

## **Editorial Feature**

### **Information Access/Accessibility in a Digital Environment**

**Stephen M. Mutula**

*University of KwaZulu Natal*

*Private Bag X01*

*Scottsville, 3209, South Africa*

*Mutulas@ukzn.ac.za*

The subject matter of this editorial is *information access* and *accessibility*. The choice of this subject is informed by the themes covered in the articles published in this issue of AJLAIS. Collectively, the articles focus on *research publications output; information behavior; human capacity building in libraries; accreditation and university library services; use of electronic databases and electronic information sources* from country and organisational contexts. Besides, research on information access/ accessibility in the information science literature seems relegated to the periphery despite their centrality as tenets of the evolving information society. The concepts of access and accessibility are often and inappropriately used interchangeably in the literature. However, access in this context refers to the users finding the information they require and successfully retrieving it. In contrast, accessibility (sometimes referred to as *universal access*) refers to a trajectory of equal opportunities by all in the society to access and use information services irrespective of their location and physical abilities.

Access/accessibility is inextricably linked with the subjects of informetrics and bibliometrics, information behaviour, human resource development, and electronic resources use. Oltmann (n.d) observes that information access is implicated in multiple research areas in library and information science (LIS), yet it has received little explicit attention from researchers. The importance of information access is also implicit across several studies within the information sciences and beyond. For example, bibliometric and informetric studies affect the information flow and utilisation patterns

within, between and outside institutions and countries. Bibliometric and informetric studies within the library and information science (LIS) field solve problems related to collection development, information retrieval, systems design, user studies, and knowledge organisation, to name a few (Ocholla & Ocholla, 2007). Similarly, information access is embedded in Wilson's (1981) model of information behaviour covering concepts of information need, information seeking, information exchange, and information use. Jaeger (2007:843) is succinct that without access to information, there can be no exchange, use, collection, or management of information. The concept of information behaviour has steadily evolved from information seeking and now focuses on how people interact with information, how and when they seek information, and what uses they make of it (Bates, 2010).

Users often encounter many problems in the process of searching and seeking information, whether in paper form or online. For this reason, they need skills to succeed in the specific acts associated with seeking and locating information. The subject of capacity building in libraries should therefore be seen as closely intertwined with information behavior and any efforts directed at satisfying users information needs. Bates (2010) in his extensive seminal papers in information searching tactics and search techniques noted that greater attention should be paid to the complexities of identifying sources and working one's way through resources to locate the desired information.

The internet has played a catalytic role in the emergence of knowledge and web-based information management. It has helped in the integration of knowledge resources, sharing of information, customisation of knowledge and information to suit individual needs, enhancement of knowledge organisations, and the creation and distribution of knowledge. With the continued growth of internet-

based applications, digital literacy has become increasingly recognised as critical for access and use of e-information sources such as databases that were previously accessible only through intermediaries. Moreover, effective use of various digital resources to locate information, including the internet and online databases, requires skills, competencies and familiarity with natural inquiry, Boolean search strategies, and information organisation and retrieval systems (Mutula, 2007).

While the Internet provides opportunities for one to find publications, locate specialist publications and grey literature that can be difficult to find elsewhere, it poses difficulties to both novice and expert users in locating the relevant information for decision making. Existing search tools such as search engines frequently produce extensive lists of search results, requiring users to spend inordinate amount of time examining a great number of irrelevant and often incomprehensible citations in order to find a few pertinent hits. The need to organise Internet resources to enhance access and use is crucial. When properly organised, materials on the Internet should, in the same way as a catalogue, provide a bibliographic description of library record; enable the user to know what the library has on a given subject and author; and also enable access to external resources.

Information generators and providers must therefore be prepared to offer the users an enabling environment that is conducive and friendly for seeking and using information. The SADC E-Readiness Task Force (2002) provides a framework that is illuminating on how information providers can create an enabling environment to assist the user in their information seeking tasks. The framework provides variables of readiness in digital environments that include, among others, human factors to enable technology to be used, such as education and training, ICT skills and application of different technologies. Similarly, e-Europe Action Plan (2004) emphasises digital literacy; ICT skills development, and lifelong learning to enable the users to cope with the vast amount of information being generated. The World Bank (2002) also adds its voice in recommending human resource skills development.

The WSIS declaration of principles makes it explicit that in the information society certain actions are needed to facilitate access and accessibility. Such actions include capacitating all people to enable them

to access information using ICT; developing human capacity to exploit the benefits of ICT; building public awareness of ICT capabilities; putting in place education and training programmes in ICT; and eliminating illiteracy and enhancing ICT literacy (WSIS, 2003). Digital literacy is increasingly being recognised worldwide as a panacea for functioning. Lor and Britz (2008) note that development of human intellectual capability is one of the most important factors that facilitate further development and sound economic growth in the era of globalisation. They argue that, if developing countries do not invest more in education they will be excluded from the global knowledge pool. Citing Norris (2000:59), the duo point out that it is of little use to have access to relevant information but not the educational infrastructural support, including R&D facilities, to enable people to create new knowledge.

Efforts to enhance access should be cognisant of common misgivings about the quality of information found on the Internet as well. While one of the articles in this current issue of AJLAIS focuses on the impact of accreditation on libraries in terms meeting national education standards, work on quality assurance should extend to cover the qualitative aspects of information infrastructure.

Information security is another factor that has important ramifications for access/accessibility. Information security as used in this article refers to the security of information transmitted between the information provider and the user (Guenther, 2003). Information security also refers to the protection of data from accidental or malicious modification, destruction or disclosure. An information secure environment inspires in the user confidence in information access, sharing and use. It also contributes to the accuracy, reliability, relevance, adequacy and timeliness of information.

Lor and Britz (2007) examine the role of physical infrastructure in promoting access to information. They assert that a prerequisite for successful participation in the Knowledge Society is a well-developed, well-maintained and affordable information and communication infrastructure. A well-developed and well-maintained information infrastructure is not sufficient unless it can provide access to relevant information needed.

Al Sayed (2008) notes that People with disabilities (PWD) face lots of geographical and social

barriers. He avers that there is need to find alternative solutions, which can use the ICT (Information & Telecommunications Technology) to meet the access and service needs for PWDs. To promote such access, he recommends accessible design (or design for all) by using technical standards, adaptive hardware and software, and multi-modality architecture. Furthermore, access/accessibility to PWD can be accomplished by using appropriate educational and administrative infrastructure, encouraging the design of ICT equipment production, promoting the development of technologies, encouraging the research on the information society including innovative forms of networking, and by adapting ICT infrastructure, tools, and applications.

Access to information is one of the key pillars of WSIS Action Line 10 on ethical dimension of the information society. In this regard, Britz (2008), points out that increased censorship in many parts of the world, especially in China, together with high levels of illiteracy, high cost of specifically scholarly publications, and limited access to the Internet in most developing countries, has severely limited the creation of equal opportunities for participation in the global information society, especially by the poor. He points out that having to rely on the knowledge of other people creates asymmetric power relationships and puts them at risk of exploitation or exclusion.

Finally, in an information society where it is presumed that every individual should have access/ accessibility to information without distinction, efforts should be made at policy and practical level to facilitate information service providers through the following interventions:

- Getting right the information needs of users
- Capacity building, especially with respect with digital literacy and techniques of searching information
- Building robust ICT infrastructure
- Ensuring quality information (accurate, relevant, reliable, adequate, useful, etc.)
- Upholding rights of users (freedom of expression, security of information and that of users)
- Ensuring accessibility by people with disabilities.

## References

- Al Sayed, S. 2008. E-accessibility. 3rd International Conference on Information and Communication Technologies: From Theory to Applications, 2008. ICTTA 2008. [http://ieeexplore.ieee.org/xpls/abs\\_all.jsp?arnumber=4529928&tag=1](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=4529928&tag=1). Accessed 26 February 2013.
- Bates, M. J. 2010. Information behaviour. In *Encyclopedia of Library and Information Sciences, 3rd Ed.* (Marcia J. Bates and Mary Niles Maack, Ed). New York: CRC Press, vol. 3, pp. 2381-2391.
- Britz, J.J. 2008. Making the global information society good: A social justice perspective on the ethical dimensions of the global information society. *Journal of the American society for Information Science and Technology*, 59 (7), 1171–1183, May 2008.
- e-Europe Action Plan. 2004. Building skills for the information society. [http://europa.eu.int/information\\_society/edutra/skills/index\\_en.htm](http://europa.eu.int/information_society/edutra/skills/index_en.htm). Accessed 8 November 2004.
- Guenther, K. 2003. Protecting your Web site, protecting your users: when I consider the many areas of Web site management, it is the issue of security that has literally kept me up nights. [http://goliath.ecnext.com/coms2/gi\\_0199-2907866/Protecting-your-Web-site-protecting.html#abstract](http://goliath.ecnext.com/coms2/gi_0199-2907866/Protecting-your-Web-site-protecting.html#abstract). Accessed 16 March 2007.
- Jaeger, P.T. 2007. Information policy, information access, and democratic participation: The national and international implications of the Bush administration's information policies. *Government Information Quarterly*, 24, 840-859.
- Lor, P.J. and Britz, J.J. 2007. Challenges of the approaching knowledge society: Major international issues facing LIS professionals. *Libri*, 2007, 57:111–122.
- Ocholla, D.N. and Ocholla, L. 2007. Research in library and information science in South Africa: An analysis of journals research output from 1993-2006, *South African Journal of Libraries and Information Science*, 73(2), 109-11.

- Oltmann, S.M. (nd). Information access: Toward a more robust conceptualization. <http://www.asis.org/Conferences/AM09/open-proceedings/papers/74.xml>. Accessed 25 February 2013.
- SADC E-Readiness Task Force. 2002. SADC e-Readiness review and strategy, Johannesburg: SADC.
- Wilson, T. D. 1981. On user studies and information needs. *Journal of Documentation*, 37, 3-15.
- World Bank Group. 2002. Building Africa's communication infrastructure. Washington DC: World Bank.
- WSIS. 2003. World summit on the information society: Draft declaration of principles. <http://www.wsis-pct-org/prepcom2-declaration.html>. Accessed 7 November 2004.

**Stephen Mutula** is Professor in the information studies programme and also the academic leader for Development Cluster at the University of KwaZulu Natal. He holds a PhD (University of Johannesburg), B. Ed & PGD. Comp Sci (University of Nairobi) and Masters in librarianship (University of Wales UK). He researches and publishes in the areas of e-government, ICT4D, information poverty, information ethics, information society and knowledge management among others. He is a rated scholar by National Research Foundation of South Africa.

