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Digital Literacy is Health Literacy

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Abstract: This article explores the means through which Academic Librarians at Leeds Beckett University develop digital literacy – and through it health literacy – in students, supporting good personal, professional and institutional healthcare practice.

Through a case-study of the role of two Health and Social Sciences-orientated Academic Librarians, the article describes practical aspects of their work developing the digital literacy of a diverse range of academic students and staff. It then goes on to outline specific practical challenges associated with this task, relating to the support of evidence-based practice, the Open Access movement and eBook accessibility, demonstrating how their continuing relevance of traditional professional principles to healthcare information provision resolution can be used to further support digital literacy. Overall, the article provides an example of the, even where the practical issues and methodologies have evolved.

Introduction: The Operating Framework

As Academic Librarians for the Faculty of Health and Social Sciences of Leeds Beckett University, our role is to support the information needs of Faculty staff and students, encompassing fields as diverse as Dietetics, Physiotherapy, Nursing and Psychology. This support takes a variety of forms, but the basic strategy underpinning them is to assess the present digital literacy level of a patron and then enable them to extend it, thus helping them to more effectively access, evaluate and utilise relevant information. The ability to do so, we emphasise, is key to the professional practice of healthcare professionals operating in accordance with the principles of evidence-based practice.

The Role of the Academic Librarian

Although both staff and student feedback, and also personal experience, indicates that the most effective method of developing digital literacy skills is through a series of teaching sessions embedded throughout an academic course, in practice we welcome all opportunities to convey key themes and information to students. This necessitates employing a broad professional

methodology, ranging from classroom-based instruction and lectures on relevant topics (from literature searching for postgraduate research to appropriate utilisation of referencing software and subject-specific databases) and collaborative learning sessions to one-to-one appointments with individual students and researchers. This tuition also incorporates telephone and online dialogues with distance learners, and the maintenance of an extensive series of online subject-specific support pages.

We emphasise the importance of digital literacy in each encounter (whatever its form), by framing our tuition as merely being preparatory learning – preparing the learner to engage more effectively with the world around them, equipped and encouraged to develop further their information-seeking capabilities for themselves.

We do so by demonstrating the real world relevance and applications of the information being imparted; digital literacy is one of the attributes which the University seeks to embed in all of its graduates to improve their employability. As well as highlighting the uses of digital literacy in supporting other graduate attributes of the University, and using real world and student-

generated examples in our tuition, a useful subject-specific hook which we regularly employ is to emphasise the extent to which digital literacy underpins health literacy. This has direct implications for both professional practice and personal health awareness:

To apply the principles of evidence-based practice, a medical professional needs first to be able to effectively obtain, evaluate and utilise the available evidence in a vocational setting.

To make informed judgements about their own health, individual citizens need to be able to access and apply reliable and relevant information.

Principles in Practice

To consider a practical example of advocating and imparting digital literacy skills, we have recently been working with colleagues in the University's Open Access Repository to ensure that students and researchers are able to access Open Access research from both within and beyond Leeds Beckett University. In doing so, we have been able to ensure that students and academic colleagues are fully aware of the practical implications of recent and forthcoming changes in the contemporary publishing environment, particularly in the context of the sector-wide evolution being driven by recent changes to the Research Excellence Framework (REF).

Other recent tasks have included discussion of the implications of the commercialisation of healthcare information with research students, developing new subject-specific advice on the evaluation of information, and assisting students to understand how users – whether patients or healthcare professionals – might engage with specific information tools, from citation databases such as *PubMed* to a patient-focused blog such as *Behind the Headlines*.

The unifying theme of these disparate forms of patron support is that they all represent different forms of developing digital literacy, and consequently health literacy, supporting the evolution of a broadly transferrable skill-set for use in both personal and professional life. This skill-set is more relevant than ever, particularly in the context of healthcare, as demonstrated through further exploration of our digital literacy work relating to Open Access (OA).

Open Access and Digital Literacy

For both students and the wider population, methods of accessing health information have changed dramatically in recent years. The consequences of the Higher Education Funding Council of England's (HEFCE) OA mandate for the next REF, and the increasing move towards an OA publishing model in general, has ensured that high quality information is now available to a much wider audience than previously, and not solely those with access to the resources of large professional or academic institutions. However, the fact remains that this only implies to individuals with the skill-set to effectively access and use that information.

By engaging with tools such as the #focuson webpages (used by Leeds Beckett to highlight research of contemporary relevance) in addition to our standard teaching methods, we aim to make the research outputs of Health and Social Sciences academic staff available to as wide an audience as possible, which also raises the profile of our academic staff and University as a whole. The essential principle behind the OA movement is that research funded by public money should be made freely available to the public through the removal of barriers to high quality information. One obvious means of doing so is to foster and develop digital literacy alongside subject knowledge as a form of health literacy.

By using our teaching to raise the awareness of the wider public, health students and healthcare graduates of the OA mechanisms for accessing high quality research, we contribute towards wider patient empowerment and potentially also improved health behaviour. This is achieved through the activities of those who have benefitted from our support as both information consumers and – in their potential future employment – as information providers. While the wider population may still not be able to access a formally formatted journal article as it might appear post-publication, being able to access a broader range of authors' initial manuscripts has clear implications for improved health literacy, provided that the digital literacy skills are in place to support this. Emphasising these points to students is a part of our role as Academic Librarians.

Publication Models in Practice

Moving on to another example, we have been using the challenges to information access arising from current publishing practices, as a hook to convey both the relevance of digital literacy and the related practical skills to healthcare students and professionals. The HEFCE mandated model of OA publishing applies to journal articles and conference proceedings. However, while the emphasis is laudably on disseminating these sources of information as widely as possible, in marked contrast to this, many eBook publishers have been actively restricting access to eBooks. While eBooks were once seen as the panacea for large student cohorts and for distance learners, offering multiple people simultaneous access at the point of need to core titles, many publishers are now reducing their availability. To be aware of issues such as this, and their professional implications, is a key component of digital literacy.

One recent health-related example which we have encountered, and which we have openly discussed with students, is the case of a popular psychology eBook. This eBook is a core textbook for a large student cohort and it previously provided up to 400 users with simultaneous access. However it unexpectedly had its terms of usage changed, so that only one user could access it at once, with obvious consequences for students' ability to access information. Practices such as this seem to be aimed at forcing both institutions and individuals to purchase multiple copies of expensive eBooks. In other instances eBook titles have been withdrawn completely, often without consultation with consumers, or are only made available via a limited number of yearly credits. In some cases, eBooks are simply not available for libraries to buy at all, as it fits the business model of the publisher to require each student to purchase an individual copy of the text, thus increasing potential profits for the publisher.

When such challenges arise, rather than merely presenting the situation as immutable, an essential component of our teaching is to explain to students how as librarians, researchers, healthcare professionals and other consumers of information, we can work to resolve the issue. In the short-term, we recommend and promote alternative texts, as well as the usage of copyright cleared reading packs, digitised chapters, and –

significantly – purchasing additional copies of printed titles where appropriate. Encouragingly, student response to such discussions and solutions has been positive, with one recent piece of feedback stating: “We prefer physical books as they're easier to read and if we purchase print titles we can sell them on to recoup some of the costs.” In our experience, when an issue such as this is explained, students are more than capable of identifying the barrier to information, appreciative of any steps taken to remove it, and grateful for concise exposition of a topic which is likely to impact upon their professional practice in future.

Such encounters with students also include discussion of how the impact of consumer action is already being felt by the publishing industry, with certain business models leading to the boycotting of particular publishers. For example, as was noticed by several of the psychology students who were unable to access the eBook mentioned previously, it was even reported in the mainstream press when a string of leading universities opted to no longer purchase Pearson eBooks. With the Society of College, National and University Libraries (SCONUL), Research Libraries UK (RLUK) and the Joint Information Systems Committee (JISC) remaining in discussion with various publishers about changing their business models, the contrast to the aspirations of the OA movement is striking, and the relevance of such background information to anyone working in an evidence-based, practice driven profession is clear. In such a context, it is once again apparent that digital literacy will remain a necessary prerequisite of health literacy for as long as knowing how to access and evaluate information remains integral to evidence-based decision making.

Closing Reflections

It has become a truism that the information landscape is an ever changing environment. However, one aspect of that landscape which remains constant, is the need to develop the research skills of health graduates in order to influence their information-seeking behaviour, their academic attainment and their professional practice. While employing a broad-ranging methodology to develop students' research skills, we have found the best method to be the delivery

of a series of embedded digital literacy tuition sessions throughout an academic course, directly linked to either an assignment or a workplace scenario in order to emphasise the practical relevance of the skills being developed.

Although such sessions are our preferred form of student contact, we also use other instances of user contact to emphasise the importance of digital literacy. For example, inquiries relating to OA, and the practical implications of its aim of providing high quality information to the wider public, are an opportunity to highlight the importance of information-seeking and information-evaluating skills to healthcare practitioners. That students appreciate this, is shown locally by the growing demand for one-to-one appointments and other forms of tuition to support health research at all academic levels. Increasingly, we have found that the focus of these appointments is no longer upon simply finding information, but also on the traditional skills of critiquing it and then employing it effectively. Such user-driven trends are encouraging.

As Academic Librarians, we are faced with an evolving professional environment, as is demonstrated by, to take one example touched upon in this article, the challenges of maintaining institutional access to eBooks, despite changing publisher business models. How this particular situation will evolve – and how it might be influenced by potential future developments, such as future REF submissions being expanded to include monographs, books and book chapters as well as journal publications – remains to be seen. Further research and information upon both this and other related challenges would be welcome. For now, we know that at least one constant will remain: For health graduates, if not all graduates, digital literacy will remain a vital skill-set to possess, as individuals, consumers, and above all as professional practitioners.

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