

## Abstract

After completing this chapter, you will be able to:

- Identify conceptual delimitations;
- Distinguish earlier research in Europe;
- Understand the history of cooperation.

### **Keywords**

Information literacy · Norway · Romania · Moldova

What does research say about how user experience shapes development of information literacy teaching programmes in academic libraries?

In the chapter, "Background and Earlier Research", contains examples of the authors' research over the last 15 years on user experiences in libraries. The authors have participated in research and development work in several countries, and from this background, they offer evidence-based contributions to library pedagogy on information literacy.

Paul G. Zurkowski coined the term "information literacy" in 1974. He was concerned that workers needed to develop skills to help them solve workplace problems (Zurkowski 1974a, b).

As president of the Information Industry Association, he wrote a report to the National Commission on Libraries and Information Science ("The Information Service Environment Relationships and Priorities. Related Paper No. 5"; www.eric. ed.gov/ERICDocs/data/ericdocs2sql/content\_storage\_01/0000019b/80/36/a8/87. pdf):

Information is not knowledge; it is concepts or ideas that enter a person's field of perception, that are evaluated and assimilated reinforcing or changing the individual's concept of reality and/or ability to act. As beauty is in the eye of the beholder, so information is in the mind of the user.



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#### To make his concept of information clear, Zurkowski wrote:

People trained in applying information resources to their work can be called information literates. They have learned techniques and skills for utilising a wide range of information tools as well as primary sources in molding information solutions to their problems. (Zurkowski 1974a, b)

Librarians then took up the term information literacy and translated it into library-related information search skills.

In libraries, "information literacy was first understood as 'systematic research' skills and, more specifically, 'library-based research'; the term was initially used in connection with bibliographic instruction. Later in the 1970s, information literacy came to mean, more generally, the techniques and skills needed for identifying, locating and accessing information resources by using information tools in a variety of contexts, including workplace contexts. In the 1990s, information literacy became more widely understood as a concept. This is because it became associated with computer literacy and the ability to use the Internet. Information literacy came to be understood as a key skill of the Information Age" (Lloyd and Talja 2010).

Although there has always been a need to find, evaluate, and effectively use information, the abilities needed to do so have just grown larger, more complex, and more important in the information and communication technology (ICT) environment. There is also a shift towards broader contexts, and to connect information literacy with an active, effective and responsible citizenship (Virkus 2003).

From the 1970s, there have been many different definitions of information literacy. The latest definition of "Information Literacy", in the new definition from the Chartered Institute of Library Information Professionals (CILIP) is "(...) the ability to think critically and make balanced judgements about any information that we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society" (CILIP 2018).

In this chapter, we will first give some examples of earlier research, mainly concentrated on research and theoretical work done in Europe, where we, ourselves, are situated. Thereafter, we will look specifically at the authors' research, as a background for developing good practice for teaching and training information literacy in our institutions. Also, this will form the background for suggestions on best pedagogical practice. We agree with Løkse et al. (2017) in that "The underlying aim of all IL teaching is to enhance learning in some way or another" (p: 15).

We will showcase a few important meeting places for practitioners and researchers, in the form of conferences, and give some examples of multi-national development projects of which we have been part.

### There is Abundant Research Literature on Information Literacy

In Europe, Information Literacy has been a field for theoretical conceptual development and research since the 1980s, alongside practical development in libraries (Virkus 2003).

One example among several, is that of Norwegian scholars, Audunson and Nordlie (2003) who highlight three main categories of information literacy: technical capabilities or what may be called computer literacy; intellectual capabilities related to traditional literacy; and communicative competency. They consider information as the sum of different 'literacies'.

Virkus (2003) also shows how, in Nordic countries, terms used for information literacy clearly refer to competencies. For example, in Denmark the term, informationskompetence, in Finland, informatiokompetenssi (also informatiolukutaito), in Germany, informationskompetenz, in Norway, informasjonskompetanse, and in Sweden, informationskompetens, are used as the English term "information literacy". Here, the definition and understanding of the concept seems to be related to the way in which the concepts of competence and skills are defined and perceived.

"Academic libraries have played an important role in information literacy developments in Europe. Information literacy initiatives in higher education have taken a variety of forms: stand-alone courses or classes, Web-based tutorials, course-related instruction, or course-integrated instruction" (Virkus 2003). Also, in the early 2000s, the academic sector not only had to cope with the growth of ICT, but also the implementation of the Bologna process, the rise in lifelong learning and widening of access to higher education bringing in new learners with different prior educational experiences.

Hyldegård et al. (2011) sums up the research situation by explaining that a variety of theoretical and methodical approaches are used. Much of the research looks at information needs, the information search process and the use of information. Research results have become more nuanced through the inclusion of new topics, for example personality is increasingly important along with other contributing factors. Likewise, information behaviour in collective and collaborative contexts has also become more important. Increasingly, information behaviour is seen and analysed in relation to context and how this is interpreted in a given situation.

Pedagogical collaborations within the field of information literacy has mainly been studied in the US, with a good example found in the book "Information Literacy Collaborations that Work", edited by Mackey and Jacobson from 2007. The editors, from University at Albany, regard information literacy as an educational issue that needs ongoing collaborations between academic staff and librarians. In this book, each chapter shares some story of collaboration between a librarian and other university staff or students, in an effort to develop better information literacy trainings. The book has three parts: "Higher Education and Information Literacy Collaborations: Fostering Connections in the Undergraduate Programs and Graduate Education", "The Disciplines and Information Literacy Collaboration: Building Partnerships with the Humanities, Social Sciences, and Sciences" and "Technology and Information Literacy Collaboration: Creating Links through the Web, Video, Wireless and Blogging". However interesting the case studies and practical examples may be, the book is too closely related to the US academic scenario to be fully serviceable for European academic libraries, and it does not have a special pedagogical focus.

The Journal for Information Literacy, published by CILIP (the Chartered Institute of Library and Information Professionals) in UK, is a major contributor to knowledge on information literacy research. In volume 13, no. 1, there is an interesting paper from our point of view: Stebbing et al.: "What academics really think about information literacy." From the literature review, they found that there were two different approaches taken by library staff—either teaching information literacy within the subject discipline, or specifically taught as a generic set of skills (Stebbing et al. 2019: 24).

The findings of Stebbings et al. confirm other research and our own experiences: Academics see information literacy through their discipline lens, expressed in the discipline's own language, and thus connected to the pedagogical approach of the academic discipline.

However, Hyldegård et al. (2011) reminds us: Students cannot be considered as a single group. Information behaviour depends on level of study, subject, libraries' dissemination, interpretations of what is needed in relation to a given situation, and preferences and different types of learning styles and personality traits, to mention some of the factors pertaining in this context. Information search does not only play a major role in the consciousness of students, but also gains more importance the longer that one studies. In general, students are happy with the tools and aids that libraries make available, but research also indicates that their knowledge is generally overlooked and that their extensive use should not be too cumbersome. The students' use depends primarily on the requirements of the teachers at their educational institution.

### Practitioners and Researchers Meet

Information Literacy has become an important field of research and practice in libraries, and IFLA, the International Federation of Library Associations, has a separate Standing Committee for Information Literacy. In the annual World Library and Information Conferences this committee arranges open sessions, and also a preand/or post-conference satellite meeting. Anyone who is interested in the development of Information Literacy in libraries should take a look at the proceedings of this Standing Committee.

There are several other European conferences with IL in libraries as an important topic, and we will present some of them in what follows:

**ECIL** (The European Conference of Information Literacy) aims to bring together researchers, information professionals, employers, media specialists, educators, policy makers and all other related parties from around the world to exchange knowledge and experience and discuss recent developments and current challenges in both theory and practice (ECIL 2018 website). Since the beginning, proceedings have been published by Springer, in the "Communications in Computer and Information Science" book series. **LILAC** is organised by CILIP's Information Literacy Group. The LILAC committee is made up of a team of information professionals from all areas of library and information work, who are dedicated to improving information literacy. LILAC is a great opportunity for our fellow professionals to present their ideas, share best practice and show case new thinking in our sector (Lilac 2019 website).

The Creating Knowledge Conference: This conference focuses on higher education and information literacy. The conference programme is broad and varied with engaging presentations, workshops and discussions on a wide range of information literacy topics.

The conference is primarily targeted at librarians, researchers, information officers, IT-strategists and engineers, architects, education and library planners, and students. (CK1999 website) Creating Knowledge conferences provide an excellent opportunity to expand cooperation and to develop joint strategies for information literacy that are viable for the future (CK2016).

A Romanian conference on Information Literacy has been organised since 2010 in Sibiu, Romania by the "Lucian Blaga" University Library in Sibiu.

The Western Balkan Information and Media Literacy Conference has been organised since 2013 in Bihac, Bosnia-Herzegovina. It is supported by, inspired by, and dedicated to the work and achievements of the European Union Capacity Building in the Field of Higher Education (CBHE) project 561987 Library Network Support Services (LNSS): modernising libraries in Western Balkan countries through staff development and reforming library services. This is a unique, pioneering European Union funded project, which aims to reinforce and modernise libraries and to improve library staff competency and skills in Western Balkan countries to develop innovative libraries as a support to education and lifelong learning.

CBHE is an European Union programme that aims to support the modernisation, accessibility, and internationalisation of higher education in Partner Countries in regions such as Eastern Europe, Central Asia, the Western Balkans and the Mediterranean mainly through university cooperation projects.

As a result of the involvement of leading international experts in the IL field in WBIMLC, the concept of Information Literacy, which prior to WBIMLC was almost completely unknown in the Western Balkan region, has firmly taken hold and is now embedded in many universities in the Region.

WBIMLC celebrates the clear enthusiasm and passion of IL enthusiasts not only in the Western Balkans but also at an international level. The proceedings are found in open access from wbimlc.org.

### Norway and Romania

Our own interest in students' perception of and attitude to library services started in 2007, when we conducted a survey on Norwegian and Romanian student attitudes. We found that one of the areas in which students in both nations needed better services was within the field of information literacy (IL).

To support our understandings of students' acts and attitudes with regard to library usage, short and similar questionnaires were handed out to students in both nations in the Autumn term 2007 and in the Spring term 2008. There were 93 respondents in Bergen and 100 in Brasov. The questionnaires had been developed in Romanian, translated into English and then into Norwegian. The study was designed to explore students' conduct and understandings as regards the use of libraries, especially the university library, and the electronic resources provided (Repanovici and Landoy 2014).

One result from the survey was that students both in Bergen and Brasov preferred the Internet as an information source, and access from home. At the same time, we found that they were not knowledgeable about evaluation of electronic information resources, notions of ethics, plagiarism, and communication of the results in scientific research. This was, therefore, taken into consideration when planning information literacy trainings (Repanovici and Landoy 2014).

We also took care to evaluate the courses as they were developed and given. Post-training evaluations from the students were compared, and used as basis for further development of training.

"Students find these courses useful and relevant. In evaluations, they give high marks for relevance, and they also comment upon this when asked either in writing or orally. When asked what they find relevant, the answers cover both the practical tools for finding information (databases, journals, other resources), as well as the new knowledge in searching and evaluating information. Flattering enough for the library and the actual librarian, students also give the library high marks for performance, and for the conception of the course." (Repanovici and Landoy 2007).

We also discovered that students would regard the course as more relevant if it included actual tasks as a starting point, and that it would be offered exactly when they needed it. Keeping the students' concerns about their use of time in mind when planning, could mean that we used different search examples for different groups of students. We were told, by professors and university teaching staff, that their students had learned new information literacy skills. They were also set free from using tutorial time to show students how to evaluate information and how to cite. The university teaching departments kept asking for courses for more student groups at more levels (Repanovici and Landoy 2007).

Information literacy is about dealing with information overload—how to choose and decide what is useful and trustworthy. Hence, the focus of information literacy training was different in Bergen, which had a large number of electronic information resources in 2007, than in Brasov, which had much fewer electronic resources.

Our latest research in students' attitudes is given as follows.

In 2016, we conducted a web-survey with Survey Monkey among Transylvania University of Brasov engineering students, and interviews in Bergen. In Brasov, there were 105 respondents: 27% male, 73% female; 39% in their first year and 43% in their 4th year. The students' ages were 18–21: 38%, 22–23: 50%, and over 24: 12%.

In Bergen, there were 12 students interviewed: five males, and seven females. Three at bachelor level, and nine at master's. They were all users of the library. Eight were from the Faculty of humanities, one from law, three from social sciences, and they were invited to have a coffee and an interview (Landoy and Repanovici 2016).

We were looking for what the students saw as new and interesting trends in academic libraries. In the survey, suggestions were formulated in the questions, but in the interviews, there were no pre-formulated suggestions (Landoy and Repanovici 2016).

Brasov students wanted the library/learning centre to provide connection to power and Internet (93 of 105 students replied that this was most important). The second most important was "boards, or video projectors connected to laptops for presentations" (73 students agreed to this), and third "furniture—tables and chairs—that can be moved". The least important of the choices that were given was "mobile walls to create various private spaces for individual or team study".

In Bergen, Internet and power was not mentioned by any of the students, probably because it is seen as given. All 12 students would use "boards, or video projectors connected to laptops for presentations" and half would use "furniture— tables and chairs—that can be moved" and "mobile walls to create various private spaces for individual or team study (Landoy and Repanovici 2016).

If the library was called "Centre for Technological Transfer", the Romanian students saw "copy and printing devices and scanners" as the most important feature, closely followed by "workshops on various topics of interest" and "borrowing laptops and multi-media technology". "Gaming space" was least important (Fig. 1.1 Facilities provided by Centre for Technological Transfer).

In Bergen, a library/learning centre would be a more interesting place than a centre for technology transfer, according to the students that were interviewed. All 12 would be interested in relevant books, journals, media, and databases (both printed and electronic) and nine mentioned study spaces in different kinds of zones (more or less quiet; with or without a computer). Eight found accommodating and knowledgeable library staff to be important (Landoy and Repanovici 2016).

Our Bergen and Brasov students are traditional and don't have a lot of imagination when it comes to suggestions for new services, but are enthusiastic when we

Answer Options	1	2	3	4	5	Rating Average	Response Count
An area with 3D printers, supplies and related software	2	1	20	32	49	4.20	104
Gaming space - Lego, chess for stimulating creativity	7	17	34	29	17	3.31	104
Copy and printing devices, scanners	0	2	8	26	69	4.54	105
aptops and mass-media technology for borrow (photo	0	5	12	30	58	4.34	105
Online documentation regarding the use of the	0	4	29	35	35	3.98	103
Online documentation for downloading and using the	1	4	15	28	55	4.28	103
Online communication with a specialized support IT	1	7	12	38	46	4.16	104
Fraining courses for using the various technologies	0	3	15	37	50	4.28	105
Exhibitions of new products by different companies	2	6	19	32	46	4.09	105
Workshops on various topics of interest	0	4	13	26	62	4.39	105
Others							2
					á	inswered question	1
						skipped question	

Fig. 1.1 Facilities provided by Centre for Technological Transfer

suggest something. There are clear differences in what they prefer, and we suspect that the differences originate in different services already existing in the two libraries, although it may also be subject dependant.

### **International Development Projects**

Our common interest in information literacy in academic libraries also led us to reach out internationally, and apply for funding to support the development of IL in academic libraries in the Republic of Moldova, and in the Western Balkans.

In the Republic of Moldova, we joined forces with the Academy of Economic Sciences (ASEM) in Chisinau. First, we trained the ASEM librarians, and then we developed a new project, where we targeted all academic libraries in the republic. In this project, the libraries were supported to provide IL training for their students, as well as Open Access and bibliometric services.

Transylvania University of Brasov was head of a TEMPUS project: "Developing information literacy for lifelong learning and a knowledge economy in Western Balkan countries, 2010–2013". In this project, IL programmes for lifelong learning and their use in curricula were developed, including innovative online IL modules for lifelong learning and harmonisation of IL programmes with those currently active in Western Balkan countries. The project aimed at strengthening the capacity of higher education institutions in the Western Balkans for strategic planning and implementation of IL programmes to instil transferable skills for a competitive, dynamic, knowledge-based economy.

http://www.lit.ie/projects/tempus/default.aspx.

Transylvania University of Brasov also participated in two Erasmus+ CBHE Projects: (561633) "Library Network Support Services (LNSS): modernising libraries in Armenia, Moldova and Belarus through library staff development and reforming library services" 2015–2018.

https://lnss-projects.eu/amb/curriculum/module-7-access-to-libraries-and-societyfor-learners-with-special-needs/ and (Erasmus+ CBHE Project 561987) "Library Network Support Services (LNSS): modernising libraries in Western Balkans through library staff development and reforming library services" 2015–2018

https://lnss-projects.eu/bal/module-7-access-to-libraries-and-society-for-learnerswith-special-needs-disabilities/.

In the two ERASMUS+ projects, one of the modules for staff development is enhancing librarian's development in teaching Information Literacy.

### In Summary

The collaboration of our libraries for the development of information literacy and other issues, as shown in this chapter, has been beneficial for students and academics at our universities and in the projects in which we have participated.

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