

*Thomas Hapke
Hamburg University of Technology*

Between Dewey and Dewey - Information Literacy in Germany between a Librarians' and a More Holistic View

Abstract

Information systems change and so Information Literacy will change. In the world of the Web 2.0 the user becomes a co-producer. The library-based view on Information Literacy, for which the first (Melvil) Dewey in the title stands for, has to be supplemented by a more holistic and critical view on Information Literacy with an emphasis on "learning by doing" (John Dewey) and on promoting reflection about information and its production. This view is called here "Information Literacy 2.0".

Introduction

The German Information Literacy scene in higher education is coined by diversity and change. The scope ranges from library practice which grew out of classical user education to new course-integrated teaching activities as a result of library-faculty relationships because of the ongoing transformation of German universities through the Bologna process. Each library in higher education meets its own context within its parent institution. The new possibilities concerning electronic learning environments led also to library activities to produce online tutorials as well as to integrate their services in e-learning systems.

Although there are efforts of standardization and of merging information systems through global players like Google, through federated search systems or through portals which reduce the diversity, the development of the Internet led constantly to more diverse information systems. Not least this is seen with the emergence of the Web 2.0. The user of today has to know how to handle this information jungle to find his way and to make conscious choices.

Information systems change and so Information Literacy has to change. In former times the information system and the user were strictly divided: The user send a search request to the system, the system answered with a list of hits. Sometimes in between there acted a human information specialist like a librarian. With systems for example like Amazon the information system learns from user input and the answer of the system is influenced by the searches of former users. In the world of social software the "users" or now better "co-producers" take part in building up the content of the information systems like weblogs, wikis etc. Users do learn from the system like before but they also learn from each other through the system which is now also a communication system (see Figure 1).

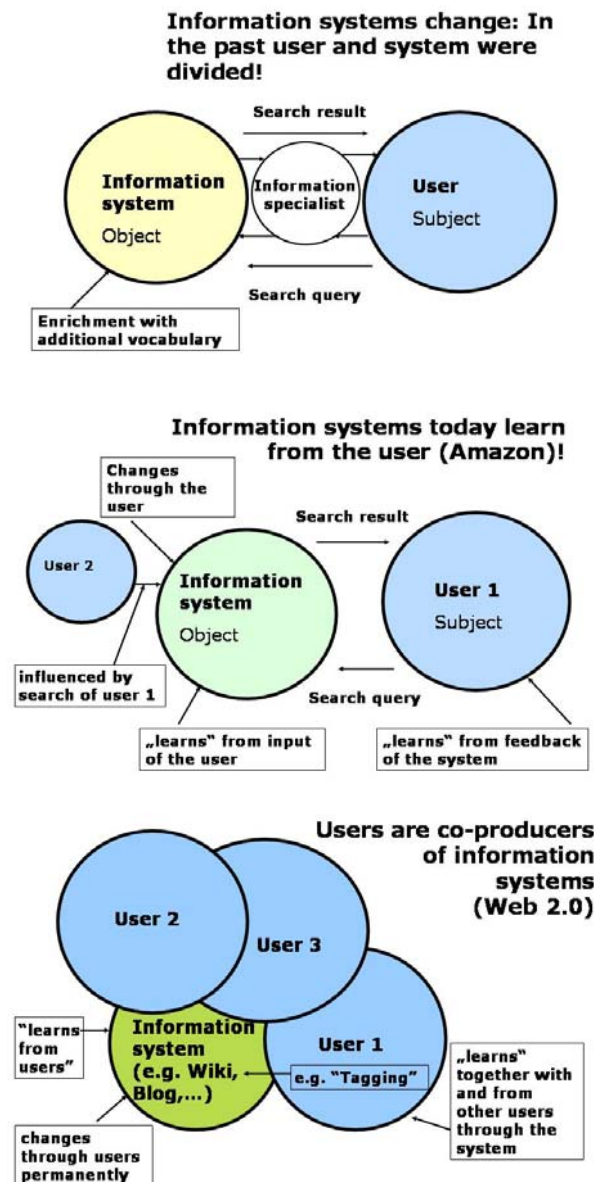


Figure 1: From the user to the co-producer

Between Dewey and Dewey

Most approaches in Information Literacy instruction in Germany are grounded in a librarians' viewpoint, for which the first Dewey in the title of this paper stands for, the American librarian Melvil Dewey (1851-1931) who developed the decimal classification and in whose writings early views about the teaching role of librarians can be found. The emphasis on Information Literacy here lies in searching of information and learning with information. This concept of Information Literacy predominating in German libraries has to be critically questioned, not only because of the changing role of the user in information systems of the Web 2.0. More than efficient retrieval and navigation strategies, Information Literacy today includes the creativity to organize and shape one's own information and learning process in a conscious and demand-oriented way.

The other Dewey, John Dewey (1859-1952), an American educational philosopher, stands for metaphors like "learning by doing" and an experience-based and democratic learning (Elmborg, 2006). Information Literacy in this view means in addition to the former view seeing Information Literacy as an activity to promote reflection and learning about information. It can include a more holistic view on Information Literacy as an important part of learning as well as learning Information Literacy by practical experience "on the fly". In respect to this, issues like intellectual property and plagiarism or coping with information overload have to be important parts of Information Literacy activities. It is necessary to raise awareness about the quality of information and its sources as well as to create an understanding about ways and mechanisms of publishing and information circulation.

Two projects, where the University Library of the Hamburg University of Technology (TUHH) took part, aim at some aspects of this second approach.

BibTutor (<http://www.bibtutor.de>) supports and facilitates searching in library catalogs and databases adapted to the need of the user and to the context. The cooperative project was supported by the Federal Government (BMBF) and which has been developed together with the university libraries Darmstadt, Heidelberg and Kaiserslautern and the software company Brainbot Technologies in Mainz under the leadership of the German Research Center for Artificial Intelligence (DFKI) in Kaiserslautern, BibTutor offers learning possibilities and suggestions to promote the Information Literacy of the user. In addition to support the selection of databases through an interactive BibTutor module which gives orientation

about information systems offered, BibTutor gives context-specific advice at the point of need when the user searches a specific database interface. Oriented at the "micromoment" of searching, BibTutor also offers context-specific, just-in-time (e-)learning, through further information modules or linking to external learning modules like online tutorials as DISCUS (<http://discus.tu-harburg.de>) or LOTSE (<http://lotse.uni-muenster.de>). When searching via BibTutor the user automatically gets hints concerning misspellings, handling or syntax errors. If required, alternative search terms or in some cases terms of the controlled vocabulary of the database used are offered. All this is now part of the development of so-called next-generation catalogs in the Web 2.0 and the idea behind BibTutor to support and "teach" the user in the real context will survive the BibTutor prototype.

VISION (Virtual Services for Information ONline, <http://www.vision.tu-harburg.de>), an online-tutorial on research methods and writing scholarly papers, was supported by the Federal State of Hamburg and complements the first online tutorial of the TUHH library DISCUS (Developing Information Skills & Competence for University Students). DISCUS drew heavily on searching information in an online world from a classical librarians' point of view (Bieler, Hapke & Marahrens, 2005).¹ VISION supports reflection about the set of problems concerning the production of information like reading, writing and publishing and also picks out as a central theme aspects like the journals' crisis, open access and intellectual property. Methodically significant for VISION are the different means of visualising its content as well as the inclusion of emotional and theatrical elements (Bieler, 2007). It is no comprehensive tutorial about research methods but should raise awareness and lead to further resources like lists of books and links in web 2.0 environments like Librarything and social bookmarking services.

Information Literacy 2.0

The term "Information Literacy 2.0" challenges the library based concept of Information Literacy mentioned above. In the world of the Web 2.0 this view has to be changed (Hapke, 2007a). The view on Information Literacy 2.0

¹ See also the database PRIMO (Peer-Reviewed Instructional Materials Online) at <http://www.ala.org/apps/primo/public/search.cfm> where DISCUS was selected as website of the month in August 2005: Retrieved October 31, 2007, from <http://www.ala.org/ala/acrlbucket/is/iscommittees/webpages/emergingtech/site/august2005.cfm>.

does not centre in social software or technology but in giving Information Literacy another, more critical perspective (view Figure 2).²

Information Literacy 2.0 includes a more holistic understanding of information and learning processes. A holistic view emphasizes the diversity of views on Information Literacy. In addition Information Literacy is one of many other key competencies which are necessary for a life-long learning process. So, it may be good to look at Information Literacy also from a non-librarian view, e.g. from business, in which information overload for example is a key challenge (Ingold, 2005). A whole bunch of important competencies and “new literacies” are discussed and available in the modern digital world (Martin & Madigan, 2006): digital literacy, media literacy, e-literacy, academic literacy, soft skills, interdisciplinary competence, intercultural competence etc. The view of the librarians on Information Literacy and these other competencies is only one of many other. Nevertheless this view should be a critical view: The user is seen not as a customer, but as a co-producer; education is not a transfer of information and knowledge but a process to create an ability of reflection and a critical awareness; the library is not a warehouse of information but a place for individual and collaborative experiences and learning. Information Literacy 2.0 is a “learning experience” (Lupton, 2004) in a time where informal learning becomes always more important.

Information Literacy 2.0 includes not only learning with information but learning about information and knowledge. Information Literacy is not only a methodical competence to use more fluently the manifold world of information, but has to do with a competence of reflection e.g. about issues of intellectual property as well as problems in privacy which are for example caused by the Web 2.0. In a world of “cut and paste” the use of citation rules and avoiding plagiarism are issues of information ethics. Economical and political questions within the information process like authors' rights and open access have to be picked out as a central theme. What is the role of peer review? How has scholarly information been constructed by the diverse partners, the authors, the publishers, the libraries, the readers etc.? How to evaluate research and its publications? All these questions are part of a holistic understanding of Information Literacy.

² Some of this draws heavily on insights taken from reading papers of the international Information Literacy movement such as authors like James Elmborg, Barbara Fister, Cushla Kapitzke and others. See Hapke (2007a) for more detailed references. In addition my views are also influenced by many discussions within the Working Group Information Literacy of the Common Library Network (GBV) in Northern Germany, see <http://www.gbv.de/wikis/cls/Informationskompetenz>, retrieved October 31, 2007.

The promotion of Information Literacy 2.0 uses tools of the Web 2.0. On one side the content of what it means to be information literate changes in a world of social software. Browsing through weblogs, writing a blog oneself, using RSS feeds, all these today are important competencies to cope with. One key for success to reach academic staff with Web 2.0 stuff (in the moment!) may be consulting services how to use RSS feeds or offering collections of RSS feeds. Another may be to offer communities of practice about using the different possibilities of reference management systems or social bookmarking systems. On the other side new methods for delivering Information Literacy education are available in the world of the Web 2.0: Podcasts can deliver customised pieces of Information Literacy education, toolbars to include in browsers can facilitate learning, etc.

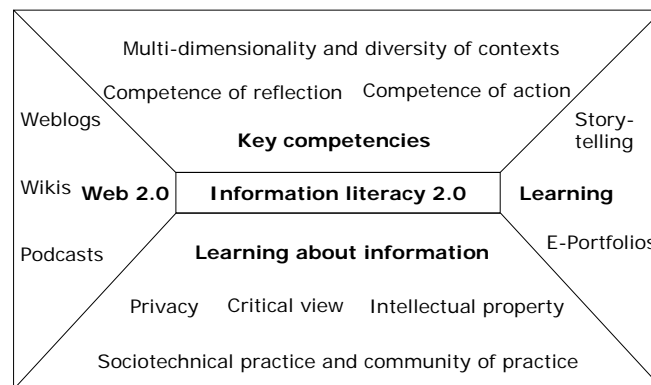


Figure 2: Information Literacy 2.0

Promoting Information Literacy today has to be part of the strategy of the whole library. In Germany most activities in Information Literacy are an additional task of the normal library service. The whole library services have to be changed in the direction to promote Information Literacy. What can reference service do for this goal? How to change the catalog? One idea may be including Web 2.0 features to make it possible for the user to collect items and to build their personal database of selections. Also features of BibTutor described above are to mention here. In addition to aiming at an information-literate university (Webber & Johnston, 2006) we have to create the information-literate library.

The library in the learning environment

The “own” local situation of the author at a University of Technology is still similar to the situation in the year 2000: Information Literacy activities based

on personal contacts as a subject librarian, in the subjects chemical engineering and biotechnology – by occasion also in materials sciences and optoelectronics - are integrated as one-shot presentations in the curriculum. A further result of this local faculty-librarian collaboration was the inclusion of an appendix with the title "The world of biotechnology information - 8 points for reflecting on your information behavior" in a biotechnology textbook (Buchholz, Kasche & Bornscheuer, 2005).³

At the Hamburg University of Technology activities in building online tutorials on Information Literacy led the library to be a constitutional part of e-learning. A peer group of the university in which the library played a strong role developed a strategy plan for the development of e-learning which includes a chapter about the learning facilitating role of the library (Rohling, 2007). It is important to make the library visible in the e-learning environment through integrating library services and learning management systems (Hapke, 2005; Hapke, 2007). It is also important to facilitate the creation of information products by the patrons themselves, e.g. by creating services for digital consulting (intellectual property) and services for digital production.

Most learning management systems are still orientated at study courses. What is needed are places for learner expression, e.g. electronic portfolios, a form of learning diaries, whose importance was early emphasized by Roes (Roes, 2001). Learning management systems have to change and add possibilities for such personal learning environments. The Web 2.0 eases their realization (Attwell, 2007). The work with weblogs and wikis corresponds with modern views of constructivist learning. The narrative component (Purdue, 2003) of weblogs enhances memory and reflection. Storytelling within a personal portfolio can be viewed today as an important part of coping with "information overload" (Sax, 2006). Using weblogs can have similar advantages for learning like learning diaries and research log-books which have been recommended for a long time by researchers in academic instruction. Learning portfolios (Zubizarreta, 2004) support the reflective process of learning and prepare for life-long learning. There is a close connection between (electronic) portfolios and Information Literacy, visible in the following citation:

"In the context of a knowledge society, where being information literate is critical, the ePortfolio can provide an opportunity to support one's ability to collect, organize, interpret and reflect on

³ Appendix I, pp. 419-426. For an enhanced online version see Hapke (2007c).

his/her learning and practice. It is also a tool for continuing professional development, encouraging individuals to take responsibility for and demonstrate the results of their own learning. Furthermore, a portfolio can serve as a tool for knowledge management, and is used as such by some institutions. The ePortfolio provides a link between individual and organizational learning." (EIFEL, 2007).

The term 'teaching library', which is quite popular in Germany, is to question. The author prefers 'learning facilitating library' instead, which can surely also contain teaching but not alone. But to remind: good teaching today means facilitating learning. Today learning in its best sense means mainly co-producing, collaboration etc. It is important that the student does not learn through teaching but through taking part at researching. For the author of this paper the metaphor of calling the student a 'customer' was challenged by the statement of a president of a small German university in 2006 who claimed not to watch students as customers but as co-producers, which clearly corresponds to the Web 2.0 world.

Conclusion

A learning facilitating library offers its customers - in addition to the physical library as an important place for learning - consulting services as well as possibilities for their customers to change and broaden their repertoire of experiences when searching and finding information (Pilerot, 2003). To address the "teachable moment" (Block, 2003) of customers as well as the full complexity of Information Literacy, it is necessary to offer a wide and diverse range of activities to promote Information Literacy and reference: one-off sessions in-class or outside of class, online tutorials, just-in-time-support as virtual reference, an informative library website, face-to-face meetings, newsletters via email, bookmarks, leaflets etc.

From a libraries' point of view, it is important to watch the student as customer who gets the best possible service from the library, but it may be also challenging to see the student as a co-producer and not as a user (of a library or of an information system). The term 'user' of information systems was correct clearly for the past, but the information systems of today, like wikis, blogs etc., are produced together by their 'users' which are now co-producers of the information system. The role of the library in this world may be the role of the trusted user (co-producer). Libraries will have an excellent future when librarians become co-producers, facilitators and "more critical

commentators, mediators and mentors - perhaps nomadic intellectuals and cultural tourists - rather than traditional archivists and monitors." (Luke & Kapischke, 1999, p. 476).

References

- Attwell, G. (2007). The Personal Learning Environments - the future of eLearning? *eLearning Papers*, 2. Retrieved October 31, 2007, from http://www.elearningpapers.eu/index.php?page=doc&doc_id=8553&doclng=6
- Bieler, D. (2007). "Man nimmt sich mal 'nen Stein" - Didaktische Möglichkeiten von Visualisierung, Emotionen und Dramaturgie am Beispiel des Online-Tutorials VISION ["Just take any old stone of knowledge"... didactical possibilities of visualisation, emotional involvement and dramatisation taking the online-tutorial VISION as an example]. *ABI-Technik*, 27, 146-158.
- Bieler, D.; Hapke, T. & Marahrens, O. (2005). Lernen, Informationskompetenz und Visualisierung - Das Online-Tutorial DISCUS (Developing Information Skills & Competence for University Students) der Universitätsbibliothek der TU Hamburg-Harburg [Learning, Information Literacy, and visualisation – the online tutorial DISCUS]. *ABI-Technik*, 25, 162-181.
- Block, M. (2003). Teach them while they're asking for information: reference as a teachable moment. In M. Block (Ed.), *Net effects : how librarians can manage the unintended consequences of the Internet* (pp. 76-79). Medford, NJ: Information Today.
- Buchholz, K; Kasche, V. & Bornscheuer, U. Th. (2005). *Biocatalysts and enzyme technology*. Weinheim : Wiley- VCH.
- EIFEL (European Institute for eLearning) (2007). *Why do we need an ePortfolio?* Retrieved October 31, 2007, from <http://www.eife-l.org/publications/eportfolio/>
- Elmborg, J. (2006). The other Dewey: John Dewey's Democracy and Education and Information Literacy. In C. Gibson (Ed.), *Student engagement and Information Literacy* (pp. 1-15). Chicago: ACRL.
- Hapke, T. (2005). 'In-formation' of better learning environments - the educational role of the university library (Preprint). *LIBER Quarterly*, 15, 178-199. Retrieved October 31, 2007, from <http://eprints.rclis.org/archive/00006592/>
- Hapke, T. (2007a). Informationskompetenz 2.0 und das Verschwinden des "Nutzers" [Information Literacy 2.0. and the disappearance of the user]. *Bibliothek*, 31, 137-148. Retrieved October 31, 2007, from <http://eprints.rclis.org/archive/00011689/>
- Hapke, T. (2007b). Perspektive E-Learning - Die Rolle von Universitätsbibliotheken in neuen Lernumgebungen [E-learning as perspective – the role of university libraries in new learning environments]. In U. Krauß-Leichert (Ed.) *Teaching Library - eine Kernaufgabe für Bibliotheken [Teaching library – a core role for libraries]* (pp. 41-80). Frankfurt a.M.: Lang, 2007.
- Hapke, T. (2007c). *The world of engineering information – 10 points to survive*. Retrieved October 31, 2007, from [http://www.tub.tu-harburg.de/2552.html?docinput\[lang\]=en](http://www.tub.tu-harburg.de/2552.html?docinput[lang]=en)
- Ingold, M. (2005). Informationskompetenz: ein (neues) Leitbild für betriebliche Informationsstellen? [Information Literacy: a new model for operational information centers] In M. Ockenfeld (Ed.). *Leitbild Informationskompetenz: Positionen, Praxis, Perspektiven im europäischen Wissensmarkt [Model Information Literacy: positions, practice, perspectives in the European knowledge market]; 27. Online-Tagung der DGI, 57. Jahrestagung der DGI, Frankfurt am Main, 23. bis 25. Mai 2005; proceedings* (pp. 15-26). Frankfurt a.M.: DGI.
- Luke, A. & Kapischke, C. (1999). Literacies and libraries: archives and cybraries. *Pedagogy, culture and society*, 7, 467-491.

- Lupton, M. (2004). *The learning connection: Information Literacy and the student experience*. Adelaide: Auslib Press.
- Martin, A., & Madigan, D. (2006). *Digital literacies for learning*. London: Facet Publ.
- Pilerot, O. (2003). Information Literacy at a distance - collaboration between a university library and two public libraries. *Second International Conference on Information and IT Literacy*. Glasgow Caledonian University 2003. Retrieved October 31, 2007, from <http://www.elit-conf.org/elit2003/papers/ppt/pilerot.pdf>
- Purdue, J. (2003). Stories, Not Information: Transforming Information Literacy. *Portal: Libraries and the Academy*, 3(4), 653-662.
- Roes, H. (2001). Digital Libraries and Education: Trends and Opportunities". *D-Lib Magazine*, 7, 7/8. Retrieved October 31, 2007, from <http://www.dlib.org/dlib/july01/roes/07roes.html>
- Rohling, H. (Ed.) (2007). *eLearning Entwicklungsplan der Technischen Universität Hamburg-Harburg (TUHH) [E-learning Development Plan of the Hamburg University of Technology (TUHH)]*. Retrieved October 31, 2007, from <http://www.tuhh.de/tuhh/richtlinien/e-strategie.pdf>
- Sax, Boria (2006). Storytelling and the "information overload". *On the Horizon*, 14(4), 165-170.
- Webber, S. & Johnston, B. (2006). Working towards the information literate university. In G. Walton & A. Pope (Eds.). *Information Literacy: recognising the need*. Staffordshire University, Stoke-on-Trent: 17 May 2006 (pp. 42-53). Oxford: Chandos.
- Zubizarreta, J. (2004). *The learning portfolio: reflective practice for improving student learning*. San Francisco: Anker Publ. Co.