

LIBRARIES AND DIGITAL CITIZENSHIP: ADVANCING AN ETHICAL, RESPONSIBLE AND KNOWLEDGEABLE ONLINE CULTURE

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Abstract

All citizens of a country should be equipped with digital skills for them to optimally function as digital citizens, functionally contributing to the world of work, and towards becoming lifelong self-learners. Public libraries have a huge user base, and public librarians should be encouraged to equip themselves with the necessary skills to become digital citizens, passing on those skills to users. Adding value to their service offering would ensure that public libraries remain relevant – a matter of “adapt or die.” In this paper we look at the rationale behind becoming digital citizens and offering digital skills training and support to users. A draft framework is proposed to be implemented as part of continued professional development as far as digital citizenship concern.

Keywords: *digital citizenship, digital skills, continued professional development*

Introduction

Similar to becoming responsible citizens within a physical world, we all have a responsibility to become responsible digital/online/virtual citizens in an increasingly online world. Policing online behavior is however far more difficult, and policies and laws in different countries are not always clear and most still in development. The result is freedom of speech which often ends up in abusing the freedom, resulting in unethical behavior, sometimes unconsciously and unintentionally. Sending responsible and ethical information and digital literate/competent learners out to university, to work and to the world in general, is becoming more and more important. If not digital competent when leaving school, there is a risk that a large proportion of these learners might be left behind because of a lack of digital competence increasingly required for future employment and studies. “No one being left behind” is one of the objectives part

of the [Agenda 2030 Sustainable Development Goals](#), and this paper proposes that libraries can play an important role in terms of citizens not being left behind in terms of digital skills/citizenship/competence development.

African countries have a lot of work to do still, and ICT will not resolve all of Africa's education and employment problems. And although the [African Digitalisation Maturity Report 2017](#) has indicated that South Africa has the highest level of digital literacy on the continent, it is not necessarily at the desired level by far when compared internationally. ICT can help to fundamentally change the current paradigm of skills development systems ([d'Aiglepierre, Aubert & Loiret, 2017](#)). Compared to developed countries such as Australia, African countries are not the only ones facing challenges as far as digital skills are concerned, although it might be for different reasons. [Leod & Carabott \(2016\)](#) reported that Australian teenagers are increasingly struggling to achieve the basic level required in information and communication technology (ICT), with only around half (52%) of students in Year 10 achieving the minimum standard of digital competence. The study by [Leod & Carabott \(2016\)](#) indicated that it is largely due to the lack of teachers' competency in this area. It is expected to be a similar challenge in African countries although a formal study has not been conducted this far, in addition to a lack of ICT and Internet infrastructure in schools and public spaces such as libraries.

To assist teachers and librarians with advancing digital literacy/competence among citizens in general and specifically school learners, a digital competence curriculum framework for African librarians has been developed keeping the [NIED Information and Communication Syllabus Grades 4 – 7](#) and the [UNESCO Media and Information Literacy Curriculum for Teachers](#) (2011) in mind. Competent teachers and librarians alike are expected to increase the percentage of competent learners, ready in terms of online and lifelong learning, reading and research. This paper focuses on equipping librarians (but also teachers) in South Africa with digital literacy/competence/citizenship skills in order for them to pass on skills in high demand to citizens (users from all sectors), but will also benefit teachers and librarians from other African countries.

Rationale behind Promoting Digital Citizenship

Digital technology is developing faster than what we can think, with new applications and tools programmed every day. The future of jobs require solid digital skills, and there is not one job where digital skills are no longer a requirement. Flexible use of digital technology has become crucial for survival, and should be regarded as important as reading and writing, taught from a very young age. We can no longer control the use of the various digital technologies, but we – as librarians and teachers – can assist with empowering and creating responsible users for the future, building new thinking on existing good practices

and standards. Although learners are digital literate in the sense of using social media and sharing personal information online, and although they are good at figuring out new tools, they often lack the skills to conduct sound research and distinguish between trusted and fake information on the web, a trend that is increasingly worrying, also in the world of scientific and formal research at research intensive institutions. The lack of school libraries because of various reasons contribute to the information and online research skills of school leavers being in a terrible state, leaving them behind. Where schools have the financial resources, especially in privately funded schools, learners are to a certain extent introduced to use online digital technology to advance their learning. But once again, it is the majority and average learner that stays behind, an issue that is also to be addressed according to the [2030 Agenda for Sustainable Development](#) where it strives towards achieving goals for no one to be left behind in terms of learning and access to information to empower themselves, and to become better citizens who can take good care of themselves.

A question that might come up, is why don't citizens go for training at a private training institution, or why can't they be taught the necessary skills when entering the world of work or further studies. It is not that simple, since many of the training institutions are not accredited – in the case of South Africa by the South African Qualifications Authority (SAQA), and the training provided by these institutions are often highly expensive and not contextualized according to the research needs experienced for citizens to remain lifelong learners. When it comes to universities, it is expected that the new students are already digital literate, leaving them to their own devices to survive. Often libraries present introductory courses, but being a new student is often so overwhelming, and by the time the student actually need to apply what they were taught at the beginning of the year, it has long been forgotten.

In addition to the need for digital skills development, there is also the opposite side of the coin, namely people who no longer see the need for libraries, and regard libraries as obsolete ([Cronjé 2015](#)). Although online tools such as Google has made it much easier for all to find information, there are so much more to it than just finding the information. In order to remain relevant, libraries should find new ways to use Google and other online tools to their benefit, and to now focus on the additional skills required within an online world. A constant awareness of new trends and technologies is required by librarians, and for them to continue to remain relevant and provide optimum services, they need to stay ahead and be able to advise citizens as to how to apply new technologies within different sectors of life, constantly aligning the profession. A public librarian might for example in one day receive inquiries from a medical doctor, a primary school learner, a hairdresser and a journalist. If there is no computer training centre, and if the library is unable to assist with support, where would these people go to find quality information, collect and analyse it, interpret online licenses, understand

plagiarism and intellectual property rights, reference resources, evaluate the quality and trustedness of an online resource, and learn how to make newly generated content available online themselves?

Post-school and university library schools need to work with the private sector to adapt curricula, and to prepare students studying teaching or library services to build on new trends. Sometimes the quality of students attracted to selected library and teaching schools are indicative of the content and quality of the curricula taught by these schools. To conclude, it is of great importance that library and teaching schools revitalize their teaching curricula in line with new developments, and this should be done on a regular basis. Too often lecturers presenting at university are not even able to compile a professional presentation themselves, and have to rely on students to assist. Citizens from all sectors should become digital literate citizens, and take responsibility for their own learning. If not, they will struggle to survive in an increasingly digital driven society, making sure technology is used to advance society and the sustainable developmental goals, and not become a weapon or a barrier towards learning, creating an even bigger divide between the north and the south.

What is Digital Citizenship?

Studying the literature, reference is made to digital citizenship, digital literacy, digital competence, and more. For the purpose of this paper, *digital citizenship* will be used, which will also include digital literacy and digital competence, as well as all other terms used to refer to digital skills and the application thereof in an online environment.

The [Merriam-Webster online dictionary](#) defines a citizen as:

- 1:** an inhabitant of a city or town; *especially* one entitled to the rights and privileges of a freeman
- 2a:** a member of a state
- b:** a native or naturalized person who owes allegiance to a government and is entitled to protection from it
- 3:** a civilian as distinguished from a specialized servant of the state

According to [Wikipedia](#) citizenship is the status of a person recognised under the custom or law as being a legal member of a sovereign state or part of a nation. Where a person does not have citizenship, the person is said to be stateless. In the case of the Internet, it is fair to say that all individuals accessing and using the Internet have multiple citizenships, making it difficult to apply the custom and law of one specific country to the online usage behaviour of individuals from all

over the world. Not only is international law and policy required, but individual countries, business and organisations are also expected to align to international best practice. The [W3C Code of Ethics and Conduct](#) (W3C being an international community working towards better web standards) is a useful guide to define accepted and acceptable behaviors, and to promote high standards of professional practice.

Mike Ribble (Oxley 2010) defines digital citizenship as “the norms of appropriate, responsible behaviour with regard to technology use”. He has analysed the types of behaviour which comprise digital citizenship, and categorised these into 9 elements:

1. Digital Etiquette: electronic standards of conduct or procedure.
2. Digital Communication: electronic exchange of information.
3. Digital Literacy: process of teaching and learning about technology and the use of technology.
4. Digital Access: full electronic participation in society.
5. Digital Commerce: electronic buying and selling of goods.
6. Digital Law: electronic responsibility for actions and deeds.
7. Digital Rights & Responsibilities: those freedoms extended to everyone in a digital world.
8. Digital Health & Wellness: physical and psychological well-being in a digital technology world.
9. Digital Security (self-protection): electronic precautions to guarantee safety.

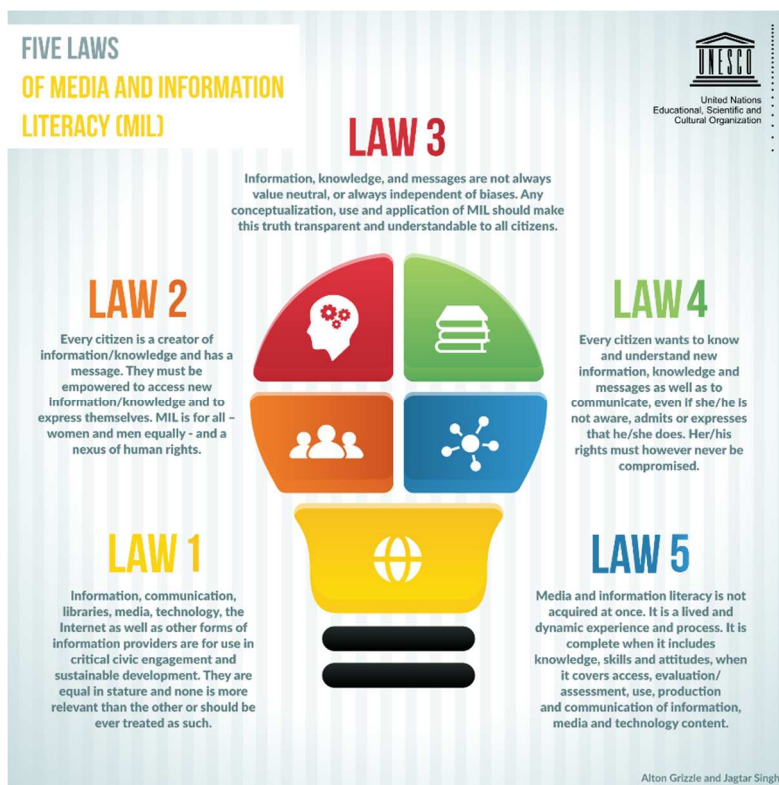
In addition to being a responsible citizen, UNESCO states that individuals should be empowered to understand the functions of media and other information resources (providers), be able to critically evaluate the content from these, and be able to make informed decisions as users and producers of information media and content. Equitable access and contribution to online content lies at the core of our right to freedom of expression and information.

From the above it is clear that digital citizenship needs a much broader approach, than merely referring to “the norms of appropriate, responsible behaviour with regard to technology use”. We are of the opinion that the definition for digital citizenship should be expanded to also include digital access and contribution, skills and digital applications, across the Internet. Therefore – the definition we propose:

“Digital citizenship refers to any individual utilising the Internet according to international custom and law, applying the norms of appropriate, ethical, and responsible behaviour with regard to technology use, continuously developing and applying the required competence to use, access and create information

media and content, and continuously developing and using technology for the purpose to create a positive learning, research and work environment towards a democratised and sustainable world.”

The above coined definition integrates both the 9 elements of digital citizenship by Mike Ribble (Oxley 2010), as well as the [UNESCO 5 laws of information and media literacy](#):



Draft Proposed Curriculum Framework

The following curriculum framework is proposed, based on the [NIED Information and Communication Syllabus Grades 4 – 7](#), the [UNESCO Media and Information Literacy Curriculum for Teachers](#), Mike Ribble’s 9 elements of digital citizenship, and the [UNESCO 5 laws of information and media literacy](#). It is proposed that it be included as part of library school curricula at higher education institutions, but also as part of continuous professional development of librarians on the African continent, across the various sectors.

Theme	Example Competencies
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Digital law/ethics/etiquette	Right to free speech Law applicable to Internet use Email etiquette Unethical behaviour incl. plagiarism
Digital rights/responsibilities	Copyright (Intellectual Property) Licensing Citizen journalism Citizen science
Digital skills	Using a computer operating system e.g. Windows Linux Online content management (incl. files & folders) Conducting word processing e.g. MS Word OpenOffice Writer Working with spread sheets e.g. MS Excel, OpenOffice Calc Compiling presentations e.g. MS PowerPoint OpenOffice Impress Designing & Compiling Blogs & Web Pages Wordpress Develop online collections with useful resources building digital libraries Using & developing applications, applications programming interfaces (APIs) Basic programming skills Digital administration e.g. Intranet, library management
Digital communication	Communication process/skills Scholarly communication Citizen science Social media Webinars, podcasts, videocasts Email & mailing lists Book/manuscript publishing e.g. Open Journal Systems, Open Monograph Press Conference/event hosting e.g. Open Conference Systems Crowdsourcing & Collaboration Online marketing Mobile literacy
Digital literacy (incl. access to resources) & research	Research (lifecycle, accessing resources): research problem, process & organise information, cite resources, deciphering information for authenticity, presenting information in different formats and styles (digital communication).

	Data curation lifecycle (incl. analysis, visualisation) Digital curation lifecycle Metadata Persistent identifiers Media types available on the Internet
Digital commerce	Compiling budgets e.g. MS Excel, OpenOffice Using online payment systems e.g. Paypal Online business: buying & selling
Digital health, wellness, security	Personal health (mental & physical incl. on bullying etc.) Taking care of e-devices (incl. anti-virus programm Identity management Electronic waste & management thereof
Digital life-skills	Providing guidance on careers, entrepreneurship, creation Games & gaming Mentorship Project management Reading Time-management Trouble-shooting incl. network, printing etc. Train-the-Trainer incl. learning management syst e.g. Moodle Storytelling
Digital access	Access to the Internet as a human right & campaign Awareness creation by libraries

Conclusion

To remain relevant, the existing role libraries – and specifically public libraries – play, has to be challenged. For citizens to remain lifelong self-learners, they need to become knowledgeable about the research process, and should be able to use the Internet in such a way that they become empowered and lifelong learners, not being left behind. Librarians play an important role in developing individuals to:

“... utilise the Internet according to international custom and law, apply the norms of appropriate, ethical, and responsible behaviour with regard to technology use, continuously develop and apply the required competence to use, access and create information media and content, and continuously develop and use technology for the purpose to create a positive learning, research and work environment towards a democratised and sustainable world.”

A culture of change needs to be established, with librarians constantly and dynamically adapting to changing user needs aligned with changes in the digital environment, the digital becoming part of our daily life as a matter of relevance and survival, but also to do our work better and in a more productive and professional way. Guiding users and steering them towards becoming lifelong self-learners the only sustainable way to keep up with all changes in the world we live.

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