ENGENDERING TWENTY-FIRST CENTURY WORKPLACE LITERACY FOR THE HOSPITALITY INDUSTRY: EXPLORING THE ROLE OF THE ACADEMIC LIBRARY

Brenda van Wyk, The Independent Institute of Education, Johannesburg, South Africa

Orcid.org/0000-0003-3898-7042

bvanwyk@iie.ac.za

Lorette Jacobs, The Department of Information Science, UNISA, Pretoria, South Africa

ejacobl1@unisa.ac.za

Abstract

With global competition, sustainable development, and economic growth in mind, organisations are under constant pressure to change and stay apace. In the knowledge society where 21st century attributes are key, the ability to use information towards continuous learning and evolution in the workplace is imperative. Among other qualities, sound workplace literacy is a necessary attribute that students as prospective employees must attain.

Student learning must be augmented with relevant experiences to develop a range of literacies related to creativity, innovation, communication, collaboration and the effective use of information in a world where technology evolves rapidly. Higher education needs a better understanding of industry requirements related to the literacies and attributes expected from graduates entering the market. Exploring industry related needs, aligning support and library services accordingly and improving inter-departmental collaboration within higher education will better prepare students for the demands in the challenging and fast-changing world of work.

The paper reports on a literature review and the findings of a survey on required workplace literacies in a sector of the hospitality and tourism industry. It highlights the importance of more effective collaboration between academics and librarians in supporting the development of workplace literacy. To this aim a purposive selected

target population in a leading South African hotel group was approached. Evidence abound that there is a gap between the level of workplace literacy support offered to students and the actual literacy needs reported by the target group. Based on the findings and extrapolating from recent research, a meta-literacy framework is offered in support of developing 21st century workplace literacies.

Introduction

Workplace literacy is not a new concept, but one that is presently receiving renewed attention from industry and also in higher education curricula. While changes in twenty-first century workplace literacy are emerging, the core need is to build, maintain and increase employees' capacity to negotiate complex social, informational and technological working environments. Molopyane and Fourie (2015:563) postulate that trends in global competition, sustainability and technological developments compel organisations to seek suitably qualified and workplace literate employees.

Within the South African economy, the hospitality and tourism industry is a prominent employer; offering employment to 9.3% of the South African job market during 2018 and 10.1% in 2019. Students entering the hospitality and tourism market require a variety of workplace literacy skills and attributes such as interpersonal communication, entrepreneurship, problem-solving skills, analytical competencies and specific technical skills and attributes (Yiu & Law, 2012:379). Due to the growth in the hospitality and tourism industry, as well as the extent of workplace literacy required of first-time employees, higher education institutions in South Africa are pressured to offer a range of qualifications with curricula designed to produce workplace-ready graduates (Bǎltescu, 2016).

Practical experience, real-life exposure and learning through simulation have become imperative in hospitality and tourism education. Furthermore, with the technological evolution of the Fourth Industrial Revolution, demands on higher education institutions to offer workplace-based learning opportunities that answer to the 21st century challenges have increased (Howlett & Waemusa, 2019) Higher education must adapt and expand traditional teaching, leaning and assessment practices (Alpert, Heaney & Kuhn, 2009:36). This links closely to the Sustainable Development Goals that aim to, *inter alia*, support expanded and affordable access to quality technical, vocational and tertiary education (UNESCO, 2015). Frick and Kapp (2009) confirm that there is increased pressure on higher education institutions to provide opportunities for the advancement, creation and dissemination of workplace literacy and lifelong learning. Coates and Goedegebuure (2012:875) describe this scenario "*an onslaught of pressu*re", which calls for a concerted effort of all academic partners of higher education institutions to participate in achieving the desired results.

Researchers (Shumaker, 2012; & Neerputh, 2014) agree that academic libraries and academic librarians must now more than ever, ensure embeddedness into the curriculum and align themselves with educational pedagogies and technologies to have impact and purpose. All academic partners must collaborate to ensure that workplace professionals are equipped to understand information needs and be able to search, locate, evaluate and apply information within an information- and technology intensive workplace context.

Purpose and scope of the research

Within the above context, the study investigated the nature of workplace literacy required by the hospitality and tourism industry in South Africa within a particular hotel group. It explores the views and needs expressed by the employer related to the workplace skills expected from exiting graduates. The literature review explores global trends and reports on current research on the topic. The study concludes by offering a framework for workplace literacies, on how academic librarians can become embedded in the academic process.

Contextualising workplace literacy

Workplace literacy generally refers to skills related to the ability to display a characteristic or quality needed by employees in a workplace (Folinsbee, 2009; Perez & Trello, 2012). These skills are linked to workplace attributes such as problem-solving, listening, communication, teamwork, leadership and technology application to form the foundation for workplace literacy.

Workplace literacy skills and attributes have evolved and expanded considerably during the twenty-first century to include new technologies and related skills. Workplace literacy refers to how individuals learn and develop the skills and attributes needed to secure, maintain, advance and develop an informed and professional identity in a technology-intensive world. New employees must have the ability to act autonomously, be self-organising, self-motivated, and utilise information and knowledge in creative and innovative ways to create their own work opportunities (Perez & Trello, 2012). The applied attributes of critical thinking, collaboration, communication and creativity are important workplace literacy skills required by workers in the global economy.

Ottonicar, Valentima and Mosconi (2018) posit that the advent of the Fourth Industrial Revolution, as a rapid and revolutionary process, and impacts the world of work in becoming increasingly complex and competitive. Farrell (2017) suggests that workplace literacy skills and attributes are required to evolve and adapt in a world where there is a fusion of technologies between the physical, digital, and biological spheres. Workplaces are transforming and are linked to complex networks of technologies, people and practices. Here, additional workplace literacy skills and attributes will be required. As developments associated with artificial intelligence, robotics, the Internet of Things and the Internet of Services are revolutionising work environments, the focus of new workplace literacy will be, according to Goedegebuure and Schubert (2017), on managing fluid and transient work spaces, displaying STEM (science, technology, engineering and maths/numeracy) skills and corresponding personal attributes and attitudes. Butler-Adam (2018) further suggests that the development of skills and attributes towards excelling at abstract cognitive analysis, problem-solving, ethical and moral decision-making, as well as understanding the interrelatedness between economic segments, social and political information, are essential attributes needed in today's workplace.

Workplace literacy in the hospitality and tourism industry

Within the context of the hospitality and tourism industry, the scope and variety of workplace skills and required attributes, may vary in terms of workplace variables such as technology, systems, managerial practice and philosophy. Ottonicar, Valentim and Mosconi (2018) state that knowledge of what employers require must be considered in preparing graduates for employment. An earlier study conducted by Saayman and Geldenhuys (2003) already alluded that computer skills, arithmetic skills, business writing, listening, language and negotiation skills are important in the hospitality and tourism industry. In addition, prospective employees should be able to display ethical attributes, cultural sensitivity and responsibility. More recently, Ackehurst and Loveder (2015:11) added that the twenty-first century tourism and hospitality industry need workplace literacy skills and attributes increasingly related to new technologies and digital skills. Here, digital skills will enable employees to use technologies to develop websites, manage social media, e-commerce and e-marketing, all aimed at

transforming customer communication. In addition, skills such as customer service skills, business management and entrepreneurial skills are required.

Working with people, students in the tourism and hospitality industry will be required to develop complementary skills such as attitudinal and interpersonal skills, civic responsibility and social and cultural understanding (Gilbert, 2017). Zwane, du Plessis and Slabbert (2014:2) propose that employers in the tourism and hospitality industry seek employees who are flexible, adaptive, proactive and transformable. Tacit skills such as time management, organisational management and multitasking are important in this industry that demands skills and attributes towards cognitive and problem-solving abilities. The findings of the survey are in line and support these statements.

Shivoro, Shalyefu and Kadhila (2018) suggest that it is expected of employees in the tourism and hospitality industry to be information literate as this is seen as the foundation to improve problem-solving skills and the ability of individuals to work collaboratively with others in teams to achieve workplace requirements.

Butler-Adam (2019) affirms that students in the hospitality and tourism industry will increasingly have to learn how to apply and manage new technologies. Workplaces will require adaptable people whose jobs are continuously reimagined, enriched and facilitated by technology. Ensuring this adaptability requires employees to increase a range of literacies and skills to know how to find, evaluate and use information and information technologies to adapt to the world around them. Shamim, Chang, Yu and Li (2017:8) agree with this view and explain that in the hospitality and tourism industry learning, knowledge and innovation are crucial for successful workplace navigation in the Fourth Industrial Revolution. The Fourth Industrial Revolution will affect the hospitality and tourism industry in areas of mass customisation, big data analysis, data security, smart working in an online environment with an ever-changing list of digital and disruptive technologies. Future employees must therefore have the necessary skills to manage their work environment in these changing contexts.

This study aimed to assess the extent of workplace literacy skills required in the hospitality and tourism industry. It explores the role of academic libraries in higher education institutions in supporting workplace literacy required in this industry.

Methodology and data collection

A purposive selected target population in a South African hotel group was surveyed. A case study design was followed, based on an interpretivist paradigm. Within the interpretivist paradigm researchers believe that reality is socially constructed and that there are many intangible realities. Individuals develop subjective meanings of their experiences and are constantly involved in interpreting their ever-changing worlds (Creswell, 2009:8). The main point of interpretivism is that researchers are interested in the ways people interrelate and reason.

Applying the principles of interpretivism, a case study design was used, as this relates to an enquiry that investigates a contemporary phenomenon within a real-life context. A case study aims to add to the body of knowledge where existing knowledge is limited. Following an inductive approach, a questionnaire consisting of open-ended questions was utilised to provide participants with the opportunity to provide detail on their views of workplace literacy skills and attributes.

The three-star hotels in the selected hotel group was targeted. Forty-two (42) online questionnaires were sent to general and training managers in the target group. All ethical protocols were observed. Written permission was obtained from the management of the hotel group and participation was voluntary and anonymous. Participants did not receive any payment, monetary or otherwise. Participants could retract and choose not to participate during any stage of the research. Thirty-nine (39) responses were received, a 92% response rate.

Findings

Key questions asked during the execution of this study, included the expectations of participants about the workplace literacy skills and attributes required of entry level employees and how higher education institutions can help improve workplace literacy skills that will assist employees to be better adjusted and prepared for the world of work. Steps proposed by Bezuidenhout and Cronje (2014:233) were followed in the analysis of data related to the above questions. These steps included preparing and organising the data, developing a coding scheme, testing the coding scheme, coding the data, capturing the data, interpreting the data and reporting on the findings.

Through the process of coding participants' feedback on the workplace skills required of first-time employees entering the job market, a number of skills could be identified. These skills, as well as the percentage of participants mentioning these workplace literacy skills as important, is presented in Table 1:

Table 1: Key workplace literacy skills identified by participants and percentage of participants mentioning the skills

Key workplace skills identified	Percentage of participants mentioning the workplace skill
Service orientation	86%
Information security and privacy	81%
Literacies, information and information technology skills	81%
Problem solving	80%
Business communication skills	76%
Ethical conduct	75%
Web navigation	64%
Netiquette	63%
Self-determined learning	60%
Networking	50%
Professional conduct	40%
Conflict handling	40%
Health and safety	20%

Based on the summary given in Table 1, it is evident that service orientation is perceived by participants as the most important workplace literacy skills required of entry level employees. In this context one respondent mentioned that "*a more realistic expectation of the work place reality will assist new employees to be better adjusted*". This is in line with the findings linked to the second question on what academic institutions should do to enhance workplace literacy.

Based on the findings, one can further explore the role of higher education institutions and their libraries in developing workplace literacy skills and attributes. Respondents indicated that technology, information and computer literacies are skills that graduates need to improve. The respondents lamented that retraining of graduates is usually needed and stated that there should be closer collaboration between industry and higher education in closing this gap. There is a general feeling that current curricula do not prepare graduates sufficiently for real-life situations nor coping with emerging technologies towards disruptive technologies, which would include virtual and augmented realities which the respondents feel has simulation value.

The findings of the survey support what Zwane, du Plessis and Slabbert (2014:3) suggest that, specifically in the tourism and hospitality industry, the expectation is that exiting students will be equipped with basic literacies and knowledge of the industry, where commitment, innovation, and the ability to manage new technologies can contribute towards a productive workplace environment.

Promoting workplace literacy

Developing the work place skills requires, according to Kirton and Barham (2005:368), a fresh approach from academic librarians in expanding their roles and functions within the execution of curricula. To achieve the goal of preparing students to succeed in a fluid workplace environment, higher education institutions are required to deploy and coordinate all the academic partners in its efforts. Perez and Torelo (2012) refer to the 2009 Global University Network for Innovation (GUNI) report, stressing the central educative purpose of higher education institutions to be the explicit facilitator of progressive, reflexive, critical, transformative learning that leads to improved understanding of the need for, and expression of, responsible paradigms for living. Higher education must prepare graduates towards being employable in the demanding

and the ever-evolving world of work. This includes, according to Fisk (2017), being able to develop and improve a variety of skills to manage 'disruptive technologies' associated with the Fourth Industrial Revolution. The findings of this study confirm the statement by Fisk (2017) in that respondents reported that new skill sets in using fast-changing technologies effectively and responsibly in the hospitality and tourism industry are highly sought-after qualities. Clemens (2013) reported that sales and marketing are areas in the hospitality and tourism industry where these changes were experienced the most. He refers the adjustments that were required as "disruptive innovation" (2013:64). The term 'disruptive technologies' refer to technologies that will blur the lines between physical, digital and biological spheres. The pace and scale of changes and developments is explained graphically in figure 1. Figure 1 summarises these major disruptive technologies, the change they drive, and the emerging opportunities:
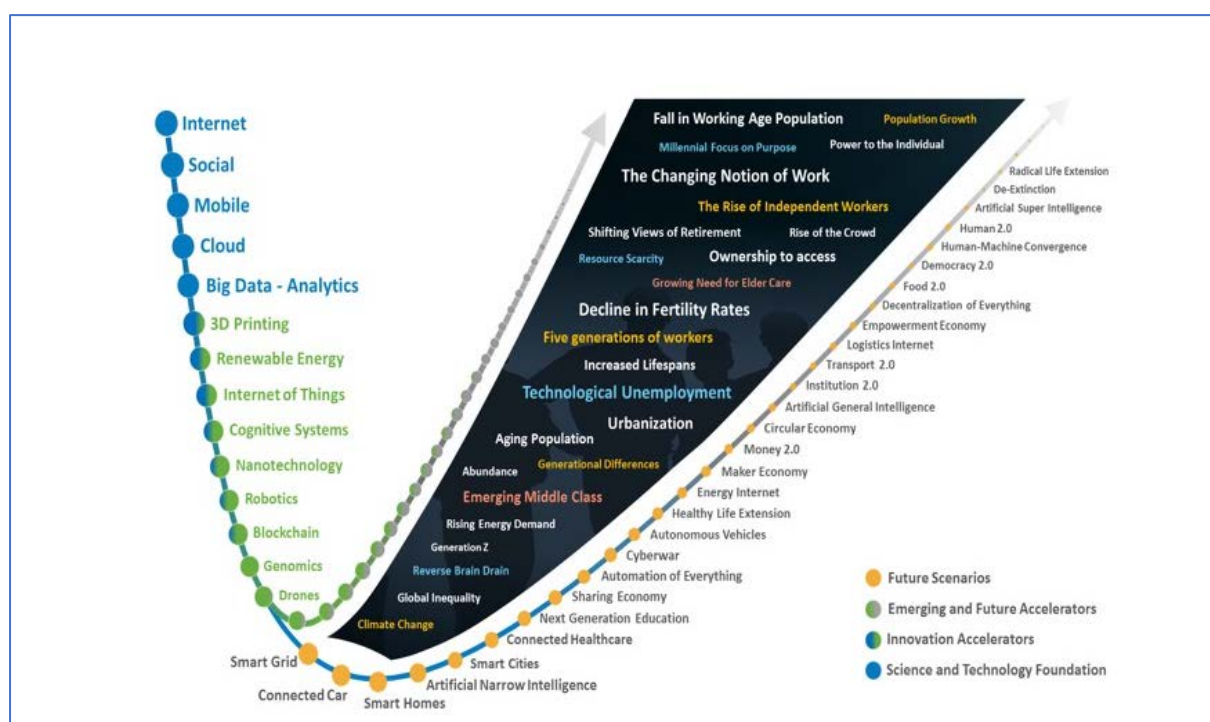

Figure 1: A summary of disruptive technologies (Fisk, 2017)

Chen and Klimoski (2007) emphasise that embracing the Fourth Industrial Revolution and its challenges, and training to deal with and manage opportunities linked to disruptive technologies are more important than ever.

Shamim, Chang, Yu and Li (2017:10) explain that skills required to engage with and manage disruptive technologies require a change in literacy training to expose and empower students to function effectively in highly fluid workplace environments. AbuMezied (2016) agrees and postulates that curricula should be adapted towards new technologies, where an integration will occur between digital and emerging technologies. In this context, Shamim, Chang, Yu and Li (2017:10) emphasise the importance of learning new knowledge by understanding the patterns of information.

The burning question is: are higher education, and specifically academic libraries, keeping track of these revolutionary changes and are information literacy programmes aligned with these revolutionary requirements?

Academic libraries as academic partners in developing workplace literacy

Travis (2011) alludes to the importance and necessity of information literacy programmes to expand and further promote a range of literacies, not forgetting workplace literacy. Earlier, Somerville and Nino (2007:187) already suggested that libraries adopt an 'outward approach' and take proactive steps to support academics in the development of much needed workplace literacy programmes, over and above the traditional information literacy programmes offered.

Kirton and Barham (2005:366) opine that programmes offered by academic libraries should also focus on key aspects such as sources of information that lie outside the domain of the library and how to find and use these in an ethical manner towards problem-solving, creativity and innovation. It is evident that programmes offered by academic libraries should provide students with knowledge of the broadened scope of information, technology and information use beyond the scope of referencing and plagiarism prevention support traditionally offered.

The question, according to Brown and Malenfant (2017:3), is how academic librarians should go about assisting in the development of workplace literacy skills and attributes? Lloyd (2009:250) suggests that a notion of 'practice' be applied. This view focuses on the community (workplace environment) as the context or frame to be applied in the offering of workplace skills programmes. This view is supported by Hoyer (2011:10) who suggests that programmes offered by academic librarians be created within the context of academic and workplace needs to address information

needs within these contexts. Such programmes should use the social setting in which the skills are being learned. The principle of 'practice' therefore acknowledges the social and cultural dimensions that influences skills required within a particular context (Lloyd, 2009:250). Towards developing programmes to support the development of various workplace literacies, Limberg and Sundin (2006) suggest the use of four models:

- The source model aimed at teaching students to use and evaluate different types of sources available within and outside the library context.
- The behavioural model which focuses on learning a set of steps to replicate a research process within various subject- or industry-related contexts.
- The process model which relies on cognitive models and emphasises the nature of information seeking, evaluation and utilisation towards new information sources.
- The communication model which focuses on social navigation and interaction between users during the course of information seeking, evaluation and utilisation.

With reference to these models Mackey and Jacobson (2011) stress the importance for expanding programmes offered by academic librarians towards the development of meta-literacies, with information literacy becoming the foundation for all other literacy skills and attribute development. The meta-literacy framework proposed by ACRL (2015) focuses on the development of metacognition with students understanding their roles as information creators and users in the world of work. Meta-literacy promotes critical thinking and collaboration in a digital age and provide a more comprehensive framework for skills required towards developing and strengthening workplace literacy. Adapted from Mackey and Jacobson (2011) and based on the research by Fisk (2017) a meta-literacy framework that may be considered by academic librarians to provide extended support for developing workplace literacies, is presented in Figure 2.
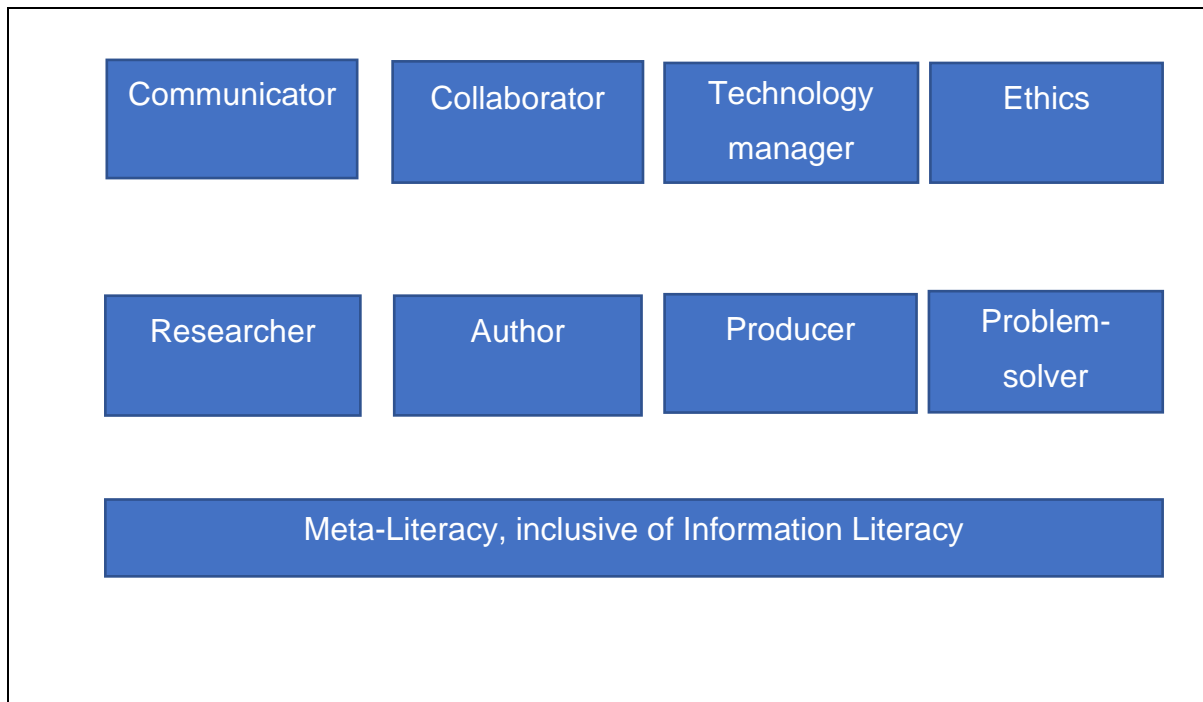

Workplace literacy

Figure 2: Framework of meta-literacies to be included in library information literacy programmes to support workplace literacy

Aligned to the meta-literacies framework presented above that academic libraries can adapt to support academic departments in developing workplace literacy skills, Table 1 indicates that skills related to information security, information privacy, problem-solving, ethical conduct and web-navigation rate high on the importance level. Aligned to the meta-literacies framework, academic libraries should include detail related to information literacy (the ability to find and utilise information related to various information sources), technology management, ethics and problem-solving as key focus areas in programmes offered to students within the tourism and hospitality industry.

The meta-literacies framework supports the selection of information resources, effective search strategies to obtain information that align with specific information needs, evaluating such information and using in in a different context (Kirton & Barham, 2005:369). Meta-literacies should support students to engage in the production and sharing of information in collaborative face-to-face and online communities. Including meta-literacy skills as part of the programmes offered by academic libraries challenges traditional skills-based approaches to information literacy by expanding such programmes to recognise related literacy types emerging

from emerging technologies. As indicated in Figure 2, the framework is founded on strong meta-literacy skills, which support eight frames of workplace literacy skills, each central to developing attributes required in a twenty-first century workplace environment. The eight concepts that anchor the frame, are:

- Research as inquiry
- Author of content constructed as original interpretations which is contextual and where information is part of the creation process
- Producer in engaging with various technologies to present information in various contexts such as visual, graphic, sound, digital and virtual reality, augmented reality, etc.
- Problem-solver where information is identified, accessed and utilised in various contexts to solve a variety of real-world problems
- Communicator to share information in an innovative and creative way towards the achievement of a specific goal
- Collaborator as creator of information in a social and educational context
- Technology manager to ensure accessibility and use of information
- Ethics as strategic exploration in the use of information sources in an ethical manner, inclusive of acknowledging privacy and copyright laws

In today's evolving digital and online world, students as potential employees, must not only be able to determine the extent and quality of information needed, but also the format and delivery mode of the information itself. Ackehurst and Loveder (2015) explain the significance of digital skills, among others, in tourism, travel and hospitality due to the advancements and changes that this industry encounter. Having a command of meta-literacies connected to information and technology, has taken on a critical importance. Meta-literacy skills should therefore be imparted during a range of workshops offered by academic librarians that focus on searching for information, referencing techniques, navigating the web to find academic and credible information towards creation and innovation, designing and publishing information online and on plagiarism prevention. Meta-literacies can potentially enable employees to better understand information and convert it into knowledge to create a competitive edge in any work environment.

The literature review for this study revealed a paucity in recent research in South Africa and more in-depth research is required on the current workplace literacy needs, and the suitability and effectiveness of the library's literacy programmes for the broader South African academic community. Based on the insights gained, areas of improvement are suggested to adapt and add information literacies for the work place into the existing work readiness programmes by higher education institutions and their libraries.

The need for embedded library and information support within the curriculum process

To offer programmes related to various literacies that can support the development of workplace literacies, Shumaker (2012:3) suggests that librarians should become embedded in the academic process. An embedded librarian can be described as a librarian that works closely with academics to become part of the academic and research practices of the higher education institution, whether inside or outside of the library environment (Almeida & Pollack, 2017:123). For academic librarians to become part of the academic process towards the development of workplace literacy skills, librarians need to create opportunities to interact constructively and have meaningful engagement with faculty members as well as members of specific industries. Engagement can be promoted through policy, the attendance of faculty meetings, direct discussions with management, academics and workplace practitioners.

With a better understanding of the workplace skills needed through such engagements, academic librarians can develop strategies to implement workplace literacy programmes and to further collaboration with subject faculty in team-teaching initiatives (Almeida & Pollack, 2017:124). There is a pivotal need to embed library support in teaching and learning.

Becoming embedded in the curriculum execution process requires a strong, continuous working relationship between the librarian, other support teams and academic teams, by sharing the responsibility of the outcomes, inclusive of the development of workplace literacy skills (Bowker & Villamizar, 2017). Ultimately the goal of higher education is to educate students through the development of their intellectual abilities and to address development needs of society by providing

knowledgeable and digitally skilled individuals who can contribute to the labour market As part of achieving this goal, the embedded librarian should be proactive and share the responsibility for outcomes of higher education, inclusive of the development of workplace literacy skills and attributes (Bowker & Villamizar, 2017:60).

Recommendations

Based on the insights gained, areas of improvement are suggested to adapt and add workplace literacies into the existing library programmes. Employability comprises two main aspects: subject or discipline-specific skills, and transferrable skills (Shivoro, Shalyefu & Kadhila, 2018). Both types of skills are important to prepare students for the world of work. Through collaboration with industry and closer working relationships within academics, workplace literacy skills and attributes may be improved to better prepare students for the fluid workplace environment that awaits them in the Fourth Industrial Revolution.

Learning opportunities and exposure of graduates to the world of work in the hospitality and tourism industry should be augmented with collaborative efforts of both academic and support sections such as the academic library. South African higher education institutions have all the resources to their disposal but needs to make a paradigm shift in deploying these resources to create opportunities where workplace literacy skills of students can be developed and strengthened through all encounters in the academic environment.

Conclusion

Students need more guidance and support in seeking information to progress to where they take responsibility for their own learning towards self-determined learning. The study proposes a continuous approach towards cultivating meta-literate graduates throughout their years of study, with the library as an active partner. This process typically starts with information literacy training and gradually builds on this foundational knowledge towards developing multiple literacies including research skills, communication skills, technology management skills and problem-solving skills. Equipped with these basic skills, employers can further develop workplace specific skills. Partnerships between industry, the academic department and the academic

library are possibilities that need to be explored to enable higher education institutions to prepare a student for the world of work.

References

AbuMezied, A. 2016. What role will education play in the Fourth Industrial Revolution? [Online] Available at https://www.weforum.org/agenda/2016/01/what-role-will-education-play-in-the-fourth-industrial-revolution/ (9 January 2019).

Ackehurst, M. and Loveder, P. 2015. Building the capabilities of the travel, tourism and hospitality workforce, Paper presented to AFTA Industry Leaders and Educators Engagement Symposium, Sydney, February 2015.

ACRL. 2015. ACRL Framework for Information Literacy in Higher Education. [Online] http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/Framework_ILHE.pdf (2 January 2019).

Almeida, N. and Pollack, J. 2017. In bed with the library: A critical exploration of embedded librarianship at the City University of New York. *Communications in Information Literacy,* 11(1): 122-146.

Alpert, F., Heaney, G. and Kuhn, K. (2009). Internships in marketing: Goals, structures, and assessment--student, company, and academic perspectives. *Australasian Marketing Journal*, (17): 36–45.

Băltescu, C.A. 2016. Graduates' willingness to build a career in tourism. A view point of the students in the Tourism Profile Academic Programmes from the Transilvania University of Brasov, Annals - Economy Series, Constantin Brancusi University, Faculty of Economics, (3): 36-39, June.

Bezuidenhout, R. and Cronje, F. 2014. *Research matters*. Juta: Cape Town.

Bowker, L and Villamizar, C. 2017. Embedding a records manager as a strategy for helping to positively influence an organization's records management culture. *Records Management Journal,* 27(1): 57-68.

Brown, K. and Malenfant, K.J. 2017. *Association of College and Research Libraries: Academic library impact on student learning and success: Findings from Assessment in Action Team Projects.* Chicago: Association of College and Research Libraries, 2017.

Butler-Adam, J. 2018. The Fourth Industrial Revolution and education. *South African Journal of Science*, 114(5/6). [Online]. http://dx.doi.org/10.17159/ sajs.2018/a0271(23 February 2019).

Chen, G. and Klimoski, R.J. 2007. Training and development of human resources at work: Is the state of our science strong? *Human Resource Management Review*, 17(2): 180-190. [Online] http://dx.doi.org/10.1016/j.hrmr.2007.03.004 (23 February 2019).

Clement, J.C. 2013. A case study in disruptive technology innovation and tourism: City Corridor and Charles. *Journal of Tourism*, 14(1): 63–77. [Online]. http://search.ebscohost.com.ezproxy.iielearn.ac.za/login.aspx?direct=true&db=hjh&AN=98269150&site=ehost-live 13 November 2019).

Coates, H. and Goedegebuure, L. 2012. Recasting the academic workforce: why the attractiveness of the academic profession needs to be increased and eight possible strategies for how to go about this from an Australian perspective. *Higher Education* 64(6): 875–889. [Online] doi: 10.1007/s10734-012-9534-3 (23 February 2019).

Creswell, J.H. 2009. *Research design: Qualitative, quantitative and mixed methods approaches.* Los Angeles: Sage.

Farrell, L. 2017. *Workplace literacy in the Fourth Industrial Revolution: The Literacy 4.0 Project.* Melbourne: The University of Melbourne.

Fisk, P. 2017. Education 4.0 … the future of learning will be dramatically different, in school and throughout life. [Online] https://www.thegeniusworks.com/2017/01/future-education-young-everyone-taught-together/ (24 February 2019).

Folinsbee, S. 2009. Workplace literacy: Ethical issues through the lens of experience. *New Directions for Adult & Continuing Education,* (123): pp. 33–42. [Online] doi: 10.1002/ace.341. (24 February 2019).

Frick, L. and Kapp, C. 2009. The professional developments of academics: In pursuit of scholarship, in E. Bitzer (ed.). *Higher education in South Africa: A scholarly look behind the scenes.* Stellenbosch: SUN MeDIA: 369-408. [Online] doi:10.18820/9781920338183/12. (23 February 2019).

Goedegebuure, L. and Schubert, R. 2017. Vocational education and the innovation agenda: Towards the creation of effective innovation eco-systems, in R. James, S. French & P. Kelly (Eds.). *Visions for Australian Tertiary Education.* Melbourne: University of Melbourne: 111-122.

Gilbert, S. 2017. Information literacy skills in the workplace: Examining early career advertising professionals. *Journal of Business & Finance Librarianship*, 22(2): 111-134. [Online]. DOI: 10.1080/08963568.2016.1258938 (26 March 2018).

Howlett, G. and Waemusa*, Z.* 2019. 21st century learning skills and autonomy. *Teaching English with Technology,* 19(1): 72–85. [Online] https://ezproxy.iielearn.ac.za/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=134817802&site=ehost-live (23 February 2019)

Hoyer, J. 2011. Information is social: information literacy in context. *Reference Services Review*, 39(1): 10-23, [Online] DOI: https://doi-org.ezproxy.iielearn.ac.za/10.1108/00907321111108088 (23 February 2019).

Kirton, J. and Barham, L. 2005. Information literacy in the workplace. *Australian Library Journal,* 54(4), 365–376. [Online] http://search.ebscohost.com.ezproxy.iielearn.ac.za/login.aspx?direct=true&db=eue&AN=502964313&site=ehost-live (3 July 2019).

Limberg, L. and Sundin, O. 2006. Teaching information seeking: relating information literacy education to theories of information behaviour. *Information Research*, 12(1) paper 280, Oct 2.

Lloyd, A. 2011. Trapped between a rock and a hard place: What counts as information literacy in the workplace and how is it conceptualized? *Library Trends,* 60(2): 277-296.

Mackey, T.P. and Jacobson, T.E. 2011. Reframing information literacy as a metaliteracy. *College & Research Libraries*, 72(1): 62–78. [Online]

https://ezproxy.iielearn.ac.za/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1064829&site=ehost-live (23 February 2019).

Molopyane, J. and Fourie, I. 2015. A framework for workplace information literacy in academic contexts: Central University of Technology, Free State (South Africa) as case study. *Library Hi Tech*, 33(4): 562-583, [Online] https://doi-org.ezproxy.iielearn.ac.za/10.1108/LHT-02-2015-0013 (23 February 2019).

Neerputh, S. 2014. Academic integration of libraries at Universities of Technology (UoTs) in South Africa. [Online] http://ir.dut.ac.za/handle/10321/1154 (24 February 2019).

Ottonicar, S.L.C., Valentim, M.L.P. and Mosconi, E. 2018. A competitive intelligence model based on information literacy: organizational competitiveness in the context of the 4th Industrial Revolution. *Journal of Intelligence Studies in Business,* 8(3): 55-65.

Perez, K.V.P. and Trello, O.M. 2012. The digital competence as a cross-cutting axis of higher education teachers' pedagogical competences, in the European higher education area. *Procedia - Social and Behavioral Sciences*, 46: 1112 – 1116.

Saayman, M. and Geldenhuys, S. 2003. An analysis of skills required for selected sectors of the tourism industry. *SA Journal for Research in Sport, Physical Education and Recreation,* 25(1): 83–95.

Shamim, S., Cang, S., Yu, H., and Li, Y. 2017. Examining the feasibilities of industry 4.0 for the hospitality sector with the lens of management practice. *Energies* 10(4): 499. [Online] doi: 10.3390/en10040499 (24 February 2019).

Shivoro, R.S., Shalyefu, R.K. and Kadhila, N. 2018. Perspectives on graduate employability attributes for management sciences graduates. *South African Journal of Higher Education*, 32(1): 216–232. [Online] doi: 10.20853/32-1-1578. (23 February 2019).

Shumaker, D. 2012. *The embedded librarian: Innovative strategies for taking knowledge where it's needed*. Medford, N.J.: Information Today.

Somerville, M.M. and Nino, M. 2007. Collaborative co-design: A user-centric approach for advancement of organizational learning, performance measurement and metrics. *The International Journal for Library and Information Services*, 8(3): 180-188.

Travis, T. 2011. From the classroom to the boardroom: The impact of information literacy instruction on workplace research skills. *Education Libraries*, 34(2): 19–31. [Online].http://search.ebscohost.com.ezproxy.iielearn.ac.za/ login.aspx?direct=true&db=eue&AN=71912879&site=ehost-live (3 July 2019).

UNESCO. 2015. Higher education and the Sustainable Development Goals. [Online]. https://en.unesco.org/themes/higher-education/sdgs (1 March 2019).

Yiu. M. and Law, R. 2012. A review of hospitality internship: Different perspectives of students, employers, and educators. *Journal of Teaching in Travel & Tourism*, 12(4): 377-402. [Online]. DOI: 10.1080/15313220.2012.729459 (5 January 2019).

Zwane, F.N., Du Plessis, L. and Slabbert, E. 2014. Analysing the skills expectations of employers in the South African tourism industry. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur,* 12(1): 550. [Online]. http://dx.doi.org/10.4102/sajhrm.v12i1.550 (23 February 2019).