

Information literacy: challenges of implementation

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Information literacy education is described by the authors of this special issue of *Italics* as fully embedded in the process of independent and lifelong learning practices. Full integration of information literacy is advocated at various levels of education, through the adoption of real-world assessment strategies, and through a critical pedagogy. These are necessary steps towards the development of independent learning, and ultimately, towards the establishment of a learning society.

Whilst the arguments in favour of information literacy's integration in the national learning agenda are discussed elsewhere (Town, 2003; Andretta, 2005), in this issue we look at experiences of information practices that highlight the concerns of educators from diverse professional backgrounds including academic librarians, as well as faculty and research staff from Library and Information Science and Education. This confirms the point that information literacy is not just the responsibility of the library, but has a wider remit for educational and social developments (Snaveley, 2001). It is therefore hoped that this special issue will be relevant to a wide readership consisting of educators in general, and not just those who actively promote information literacy education. One of the key issues presented here is that information literacy is a fundamental requirement for a learning society. As a result Higher Education institutions need to implement information literacy education as a top-down initiative, where lifelong learning initiatives are promoted by institutional learning and teaching policies, and as a bottom-up approach to fully integrate these strategies in curricular activities that facilitate a dynamic investigation of the disciplines.

The first paper by Bruce, Lupton and Edwards, sets the scene by proposing six frames of information literacy education operating within the Higher Education sector, although these frames could be used as blueprint for other educational levels. One main proposition of this paper is the premise that perception of, and engagement with information literacy practices are influenced by the way learning and teaching are defined, and from whose perspective (ie learner or educator). This approach encourages analysis of and reflection on what information literacy means and how it is implemented, highlighting the variation in the ways it is perceived. The frames also enable a more systematic classification of information literacy education. For example, the Content frame (1) reflects learning and teaching perspectives where the former is defined in terms of accumulating knowledge about a discipline, and the latter is directed by the tutor rather than negotiated between tutor and learner. Some would argue that the Content frame is antithetical to the independent learning approach promoted by information literacy, and that at best, it fosters the development of discrete information skills. In other words, the learn-how-to-learn element of information literacy is missing.

Just as the first frame measures the amount of knowledge learned, the Competency frame (2) assesses the types of skills developed, and the level of competence achieved. At present, the Content and Competency frames seem to dominate the Higher Education scene at the expense of the remaining four. Such a preference is based on the fact that Content and Competency frames emphasise, and most importantly assess, types and levels of skills developed by the learners that suit the universities' requirements for 'objective' testing of students' academic performance. By contrast, the other four frames are fully reflective on the impact of information literacy on the learners and their surroundings. In particular, they promote the central features of information literacy such as learning-to-learn (frame 3), encourage self-evaluation and a personalised investigation of a subject (frame 4), explore the social impact of, and solutions offered by an information literacy approach (frame 5) and emphasise the relational aspect in order to engage the learners with the more complex elements of the information literacy experience (frame 6). Moreover, the authors argue that the relational perspective can be employed as a way of combining a number of information literacy frames, thus enabling the adoption of a flexible integration approach that is responsive to the local environmental conditions and their

requirements. *Of particular interest is the status of the relational frame as one through which the content, learning to learn, and experiential frames are mediated or brought together.*¹

To fully illustrate how the relational frame operates two concrete examples are presented in this paper, shown by work of Edwards and Lupton respectively, on facilitating reflective learning within an online searching environment, and on the different ways in which learners experience information literacy during the course of completing an essay task. Information literacy educators may find these examples useful, and may want to emulate relational practices, because by encouraging variation in the ways students learn, they would ensure that a deep and long-lasting learning process occurs. The implication of this paper is that in order to foster an information literacy attitude, and achieve full integration of this in the educational scenario, students should be exposed to a combination, if not all, of the six information literacy frames.

The paper by Lantz and Brage places information literacy firmly at the centre of a developmental process that aims to prepare students for a learning society. Their approach is illustrated by the use of an Applied Information Literacy model which underpins the provision of two undergraduate courses on civic and health literacies. Civic literacy is defined here as *knowledge about community affairs, political issues and the processes whereby citizens effect change, and how one could become informed if one were not already*², while health literacy involves *an individual's ability to read, comprehend, and act on medical or health information*. Readers should note that the term course in the Swedish Higher Education setting refers to full time provision consisting of a concentrated programme of 40 hours per week for a duration of ten weeks for the civic literacy course, and 20 hours per week for a duration of 20 weeks for the health literacy course. In comparison with the UK, these two courses are the equivalent to provision that covers a semester or that spans the entire academic year, thus fully capitalising on the impact of information literacy education, and facilitating students' information literacy competences over a prolonged period of time.

This paper raises a number of important points, including the call for HE to adopt a new way of learning where the emphasis has shifted from teaching to the process of learning. The authors propose: *the creation of a learning culture which produces students with a capacity and desire for Lifelong Learning [and which] requires a major shift in the way we teach*. To accomplish this, Lantz and Brage advocate the adoption of an *authentic* assessment strategy which exposes students to real-world problem-based learning, and encourages them to engage with a more holistic and reflective research process. They argue in favour of a knowledge-acquisition process based on active understanding, rather than illustrating the passive accumulation of information by the learners. Such a process is fully implemented only when the students have successfully communicated the acquired knowledge through the appropriate publishing medium: *we believe that students must learn not only the mechanics of writing, but must also become proficient in the use of text to communicate knowledge and ideas*.

In addition, Lantz and Brage identify the role of educator as part of the traditional librarians' professional portfolio by quoting a description of a librarian in the late 19th century, *'a librarian should be more than a keeper of books; he should be an educator [...] All that is taught in college amounts to very little; but if we can send students out self-reliant in their investigations, we have accomplished very much'*³. Whilst it is surprising to find that this quote is relevant today, just as it was at the time it was written, two points are worth emphasising here. First that the fostering of independent learning is not a new concept; on the contrary, it was a sought-after educational goal prior to the emergence of information literacy education, and indeed before the establishment of 'modern' education as we know it. It follows from this that the promotion of independent learning should not pose a great challenge to the educational establishment. The second point raised by this quote shows that librarians have aspired to the role of educators long before the phenomenon of information literacy emerged in their professional consciousness. The

¹ The text in italics indicates a direct quotation from a paper in this collection.

² Flanagan, C.A. & Faison, N. (2001) 'Youth Civic Development: Implications of Research for Social Policy and Programs', *Social Policy Report*, XV (1) (quote: 3).

³ Robinson, O.H. (1876) The Proceedings, *American Library Journal*, 1: 92-145 (quote: 129).

implication here is that the information profession should reclaim ownership of the role of educator and that information literacy, with its emphasis on learning, offers librarians the opportunity to do so.

In the UK this opportunity is hindered by a number of challenges, as shown by Stubbings and Franklin's paper. Here the authors present the problems of integrating information literacy, namely limited access to students and to the curricula, faced by academic librarians working in a Higher Education institution. These restrictions result in information literacy provision that is at best integrated at module level, but not at degree level. The paper outlines some of the reasons for the reluctance by faculty staff to adopt an information literacy approach. Amongst these is the fact that information literacy is still misunderstood as either something that is taught somewhere else, and therefore not their concern, or as focusing on the development of IT skills, and therefore not fulfilling its potential as the driver for independent learning. In the students' case misconception is shown by the belief that they already possess information literacy competencies, while existing research clearly shows that this is not the case. The strengths of this paper lie in its response to the challenges posed by uncooperative faculty staff and students alike, and in the encouragement it offers to those librarians who are facing similar challenges. Three main strategies are proposed in this paper as examples of fostering collaboration between library and faculty staff. These include the integration of information literacy competences in the learning outcomes of modules, the delivery of Personal Development Portfolio (PDP) practices, and the provision of sessions focusing on the prevention of plagiarism. Whilst these strategies have met with some degree of success, the authors acknowledge that the extent of information literacy's integration at Loughborough University is still limited to modules, rather than fully embedded in entire degree programmes, or integrated in the institution's learning and teaching policy. One cannot help but think that as librarians become pro-active advocates of information literacy, and reclaim the role of educator, faculty staff must perceive this development as an encroachment on their professional territory, and therefore resist such a change. Nevertheless the responses adopted by Stubbings and Franklin to overcome resistance against the idea of librarians as educators should be commended for attempting to address this challenge in a positive and constructive manner. This is quite a refreshing approach as in some HEIs in the UK the drive for information literacy comes entirely from faculty staff, particularly based in LIS disciplines, and it is not actively endorsed by the library's user-support policy.

An example of a fruitful collaboration between faculty staff and academic librarians is illustrated by Hepworth and Evans' case study based on the initial delivery of a programme on training the trainers. Here academic librarians at the University of Dar Es Salaam, in Tanzania, piloted an intensive seven-day information literacy training course, devised by LIS staff from Loughborough University, with the aim of delivering the course themselves the second time round. In this paper the authors equate information literacy to a learning culture where *learners are active participants in the learning process*, and therefore place a clear emphasis on the aspects of information literacy associated with lifelong learning and the transferability of learning. Hepworth and Evans examine the impact of the information literacy training programme delivered by the local librarians, and argue that students' feedback on completion of this intensive training illustrates a successful transference of what the librarians have learned from the pilot into effective information literacy facilitation. However, the extent of knowledge-transfer that occurred between Britain and Tanzania is worth emphasising. Accomplished through the initial piloting of the information literacy course and the subsequent delivery of the revised programme, this achievement is an extremely important point as it shows that the issue of empowerment promoted by information literacy operates at a number of distinct levels. Taken from the learners' perspective it enhances their competences in academic literacy, seen from the library staff's view it promotes clear strategies of Continuing Professional Development, while from the perspective of a developing country like Tanzania, it ensures the emancipation of its Higher Education culture in order to address the challenges of globalisation and the requirements for a lifelong learning educational policy.

The empowerment effect is also the main theme proposed by Williams' paper where information literacy is associated with independent learning set within the context of Special Educational Needs (SEN) learners. The paper uses Mencap's definition of a learning disability as one which *affects the way someone learns, communicates or does some everyday things*. This condition makes SEN learners vulnerable to disempowerment, as their abilities to make independent choices are severely limited. Williams argues that by enhancing SEN learners' independent learning competences, a process of self-

advocacy is initiated which plays a crucial role in giving these learners a voice. There is a disturbing parallel between the issue of disempowerment experienced by SEN learners and the lack of ownership of the learning process encountered by students in HE who, because of low information literacy competences, are unable to make effective choices in terms of finding appropriate information (Stern, 2003), cannot cope with the pressures of information overload and resort to plagiarism (Brine & Stubbings, 2003), or operate within a spoon-feeding culture that causes dependency (Andretta, 2004; Andretta and Cutting, 2003). Williams proposes that information literacy in relation to SEN learners can assume a number of guises, including not only computer literacy, but also the more complex facets of research and critical literacies. Project @pple's is presented as a way of helping people with learning difficulties engage in the processes of information acquisition and creation, so that they learn to communicate their views, entirely via visual means if necessary, and through this process become active producers as well as consumers of information. One of the main challenges illustrated by this paper is the use of multimedia applications to devise a digital information environment that addresses the wide range of difficulties experienced by SEN learners, while at the same time facilitating their emancipation.

The theme of empowerment is continued by Whitworth who analyses the information literacy standards devised by ACRL (2000) from a critical social science perspective, informed primarily by the work of Habermas. Similarly to Lantz and Brage, information literacy is promoted here as a response to societal learning, and in particular, as a basis for active citizenship. The challenge posed by information overload is presented as the first obstacle to this goal, and explained in terms of the analogy between data smog and physical smog. The former is described as *the pathology of the information revolution*, just as the latter was defined as an outcome of the industrial revolution. In addition, Whitworth argues that the quality of information is becoming increasingly important because it feeds into a person's political power. As a result, information and IT illiteracy are seen as a deprivation of, not only economic status, but also individual democratic rights which may confine people to the *margins of the digital polity*.

According to Whitworth education, and especially Higher Education, is not preparing students to deal with data smog, or indeed to respond to the reflexive learning needs of society. By implication, these needs raise the challenge for educators of employing innovative educational strategies and ICT-based delivery that promote lifelong learning attitudes rather than subject-specific skills. For example, computer studies were originally seen as a subject aiming to achieve mastery over the machine. However, Whitworth argues that the *technological one size fits all* approach is insufficient to ensure the development of lifelong learning, and that the more critical and reflective aspects of information literacy must be developed alongside the technical competences. He acknowledges that the link between information literacy and technology cannot be denied, but also argues that one of the challenges for information literacy educators is to *move away from the shadows of a purely technological approach* and adopt a critical, reflective pedagogy promoted by an independent learning approach. In other words, learners need to apply a critical rather than an interpretive social perspective. Whitworth sees information literacy as a way of emancipating the learners, but in order to achieve this goal they need to *change*, and not just *interpret*, the information environment in which they operate. He warns that if the information environment is characterised by an uneven participation in the social discourse, then the phenomenon of information distortion causes the inevitable marginalisation of those who lack the necessary communicative competences, namely people who are not information literate. In response to this, Whitworth advocates independent learning as a way of developing active information producers, and not just passive consumers: *Producing information turns students from mere listeners into communicative actors [...] Producing information, not just accessing information produced by others, is one characteristic of the active citizen.*

The papers offer a variety of ways in which information literacy education can be implemented, although underpinning such diverse practices are some common interpretations of information literacy. These are:

- Information literacy promotes independent learning in line with the ultimate aim originally presented by Bundy (2004), of emancipating rather than domesticating the learner. This is achieved by enabling learners to make informed and independent decisions (Williams), by ensuring students' reflection of their learning and the consequent sense of ownership of this process (Hepworth and Evans), by enabling learners to operate within a critical pedagogy, whereby the information environment is not

just interpreted but is actively changed (Williams, Whitworth), and where becoming information literate has profound social implications (Bruce & Lupton & Edwards, Lantz & Brage). The provision of information literacy education also emancipates librarians as they become actively engaged in the facilitation of learning, and therefore expand their professional identity (Stubblings & Franklin, Lantz & Brage, Hepworth & Evans).

- Information literacy acknowledges the variation of learning experienced by the learners (Bruce & Edwards & Lupton), and thereby employs delivery practices that address the complex learning needs of an increasingly diverse student population (Lantz & Brage, Stubblings & Franklin).
- Information literacy comes in a number of guises and, as the authors have shown, is associated with digital and visual literacies (Williams), academic literacy (Hepworth & Evans), civic and health literacies (Lantz & Brage), critical and reflective attitudes (Bruce & Edwards & Lupton, Whitworth), publishing literacy (Lantz & Brage, Williams), and problem-solving competences based on real-world scenarios (Lantz & Brage).

Not surprisingly, the transformational and empowering nature of information literacy education raises more challenges than solutions, and these reflect problems dictated by local conditions as well as the problems faced by all types of implementation. The main challenge comes from the need to work from a shared perspective of information literacy education that acknowledges diversity, while at the same time, promoting an independent learning approach to direct the educational agenda at institutional level, (top-down), and at curricula level (bottom-up). This does not mean abandoning the Content and Competency frames completely; on the contrary, it means using these frames in combination with some of the other information literacy perspectives that are on offer. The flexible approach proposed by Bruce, Edwards and Lupton may go a long way in facilitating the debate in this area.

The effective implementation of information literacy education, and in particular, the adoption of independent and lifelong learning goals, necessarily require a shift in the educational culture of HEIs. With this shift comes the need for a new approach to teaching, and the consequent establishment of a collaborative relationship between library and faculty staff. Three different experiences of collaboration are represented in this issue. In Sweden, for example, the Information Literacy Research Centre has successfully integrated information literacy education into two distinct courses, and its work is fully supported by institutional policies on learning and teaching, thus demonstrating an effective application of a bottom-up and top-down implementation strategies. In the UK, on the other hand, attempts to integrate information literacy programmes are often resisted by educators and students alike and this is illustrated by the challenges faced by the Information Literacy Group at Loughborough University. In direct contrast with the Swedish example, this UK study shows that educators are reluctant to abandon the comfort of their traditional roles and assume a more pro-active facilitation of learning, while students operate under the misconception that they already possess information literacy competences. To compound this problem, there is no top-down drive for information literacy at institutional level, and this results in an understandably limited impact of information literacy provision by the library. By contrast, the third example of collaboration shows a successful knowledge-transfer of information literacy practice from a UK University to the University in Dar Es Salaam, Tanzania, where the extent of information literacy provision is not hampered by professional competitiveness.

It is important to bear in mind that the concepts of information literacy and lifelong learning are relevant not only to the recipients of this educational experience, but also to the facilitators of the learning to learn process underpinning it, namely library and faculty staff alike. These concepts should therefore be viewed as opportunities for the continuing professional development of these two professional groups.

“Provision of information literacy, which is based on the process of recursive learning, therefore requires an equivalent process of reflection on practice to be undertaken by the information literacy educator. If information literacy is about learning how to learn, for the reflective information literacy practitioner this necessarily becomes a question of learning how to learn how to learn.” (Andretta, 2005: 136)

Despite the challenges educators are currently facing, the authors of this special issue are unanimous in presenting information literacy as an enabling agent whose impact of empowerment and emancipation should not be underestimated. These benefits should be viewed in response to a complex global economy where continuous learning, and not the static accumulation of knowledge, is the main driving force.

Biography

Susie Andretta is a Senior Lecturer in Information Management, at London Metropolitan University. Her publication profile covers the impact of information literacy education, using textual and visual means, at different levels of provision and in a range of disciplines. She is currently completing a PhD at the Institute of Education, University of London, on mapping students' conceptions of information literacy and independent learning.

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