International good practice in information literacy education

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Abstract

Purpose:
A report is given on a survey of international good practices in information literacy education, the first stage of an Erasmus+ project, Information Literacy Online (ILO), which is creating a multi-lingual and multi-cultural MOOC for information literacy instruction.

Methodology/approach:
The survey was based on a selective identification and analysis of published literature and Internet sources, qualified by expert opinion.

Results:
The results are summarised in five sections: definitions, models. content, and contexts for information literacy; frameworks and methods for teaching and learning of information literacy; information literacy learning materials; multicultural and multilingual aspects of information literacy education; use of MOOCs for information literacy education.

Research limitations:
The review is selective rather than comprehensive, and focuses on those issues of most significance for the development of the ILO MOOC.

Originality/practical implications:
Although the findings are directed to support the development of the ILO MOOC, it is hoped that they may be of more general interest to those involved in information literacy instruction.

Keywords: Information literacy; multi-lingual; multi-cultural; pedagogy; models; MOOCs

1 Introduction

This paper reports a survey and analysis of good practices in information literacy (IL) education. This was carried out as the first stage of an Erasmus+ project, *Information Literacy Online* (ILO), which aims to create a *Massive Open Online Course* (MOOC) for IL. The MOOC will have a particular emphasis on multi-lingual and multi-cultural aspects, on

continual participant self-assessment, and on computer-based pre- and post-course assessment. It is being designed for use by new students at universities, but with a view to its materials being usable in other contexts, such as high schools and workplaces.

The ILO project, running between 2016 and 2019, has partners from the universities of Barcelona, Graz, Frankfurt, Hildesheim, London, Ljubljana, and Zadar. The MOOC which it will produce will focus on students in higher education, while being accessible to high-school students and to adults in lifelong-learning. It will be multi-lingual (English, German, Spanish, Catalan, Slovenian and Croatian), and will reflect both culturally distinct and language-specific issues in IL. Further information on the ILO project may be obtained from the authors of this paper, or from the Slovenian participants, Professors Maja Žumer and Polona Vilar.

The survey reported here constituted the first stage of the project, and was carried out between January and May 2017. It is being kept updated throughout the project. It gives an analysis of current good practices in teaching and training for IL, to guide the structure, content, nature of interaction, and pedagogical practices of the MOOC. No attempt was made to identify 'best' practice; rather to identify good practice relevant to the context of the ILO MOOC. The aim was to identify approaches which had been reported to have successful application in several relevant contexts, without ignoring recent, and hence less widely-reported, promising examples.

Sources used for the survey were: Internet search engines; Internet sources (specialist blogs, associations, curricula); bibliographic databases; citation indexes to follow up relevant sources; library catalogues; contents lists of relevant journals, books series, and multi-authored monographs. Since the literature (published and unpublished) is extensive, and practice rapidly developing, the focus was on materials created in the last five years, i.e. with a date of 2012 or later, although particularly significant older material was also included where appropriate. The aim was not to produce a comprehensive bibliography, but rather a selective list of resources providing evidence of good practice. An analysis of the features of 21 existing MOOCs for IL education was also carried out, and comments on aspects of the draft report were obtained from IL experts in the UK, Germany, Slovenia and Croatia, to assess the validity of the conclusions.

The main findings of the survey will now be summarised in five sections:

- definitions, models, content, and contexts for IL
- frameworks and methods for teaching and learning of IL
- IL learning materials
- multicultural and multilingual aspects of IL education
- use of MOOCs for IL education.

Space limitations mean that only a brief summary of the report's findings, with a subset of the references, can be presented here. A copy of the final report will be deposited in the *Humanities Commons* repository; a copy of the current may be obtained from the authors of this paper.

2 IL definitions, models. content, contexts

IL education has generally been developed for students in higher education. There has been some limited consideration of IL in three other contexts: younger students, typically in high schools; in workplaces and professions; and for the general public (see, for example, Forster, 2017; Kingori, Njiraine & Maina, 2016; Laubersheimer, Ryan & Champaign, 2016). There are a few examples of cross-sectoral applications, with IL materials developed for a university being used in a public library (O'Beirne, 2007), or those developed for school pupils being offered to parents and alumni (Denlinger, 2013), but these are unusual. The materials being developed by the ILO project are primarily aimed at university students: for them to applicable in other contexts, the key factors are that they be sufficiently broad in coverage, generic in subject, and presented in small, discrete bite-sized units.

Not all reported IL educational initiatives mention the definition or model of IL being used. However, it is good practice to state these explicitly, as they help in making rational and explicable decisions about the way the initiative is designed. An initial division can be made into the older style of linear, skills-based models, such as the ACRL Standards, and the more recent, and more holistic models, such as ANCIL, the ACRL Framework, and metaliteracy. though admittedly an over-simplification, this is in accord with the way the models are typically regarded, Walsh (2015) describing them as 'competence' and 'relational' models respectively. While most IL provision is designed around one model, it is possible to 'pick and mix': for example, an IL programme at the University of Maynooth combined elements from the ANCIL model and the ACRL Framework (Dodd, 2017). Nor are the models necessarily very different in practice; for example, one IL programme was mapped to ANCIL, but the originators noted that it could equally be mapped to the SCONUL 'Pillars' model (Gleeson, Verlander & Hardisty, 2017).

For the ILO project, given the general trend towards broader conceptual definitions of IL rather than the older skills-based definitions, and the desirability of having an internationally recognised basis for a multi-cultural MOOC, the UNESCO definition of media and information literacy seems the most suitable (UNESCO, 2013):

> A set of competencies that empowers citizens to access, retrieve, understand, evaluate and use, create, as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and societal activities.

Broad models of this kind have been criticised for offering little specific guidance for designing IL training; this may be countered by using a more specific model of IL within the general definition, as is done for example, in the UK Open University model, which specifies detailed competencies at several levels in five areas (Open University, N. d.).

Therefore a suitable definition of IL for ILO, based on good practice, would be

> “A set of competencies that empowers citizens to access, retrieve, understand, evaluate and use, create, as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and societal activities", with competencies specified in five areas:
>
> - understand and engage in digital practices

- find information
- critically evaluate information, online interactions and online tools
- manage and communicate information
- collaborate and share digital content.

This definition, while useful in setting the scope, does not define the content of the MOOC. A very wide variety of topics have been included in IL educational programmes, including those described as digital literacy, media literacy, metaliteracy, etc. In order to try to define a realistic, broad core, those topics appearing in two or more of the main IL models were identified. This leads to the following set of 16 core concepts, with the proviso that there is overlap between them, and that terminology is not used consistently in all models:

- understand the information environment (in the widest sense)
- use digital tools effectively
- recognise information needs, and how to address them
- know relevant information resources
- find and access information
- critically evaluate information and information sources
- critically evaluate online interactions and online tools
- manage information
- collaborate in information handling
- share digital content ethically
- become an independent and self-directed learner; and a lifelong learner
- learn to learn; develop metacognition
- understand ethical issues of information
- present and communicate information
- create information products
- synthesize information and create new knowledge.

This set of topics, which seems to allow for specification of a comprehensive approach to IL instruction, is used as the basis for the development of the ILO MOOC, though not all will be included from the start. It allows for the creation of an initial set of generic models and materials in such a way that they can be readily modified, customised or extended for use in specific topics and contexts, for example IL instruction for specific academic subjects. The ILO project will develop such subject-specific materials for business administration (by University of Graz participants) and for psychology (University of Zadar participants).

3 Frameworks and methods for teaching and learning

It seems that IL instruction has made very little use of explicit pedagogical frameworks. Certainly no single pedagogical framework has been widely used in the creation of IL learning materials. Rather, a variety of frameworks have been used, seemingly *ad hoc*, for both the creation and the application of IL materials, among them Biggs' constructive alignment pedagogy, Bloom's taxonomy of educational objectives, Honey Mumford learning styles, and Kolb's experiential learning style theory. Despite criticism of the uncritical use of learning styles in particular, it seems that this kind of pedagogical framework has value for IL instructional design. At the least, it reminds designers not to rely on a limited range of learning activities, but to try to provide activities to suit all learners. Our recommendation

for the ILO project was to use Bloom's taxonomy as a general framework, and to use learning styles considerations in planning for a good mix of activities.

A wide variety of methods have been used in the teaching of IL, and much has been written about them, though mainly in the context of face-to-face classes (see, for example, Blanchett, Powis & Webb 2011; Burkhardt 2016). Even considering only online provision, "the variety of methods employed illustrates that there is no magic bullet approach to IL" (Reichart & Elvidge, 2015, p. 146). Such comparative studies as have been done find little demonstrable difference in effectiveness between particular instructional methods, on between face-to-face and online delivery, and between online instruction with different degrees of interaction.

Koufogiannakis and Wiebe (2006) distinguished five information literacy teaching methods. Rephrased slightly, they are:

- traditional instruction (instructor led, didactic, passive)
- online tutorial/workbook instruction (didactic, passive)
- active learning (instructor takes a facilitator role)
- learner-centred (focus on each student's individual needs)
- self-directed learning (independent, student takes responsibility)

All these modes may now be delivered online, provided there are adequate means for online interaction.

In general, good practice for IL education has sought to combine learning approaches, including:

- didactic explanation (via text, video, animation, audio), with videos increasingly acceptable as an alternative to face-to-face presentation and text-based online instruction
- active learning exercises, individual or collaborative, short "one off" or longer duration
- resource evaluation, by checklist or by longer qualitative assessment
- information creation, reflective writing, creation of resource lists

These have been delivered face-to-face, by online instruction, or by self-directed independent learning. A common structure is a two-part session, in which an initial didactic presentation is followed by an active learning component. In the online tutorial, a staple form of IL instruction since the 1990s, there has been a general move away from static text-based tutorials to those with more interaction and audio/visual content; the latter is typically more appealing to students, but does not necessarily result in better assessed learning outcomes. Good practice is now to include as much interaction, with the system, and collaboration, with other students, in online IL instruction, reflecting general pedagogical opinion on the value of active and social, collaborative, learning (Allan, 2016).

There is no standardisation, or agreed best practice, in what software to use in producing IL learning materials. Much of the simpler material has been created using presentation software, such as Powerpoint, Prezi or Adobe Flash, screencasting software such as Jing, or simply HTML or PDF creators. Interactive tutorials have been created using a variety of software: Adobe Captivate and Camtasia Studio have been widely used, and the Articulate Studio and Storyline software is becoming popular.

Gamification, using games in learning situations and introducing game-like elements into instruction generally, has been found to be a good way of involving and enthusing students, and improving student engagement and learning (Lameras et al., 2017; Roozeboom, Visschedijk & Oprins, 2017). Whatever form they take, IL games must be fully integrated into the rest of the course, and contribute in a useful way to the other things participants are doing; not a thing on their own, not a game for the sake of it. Developing an education game demands expertise and considerable resources; many IL instructional 'games' are little more than conventional exercises with some form of scoring, and are poorly received by students (Allan, 2016; Markey, Leeder & Rieh 2014).

Assessment has always played a part in most IL instruction, with a limited variety of methods used, and debates from the start as to which are most appropriate (Dunaway & Orblych, 2011; Oakleaf, 2008, Oakleaf, 2009; Turnbow & Zeidman-Karpinski, 2016; Walsh, 2009). Most commonly this is done in one or more of three ways, for a course comprising several sessions or tutorials: an initial pre-instruction assessment, to check the student's prior level of knowledge; a check of understanding after each session; and a post-course assessment, which may also be a summative examination for credit. Each of these may be done in one of three ways: traditional assessment by an instructor; assessment by peers, i.e. fellow students; or self-assessment. With all three forms of assessment, the multiple-choice quiz is the predominant form of assessment, despite its known limitations. One of the aims of ILO project is to examine alternative forms of assessment, particularly computer-based self-assessment. This is particularly challenging in that the MOOC is primarily intended to be used by students working independently, but that on occasions it may be used within an institution by a cohort of students with an instructor. Whatever assessment methods are adopted must cater for both these possibilities.

4 Learning materials

Relatively little attention has been given to categorising and structuring online learning materials for IL instruction, with the exception of the creation of IL learning objects to be as reusable as possible.

Designing materials for IL instruction, online tutorials in particular, in such a way that they can easily be re-used by others, and modified by their originators, has been seen as desirable ever since such materials were first created (Courtney & Wilhoite-Mathews, 2015). Initially these were intended for local re-use, and kept in an institutional repository, while the current trend is to treat them as Open Educational Resources (OERs) for general re-use, kept in an open access repository, such as GitHub and SoftChalk Cloud. To be effectively reusable, reusable learning objects (RLOs) for IL instruction should observe certain general conditions, some of the most significant being that they should:

- have clearly stated learning objectives and outcomes
- be generic, and focus on broad IL goals, rather than being course- or subject-specific; this increases shelf-life and applicability, but at the cost of losing the benefits of contextualisation
- cover the smallest feasible amount of material, as this makes it more flexible and easier for other to reuse in different contexts

- address multiple learning styles and preferences, through inclusion of different activities in each object
- always include some check of knowledge, as this will be needed by some potential users
- be flexible, by, for example, providing multiple points of access, and giving the choice to take a concluding assessment
- be consistent in design with similar RLOs, so students do not have to learn a new process each time
- be intuitive to use; technical solutions should not get in the way of learning
- have appropriate licensing conditions, allowing wide re-use
- use generally accepted standards wherever applicable, including accessibility standards
- use only widely available, ideally open-access, software and resources, allowing wide re-use

Other than this concern for creating IL materials as RLOs, the only general issue has been the question of whether using an instructional design framework is helpful in designing such materials. A variety of such frameworks have been used in the design of materials for IL instruction, the most popular being ADDIE and IDEA (see, for example, Hess & Greer, 2016; Mullins, 2016).

5 Multicultural and multilingual aspects

Although there are many descriptions of IL training in particular countries or regions, they generally do not analyse national cultural variations. There have been very few examples of multi-lingual provision for IL education, nor of explicit and detailed consideration of such education might be adapted to students from different cultural backgrounds. There is, as Simon (2013, p. 108) puts it "a dearth of literature exploring how library instruction and information literacy instruction is conducted in colleges and universities in non-English speaking countries".

This is despite the fact the cultural dimensions of IL have been recognised for many years; for example, Johnson and Webber (2005, p 112) wrote that "in terms of local and national culture, the information literate person is a self- and socially-conscious being, rather than a simple repository of skills and knowledge. This is underlined by cross-cultural difference, where issues of behaviour and acceptability of kinds of information become sensitive". Badke (2002) similarly drew attention to the limitations of early IL models, such as the ACRL Standards, in addressing the needs of students from non-Western cultures, and Hicks and Lloyd (2016) suggested that the newer models, such as the ACRL Framework, may also be lacking in their treatment of cultural differences.

Hughes, Bruce and Edwards (2007, p. 66) identified issues arising in trying to raise the information literacy levels of linguistically and culturally diverse student groups: "difficulties in understanding often arise due to limited vocabulary, academic and technical linguistic styles, unfamiliar literary, religious, historical or political allusions .. [which] often compound with significant differences in teaching and learning styles experienced by an international student". There is also evidence that different national cultures show different extent and

pattern of engagement with digital materials, with obvious implications for IL training (see, for example, Helsper, 2011). There are also indications, from a study of Wikipedia variants in different languages, that there are distinct differences between different linguistic groups as to what is thought optimal in the number of words, images, and references used in Wikipedia articles (Jemielniak & Wilamowski, 2017).

Many students, and professionals, whose first language is not English, find it necessary to use English language databases (see, for example, Hicks, 2014; and Ferrer-Vincent, 2015); this may pose a problem for examples in non-English instructional materials. Beyond simple understanding of vocabulary, there may be problems in the expression of IL concepts, typically formulated in English, in other languages. Simon (2013) notes the difficulties faced by Israeli students in converting Hebrew concepts into the kind of formalised keyword approach necessary for database searching, while Boolean searching itself may be problematic for non-English speakers (Zhao & Mawhinney, 2015).

There are relatively few examples of multi-lingual IL provision. The INFLOW IL model, developed within the EC 7th Framework Programme between 2010-14, and mainly intended for younger students though with some applicability to university students, was developed in English and translated into French and Spanish (McNicol & Shields, 2014). Digital IL instructional games with a multilingual interface (English, Bulgarian, Italian and Swedish) are being produced by the four partners (Gävle, Milan, Parma, Sofia) in the Erasmus+ project 'Transforming information literacy instruction in the university environment through the serious games approach (tiLIT)', commencing in 2016 (Encheva, 2016).

The IKomp IL MOOC from the Artic University of Norway is available in Norwegian and English, as is the 'Search and write' tutorial from the Universities of Oslo and Bergen, while the 'Improve your research skills' MOOC from the Vrije Universieit Brusse is available in English and Dutch, and UNESCO is planning to implement IL MOOCs in Arabic, Greek, Spanish, and Hindi, as well as in English.

Although there have been many descriptions of IL education in various countries and regions there have been few accounts of what differences local culture may make, and it may be difficult to distinguish issues due to culture from those due to language or previous educational curricula. Montiel-Overall (2007) presented an outline for a 'cultural information literacy', at once constructivist and critical, avoiding didactic skills instruction, and relying on reflection rather than testing for self-assessment.

Similarly, relatively few writers have used any recognised framework in analysing cultural differences. Where a framework has been used, it is invariably Hofstede's 'Five Dimensions of Culture' (Gill 2017; Hofstede, Hofstede & Minkov, 2010). Hofstede's theory analyses a culture or society in terms of six axes: power distance (degree of inequality); individualism (relative importance of individual and collective achievement); masculinity (importance of traditional male role model); uncertainty avoidance (tolerance for ambiguity and unstructured situations); long term orientation (extent of respect for tradition and social obligations); and indulgence (opposed to self-restraint). [The sixth dimension was added in 2010, to that some earlier papers on the applicability of Hofstede's ideas to IL education use only five dimensions.]

Hicks (2013) argues that the older forms of IL models, such as the ACRL Standards are poorly suited to deal with cultural aspects of IL. Špiranec (2017) suggests that critical information literacy, because of its support for multiple perspectives and support for societal as well as personal development, offers the best framework for IL instruction in transitional and post-conflict societies, such as Croatia. She suggests that this is better supported by approaches such as the ACRL Framework, rather than more prescriptive and determined approaches such as the ACRL Standards. Petermanec and Šebjan (2017) note the modifications needed to survey instruments to assess IL levels, to allow for local variations in academic norms, and availability of resources and databases, in their case in Slovenia. Russell and Houlihan (2017) suggest that standard IL frameworks may be adapted to local conditions and local cultures, with adaptions such as use of locally relevant examples and images, simplified language, avoidance of slang and colloquialisms, and avoidance of popular culture examples which are easily misunderstood.

The most extensive set of studies of IL education in different cultural settings have been those of Dorner and Gorman, drawing on analyses of the contexts of Asia and Oceania, and summarised in Dorner (2017). These argue for explicit consideration of cultural factors, using Hofstede's dimensions, in planning IL education in developing countries. They argue in favour of models using a critical form of IL, and against those based on the older skills-based frameworks, especially approaches based on Bloom's taxonomy, as these may not be suitable for all cultures. They suggest that student-centred learning may not appropriate in all cultures, and that collaborative group-working may be better accepted than individual work.

Cultural differences may particularly manifest in different attitudes to, and understanding, issues of plagiarism, attribution and copyright; in some Asian cultures, for example, the necessity to cite, and to avoid copying, runs counter to cultural norms (Han, 2012; Zhao & Mawhinney, 2015). Some lessons may be learned from the ways IL is taught in the context of foreign language learning, where transcultural competences, and appreciation of differences in meaning and worldview, are important (Hicks, 2013).

6 MOOCs for IL

MOOCs, generally understood as online courses in any subject area with unlimited enrolment, first appeared in 2008. Increased usage, and many new providers, led to 2012 being described as the 'year of the MOOC'. Then disenchantment, due to very poor completion rates (usually well below 10 %), concerns about quality, and problems of sustainability, with providers potentially putting in a lot of effort for little financial return. Subsequently, there has been a revision of ideas, and progress on a more realistic basis as well as consideration of the wider place of MOOCS in lifelong learning. There is a very large literature on MOOCs; for an introduction, see Haber (2014), Alman and Jumba (2017) and De Corte, Engwall and Teichler (2016).

From the beginning, a distinction was made between two main types of MOOC:

- cMOOCs, or connectivist MOOCs, are based on a social constructivist approach, with learning happening mainly through social interaction. Their content and structure emphasise collaboration and joint working between learners, and peer- or self-

assessment. The typical cMOOC comprises a collection of resources accessed in a loosely sequential manner, but with opportunity for students to develop their learning in their own way, using tools for collaboration and discussion.

- xMOOCs, or extended MOOCs [in the sense that they generally extend other forms of education or professional development for most learners], have a traditional course structure, with a linear syllabus, largely controlled by instructors, with limited interaction between learners, and with automated quizzes for assessments. The typical xMOOC has a weekly sequence of short video lectures or podcasts, supplementary readings, and a quiz, with less frequent assignments or group activities.

Early MOOCs generally followed the cMOOC approach, while more recently xMOOC principles have been more popular. However, this is not a strict binary categorisation, as xMOOCs can offer a flexible learning environment, and there are now many different forms of MOOC, so that this distinction may no longer be helpful. Our recommendation for the ILO project was not be overly concerned about the classification of the MOOC, although it was likely to share more of the characteristics of the xMOOC, because of its largely skills-based content, and mainly linear progression. It is important that it be both easily adopted for formal blended learning within a university, and also hospitable to participants who wish to sample the material and follow some parts informally.

We identified and compared as many MOOCs dealing with information literacy issues as we could identify, 21 in all. These were so varied in content, format, structure, and intended audience, that it was very difficult to deduce any general lessons or indications of good practice from them, other than the general point - obvious, but seemingly not always observed - that the design of the MOOC should match its purpose and audience.

As an indication of the variety of IL MOOCs, we can give four current examples:

- InfoLit for U (consortium of Hong Kong universities)
  https://edx.keep.edu.hk/courses/course-v1:UGCULibs+IL1001+2017_01/about

- Metaliteracy: empowering yourself in a connected world (State University of New York)
  https://www.coursera.org/learn/metaliteracy

- iKomp: information literacy (Arctic University of Norway)
  https://uit.mooc.no/courses/course-v1:UiT+iKomp+Eng/about

- Information and digital literacy for university success (University of Sydney)
  https://www.mooc-list.com/course/information-digital-literacy-university-success-coursera

7 Conclusions

Although this summary of good practice in IL education has been created for the specific purpose of supporting the development of the ILO MOOC, we hope it - and the references which support it - may be of interest to others involved in developing IL instruction

programmes. This is particularly so in respect of the ideas about multi-lingual and multi-cultural aspects, which are important but little-considered perspectives.

References

Allan, B. (2016). *Emerging strategies for supporting student learning: a practical guide for librarians and educators*. London: Facet.

Alman, S. W., & Jumba, J. (Eds.). (2017). *MOOCs now: everything you need to know to design, set up, and run a massive open online course*. Santa Barbara, CA: Libraries Unlimited.

Badke, W. (2002). International students: information literacy or academic literacy?. *Academic exchange quarterly*, *6*(4), 60-65.

Blanchett, H., Powis, C., & Webb, J. (2011). *A guide to teaching information literacy: 101 practical tips*. London: Facet

Burkhardt, J. M. (2016). *Teaching information literacy reframed: 50+ framework-based exercises for creating information-literate learners*. London: Facet.

Courtney, M., & Wilhoite-Mathews, S. (2015). From distance education to online learning: practical approaches to information literacy instruction and collaborative learning in online environments. *Journal of library administration*, *55*(4), 261-277.

De Corte, E., Engwall, L., & Teichler, U. (Eds.). (2016). *From books to MOOCs?: emerging models of learning and teaching in higher education: proceedings from a symposium held in Stockholm, 23 May 2015*. London: Portland Press.

Denlinger, K. (2013). *ZSRx: an information literacy MOOC* [Blog post]. Washington, DC: Coalition for Networked Information. Retrieved 17. 3. 2018 from https://www.cni.org/topics/teaching-learning/zsrx-an-information-literacy-mooc

Dodd, L. (2017). Embedding information literacy through critical skills, collaboration and a new curriculum. *SCONUL focus*, (68), 37-41. Retrieved 2. 3. 2018 from https://www.sconul.ac.uk/page/focus-68

Dorner, D. G. (2017). Chapter E. In *Global perspectives on information literacy: fostering a dialogue for international understanding* (pp. 47-59). Chicago: ACRL. Retrieved 1. 3. 2018 from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/GlobalPerspectives_InfoLit.pdf

Dunaway, M. K., & Orblych, M. T. (2011). Formative assessment: transforming information literacy instruction. *Reference services review*, *39*(1), 24-41.

Encheva, M. (2016). Teaching information literacy courses in the context of library and information science education in Bulgaria: challenges and innovative approaches. *Journal of library administration*, *56*(5), 595-602.

Ferrer-Vinent, I. J. (2015). Exploring science information literacy instruction at French and Spanish libraries. *Science and technology libraries*, *34*(2), 134-146.

Forster, M. (Ed.). (2017). *Information literacy in the workplace*. London: Facet.

Gill, C. (2017). *Hofstede's cultural dimensions and differences across cultures* [Blog post]. Oxford: OUPblog. Retrieved 1. 3. 2018 from https://blog.oup.com/2017/03/hofstede-cultural-dimensions

Gleeson, C., Verlander, P., & Hardisty, J. (2017). Developing a new co-ordinated approach to information literacy at the University of Chester. *SCONUL focus*, (68), 42-46. Retrieved 2. 3. 2018 from https://www.sconul.ac.uk/page/focus-68

Haber, J. (2014). *MOOCs*. Cambridge, MA: MIT Press.

Han, J. (2012). Information literacy challenges for Chinese PhD students in Australia: a biographical study. *Journal of information literacy*, *6*(1), 3-17.

Helsper, E. J. (2011). Digital literacies: different cultures, different definitions. In L. H. Stergioulas, & H. Drenoyianni (Eds.), *Pursuing digital literacy in compulsory education* (pp. 141-157). New York: Peter Lang.

Hess, A. K. N., & Greer, K. (2016). Designing for engagement: using the ADDIE model to integrate high-impact practices into an online information literacy model. *Communications in information literacy*, *10*(2), 264-282.

Hicks, A. (2013). Cultural shifts: putting critical information literacy into practice. *Communications in information literacy*, *7*(1), 50-65.

Hicks, A. (2014). Bilingual workplaces: integrating cultural approaches to information literacy into foreign language educational practices. *Journal of information literacy*, *8*(1), 21-41.

Hicks, A., & Lloyd, A. (2016). It takes a community to build a framework: information literacy within intercultural settings. *Journal of information science*, *42*(3), 334-343.

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind: intercultural cooperation and its importance for survival* (3rd ed.). New York: McGraw Hill.

Hughes, H., Bruce, C., & Edwards, S. (2007). Models for reflection and learning: a culturally inclusive response to the information literacy imbalance. In S. Andretta (Ed.), *Change and challenge: information literacy for the 21st century* (pp. 59-84). Blackwood: Auslib Press.

Jemielniak, D., & Wilamowski, M. (2017). Cultural diversity of quality of information on Wikipedias. *Journal of the association for information science and technology*, *68*(10), 2460-2470.

Johnson, B., & Webber, S. (2005). As we may think: information literacy as a discipline for the information age. *Research strategies*, *20*(3), 108-121.

Kingori, G., Njiraine, D., & Maina, S. (2016). Implementation of information literacy programmes in public libraries. *Library hi tech news*, *33*(2), 17-22.

Koufogiannakis, D., & Wiebe, N. (2006). Effective methods for teaching information literacy skills to undergraduate students: a systematic review and meta-analysis. *Evidence based library and information practice*, *1*(3), 3-43.

Lameras, P., Arnab, S., Dunwell, I., Stewart, C., Clarke, S., & Petridis, P. (2017). Essential features of serious game design in higher education: linking learning attributes to game mechanics. *British journal of educational technology*, *48*(4), 972-994.

Laubersheimer, J., Ryan, D., & Champaign, J. (2016). InfoSkills2Go: using badges and gamification to teach information literacy skills and concepts to college-bound high school students. *Journal of library administration*, *56*(8), 924-938.

Markey, K., Leeder, C., & Rieh, S. Y. (2014). *Designing online information literacy games students want to play*. Lanham, MD: Rowman and Littlefield.

McNicol, S., & Shields, E. (2014). Developing a new approach to information literacy learning design. *Journal of information literacy*, *8*(2), 23-35.

Montiel-Overall, P. (2007). Information literacy: toward a cultural model. *Canadian journal of information and library science*, *31*(1), 43-68.

Mullins, K. (2016). IDEA model from theory to practice: integrating information literacy in academic courses. *Journal of academic librarianship*, *42*(1), 55-64.

Oakleaf, M. J. (2008). Dangers and opportunities: a conceptual map of information literacy assessment approaches. *Portal: libraries and the academy*, *8*(3), 233-253.

Oakleaf, M. (2009). Writing information literacy assessment plans: a guide to best practice. *Communications in information literacy*, *3*(2), 80-90.

O'Beirne, R. (2007). Feeding the messes: digital citizenship and the public library. In J. Secker, D. Boden, & G. Price (Eds.), *The information literacy cookbook: ingredients, recipes and tips for success* (pp. 11-25). Oxford: Chandos.

Open University (N. d.). *Digital and information literacy framework*. Milton Keynes: The Open University. Retrieved 4. 3. 2018 from http://www.open.ac.uk/libraryservices/pages/dilframework

Petermanec, Z., & Šebjan, U. (2017). Evaluation components of information literacy in undergraduate students in Slovenia: an experimental study. *Library and information science research*, *39*(1), 69-75.

Reichart, B., & Elvidge, C. (2015). Information literacy in the changing landscape of distance learning. *Pennsylvania libraries*, *3*(2), 144-155.

Roozeboom, M. B., Visschedijk, G., & Oprins, E. (2017). The effectiveness of three serious games measuring generic learning features. *British journal of educational technology*, *48*(1), 83-100.

Russell, E. A., & Houlihan, M. (2017). Chapter I. In *Global perspectives on information literacy: fostering a dialogue for international understanding* (pp. 87-98). Chicago: ACRL. Retrieved 1. 3. 2018 from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/GlobalPerspectives_InfoLit.pdf

Simon, C. R. (2013). Library and information literacy instruction in Israeli colleges and universities: a preliminary survey. *International information and library review*, *45*(3-4), 108-113.

Špiranec, S. (2017), Chapter K. In *Global perspectives on information literacy: fostering a dialogue for international understanding* (pp. 110-120). Chicago: ACRL. Retrieved 1. 3. 2018 from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/GlobalPerspectives_InfoLit.pdf

Turnbow, D., & Zeidman-Karpinski, A. (2016). Don't use a hammer when you need a screwdriver: how to use the right tools to create assessment that matters. *Communications in information literacy*, *10*(2), 143-162.

UNESCO. (2013). *Global media and information literacy (MIL) assessment framework: country readiness and competencies*. Paris: UNESCO. Retrieved 17. 3. 2018 http://unesdoc.unesco.org/images/0022/002246/224655e.pdf

Walsh, A. (2009). Information literacy assessment: where do we start?. *Journal of librarianship and information science*, *41*(1), 19-28.

Walsh, A. (2015). Playful information literacy: play and information literacy in higher education. *Nordic journal of information literacy in higher education*, *7*(1), 80-94.

Zhao, J. C. & Mawhinney, T. (2015). Comparison of native Chinese-speaking and native English-speaking engineering students' information literacy challenges. *Journal of academic librarianship*, *41*(6), 712-724.