

THE CHANGING ROLE OF THE ACADEMIC LIBRARY IN LEARNING AND TEACHING

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Introduction

This chapter explores the emerging role of academic librarians in the learning and teaching process through their involvement with teaching staff in the development of student information literacy skills. Information literacy – that is, the ability to find, evaluate and use information effectively – is a key component of university students' learning experience. It also equips students with skills for the workplace and lifelong learning:

It could be argued that the skill of the twenty first century graduate will be to articulate the right questions and to understand where and how they can search for knowledge, not remember the answers (Donnelly and Fitzmaurice, 2005, p. 96).

The chapter provides a brief overview of the institutional and learning background against which contemporary information literacy development takes place. This background is characterised by a changing context for the operation of academic libraries; a changing higher education environment; a changing information environment; and a changing user. The chapter goes on to provide some formal definitions of information literacy, developed by library-related bodies. These are followed by some working understandings of the term, derived from responses given by several academic developers and lecturers to the question, "What does information literacy mean to you?" Finally, the chapter discusses the role of information literacy in higher education and the key role librarians play in information literacy development.

Background and context

Since the early 2000s, changes in the Irish higher education environment have had a significant impact on the role of librarians in the learning, teaching and research goals of universities. Changes include:

- *the introduction of semesterisation and modularisation*
- *the development of graduate schools and structured generic skills programmes for graduate students*
- *investment in teaching and learning centres*
- *an increasing emphasis on quality procedures*
- *new funding mechanisms including the allocation of central funding for the purchase of electronic journals and datasets.*

At the same time, university strategic plans now emphasise lifelong learning and the needs of a knowledge economy. They also highlight the increasingly diverse student body, including new national and international students and increased participation by non-traditional groups such as return-to-learning students and ethnic minorities.

Universities have also been exploring new methods of learning, such as enquiry and problem-based learning to support and develop independent learning. This is consistent with a

university culture in which flexible modes of delivery are being explored and utilised. All these factors are part of the context in which librarians and libraries now operate.

To ensure that all students participate equally and effectively in higher education, they must acquire the skills to locate, critique and use information effectively. This can present challenges in the rapidly changing Irish academic library and information environment.

The changing Irish university library

Since the late 1990s, the range and amount of information available via Irish university libraries has increased dramatically. Through the Irish Research electronic Library (IREL) initiative, over €20 million has been made available to support the development of a national information infrastructure, ensuring that Irish researchers have the necessary information resources to participate on the world stage. Through targeted funding from Science Foundation Ireland (SFI) and the Higher Education Authority (HEA), Irish university libraries have gained access to a vast range of electronic resources. These include electronic versions of peer-reviewed journals from the world's major publishers, including Taylor & Francis, Routledge, Elsevier, Oxford and Cambridge University Presses. In addition, university communities have access, via their libraries, to all major research databases – for example, Web of Knowledge, Academic Search Premier and Literature Online. These and other databases offer full-text journals, abstracts of journal articles, reference works, encyclopaedias and statistical data. These resources are available to university staff and both on-campus and remote students from any PC with Internet access, thus servicing the needs of distance, part-time and other users.

In keeping with a culture of increased cooperation and resource-sharing, including inter-university and intra-university research, libraries are participating in collaborative schemes to allow staff and students physical access to each other's libraries. Academic Libraries Co-operating in Dublin (ALCID) has been extended to allow taught and research postgraduates and staff access without borrowing to all Irish university libraries. The more recent development of the Society of College, National and University Libraries (SCONUL) Access is providing access (with borrowing in some cases) to university libraries in the UK and Ireland.

The Irish Universities Association (IUA) Librarians' Group has negotiated collaborative Strategic Innovation Fund (SIF) funding to develop local institutional repositories, where copies of journal articles and other publications by staff are being deposited (in accordance with copyright and licensing agreements). These local repositories – sometimes referred to as ePrint archives – are freely available via the Internet. This initiative aims to make the research output of the universities available free of charge, and also increases the visibility and accessibility of research, potentially leading to increased citation (Lawrence, 2001, p. 521). A national portal, currently under development, will provide a single interface to research output from all Irish universities.

To exploit and utilise these resources fully in support of the learning of a diverse user group, new levels and different forms of information skills – commonly referred to in the literature of librarianship as "information literacy" – are needed.

The changing user

Although universities are now endeavouring to support the learning of a diverse user group, the vast majority of those entering university are still aged between 17 and 21 years (OECD, 2004).

Today's students interact and use information in radically different ways from the pre-Internet generation. They are heavily engaged in new social networking tools such as BeBo, MySpace and Flickr. These students often display a high level of competence with information technology. They are becoming increasingly familiar with generating their own content through the use of blogs, wikis, YouTube and so on. On the other hand, Giannini (undated) notes that:

Students are ... navigating in a virtual world where distinctions are increasingly blurred between communication and information, published and unpublished, private and public, free and fee, author and reader, written and spoken, edition and update, original and copy.

Although their information technology skills are frequently well developed, research has shown that this group – sometimes referred to as the “millennials” or the “net generation” – lacks the information literacy skills and critical thinking skills needed to negotiate this complex information arena effectively (Barnes et al, 2007).

The first port of call for most students when given an assignment is the Internet. But students rarely distinguish between free content available on the Internet and the scholarly content to which the library subscribes, which is also delivered via the Internet. Typical undergraduate students doing a project on the benefits of immigration to the Irish economy, for example, may find a wide range of information and opinions on blogs, websites and so on and look no further. They may remain unaware that the information they are using for their project could be biased or unsubstantiated, and may lack authority or accuracy. Unless students have an awareness of the wide range of authoritative and scholarly sources available via the library, and understand the need to evaluate critically the information they find, their uninformed research may result in poor marks for their assignments and a negative learning experience. In contrast, students who have been introduced by librarians to the wide range of resources available via the library might have gained higher marks and demonstrated a deeper level of learning. This is because they have used resources such as scholarly journal articles via Academic Search Premier and other databases, including the Lexis/Nexis database of world newspapers (including archives of Irish newspapers) and reports from major international bodies.

Librarians play a key role in helping students exploit the quality information sources available via the library. At the same time, their teachers also need to be able to support them in developing their information literacy skills. The rapid expansion of databases and other information sources available to teaching staff challenges their ability to keep up to date with new resources to use in support of their teaching. It is therefore necessary for librarians and academics to work together to ensure students engage with high-quality and authoritative sources in their learning, through structured information literacy activities.

A starting point for librarians and academics working together on information literacy is a consideration of what information literacy is. Do academics and librarians share the same understandings of it? To answer these questions, we present some formal and working definitions of the concept in the following sections.

Information literacy definitions: the library perspective

Although the term “information literacy” is relatively new, what it represents has been with us for as long as there have been libraries. Changes in teaching and learning, the university environment and the information environment have brought the concept of information literacy into the discourse surrounding teaching and learning. Indeed, several Irish university teaching and learning plans articulate the need for information literacy as part of the student learning experience.

The definition of information literacy most often used and cited in the library literature is that provided by the American Library Association’s Presidential Committee on Information Literacy report in 1989:

To be IL, a person must be able to recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information Ultimately, IL people are those who have learned how to learn. They know how to learn because they know how knowledge is organised, how to find information They are people prepared for lifelong learning because they can always find the information needed for any task or decision at hand (ALA, 1989).

The Australian and New Zealand Information Literacy Framework provides the following definition:

Information Literacy is an intellectual framework for recognising the need for, understanding, finding, evaluating, and using information. These are activities which may be supported in part by fluency with IT, in part by sound investigative methods, but most importantly, through critical discernment and reasoning (Bundy, 2004, p. 4).

The concept itself is much debated and no single authoritative definition exists. Nevertheless, most definitions recognise that students need to develop the appropriate knowledge and skills to:

- recognise they have a need for information
- be aware of the range of resources available to address their information needs
- effectively find information using a variety of tools and sources
- effectively evaluate the information they find
- use the information effectively to support an argument or develop a thesis
- communicate information effectively, understanding ethical issues such as the need to avoid plagiarism.

Information literacy definitions: the academic perspective

Although the professional body definitions are useful, we felt it would be interesting and informative to ask some Irish academics and educational developers what Information Literacy means to them. After all, if librarians are to work closely with academics and educational developers in developing information literacy, it is important that the two groups share a common understanding of information literacy as the basis for dialogue.

The following quotes were gathered from discussions between us and educational developers who participated in an Irish academic writing workshop. The quotes are not presented as a

conclusive answer to the question of what academics and educational developers understand information literacy to be, nor do they represent the sector as a whole.

What Does Information Literacy Mean to You?

Professor Sarah Moore, Dean of Teaching and Learning, University of Limerick:

From where I'm sitting information literacy is about alignment between teachers and students. Information literacy sessions need to support this alignment, with librarians working with lecturers in classrooms – effectively co-teaching. While the lecture would be teacher-driven, the librarian would be facilitating the learning process.

Start where everyone is at, not where you or I think they should be. Just listen! Spend six months listening to people's frustrations and their dreams. Engage in really active listening. After listening take an active role in facilitating conversations. Go in to discussion without an agenda.

Librarians might provide monthly clinics for lecturers and students that would address the needs of both. In these clinics they would diagnose where the person is at and work with them to develop their skills. They would also advise academics on how to engage students with information literacy, suggesting activities, learning experiences and so forth, which they could engage in, with the lecturer in a classroom situation. Working with a lecturer on a specific topic, creative ideas and ways to approach learning will emerge.

It's vital that librarians work closely with centres for teaching and learning and that both lecturers and librarians understand where information literacy fits into the university teaching and learning strategy.

The key, I think, is to remember that each learner's frame of reference is different and finding that out and working with it is essential.

Dr. Geraldine O'Neill, Centre for Teaching and Learning, University College Dublin:

It's all about developing student ability, confidence and judgement. They need to know not only how to find information but how to judge the quality and appropriateness of it for the particular task in hand. There are multiple ways to get to information and many disciplines overlap.

Effective partnerships between librarians and lecturers and education developers are crucial to pushing information literacy into the curriculum. We need to develop information literacy programmes that foster these skills early in the curriculum. There's also a need to design assessment for these programmes. This all needs to be mapped out and marking systems need to be explicit. With an increasing move towards self-directed learning, students need to understand both what information resources there are and the methods of assessing them. Becoming a member of your discipline involves understanding how knowledge is created, valued and shared.

Through the discipline you can move from finding information (facts) to understanding this knowledge. There is a very important distinction between these. Students may then develop a capacity for knowledge creation. We need to

get students to question how and where, not to be scared of this vast range of information resources, but to see finding information as part of the discipline. It's important in this electronic era that training on using print resources is not dropped.

Education development units have a role in this. They are currently involved in teaching academics. Aspects of information literacy should be designed, in conjunction with librarians, and integrated into the programmes offered through education development units.

There's also a need for the upskilling of librarians in teaching methodologies, designing learning outcomes, assessment techniques and so forth. At present few librarians are involved in designing assessment criteria, but if information skills are to be part of the curriculum, it needs to be aligned with the assessment and teaching approaches. Lecturers and librarians need to sit down and design the information literacy curriculum, explore the best methods of delivery and how the learning is to be assessed.

Saranne Magennnis, Director of Quality, NUI Maynooth:

Information literacy doesn't fit into my professional world as a concept. I'm sure it is something I engage with. If I consider various sources of information, my way of accessing information and people who can help me in this, I'm probably referring to information literacy. In my role of Director of Quality, with a remit that covers staff development, teaching and learning and institutional research, I certainly encounter multiple sources and categories of information and need the skills to use these effectively. However, I don't like the term information literacy. It sounds very impersonal. In my view one of the great strengths of librarians is that they are able to engage with the personal information needs of the individual user and provide a personal service.

Information literacy must take account of people's experience and expertise. It involves starting from where people are at and going from the known to the unknown. Dialogue is vital. Librarians must ask people what they need. Students and staff may not initially know what it is they need, but through dialogue this can be teased out and appropriate information literacies or skills developed.

A case can be made for generic rather than discipline-specific information literacy skills, particularly for first-year undergraduates. Basic skills would include finding books and journal articles and citing and referencing. If the library can help students to understand that they should not claim authority for material they have found on the web or via other sources that will go a long way to help overcome the problem of plagiarism.

While I recognise that information technology skills are different from information literacy skills, the former is often necessary as a backdrop to the acquisition of information skills. People who are not computer literate – and these are often members of underrepresented groups and mature students – may not be able to develop information literacy skills because of their lack of IT skills. Information literacy, with an emphasis on new technologies, provides opportunities to overcome barriers such as dyslexia and dysgraphia.

Perhaps information literacy is something which can help overcome inequalities not just nationally but globally!

Dr Jacqueline Potter, Centre for Academic Practice and Student Learning (CAPSL), Trinity College Dublin:

Information literacy is the difference between information and knowledge creation. It is about becoming a member of your own discipline, through understanding how knowledge is created, valued and shared. By being information literate and understanding how knowledge is created, you begin to see links over time in the literature. This move from information to knowledge is vital. The knowledge and skills developed through information literacy education is transferable to a range of subjects and contexts. Information literacy allows students not to be scared and to realise they are part of a discipline, where they can question, have a voice and see that they have something to contribute.

Some students might have an over-dependence on secondary sources, which already interpret the literature. A shift to knowing how to access and interpret research articles and other sources can happen through information literacy education. Some students may never make this transition. The need for this transition is not always made clear to students. Information literacy has a key role in all this.

The key themes emerging from this discussion include the importance of developing a shared understanding of information literacy, as well as partnerships to embed information literacy into students' learning experiences.

A shared understanding of information literacy

People experience information literacy differently. Different disciplines have different frames of reference and different ways of engaging with information. This point is borne out by a UK study (Webber *et al*, 2005). It is therefore important that librarians, lecturers, academic developers and students engage in dialogue on the concept of information literacy, its impact on learning and the most appropriate ways to integrate information literacy into the curriculum.

Another key issue that emerges from our conversations with academic developers is that consideration must be given to “where people are at”; that is, we must take into account their current expertise and experience of information literacy. For example, a millennial student's view and experience of information may be different from that of a mature student who has been out of formal education for some time. The latter may relate more easily to traditional print resources.

Collaboration and partnerships

There are two key partnerships for effective information literacy development – one between librarians and lecturers, and the other between librarians and teaching and learning centres.

Librarian–Lecturer Partnerships

It is crucial that librarians work closely with lecturers and course teams to identify explicit learning outcomes for information literacy skills development in the context of overall curriculum development. This should be followed by a discussion of the learning activities and experiences that will support those outcomes. Consideration must also be given to how

the learning will be assessed. This kind of partnership draws on librarians' expertise, and also gives them a more significant teaching role.

These curriculum development activities should take place against a background of more formal and informal discussion among librarians and academics. When such collaborations become the norm, they are likely to generate further opportunities – for example, collaboration on conference papers and publications.

Partnerships between Librarians and Teaching and Learning Centres

A close relationship between librarians and education developers is central to integrating information literacy into the learning and teaching strategies of universities, as well as into curricula. In addition, information literacy programmes or modules, delivered by librarians, should be part of the professional development programmes that centres offer to lecturers to develop their teaching. In this way, lecturers can develop their own information literacy skills and more effectively identify ways to engage students in seeking, evaluating and using information to support learning. The importance of the librarian/education developer is recognised in the literature (Bruce, 2001; McGuinness, 2006).

The partnerships between librarians and educational developers can also be enhanced by more opportunities for librarians to be involved in policy-making fora such as university teaching committees, faculty meetings, and course and programme boards. This will help librarians engage effectively in dialogue and keep abreast of curriculum developments and current thinking on learning and teaching.

Current methods of information skills development

The design and delivery of information literacy programmes and activities are an integral part of the activity of Irish higher education libraries (Breen and Fallon, 2005; Dodd, 2007; Fallon and McQuaid, 2007; Hegarty et al, 2004; McGuinness, 2007).

Three strategies for developing information literacy skills are outlined in Table 1.

Table 1: Strategies for Delivering Information Literacy

| Type | Description | Example | Comment |
|---------------------|---|---|--|
| Stand-alone classes | <ul style="list-style-type: none"> • Sometimes referred to as “one-shot” sessions. • Provide additional support for students. • Typically offered by a library independent of lecturer involvement. • May be initiated by lecturers, students or librarians. • Optional attendance. | <ul style="list-style-type: none"> • One-hour class on finding journal articles. • Two-hour workshop to give students an overview of the information sources in their discipline, held outside lecture hours but requested by a lecturer. | <p>Practice has shown that this strategy on its own is not effective. These sessions are voluntary and attendance is often low. The sessions are not aligned with course learning outcomes, activities or assessment. Nevertheless, participants regularly comment on the sessions’ value and usefulness (Breen and Fallon, 2005, p. 183).</p> |
| Integrated | <ul style="list-style-type: none"> • Skills learned either early in a course or at point of need (Bruce, 2002, p. 13) and related to course of study. • Can be built on over time. • Dialogue between librarians and lecturers, with lecture time allocated for librarians to introduce students to key resources and library tools in their subject area. • Sessions generally not formally accredited. | <ul style="list-style-type: none"> • A slot of one to two hours in a research methodology course, introducing students to disciplinary resources and information-seeking processes. • “Effective literature searching”, “Doing a literature search”, “Finding information for your thesis”. | <p>Although such interventions are valuable, they are generally not formally assessed and depend on lecturers’ awareness of the effectiveness of integrating information literacy skills.</p> |
| Embedded | <ul style="list-style-type: none"> • “Curriculum that requires engagement in learning activities that require ongoing interaction with the information environment ... and curriculum that provides opportunities for reflection and documentation of learning about effective information practices” (Bruce, 2002, p. 13). • Information literacy explicitly articulated as a core component at programme design stage. • Specific modules identified for information literacy skills development. • Student engagement with information literacy clearly mapped out, and consideration given to relevant learning activities and appropriate assessment at different levels. • Skills built on over time, recognising that different levels of engagement with information are necessary at different stages of a programme. | <p>A typical learning outcome: “To design and execute an effective search strategy using a range of resources.”</p> | <p>It is argued that generic skills such as IL can be successfully developed and learned only in this way –that is, in the context of course content, where skills development is explicitly articulated, developed, practiced and assessed (MacKeogh and Lorenzi, 2006).</p> |

Strategies for successfully embedding information literacy

The overview in Table 1 suggests that the most effective way to develop information literacy skills is by embedding them in the curriculum. Below we offer some suggestions for doing this:

- When designing a new course or module, or reviewing an existing one, engage a librarian in the process. Generally this person will be your subject/liaison librarian.
- The librarian will be able to advise on available resources or new resources required. S/he will work with you to identify and integrate information literacy learning outcomes into your curriculum. This includes consideration of the appropriate level of information skills needed at each stage of the programme. For example, your learning outcome might be to enable students to evaluate critically a number of different information sources. A suitable learning activity to achieve this might be to ask students to work in groups to find information on a topic using different sources. One group might look at free Internet resources such as Wikipedia, another might use an academic journal database such as Academic Search Premier, and another might look at printed and electronic books. Each group presents their findings and engages in discussion on the appropriateness and suitability of their findings for the task in hand. This activity introduces students to a variety of sources and requires them to reflect on and evaluate those sources.
- Teaching staff should also explore whether information literacy can be integrated into an online learning environment. For example, the task above could have taken place in the library or within a virtual learning environment (VLE). Here students would be provided with links to the information sources used in the activity. Discussion would occur in online forums, to which the lecturer and librarian could also contribute. Online quizzes and other tools could also be for formative assessment of skills development.
- It is important that learning outcomes are appropriately assessed. The assessment and marking criteria for assignments and tasks should be clear to students. It should include some criteria relating to their information use. For example, if students rely completely on one particular source, giving no evidence of having engaged in broader reading to support their arguments and viewpoints, they might expect to receive a low mark, clearly indicated by the assessment criteria.

Concluding comments

In this chapter, we have demonstrated the importance of information literacy and identified some key strategies that will help cultivate and develop students' information literacy knowledge and skills.

We believe librarians, academics and education developers have a wonderful opportunity to work together to enrich the learning experiences of our students. We hope this chapter will prompt you to think about information literacy and explore it within the context of your discipline, as well as the wider learning and teaching environment.

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