INFORMATION LITERACY: CONCEPT AND CONTEXTS

What is Information Literacy? How does this key concept inform contemporary ideas about education, employment and citizenship?

*I*nformation may be defined as data that has meaning. Knowledge is information given significance by context and purpose and, as far as can be established, regarded as 'true'; a sufficiency of which leads through learning to an extension of understanding (Floridi, 2010). Information Literacy is the effective identification, seeking out and synthesising of the information needed to increase knowledge and facilitate learning and understanding (SCONUL 2011) in whatever context. The recognition of its significance and value as a concept has slowly spread, as academic, workplace and social/cultural/political environments have become overwhelmed with information; much of it of dubious provenance or doubtful accuracy, with the most visible sources often not the most valuable or appropriate. It is now widely accepted that Information Literacy is needed, and should be promoted, in teaching and learning; research; the workplace, and also in a wider world of often complex and confusing political and social agendas.

Models and definitions

The term 'Information Literacy' was coined by Paul Zurkowski in 1974. It was an idea which evolved from more restricted notions of library skills or information skills (Snavely & Cooper, 1997) through an increasing awareness in the library and information management professions of a wider 'information landscape' within and beyond the education environment. Information Literacy has always been a concept that invites multiple interpretations and variations in the way it is understood, applied and developed. The early years saw a dichotomy between functionality and competency, between 'information skills' and 'application of skills'. Behaviourist models described Information Literacy as a portfolio of performances, skills and knowledge. Constructivist models, on the other hand, put the 'real-world' information task centre stage. 'Information Literacy was increasingly understood as the ability to apply skills and understanding in a context or situation for a specific purpose and that is not simply the ability to perform a task or exhibit a library adept's knowledge. Despite the development of the idea of Information Literacy within recognisable educational paradigms such as these, it was seldom acknowledged in its early years beyond the library professions and academic Information Science. It would take a combination of more dynamic research paradigms and a world in which information broke free of conventional channels and was no longer seen to be curatable, reliable, and manageable, to bring it to wider attention.
As well as the development of competency based descriptions and definitions of Information

Literacy, a new approach gradually found favour and recognition from the late 90s onwards, based on the findings of research studies grounded in the methodology phenomenography. Bruce (1997) developed a 'relational' model for Information Literacy by treating it as a 'phenomenon'. She attempted to uncover the varying experiences (in terms of roles and functions) that can be described in the lives of information users. The relational model emphasises that at any moment the experience of being information literate is subjective but contextualised and can be described by a relatively small number of archetypal formulations of 'variations' in that experience. This understanding of the subjective and contextual nature of Information Literacy goes a step beyond a model of the constructivist type in its sensitivity to the different ways in which Information Literacy is experienced by an individual and placing that experiential variation at the heart of how it is understood.

Although research based on behaviourist and constructivist ideas of Information Literacy continues, phenomenography is an increasingly important and widely used methodology and has been taken up and applied to groups as varied as nurses, students and academics. Elsewhere its influence can be seen in the design and interpretation of ethnographic information behaviour studies. Information Literacy has been successful in recent years in obtaining a high profile both inside and outside the academy; it is an idea that encourages varied foci depending on priorities and has proved useful in elucidating active learning; critical citizenship and competent, and creative professionalism (Forster, 2017) amongst other agendas. Approaches and definitions have been, amongst other possibilities, epistemological, passionately socio-political, competency-focused, or phenomenological. In all these models there is an awareness of how Information Literacy facilitates and empowers. The UK's Society of College, National and University Libraries offers 'Seven Pillars of Information Literacy' – Identify; Scope; Plan; Gather; Evaluate; Manage; Present (SCONUL, 2011). The new definition of the American College and Research Libraries (ACRL, 2015) is based on 'threshold concepts' that must be grasped to be truly information literate; these describe how an information literate person must be politically and scholarly aware of how information is created and curated, and must understand how Information Literacy is a process, and its experiences are always sensitive to context.
More recently in the UK, the librarians' professional organisation, CILIP (2018), has developed a new definition which reflects the contemporary preoccupation with 'fake news' and the political agendas which influence how information is produced and made available, and the need to make 'informed and balanced judgements' about information in order to function effectively as a citizen. In fact, in recent years the 'critical librarianship' movement (Eckerdal, 2017) has insisted that the Information Literate individual should be able to recognise the racist, sexist and colonialist power structures which create, structure and make available information and the tools to interpret it.

Information Literacy for teaching and learning

Information Literacy is an idea well established within teaching and learning at most levels of education, but most prominently within Further and Higher Education. Academic achievement requires the development of information awareness and the related skills that allow students to locate, critique and apply information from the wider subject domain beyond a simple engagement with the reading list. How well Information Literacy competencies are actively embedded into a student's learning will vary across institution, subject area and level. Librarians and academics often have to do the best they can within the limits of time and institutional understanding. Information Literacy development activities can take the form of 'one-shot' classes but could equally be a series of classes or an entire module. If such classes are not embedded into the curriculum, they may be offered as extra-curricular activity. For distance learning students or students being taught in a non-traditional way, the Information Literacy class may even be delivered online through a live or recorded format. Yevelson-Shorsher and Bronstein (2018) found that faculty members could determine a difference in academic attainment between students who were able to locate relevant information sources outside of the class reading and those that could not. Introducing Information Literacy development as an aspect of the student journey requires close working relationships between librarians and academic staff and a clear development strategy throughout the course. Sullivan and Porter (2016) devised nine steps for successful collaboration including interdisciplinary teams, flexibility, experimentation and multiple interactions.

An active learning approach to Information Literacy teaching is more authentic to the needs of the student and relevant to their subject area and subject knowledge development. This approach has been shown to achieve positive student outcomes (Detlor *et al.*, 2012). Blended support for Information Literacy empowers the student to access information in a format that suits their current need/situation with each format offering unique features.

To ensure that Information Literacy teaching is having a positive impact, librarians need to consider how they evaluate Information Literacy alongside their academic colleagues. Confidence is often associated with Information Literacy – with research showing that increasing confidence levels lead to further help being sought (Margolin & Hayden, 2015). Information Literacy is such an intrinsic characteristic of the effective learner, it is difficult to separate out and measure its educational effect. Whether using assessment methods such as rubrics, tests, quizzes or observation, it remains difficult to demonstrate a direct causation between Information Literacy teaching and improved student outcomes.

Information Literacy and research

Research is an attempt to add to knowledge, to develop or confirm its relationships, and resultant understandings and theories. To do so requires an awareness of what is known alongside an understanding of current theories and models (and how they are related) – so that an accurate pinpointing of knowledge gaps and theoretical weakness or incompletion might be achieved. Even experts in the field may have a partial awareness of current trends, claims and achievements without appropriate information skills. An information

illiterate researcher risks missing the 'cutting edge' and becomes prone to wasting time with obtuse and irrelevant work for which funding would be difficult to obtain.

Information Literacy in the context of original research has a different focus than in teaching and learning. Rather than as part of a direct process through which an individual acquires knowledge to learn, it facilitates the researcher's vital comprehension of a proposed research study's ontological and epistemological 'background'. Information Literacy aids a researcher in the development of a focused grasp of related and contextualising theory, knowledge and data; a context, when properly understood, that helps develop validity, value and significance in the evolving research proposal.

Information Literacy and citizenship

Information Literacy is an essential dimension of the new concept of digital citizenship (Choi, 2016). Developing Information Literacy for citizenship can build on, and be supplemented by, competencies developed within education and the workplace. However, this is not simply a matter of digital skills. Our online lives require us to understand information's ethical and socio-political dimensions (Coonan *et al.*, 2018) and how it is created and disseminated, and by whom.

Information literacy is 'enacted in different practices related to information use, in which citizens engage in dialogue with each other and in relation to the information' (Eckerdal, 2017, p.1025). For example, Liberal Information Literacy is centred on maintaining awareness of both obligations and rights as a citizen and Radical Information Literacy recognises 'heterogeneity of social groups' and that there are 'imbalances between those who have and those who have not access to resources' (op cit). As sources of information have multiplied even within relatively small communities of interest, and technology has provided ever more sophisticated collaboration opportunities, the risk of only interacting with information that is filtered by a conscious or unconscious rejection of anything conflicting with personal beliefs has increased. The 'filter bubble' customisation of content may not be new and can be tracked back through the development of Information Technology (Kiszl & Fodor, 2018), but when put alongside 'fake news' and the increase in the proportion of political, social, economic activity online, it highlights the need for Information Literacy for all citizens.

Information Literacy and the workplace

Information Literacy is not experienced in the workplace in the same way as in the academic world (Forster, 2017). Newly qualified professionals often experience ways of using information in the workplace which are different to those necessary for university study and can find themselves having to think about their relationship to information in new ways: in terms of meaning, value, and purpose. Information Literacy is not just a tool for learning or empowerment but under some circumstances is a means through which one can save lives (Forster, 2017). For example, health care professionals must be able to locate; correctly interpret and apply research evidence, research based professional guidelines, and other more local

and personal sources of information, so as to have the best chance of achieving successful outcomes for their patients. To be unable to do this invites failure and risks undermining the quality of care. Not to have the necessary information skills is a professional and ethical failure as Information Illiteracy means that the most up to date research evidence may not be identified and applied.

A commonly occurring aspect of workplace Information Literacy is its co-operative and team-based nature (Lloyd, 2005). Information Literacy in the real world is often a joint venture – employees often work in teams and always as part of larger organisations or companies. Information use is often, even if on individual initiative, a means of contributing to the knowledge development, and capacity to act effectively, of a wider group. This 'social' Information Literacy can also involve sharing information with clients, customers, or in health contexts: patients and patients' families. Library Services and the CNMH Child Health team at the University of West London are currently developing a research project that will investigate how nurses and patient families share information. Children's nurses support and care for families as well as their young patients and help parents in their emotionally exhausting task of understanding their child's illness, including providing them with helpful information. Such an understanding can help facilitate decision-making and planning for the future, as well as strengthening often precarious coping mechanisms by giving a sense of shared responsibility and control in a frightening environment. This exchange of information can be a two-way street where informed parents, who have a trusting relationship with nurses are more likely to pass on accurate and helpful information concerning their child's symptoms and responses.

In practical terms...

Information Literacy has a role to play in education and research's contribution to a creative, compassionate and transparent society. Calling on the expertise of librarians, and with the collaboration of academics, the above theories yield methods of Information Literacy education and development which can be introduced into modules through formative work. Those theories that regard Information Literacy as a contextualised phenomenon are particularly appropriate to education focused on a profession, where scenario based activities can allow students to see the different contexts and purposes in which Information Literacy is used in the professional environment (Forster, 2017). With an increasing understanding of Information Literacy within the university and a structured collaboration between librarians and academics that integrates information competencies within the curriculum, students' ability to achieve academic and workplace success and become confident and well-informed citizens can only increase.

References

ACRL (2015) F*ramework for Information Literacy for Higher Education.* [online]

Bruce, C. (1997) *Seven faces of information literacy.* Adelaide: AUSLIB Press

Choi, M. (2016) A concept analysis of digital citizenship for democratic citizenship education in the internet age. *Theory & Research in Social Education*, 44(4):565-607

CILIP (2018) *CILIP Definition of Information Literacy 2018.* [online]

Detlor, B., Booker, L., Serenko, A. & Julien, H. (2012) Student

perceptions of information literacy instruction: The importance of active learning. *Education for Information*, 29(2):147–16

Eckerdal, J.R. (2017) Libraries, democracy, information literacy, and citizenship. *Journal of Documentation*, 73(5):1010-1033.

Floridi, L. (2010) *Information: A very short introduction*. Oxford: Oxford University Press

Forster, M. (ed.) (2017) *Information Literacy in the workplace*. London: Facet

Kiszl, P. & Fodor, J. (2018) The 'Collage Effect' – against filter bubbles: Interdisciplinary approaches to combating the pitfalls of Information Technology. *Journal of Academic Librarianship*, 44(6):753-761

Lloyd, A. (2005) Information literacy: Different contexts, different concepts, different truths? *Journal of Librarianship and Information Science*, 37(2):82-88

Margolin, S. & Hayden, W. (2015) Beyond mechanics: Reframing the pedagogy and development of information literacy teaching tools. *Journal of Academic Librarianship*, 41:602-612

SCONUL (2011) *Seven Pillars of Information Literacy*. [online]

Snavely, L. & Cooper, N. (1997) The information literacy debate. *Journal of Academic Librarianship*, 23(1):9-20

Sullivan, B.T. & Porter, K.L. (2016) From one-shot sessions to embedded librarian Lessons learned over seven years of successful faculty-librarian collaboration. *College & Research Libraries News*, 77(1):34-37

Yevelson-Shirsher, A. & Bronstein, J. (2018) Three perspectives on Information Literacy in academia: Talking to librarians, faculty and students. *College & Research Libraries*, 79(4):535-553