initial works have not yet been widely accepted or well implemented, not only because these frameworks are probably not very well established, but also these frameworks are established at a general level and are highly conceptualised. In fact, there is a lack of substantive theories targeted at substantive contexts.

These two issues hinder IL implementation and cause inconsistencies in current research. Therefore, future IL research can be undertaken following two main orientations:

- Deductively test existing theories and identify insufficiencies. Future research studies can aim at testing existing frameworks, including those well-established in the West and those developed domestically, in the Chinese environment by using the deductive approach and quantitative methods. In this case, problems and insufficiencies in these frameworks can be identified and revised.
- Inductively generate concepts and frameworks for substantive research contexts. In this approach, existing frameworks can be adopted as theoretical foundations to generate substantive theories which are only applicable to specific contexts and which can be easily transformed into practical IL strategies.

Although great needs are needed for research in both orientations, the second orientation is probably more suited to the current needs of IL implementation in China, as demanded by *Information Literacy Standards for Student Learning: Standards*

and Indicators: “The standards and indicators are written at a general level so that library media specialists and others in individual states, districts, and sites can tailor the statements to meet local needs” (AASL and AECT 1998, p. 1). Therefore, greater attention should be paid to tailoring or translating the high level IL frameworks into substantive theories according to specific social, economical, and political conditions, and the actual needs of people.

Han Jiang’s Experience: Information Literacy is Basic yet Need Improved

To my understanding, information literacy we are discussing involves the transformation from data to information and the training of it is a sort of general education for all the undergraduate students which is essential regardless of major. If we want to extract knowledge from information, we need to use specific and corresponding methodologies in different disciplines. As for me, I’m interested in the behavioral research; thereby statistics and data mining may be my choice. But information literacy, what we utilize in searching for information, is basic but of paramount importance.

As defined by the ACRL, information literacy is a set of abilities requiring individuals to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” I believe the most important term in the definition is “abilities”. By stating this, I mean the information literacy is not just a few theories and principles that undergraduate students are required to grasp, but how to apply them in solving problems from their real studies and research.

After hearing lectures in this summer program, I read more materials concerning information literacy. Carefully I examined myself according to the indicators and outcomes articulated by the Information Literacy Competency Standards for Higher Education. The result turned to be typical, I supposed, within most Chinese students that I have already acquired some of the skills, but still on the way of improvement. For instance, I sometimes get confused when start to work on an assignment and cannot clearly define what kind of information is needed. And entering the retrieval stage, I usually face the dilemma of how to implement effective search strategies while taking into account the time and the cost. Maybe it supports a motif of UNESCO’s information literacy project—life-long learning.

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