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Digital Literacy in Post-certification Healthcare Education

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ABSTRACT

Digitally mediated contexts are proliferating across all professional disciplines and also transverse social cultures in higher education worldwide. Malta is no exception. Financial pressures, keeping up with international advances, maintaining standards and changing patterns of lifelong learning are driving the education institutions to adopt online modes of communication, interaction and education. As expected, these changes can also be evidenced in the healthcare education sector. This inevitably brings with it a drive towards innovative modalities of interaction, carrying out research and in the pedagogy of teaching and learning. More importantly it necessitates an institutional shift towards prioritising the development of digital literacy among higher education students and academics alike. This does come with challenges – financial and logistical – but significant in the case of post-certification students is the varying degrees of digital literacy competences, combined with a packed curriculum, to be covered in a restrained timeframe, in combination with work and personal commitments. Additionally, a large percentage of these students have gone through their education in the traditional format, and therefore studying in a technology-centric environment presents unique difficulties. The following report presents recommendations envisaged to overcome the challenges around digital literacy in post-certification healthcare professionals. It is to be highlighted that many of the proposals are applicable to the development of digital literacy within the wider higher education community and are not restricted to post-certification healthcare professions alone.

Keywords: digital literacy; healthcare education; post-certification; higher education

Introduction

The online world penetrates more and more the daily life of European citizens and, therefore, digital literacy has become one of the key competences to ensure social cohesion, employability, equal societal participation and personal fulfilment (European Commission, 2013^a). In 2006, the European Parliament recognized digital literacy as one of the eight key competences that every European citizen should master (European Commission, 2013^a) and as one of the four foundation skills for learning. Enhancing digital literacy is one of seven pillars in the European Commission's 2010 *Digital Agenda for Europe*. Equipping European citizens with digital competences is at the heart of EU strategy.

The European Commission's *Digital Economy and Society Index* (2013)^c points out that Malta ranks 15th among the 28 EU member states and this needs to be remedied if the country wants to see an increase in the digital economy with an improvement on efficiency and productivity. Awareness of the growing importance of digital literacy by governments needs to coexist with action on the part of educational institutions in fostering an enhanced digital literacy strategy. In particular higher education must ensure that graduates, whether first degree holders or post-certificate professionals, are armed with comprehensive digital competences also termed the fourth literacy, in addition to reading, writing and arithmetic (Murray & Perez, 2014). It seems that higher educational institutions tend to overstate the digital literacy skills of today's undergraduate and postgraduate students (Sharpe, 2010; Williams & Rowlands, 2010), an attitude which probably ramifies from the supposition that most students today are 'digital natives' (Prensky, 2001). However, being technology savvy and able to use technology for information and as a social communication platform does not necessarily equate to being digitally literate and capable of technology-mediated learning, a skill which can be exploited in professional development and lifelong learning (Littlejohn, Beetham, & McGill, 2012).

This report begins with a rationale for the importance of addressing the topic of digital literacy together with an outline of the significance of the problem in Malta. A literature search into the topic of digital literacy in professional education is followed by a SWOT analysis of the current situation in relation to digital literacy at the University of Malta (UoM). This analysis will drive the generation of recommendations regarding any useful future changes or improvements around digital literacies of students, in particular post-certification healthcare professionals.

Defining digital literacy

Paul Gilster (1997), who was the pioneer in the use of the term digital literacy, refers to "mastering ideas – not keystrokes" (p. 15). Digital literacy goes beyond simply reading and writing in a digital environment. It is described by Casey and Bruce (2011) as the ability to use, understand, evaluate and analyse information in multiple formats from a variety of digital sources. JISC (2014)^b posit

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that the meaning of being digitally literate “changes over time and across contexts” and describes digital literacies as a collection of situated practices scaffolded by a rapidly changing technology landscape. The European Commission defines digital literacy as “the confident and critical use of ICT for work, leisure, learning and communication”(European Commission, 2013^c). This illustrates the extended integration and significance of digital literacy to thrive beyond education – in living, learning and working in a digital society. This stance is aligned with that taken by the report titled *Digital Horizons*, where digital literacy is branded as a *life skill* (New Zealand Ministry of Education, 2003, p. 5) denoting a more socio-cultural attribute.

In whatever manner digital literacy is characterised or defined, it is always described as more than simply the acquisition of technology skills (Goodfellow, 2011). It invariably includes critical thinking and using problem-solving abilities in a technology milieu. Digital literacy endorses lifelong and lifewide learning and connectedness to the wider world of education, work and leisure (Littlejohn, Beetham, & McGill, 2012).

Rationale for this report

Computers and the explosion of the use of the internet, mobile devices and other technologies have provided an entirely new medium for literacy, digital literacy. Comfortably moving around digital environments and using learning technologies in a variety of different contexts can foster links with local, national and global organisations. This also offers opportunities for engagement within multiple societies and endeavours (Casey & Bruce, 2011).

It is the responsibility of universities and educational institutions to offer opportunities to students to develop the necessary competencies required to thrive in the present digital era with a transformational impact on their work, employability, study, research and possibly even the way they think and articulate their viewpoints (Littlejohn, Beetham, & McGill, 2012). Blended and online delivered modules and programmes, virtual learning environments, e-portfolios and social networking are increasingly changing the manner in which teaching is delivered and learning is captured. This demands that policies address digital fluency skills acquisition in educators, in tandem with support and training for students (Johnson, Adams Becker, Estrada, & Freeman, 2015). Furthermore, the different approaches, attitudes and technology experiences of learners, as well as the issue of equity of access, dictate a more innovative, flexible and diverse way of tackling the challenge of digital literacy by universities and institutions. Nonetheless, this is described as a “solvable challenge” by the 2015 Horizon Project Expert Panel with a number of initiatives already being taken by governments and institutions worldwide.

Malta is no exception in experiencing this changing context in which higher education is being delivered. In Malta, financial pressures, keeping up with international advances, maintaining standards and changing patterns of lifelong learning are driving the education institutions and government entities to adopt online modes of communication, interaction and education. This inevitably includes the healthcare education sector.

UoM is seeing an increasing number of international students, international partnerships and exchanges as well as the launching of a number of new programmes. Most healthcare professions undergraduate programmes include workplace learning. Lifelong learning and continued professional development is encouraged and expected of the healthcare professionals in employment with a substantial number of these seeking to enrol in courses in order to enhance their knowledge base and for their career progression. In addition to this, digitally mediated contexts are on the increase across all professional fields including healthcare (Knebel & Greiner, 2003) where there is a tectonic move towards healthcare professionals and patients using technology, in line with the Communication of the European Commission (European Commission, 2004) on “e-Health – making healthcare better for European citizens” and the commitment of Malta to endorse and gradually implement this as underlined in the Malta e-Health Strategy (Restall, Giest, Dumortier, & Artmann, 2010).

All of the above issues present challenges for the more traditional model of learning and teaching, and hence, UoM needs to adopt innovative ways of managing these developments. Being technologically competent is not enough, in order to succeed in this incessantly sprouting environment students need to have a high level of digital literacy.

Significance of the problem

Literacy ranges from the basic ability to read, write, listen and comprehend, to higher level processing skills where the learner is able to deduce, interpret, monitor and elaborate on what was learnt. However, since the advent of digital technology, the definition of literacy has widened and progressed to include digital literacy which is the foundation for future learning and participation in society and employment while allowing for access to sources of personal enrichment such as social interaction and cultural activities.

A novel challenge is, thus, introduced to educational institutions at all levels including higher education, which includes post-certification education of healthcare professionals, i.e. digital literacy. On a national level and across all education, the Maltese National Literacy Strategy for All 2014-2019 (Ministry of Education and Employment, 2014) was published for the purpose of promoting and enhancing lifelong and lifewide, high quality literacy practices among children, youths, adults, third country nationals and persons with learning difficulties. The publication also promotes the improvement of literacy outcomes, resulting in inclusive practices, higher educational qualifications and better job prospects. However, the importance of digital literacy only merited a short two-page section at the end of the document which refers to digital literacy as “playing a central role in people’s lives” and “crucial for effective learning”(Ministry of Education and Employment, 2014, p. 52).

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Digital literacy is one of the cross-curricular themes identified in the National Curriculum Framework (Ministry of Education and Employment, Malta, 2012) – a policy instrument and reference for action required to be taken in education to ensure that Maltese learners, from children to adults, acquired the necessary knowledge, skills, competences, attitudes and values. However, the integration and implementation of digital literacies in the Maltese curriculum can only be successful if there is a clear vision and serious action is taken on a strategy to nurture digital literacy within education and the community.

Technology is having a major impact on teaching and learning in higher education in Malta, with the pedagogy adopted for education also shifting as a consequence (Ministry of Education and Employment, Malta, 2014). Today, a more constructivist approach to teaching and learning is being increasingly adopted in higher education in Malta and digital pedagogy is very much centered on students co-constructing their knowledge in a social context (Lave & Wenger, 1991). A digital pedagogy presents knowledge as “problematic rather than as fixed” (Milton & Vozzo, 2013, p. 76). It encourages higher order thinking skills with students moving away from simply remembering information to gaining a deep understanding of concepts (Kent & Holdway, 2009). Digital pedagogy promotes critical analysis, metacognition and reflection and frequently involves communicating and publishing online. These developments are affecting the digital literacy skills needs of both the educators and the students. The Organisation for Economic Co-operation and Development (2013) describes how, in a “technology-rich environment”, special skills are required to make effective use of quick options (such as email and chat applications) and broad tools (such as blogs and shared software) which assist “collaborative problem solving activities” (p. 48).

Digital literacy is also underpinned in inclusive pedagogy, another ethos of UoM. Inclusive education stimulates social diversity and offers an alternative framework for academic engagement (McLoughlin, 2001). However, by having limited provision for digital literacy among academics and students, UoM falls short in addressing this issue in a holistic way. Digital literacy skills acquisition can neutralise some barriers that can be experienced by diverse students and learners with special requirements (Seale, Draffan, & Wald, 2010). A digital literacy framework can provide principles of various ways of expressing oneself and diverse manners by which activities can be enacted. Individuals can also have the option of multiple means of engagement with minimal need for individual accommodation.

Technology is being rampantly used as a platform for progress and advancement in Malta, however, as yet digital literacy has not been given its due importance within healthcare professional education including post-certification education. Such progress can only be successful if development of digital literacies among this group of individuals is considered a main priority (Schutt & Hightower, 2009). This can be challenging, mostly because health professionals who are entering a post-certification study programme have varying degrees of experience of technologies and also differ considerably in the use of associated social practices (JISC, 2014).

In November 2012, UoM, through the Distance and E-learning Committee, published the E-Learning Strategy: Development Framework (2012) with the aim to embed e-learning as a key element of learning and teaching at UoM. The Strategy promoted web-enhanced modules, blended and hybrid modules, and online modules throughout university courses. Furthermore, it is noteworthy to appreciate that during academic year 2011/2012, 45% of academics and 89% of students used the Virtual Learning Environment (VLE), with three Master’s programmes and one bachelor’s programme being delivered online (Distance and E-Learning Committee, University of Malta, 2012). Moreover, UoM has begun to invest in blended and online post-certification healthcare courses. All of the students, and the academics running these healthcare programmes, need to develop their digital literacy skills to be functional and successful within an online system. Most students on the continued professional development courses and programmes leading to postgraduate qualifications are part-time mature students who are in employment with the Healthcare Department and who are doing these courses to improve their academic level of education with the aim to unlock or maximise career opportunities. Most students opt for an online modality of learning because of the flexibility that enables study around family and work commitments. Most of these students are first time online learners and, hence, require a distinctive scaffold from institutions on a macro level and instructors on a micro level (Palloff & Pratt, 2003). The students are required to develop digital literacy skills to thrive in this ‘non-traditional’ educational environment.

It is noteworthy to also explore the concept that investing in the digital literacy of these professionals not only empowers them personally, but also brings organisational benefits. These include the provision of a more flexible and innovative manner for teaching and learning, enhancing the learning experience and increasing course enrolment and retention rates, improving employability and increasing opportunities for career progression. Improved digital literacy is also a valuable component for the expansion of the digital economy of Malta.

Models of digital literacy

In the 1980s the term ‘computer literacy’ often focused on a set of ICT skills required to operate technical procedures. In the 1990s an emergent ‘information literacy’ became more popular with a broader, multifaceted meaning (Lankshear & Knobel, 2008). More modern models of digital literacy, such as that developed by Bawden (2008), encompass a collection of related literacies and skills. Besides IT operational skills and information literacy, media literacy (the ability to analyse, evaluate and create ideas in a wide variety of media modalities) and internet literacy (use of the internet/network sources effectively) are added to the digital literacy package. This multi-literacy approach has morphed to comprise a combination of ‘technical, cognitive and emotional-social skills’. Aviram and Eshet-Alkalai (2006) argue that digital literacy includes the main cognitive skills necessary to work in a digital environment.

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Martin and Grudziecki (2006) wrote a paper, as part of the DigEuLit project, which was funded by the EC e-learning Initiative, with the aim of developing a framework for digital literacy development in education in Europe. The authors posit that digital literacy development goes through three stages: competence, use and finally transformation. Digital competence encompasses a range of skills from basic to more analytical and evaluative abilities and also includes opinions. According to Martin and Grudziecki (2006) the crucial stage of digital literacy is the usage stage, since it is at this level that digital competence is applied to specific professional or/and life contexts. Users bring along their own individual baggage of professional experience and development. They manipulate usage to identified problems in line with their needs and requirements within a particular community, thus operating and learning in a 'community of practice' (Wenger, McDermott, & Snyder, 2002, p. 4). This activates digital transformation with a resultant claim for innovation and creativity, and with significant changes rippling through the professional society.

Beetham and Sharp's Framework (JISC, 2012) explains digital literacy development in practice. They describe digital literacy as a constant development process. It can be traced over a continuum. Individuals become more proficient overtime and eventually reaching a level of expert practice depending on individual motivation and context. This framework can be useful as a tool to map out and guide strategic factors involved in the development of digital literacy across an institution. It can, therefore be applied also across postgraduate healthcare education – from novice to expert to making efficient and effective use of digital literacy in everyday activities and making digital literacy an intrinsic part of one's identity.



Figure 1: Beetham and Sharpe 'pyramid model' of digital literacy development model (2010)

JISC (2012) also explore the concept that key digital literacies might vary or even just differ in priority across contexts e.g. university and institutions, department and professional culture and speciality area. The model developed by JISC includes seven capabilities (Figure 2) all of which support living, learning and working in a digital society. This tool may be used as a springboard for raising awareness and engaging stakeholders to discuss and develop shared appreciation and goals for the augmentation of digital literacy within an institution.

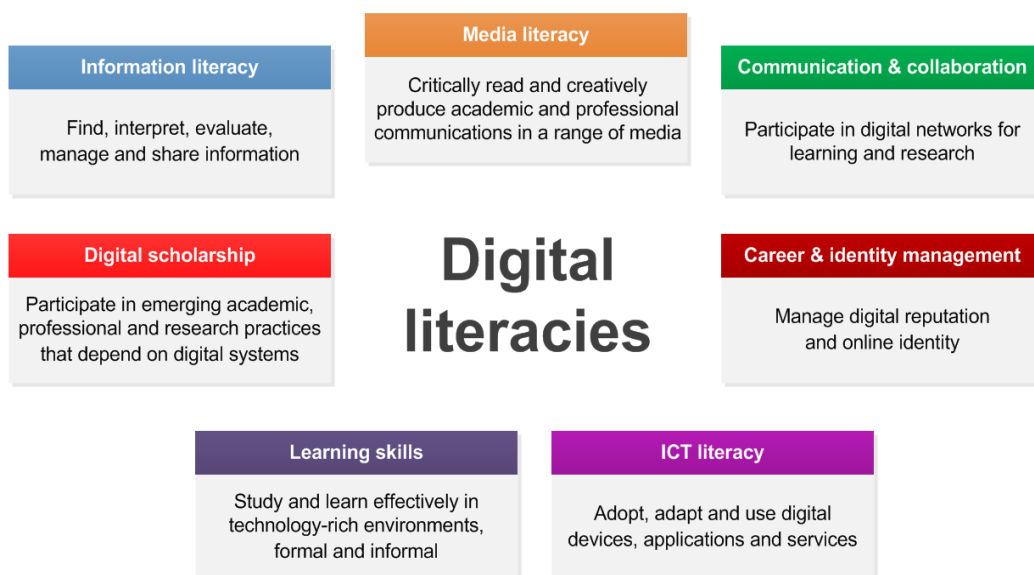


Figure 2: Seven Elements Model of Digital Literacies (JISC, 2014^a) retrieved from <http://www.jiscinfonet.ac.uk>

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The model introduced by Pérez and Murray (2010) has an extended dimension and is underpinned by Bloom’s (1956) taxonomy with knowledge, skills and attitudes informing the practical application of this model. However, the model is not sufficient to underpin the more comprehensive digital literacy model. Reflection combined with the intent to be creative and innovative to generate new knowledge and skills are also essential. This model sees the user as having a central role. Moreover, the overlay of literacy, aptitude and creativity denote complexity and nonlinearity while learning, absorbing, evaluating and finally generating innovative and transferable technological artefacts and theories (Figure 3).

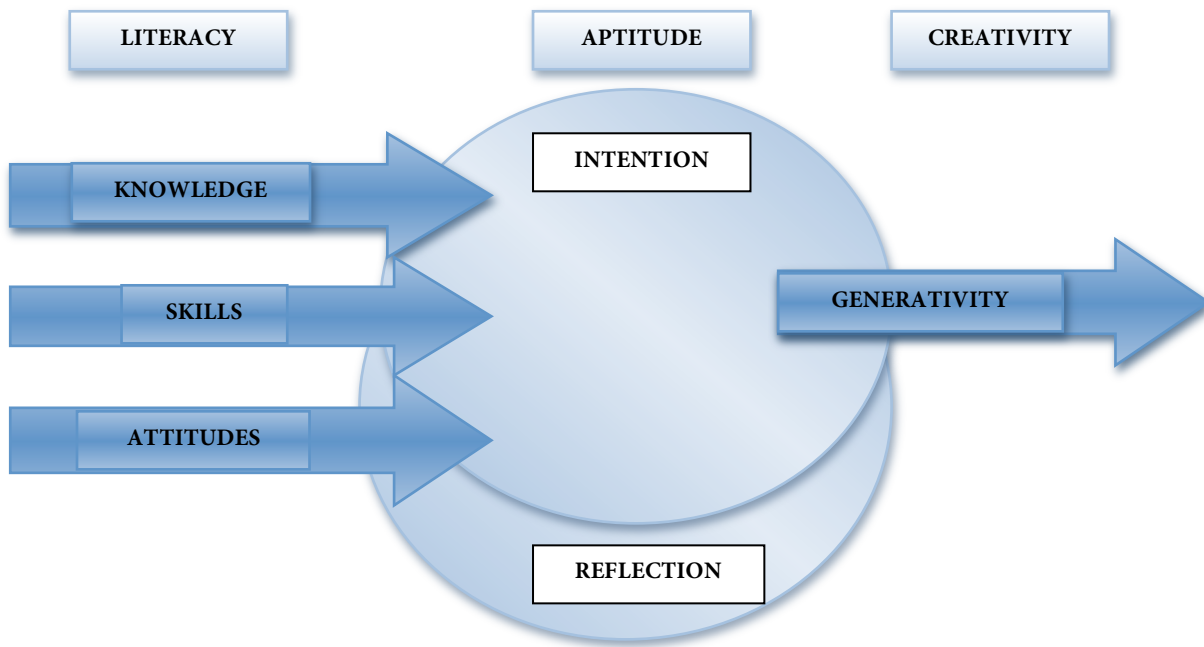


Figure 3: A Model of Digital Literacy (adapted from Pérez and Murray, 2010)

It can be noticed that the more modern topography of digital literacy, albeit still dynamic and ever developing, reaches beyond functionality within a digital environment (using a computer and searching online). It extends to the mastering of more operational skills (critically using and evaluating information so that knowledge is generated and transformed). This translates to an understanding of the relationship between advances in digital technology and social, political and economic factors (Buckingham, 2010). In an educational setting, JISC (2012) points out that, students who lack digital literacy are less successful in their studies and less employable. Beetham affirms that digital literacy “stands at the intersection between digital knowhow and academic practice” (JISC, 2012, p. 2). Consequently, students in higher education must secure academic knowhow, while at the same time gain aptitude in digital skills.

Digital literacy across the globe

Figure 4 below gives a summarised overview of the development of digital literacy strategies in various countries across the globe (Pérez & Murray, 2014).

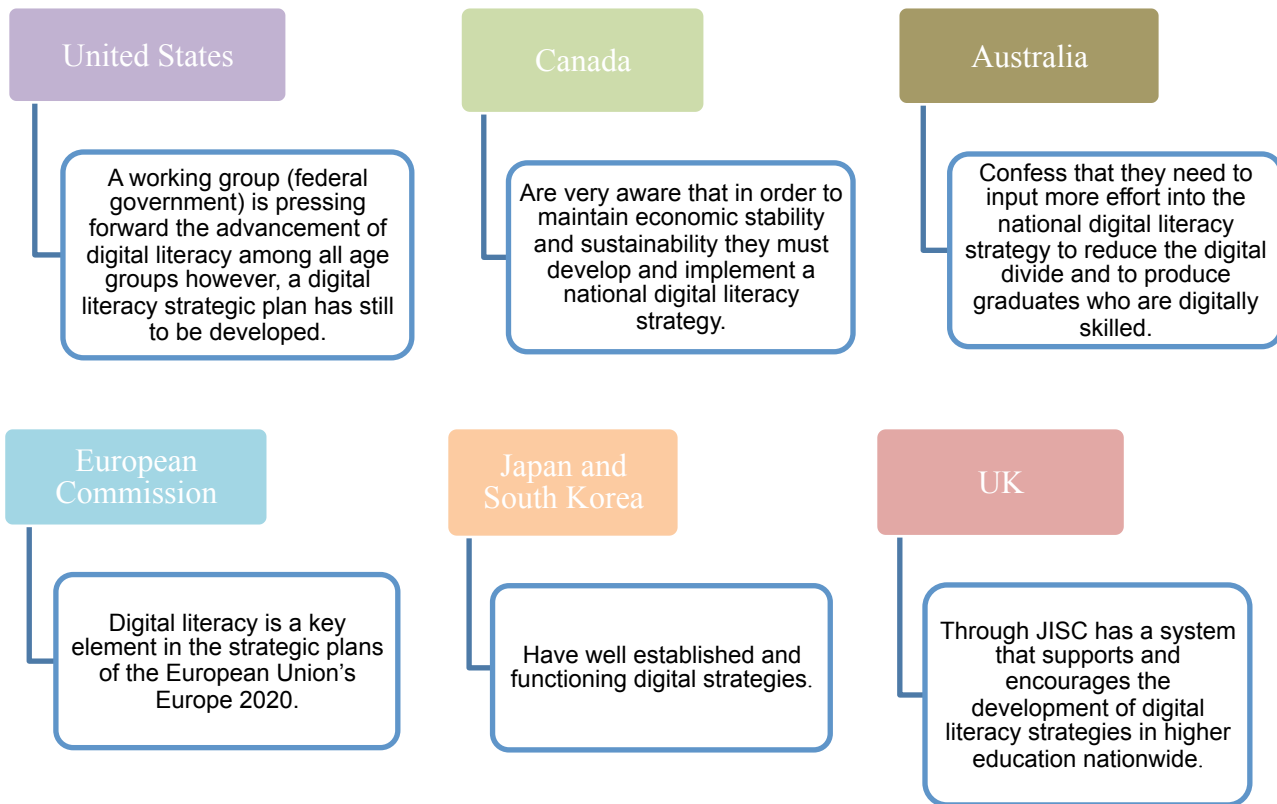


Figure 4: Digital literacy strategies in various countries across the globe (adapted from Pérez & Murray, 2010).

UoM SWOT analysis – developing a strategic approach to digital literacy

The JISC document, Developing Students Digital Literacy (2014)^b, Institutional SWOT Analysis, was used to prompt the collation of a SWOT analysis of UoM's digital literacy potential. Intrinsic strengths and weaknesses that can be distinguished at the time this document was written (February 2015) and opportunities and threats arising from extrinsic factors are identified. These have been listed and analysed so that relevant recommendations for developing digital literacy at UoM can be formulated.

The key stakeholders who can affect or can be affected by digital literacy development at UoM were asked for information on the issue. Emails were sent to UoM IT services, UoM Library and the e-learning helpdesk to this effect. Meetings were held with a representative of the UoM Distance and E-learning Committee and the co-ordinator of the only online healthcare programme offered by UoM, during which the question of digital literacy was discussed and their comments noted. The Director of the Institute of Community Services (ICS) from the Malta College of Arts, Science and Technology (MCAST) and the Director of Institute of Applied Science also from MCAST were asked for feedback on digital literacy at their institution.

MCAST is the largest post-secondary educational institute in Malta, even larger than UoM. MCAST provides vocational and professional education and training responsive to the needs of the individual, industry and the economy. This institution is introducing e-learning into its curriculum with a number of blended and online study units available for its students and more planned for the future. They have an online system of Recognition of Prior Learning in the form of an e-portfolio which they have recently developed for healthcare professionals to advance in their education and, hence, in their careers. As a result UoM and MCAST frequently collaborate on common issues, and therefore, getting their opinions on digital literacy was very beneficial.

Table 1 is a SWOT matrix identifying and assigning collated significant factors, positive and negative, to one of four categories, allowing the objective analysis of the potential of UoM regarding the development of a digital literacy strategy.

	Positive	Negative
Internal	<p>STRENGTHS</p> <ul style="list-style-type: none"> Digital literacy importance identified in educational strategies and frameworks. Qualitative data can be drawn from the currently running blended and online delivered HE modules. Relatively small size of UoM facilitates student–faculty interactions. The geographic proximity of all stakeholders facilitates face-to-face instruction and support and possible workshops to assist digital literacy development. Modern IT infrastructure and Library Services. An existing virtual learning environment, Moodle, and the possibility to use various technology tools for teaching and learning. The rector supports innovation and the use of technology for teaching and learning. Dedicated and skilled academic staff. A yearly peer reviewed online academic journal. 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> Not enough importance is given to digital literacy in National Educational Strategies and frameworks. A number of academics still champion face-to-face modality of delivering teaching and only regard e-learning as optional paraphernalia. Reluctance by some academic staff to engage in technology enhanced learning CPD. Opportunities lost because of difficult access to information and guidance. Digital literacy is undervalued. Mismatch between demand and supply of knowledge and skills in digital literacy. More students are seeking and needing skills, however, what UoM is offering and providing, thus far, does not satisfy the need. Lack of collaborative learning between students. There seems to be a cultural issue with students preferring to work on their own rather than learn and build knowledge together, especially among post-certification students who are accustomed to face-to-face traditional education. Lack of IT integration in teaching and learning. Current faculty are not well versed in offering students the necessary support to develop digital literacy.
	<p>EXTERNAL</p> <ul style="list-style-type: none"> UoM has an e-learning strategy development framework. Strategic alliances between Maltese institutions of post-secondary, tertiary and postgraduate education. All healthcare professionals have yearly monetary allowance for continued professional education. Exploitation of various funding initiatives and tools at a National and European level for the creation of new ICT products and services. Cost of hardware is falling at a fast rate. Bandwidth is getting cheaper and more available. Mobile learning is becoming more popular. Opportunities for knowledge enhancement accessible to all – any age, any place, any time, any direction. Widespread EU cross-border academic collaboration, strategic alliances and partnerships. Participation of the private sector. A more digitally literate student and academic staff population can result in new sources of revenue through better exploitation of e-learning facilities. 	<p>THREATS</p> <ul style="list-style-type: none"> Loss of experienced staff with digital capabilities to other industries for better conditions of work. No comprehensive national digital literacy strategy. Investment in digital literacy not seen as a priority. Narrow understanding of digital literacy. Students and academics alike might not understand the meaning of being digitally literate and link it to ICT skills only. The assumption that younger students because they are ‘digital natives’ are digitally literate and on the other hand post-certification professionals, some of which are ‘digital immigrants’, are not digitally literate

Table 1: SWOT Analysis: Digital Literacy at UoM.

Recommendations

The recommendations below are based on a SWOT analysis of UoM digital literacy potential and a well-considered review of the literature on digital literacy. It is directed towards UoM in general, although reference to healthcare is more explicit in places.

Preparation and research

Leadership Foundation for Higher Education (LFHE) (2015) suggests a set of *pre-conditions* in preparation for the implementation of any innovative strategy which necessitates major changes. Therefore, an investigation into the readiness of the UoM for the change in digital literacy to be enacted is essential. Factors such as expertise, resources, processes and structure need to be evaluated and reflected on in order to develop an informed business plan. Furthermore, there must be a *strategic conversation* (LFHE, 2015) at UoM across all levels and areas of the university in order to understand the perceived and real requirements to improve digital literacy at the institution. Administration, IT management, staff and students all need to be considered and involved in this 'conversation' and a shared vision of what future digital literacy at UoM should look like agreed upon.

The Distance and E-learning Committee at UoM needs to promote research in digital literacy management, pedagogies and technologies. On the one hand, an analysis and evaluation of the digital literacy competencies of the academic staff, and their teaching and learning behaviours through digital technologies, needs to be carried out. Further to this, a pilot study on the level of digital literacy of university students initially using post-certification healthcare professionals can be used to identify the main gaps that need to be addressed regarding digital literacy. Digital literacy information at key points of transition, entry, mid-way and end of study data should be collected and evaluated for a comprehensive picture. A full-scale study can follow to inform the direction that the University should take to cultivate digital literacy in all of its students.

A document with a range of strategies which other overseas universities have adopted with regards digital literacies needs to be prepared. This is essential for comparative analysis and to better understand what needs to be done locally and the best way to go about implementing a digital literacy strategy at UoM. Moreover, international universities and institutions must be contacted in order to investigate possibilities of academic collaboration, strategic alliances and also partnerships to assist in the implementation of a digital literacy strategy.

Concurrent to research initiatives, there must be an exploration of the various funding incentives and tools at a national and European level for the project to be adequately financed.

Drafting of digital literacy strategy

An open-ended conversation as described in the document, *Changing the learning landscape* (LFHE, 2015), involving all stakeholders in all stages of the decision-making process and strategy drafting ensures ownership of the project and augurs better success. Relevant pedagogical, technical and administrative support systems need to be set up. These should be based on the results of the initial research carried out in the preparation stages of the project.

At no stage of the development of a digital literacy strategy should it be assumed that students are able to apply their digital skills in learning contexts. In the case of post-certification healthcare professionals, demographics and digital aptitude range enormously and there is no 'one size fits all' solution for digital literacy development within this group. Furthermore, a flexible system needs to be in place to accommodate disparities. Educators and the support services must be explicit when developing students' digital literacies. Providing opportunities for students to critically reflect will enable the skills to become internalised, integrated, and more transferable, and support students' development of digital literacy.

Logistics

UoM must invest in capacity building of human resources competent in e-learning and digital literacy. This can be achieved by providing opportunities for CPD in this area.

UoM Library needs to become more digitally integrated, and invest in more e-journals and e-books which are made accessible to all students and staff in order to support digital literacy pedagogy, including inquiry-based learning. Post-certification healthcare professionals need a short induction course on library use. Although this is already done, it should be publicised more and participation encouraged.

The E-Learning Unit helpdesk and the IT services support line must be consolidated. These will continue to assist students with day-to-day queries related to online technologies, will continue to offer orientation sessions for students and will continue offering in-service training for academics. Online self-instructional podcasts and videocasts on how to use technology in teaching and learning need to be developed and made available. This is of particular value to health professionals in employment who can access help at their convenience.

IT services needs to invest more in synchronous learning environments that enhance collaborative, interactive and mobile learning. The flexibility and personalised learning opportunities offered by this modality of learning is of benefit to healthcare professionals in

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employment who can learn 'on the go'. Additionally, IT services needs to ensure adequate provision of wireless access and deploy the wireless network to all areas on campus.

Sustainability

Undergraduate programmes in teacher education need to reflect new developments in digital literacy. This will ensure future cohorts of educators who are well conversant in digital literacy and who see the immense value of using mobile technologies in teaching and learning. These can be the champions who encourage communication through the use of blogs, tweets and other social media.

A campaign needs to be launched raising awareness among the University community, and the wider community, about the educational benefits of digital literacy. Deans and high ranking individuals at UoM should be targeted separately and convinced of the value and importance of digital literacy. Moreover, provision of an online or blended learning CPD course focused on online pedagogy and learning technologies must be organised for academics. This needs to be directed at increasing the confidence and competence of academics in order to reduce possible obstacles in the implementation of a digital literacy strategy (LFHE, 2015).

IT services should implement an institutional digital repository where academics can share learning and teaching resources. This can be the foundation of a community of practice among academics.

Conclusion

UoM must better understand the concept of digital literacy and how crucial its development is for all students including post-certification healthcare professionals, for whom the challenges are different, and yet in some instances, similar to the mainstream student. Possibly, the most significant difference is that these professionals deal with the lives and wellbeing of people and their digital literacy skills not only affects their education but also their professional performance. As ascertained by JISC (2012), universities and higher education institutions should develop "coherent, inclusive and holistic digital literacy strategies". UoM cannot afford to lag behind. The implications that digital literacies have on employability, on the digital economy of Malta, on individual socio-economic status and on seamless EU cross-border mobility are high. Malta, as a country, and UoM, as the main higher education institution on the island, must adequately address digital literacy and put it on the same importance scale as the other literacies: reading, writing and arithmetic. Failure to do so will be costly and have repercussions on UoM and on Malta.

Biography

Veronica Montebello is a Dental Hygienist and a lecturer on both traditionally and online delivered modules at the University of Malta. Holding a BSc in Health Science, a PgCert in Statistics and an MSc in Blended and Online Education with Edinburgh Napier University, she has just embarked on a PhD.

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