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REFLECTING ON THE STANDARDS [ARTICLE]

REFRESHING INFORMATION LITERACY

Learning from recent British information literacy models

Justine Martin
Minnesota State University, Mankato

ABSTRACT

Models play an important role in helping practitioners implement and promote information literacy. Over time models can lose relevance with the advances in technology, society, and learning theory. Practitioners and scholars often call for adaptations or transformations of these frameworks to articulate the learning needs in information literacy development. This study analyzes four recently published models from the United Kingdom. The initial findings were presented in a report for an ACRL taskforce reviewing the *Information Literacy Competency Standards for Higher Education*. This article presents complementary, yet distinct findings from the same dataset that focus on reoccurring themes for information literacy practitioners. Taken together, the ACRL report and the findings below present innovative means in which the British models refresh information literacy guidelines in higher education.

INTRODUCTION

Models in the form of standards, guidelines, and frameworks play an important role in the implementation and promotion of information literacy. The documents provide practitioners a starting point to build and assess their educational offerings. As time, technology, and our educational knowledge advances, models can become misaligned to the evolving needs of the information literate. Some professionals call for revised models, or even advocate creating new conceptual frameworks (e.g. transliteracy, digital literacy). As Coonan (2011) states in her *Theoretical Background* report:

> There is an imperative need to rehabilitate the perception of information literacy and recognise that it is not merely a set of skills and competences, but a continuum that *starts* with skills and competences and ascends towards high-level intellectual and metacognitive behaviours and approaches. (p. 20)

Four groups in the United Kingdom recently produced new or revised models to articulate the developmental needs of the information literate in higher education. These models are:

- A New Curriculum for Information Literacy (ANCIL)
- Society of College, National and University Libraries' Seven Pillars of Information Literacy (SCONUL)
- National Information Literacy Framework Scotland (Scottish framework)
- Information Literacy Framework for Wales (Welsh framework)

This study highlights salient themes in the models by analyzing their published documentation and interviewing the authors. The findings explain how the models address weaknesses in previous guidelines and create frameworks that enhance information literacy education.

LITERATURE REVIEW

Soon after organizations began publishing information literacy models librarians and scholars critiqued and offered recommendations for adapting the guidelines. The critiques often focus on, or allude to, specific documents such as ACRL's *Information Literacy Competency Standards for Higher Education* (2000) or SCONUL's original Seven Pillars of Information Literacy (SCONUL Information Skills Task Force, 1999). The literature about improving guidelines is vast, but authors generally express weaknesses in the structure, theory, and/or overall tone of these models (Elmborg, 2006; Johnston & Webber, 2003; Markless & Streatfield, 2007; Whitworth, 2006).

A reoccurring concern is the linear, check-the-box structure of some models, which is disingenuous to the lived experiences of the information literate (Elmborg, 2006; Jacobs, 2008; Johnston & Webber, 2003; Kutner & Armstrong, 2012; Lloyd, 2006; Markless & Streatfield, 2007; Whitworth, 2006). Information literacy development is unpredictable and is not as straightforward as presented by the original SCONUL model or ACRL standards. Models with competency-based structures have a positivist tone that there are right and wrong ways to complete information literacy tasks. This tone implicitly depicts learners as passive recipients of information, separated from their nonacademic information experiences (Hepworth & Walton, 2009;

Lloyd, 2010). Advocates of the critical and relational approaches to information literacy recommend creating guidelines that embrace, enhance and challenge an individual's understanding of information (Andretta, 2012a; Elmborg, 2006; Seale, 2010).

Experts also call for adapting learning theories that underpin information literacy models. Critics worry some models emphasize the demonstration of behavioral learning skills, while minimizing or ignoring educational processes that increase deep learning. Deep learning helps individuals become information literate by relating concepts to experiences. This learning increases an individual's understanding of learning processes, different learning contexts, and their preferred learning styles (Hepworth & Walton, 2009; Johnston & Webber, 2003). As a result, scholars and practitioners call for more reflective and contextualized learning experiences (Bruce & Hughes, 2010; Hepworth & Walton, 2009; Kutner & Armstrong, 2012; Walton & Cleland, 2013). To do so Bruce, Hughes, and Somerville (2012) believe the nuances in information literacy need to be differentiated between:

> (1) the skills associated with using information in an ever-expanding range of contexts, representing a functional view of information and information literacy and (2) the process of using information to learn, including communicating and creating in these contexts, representing transformative interpretations of information and information literacy. (p. 524)

The latter category is the main focus of the informed learning approach to information literacy (Bruce & Hughes, 2010, p. 2). Other professionals express complementary ideas by advocating the increased teaching of the conceptual underpinning of information literacy over functional skills (Andretta, 2012a; Godwin, 2012; Hepworth & Walton, 2009; Markless & Streatfield, 2007).

The changing nature of technology and society also accentuates weaknesses in information literacy models. These technologies, and the subsequent impact on information processes, changed our understanding of information literacy (Mackey & Jacobson, 2011; Markless & Streatfield, 2007; Špiranec & Zorica, 2010; Tuominen, 2007). Many information literacy models were published before the creation of social media and open access platforms to create and disseminate information. Models, such as the ACRL standards, imply information is static and found in distinct units; however, today's information interactions are more fluid and collaborative. Furthermore new information containers (e-books, mobile apps and browsers) outdate some guidelines in the models. Even scholarly publishing changed with the advent of digital repositories, open source journals, and e-books. The emerging technologies not only changed how individuals interact with information, these technologies also empower individuals to become creators and disseminators of information (Andretta, 2012b; Mackey & Jacobson, 2011). As a result, guidelines need modification to articulate the evolving information technologies and practices.

Practitioners and scholars offered a variety of solutions, or replacements, for the limitations in information literacy models. The four recent models from the United Kingdom build upon these recommendations by providing guidance and concrete learning outcomes to address

weaknesses and promote realigned information literacy objectives.

METHODOLOGY

The author chose to study the four selected models from the United Kingdom because of their recent publication and their goals to articulate relevant guidance and learning outcomes to advance the information literacy development of individuals in higher education. The guidelines are collectively called models in this study. The author uses the term model to describe documentation that provides guidance and support in the understanding, development, and implementation of information literacy. Documentation for all four models is freely available online and can be used with attribution.

While the models emerged out of the same geographic area within a short span of years, there are differences between the models. ANCIL, published in 2011, is an undergraduate information literacy curriculum organized into ten strands starting with the student's transition into higher education and culminating in the transition out of higher education and into the workforce (Secker & Coonan, 2011). SCONUL Seven Pillars of Information Literacy, originally created in 1999 and then revised in 2011, is a prevalent information literacy model for British higher education. The model is organized into the following conceptual pillars: identify, scope, plan, gather, evaluate, manage, and present (SCONUL Working Group on Information Literacy, 2011a). The Scottish and Welsh frameworks, published in 2009 and 2011 respectively, provide guidelines for higher education as part of lifelong information literacy education. These frameworks outline incremental learning outcomes at different education levels including elementary, secondary, further education (similar to the community college system in the United States), higher education, and lifelong learning (National Information Literacy Framework Scotland, 2009; Welsh Information Literacy Project, 2011). For this study the author analyzed the general information and higher education sections of the national frameworks. Martin (2013) provides more detail on the individual models including an appendix mapping the models' learning outcomes to ACRL's *Information Literacy Competency Standards for Higher Education* (2000).

The findings emerged using a grounded theory methodology. Simply stated a researcher grounds their argument in the collected data, where themes emerge. This qualitative method allows the researcher to breakdown and articulate knowledge constructed by participants (Charmaz, 2006). As part of the analysis, the author coded published documents connected to the four models and then interviewed eleven individuals who were key participants in the creation of the models. The interviews provided an opportunity to discuss model development and ask questions about the key concepts found during the documentation analysis. The process the author used to analyze the collected information included line-by-line coding, memo writing, and then memo categorization. The findings represent themes that emerged regarding salient changes to realign guidelines with current information literacy development needs.

RESULTS

Critical thinking, lifelong learning, empowerment, transformational, holistic, and flexible are reoccurring words and phrases model authors use to express their visions for refreshing information literacy.

These value-laden terms help express an overarching theme in all four models: to articulate information literacy as integral to learning. In a related report to ACRL about the four models, Martin (2013, p. 6) notes, "Rather than assuming information literacy is attained through brief, one-time experiences, it needs lifelong and continuous refinement best realized by becoming an explicit part of the learning experience." An interviewee reinforced this statement:

> To me, [information literacy] has to be part of the learning process and it doesn't have to be a formal learning process in the university. It can be a learning process just being an individual and going along with your life. You still use information in lots of different ways and you're still developing how you use it in the same way as how you are developing how you use language, and how you develop communication with people.

The concepts and learning outcomes presented in the models continuously return to the notion that information literacy is integral to learning. To realize this dyadic relationship these models contain several interconnected themes that emerge out of holistic and flexible structures.

Holistic & Flexible Structure

Adopting holistic, flexible structures is a reoccurring theme in the models. Interview participants voiced concerns over the rigid and step-by-step structure of other guidelines. Implementing models at face value in a linear progression disconnects an individual from an authentic information experience. As one interviewee stated, "No one feels linear when someone is grappling with a bit of literature searching." In the interviews documentation, the model authors stress that the guidelines are flexible and should be adapted to suit individual learning situations. For instance the Welsh framework states:

> We recognize however that learning and skills development do not always happen in neat consecutive progression. They may follow an interative or cyclical rather than linear progression. Learners may demonstrate higher spectrum skills in some areas whilst requiring more intensive support in other areas. Furthermore, an individual's information literacy level may not necessarily reflect the curriculum level at which they are studying. We recognize that one size does not fit all and that flexibility should be incorporated into the framework delivery. (2011, p. 6)

Alternatively SCONUL's *Seven Pillars of Information Literacy: Core Model for Higher Education* (2011a, p. 4) uses metaphor to describe the fluid, modular use of the guidelines. The individual can move up, and even down, a pillar based on their experience and understanding of a particular aspect of information literacy. In each experience, the learner can interact with one or a combination of pillars. These examples introduce the important theme of an individual's learning experience, which is discussed later in the findings.

The word "holistic" is a reoccurring term describing the models. The documentation and interviewees use the word in different contexts, which affects other concepts in the models. In one context, the model creators use the term to represent all the processes and tasks that encompass information literacy. For instance interviewees describe the inclusion of academic literacies, new

technologies, and dissemination modes as examples of making information literacy more holistic. Some participants view holistic information literacy in terms of the learner and how the whole experience transforms the individual on behavioral, cognitive, metacognitive, and affective levels. Finally, model authors use holistic to describe the promotion and implementation of information literacy. In this context, authors express concerns about the teaching of functional, library-related skills at the cost of other aspects of information literacy. These contextualized meanings of the term holistic reveal how model authors see the need to broaden guidelines on the structural, theoretical, and pedagogical levels. The multidimensional meaning also complements a number of "informed learning policy principles" advocated by Bruce et al. (2012, pp. 540–543). The models' holistic contexts parallel principles regarding deep learning of information and adapting to emerging communication formats.

Information Landscape and Information Literacy Landscape

The information landscape and the information literacy landscape are key concepts to explain how the models are not fixed or universal, but are contextual and fluid based on an individual's experience. Information landscapes are interactions within social or situational information environments. Using information in the workplace or in college is considered a physical information landscape, whereas interactions with health or financial information are situational landscapes. Each landscape reshapes the importance and articulation of information literacy skills and processes. For instance, an individual may give priority to analyzing diet information from a well-known general nutrition site, while a nutritionist in the context of a higher education information landscape gives greater weight to peer-reviewed sources. Model authors recognize the higher education information landscape is temporary for many individuals; thus, they understand it is critical to help individuals transfer their skills into and out of higher education. The SCONUL model uses "lens" documents to adapt the core, generic model to specific landscapes (SCONUL, 2011b, 2011c, 2011d). The Scottish and Welsh frameworks provide incremental steps in the educational levels leading into and out of higher education (National Framework Scotland, 2009a; Welsh Project, 2011). ANCIL explicitly embeds transitional learning outcomes into the first and last strands of their curriculum. These ANCIL learning outcomes include, but are not limited to: "Distinguish between the expectations at school and HE level in your discipline" (Secker & Coonan, 2011, p. 9) and "Transfer the skills of finding, critically evaluating, and deploying information to daily life" (p. 16).

The SCONUL model advances the landscape theme with the information literacy landscape. Whereas the information landscape describes the information environment in which the individual interacts, the information *literacy* landscape is an individual's overall understanding of their experiences with, and attitudes and behaviors towards, information. Bent (2008, pp. 60–61) describes internal factors (e.g. learning styles, perceptions of information literacy, habits) and external factors (e.g. educational systems, interpersonal interactions) that impact an individual's information literacy landscape. This landscape forms the foundation for a person's development within the seven pillars of information literacy (SCONUL, 2011a, p. 4). Model authors advocate for multidimensional learning contexts to help

learners understand the contours of these landscapes. In a holistic approach, individuals understand, reflect on, and operate in varying information landscapes, while assessing and adapting their own experiences, attitudes, and behaviors within their information literacy landscape. By positioning higher education information literacy as one of many information landscapes shaping an individual's experience, the model authors present a more contextualized and experiential learning approached advocated by their peers (Andretta, 2012a; Bruce, Edwards, & Lupton, 2006; Lloyd, 2010).

Multidimensional Learning

The models demonstrate, and the interviewees reinforce, the need for multidimensional learning to refresh information literacy. The model authors conclude multiple forms of learning are an essential part of the learning process and information literacy development:

> Information Literacy is evidenced through understanding the ways in which information and data is created and handled, learning skills in its management and use and modifying learning attitudes, habits and behaviours to appreciate the role of information literacy in learning. In this context learning is understood as the constant search for meaning by the acquisition of information, reflection, engagement and active application in multiple contexts (NASPA, 2004). (SCONUL, 2011a, p. 3)

Four types of learning contexts are found within the models' learning outcomes: behavioral, cognitive, metacognitive, and affective. All the models contain behavioral learning outcomes articulating action-based, functional tasks such as, "Is able to demonstrate the ability to use new tools as they become available" (SCONUL, 2011a, p. 6). The models also include learning outcomes for cognitive learning, which builds an individual's understanding of information literacy concepts. The models include new outcomes to understand the use of emerging technologies and processes such as, "Evaluate the strengths of online user-generated content as sources of information" (Secker & Coonan, 2011, pp. 12–13). SCONUL (2011a) use the behavioral and cognitive learning contexts in their model's structure by breaking down each pillar into "understands" and "is able to" categories. With this structural change, the SCONUL model complements the recommendation by Bruce et al. (2012) to clearly delineate functional skills from higher levels of conceptual learning in information literacy education.

ANCIL and SCONUL expand their learning outcomes into the metacognitive and affective contexts. Other themes in these findings allude to the importance of reflection in an individual's understanding of their own experiences and perceptions. The model authors use metacognitive learning, or learning about one's own learning, to incorporate reflection into the learning outcomes. Two examples of metacognitive learning outcomes are "Recognise that learning at HE is different and requires different strategies" (Secker & Coonan, 2011, p. 9), and "Understands that being information literate involves developing a learning habit so new information is being actively sought all the time" (SCONUL, 2011a, p. 5). The affective learning also incorporates reflection so an individual can explore the emotional impact of a learning situation. A number of interviewees' believe holistic information literacy models should include

information about the emotional side of information literacy development. While other model author's allude to the affective dimension, ANCIL is unique in explicitly including affective learning in their learning outcomes with "Critique the concept that learning changes the learner" and "Acknowledge the emotional impact of learning on your worldview" (Secker & Coonan, 2011, p. 10). Embracing learning contexts is another approach to making a holistic information literacy, for enabling deep learning (Hepworth & Walton, 2009), and learning through variation and reflection (Andretta, 2012a; Bruce et al., 2006).

Addressing Technological Impact on Information Literacy

The model authors recognize the need to incorporate emerging technologies into rehabilitated information literacy. Incorporating technological advancements, however, is not limited to the use of new technologies, but requires the reassessment of concepts such as evaluating, managing, creating, and disseminating information. The models, especially ANCIL and SCONUL, redefine these concepts by positioning the individual as an active participant in information interactions that blur the lines with emerging technologies. This repositioning enhances the holistic view of information literacy by placing the individual in the role of user, manager, evaluator, creator, and disseminator of information.

The models have an inherent sense of individual action and responsibility. From this perspective the information literate are not seen as passive transmitters of information, but active participants responsible for their actions. These actions may include appropriately using and citing other sources of information, but it also includes being responsible for the shape and extent of one's own online presence and their role in sharing information to others. These learning outcomes are a few examples of how the models articulate an individual's responsibility: "Develop strategies for assimilating and analysing new information, including that which challenges your world view" (Secker & Coonan, 2011, p. 16), "Use judgment to appropriately adapt a search, including the decision to use a new database (Welsh Project, 2011, p. 29), and "Understand their personal responsibility to disseminate information & knowledge" (SCONUL, 2011a, p. 11).

The information literate individual as a creator of information is a reoccurring concept in these models. With the emergence of social media and other technologies, dissemination of information is increasingly decentralized. ANCIL and SCONUL include learning outcomes both for information literacy users and creators: "Understands that individuals can take an active part in the creation of information through traditional publishing and digital technologies (e.g. blogs, wikis)" (SCONUL, 2011a, p. 11) and "Develop new insights and knowledge in your discipline" (Secker & Coonan, 2011, p. 15). These learning outcomes complement Andretta's (2012b) concept of "produser" in her explanation of transliteracy, where the line separating information user from producer is blurred.

The emergence of new technologies also impacts an individual's management of information. Historically, the information literate needed to ethically use and disseminate information, but these issues expanded with the explosion of information in the digital age. Modified skills are needed to interact and cope with the transforming mass of information. The

following learning outcomes are examples of how model authors address these problem: "Understands the need to adopt appropriate data handling methods" (SCONUL, 2011a, p. 10) and "Decide on an appropriate information management technique suitable for your discipline/the resources you use" (Secker & Coonan, 2011, p. 13).

The models show how information evaluation is still important. A number of the model authors, however, advocate a more nuanced and contextual approach to evaluation criteria. Today's information literate cannot use physical indicators of print publications when textual information is visually identified as a link or PDF. Several model authors question traditional evaluation criteria and seek new methods to evaluate sources. As an interviewee states:

> I think in the UK some of us have changed our perspective of where things are published. We think wikis and blogs are as valuable and as expert and as authoritative depending on who's writing them, and who's looking after them. It doesn't matter if it's a blog, as long as we know it's somebody who's authoritative in that area.

Since valuable information can be found in newer formats such as wikis, it is increasingly important to understand how to appropriately use and critique various publication platforms. Some examples from ANCIL's model include: "Identify overt and implicit techniques for influencing the reader/viewer in different arenas in academic writing, in advertising, in the media" (Secker & Coonan, 2011, p. 10) and "Summarise the key methods of publishing research findings in your discipline (including self-publication, e.g. blogging)" (Secker & Coonan, 2011, p. 15). Broadening and contextualizing the use of new technologies not only helps the information literate individual use information appropriately, it helps them become empowered and actively responsible for their actions as advocated by critical information literacy supporters (Elmborg, 2006; Kutner & Armstrong, 2012).

Refreshing Practice

Refreshing information literacy is not just about transforming the learner, it is also about changing how practitioners perceive and implement information literacy. Model authors express concerns about how some practitioners interpret, promote, and implement information literacy by focusing on teaching library-related, behavioral skills at the cost of other aspects of information literacy. The model authors recommend several changes at the practitioner level: modify teaching of functional skills, address affective dilemmas, embed information literacy into the disciplines, and align information literacy to academic skills.

Cloaking functional skills as information literacy is a reoccurring theme that concern model creators. Functional skills in this context parallel the concept of behavioral skills, where an individual learns by doing (Kaplowitz, 2008). Interviewees describe these behavioral or functional skills in terms of library tasks such as navigating a database or finding a journal article. These skills are a part of information literacy, but model authors fear some practitioners overemphasize these skills at the cost of other learning experiences that enhance deep learning. As an expert told the ANCIL team: "… 'skills' are not the be all and end all of information literacy education. The IL curriculum needs to consider the whole students information experience - skills are

just one aspect" (Secker, 2011, p. 7). Practitioners need to recognize the decreasing importance of teaching information finding skills, while increasing focus on higher-level cognitive skills such as evaluating, choosing and synthesizing information. One interviewee noted:

> Because somewhere on that journey, we moved from teaching searching to realizing that people were finding all the information wherever they wanted to, so the evaluation became more important, and that's just a step on from critical thinking.

These authors recognize that reprioritizing functional skills within information literacy education effects practitioners on the affective, pedagogical, and social levels. Several interviewees reflected on their personal feelings of fear, intimidation, and loss of control when broadening their implementation of information literacy. As one interviewee reflected:

> I think a lot of us, myself included, still run workshops [that teach functional skills] partly because we don't have time to change them, we don't have time to think about how to change them. It is much less threatening. It is much harder to run a workshop where students they change you. They question you about the concepts behind what you are doing.

Other interviewees see the issue as giving practitioners the confidence to identify themselves, not as trainers but, as educators and facilitators of information literacy. The ability for practitioners to identify themselves as educators can increase their self-assurance when discussing information literacy with faculty in other disciplines. Confidence in their transformed identity is crucial for practitioners to adopt the next two themes: helping faculty to embed information literacy into their curricula and blurring the lines with academic skills.

Several model authors promote the idea of embedding information literacy directly into the curricula of academic departments. These interviewees believe the most effective means of learning information literacy is within a discipline's field of study. After investigating practices at different institutions, an interviewee found, "The places that were having most success in terms of getting lots of information literacy teaching out there, and it making a real difference, were the ones that were embedding in the curriculum." Model creators see embedding information literacy as a natural and fluid part of a discipline's educational mission and not as an add-on session. Other experts agree with the authors and advocate information literacy is best taught within the subject curriculum, rather than separated into one-shot library sessions (Hepworth & Walton, 2009; Kutner & Armstrong, 2012; Walton & Cleland, 2013). Once again this change is tied with transforming practice. It is also an opportunity for practitioners to teach current and future faculty to build information literacy into their courses.

Embracing academic literacies provides a stepping-stone to incorporate information literacy into the disciplines and offers holistic, informal support of student learning. Specifically, SCONUL and ANCIL authors stress the importance of blurring the lines between information and academic literacies. Academic literacy skills can include note taking, outlining, thesis development, citing, and synthesizing information. Some practitioners will not view academic skills as part of their information literacy work; however,

connecting the two literacies is important to achieve a holistic approach to information literacy. As one interviewee noted:

> [Students] don't see these things parceled off in different pockets of expertise. I saw myself as a gateway to wherever it was they could get a little bit more specialized advice on what they're looking for, but they really didn't see why they needed to be talking to different people because it was the same thing; it was all their work.

Unique ANCIL and SCONUL learning outcomes related to academic literacies include, but are not limited to: "Develop a strategy for note-making - in lectures/ supervisions, for your reading, in everyday situations" (Secker & Coonan, 2011, p. 13) and "Understands the difference between summarising and synthesizing" (SCONUL, 2011a, p. 11).

Conclusion

The four recent models from the United Kingdom—ANCIL, SCONUL, Scottish and Welsh frameworks—provide innovative guidelines for practitioners to promote and incorporate information literacy holistically into learning processes. Not only do these models address emerging technological changes and publication modes, but they also incorporate new educational approaches to address weaknesses of previous models. Model authors view information literacy as holistic, contextual and emerging out of an individual's information experiences. It incorporates multidimensional learning and calls for the learner and practitioner to reflect on their information experiences and perceptions.

Creating and publishing models are the initial steps in the process of refreshing information literacy. The interviewees view assessing and revising the models as the next step in the process. Research into the implementation of these models at individual institutions and their impact on student learning would be beneficial for the entire information literacy community. In the end the authors of the four models view their work as a continuous process of assessing and improving information literacy guidelines. Information literacy is an evolving concept and, as such, professionals will continue to adapt guidelines to meet the needs of today's information users.

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