Redefining reading and the role of the teacher-librarian Alanna King University of Alberta

Every day as a teacher-librarian, I try to match resources to students and students to resources. In the stacks, it's often quite easy to rely on Dewey and the alphabet for locating material, but when it comes to finding and reading online, the students get bogged down. Often I teach a whole class how to access material online for their assignments, and watch them struggle with the nuances of web material. Even when we open up a Learning Management System (LMS) that directs them to specific hypertext links, they have trouble navigating toolbars and columns. Fundamentally, this comes down to reading skills. As David Warlick (2009) said "Educators should seek to integrate literacy, rather than integrate technology ... Computers and the Internet will be an essential part of teaching and learning because they are the tools of contemporary literacy" (p. xiii). As a teacher-librarian I set out in this paper to discover what progress, if any, has been made in implementing strategies for teaching reading online. What I discovered is the complexity of interpreting online text is much greater than I anticipated. Ranjana Das (2011) explains that the very nature of online text has blurred the previously predictable line between authors, readers, users and producers (p. 346). Being an online student myself, I am often reading while authoring, using while curating my library. The complexity of reading online has implications for all of us in the education system.

Reading skills and the online text

As a secondary school teacher, my experiences of teaching reading have always been about remediating what has already been learned. The same is true for teaching reading online. While secondary readers want to have predictable structures to rely on, they also want enough novelty to be enticed and challenged. The very nature of reading online brings into play many new variables of this medium including conventions, structure, and legibility. According to Doug Achterman (2010) there are four interrelated factors that have changed the nature of literacy:

- 1.1. The ubiquity of the internet
- 1.2. The nature of the internet itself allows for the continuous change of literacy technologies themselves
- 1.3. Such technologies [citation] change the form and functions of earlier literacies since they carry within them new potentials for literacy
- 1.4. The way we make and create meaning with text is in constant evolution. (p. 79)

There has been some educator concern about keeping up with technology. Rather than using this excuse to not adapt to the new nature of literacy, it is better that we become more adaptable. Annette Lamb and Larry Johnson (2011) say that the [digitization of text] impacts information organization, selection, evaluation and creation.

The task for teachers is to prepare our students for these challenges. One of those ways is to expose them to reading in multiple dimensions. Just as we have

adapted teaching to suit the diversity of learners, so must we teach to the multitude of dimensions that meaning can be made from.

Reading in multiple dimensions

In describing the complexity of reading in hypertext environments, David Warlick (2002) said "This 3-D arrangement adds value to the message you are trying to deliver in that it points to supporting documents, and related documents can point to yours. Its depth and richness can also lead to unrelated content that deflects us from our goals" (p. 22). What we've learned in the last decade is that the same depth and richness can be overwhelming to readers, and may make learning through the internet near impossible for some students. We cannot assume that the same set of offline reading skills will develop online reading skills.

In fact, very little research has been developed to highlight the attributes of successful online reading comprehension (Coiro, 2011, p. 353). Livingstone (2012) warns that while exposure to online reading generally improves school achievement, that the "already high-achieving children get more from gaining internet access than do low-achieving children" (p. 15). Recent research indicates that the initial description of online reading complexity has even more variables than originally thought. In agreeing to participate with a text, the reader enters into a contract where meaning lies "in a relationship of mutuality and transactions between the text and reader, technology and user" (Das, 2011, p. 347). The heterogeneity of these four variables, text with reader, technology with user, take the job of teaching to a remarkable degree of difficulty. The students we teach right now cannot be summed up with a catch phrase like "digital native" (Prensky, 2005). In fact, painting all readers with the same brush may have set our work in education back ten years. If we had come to the problem of implementing digital fluency with many lenses on in the first place, we would be at a better point to help further along each variable.

What we used to call 'reading' can now mean a kind of active act of interpretation of a text that can physically alter form and shape (Das, 2011, p. 346). One example of this new act of interpretation is using audio. In my library our recent implementation of audiobooks has challenged the idea of reading, and many teachers question the validity of the experience over print text reading. Now students are taking advantage of the database feature that reads the text to the user. Likewise, access to information presented in so many dynamic ways brings additional hurdles. Berger (2007) describes the process of reading online as are constructing understanding of online material from nonlinear hypertext, while evaluating the quality and validity of information. Students are also struggling to maintain focus while abiding by the rules of cyberspace (p. 117).

School focus on online reading comprehension

Schools need to develop a comprehensive continuum for online reading. Livingstone (2012) summarized her research saying that students were using ICT [information and communication technologies] better for presentation purposes than numeracy, and the use of specific software was being taught rather than transferable skills (p. 14). With a reading continuum should come:

a clear and shared conceptual vocabulary to analyse learning processes along with new modes of assessment so as to permit media (or digital) literacies a

place within the established curriculum, preferably without turning soft skills into a new and burdensome set of targets. (Livingstone, 2012, p. 19)

Direct support from teachers is imperative as inconsistencies continue to be found in independent online learning. In addition to the four variables of user, reader, content and technology, a fifth factor was discovered to bring about inconsistent results when learning moved from school to home, where provisions of technology and parent expertise were variable (Livingstone, 2012, p. 16). Teacher-librarians can provide a face-to-face and online bridge between home and school to minimize these inconsistencies.

Teacher-librarians as change agents

When teaching processes of inquiry, teacher-librarians should also include reading strategies which may, as Dobler (2007) suggests, include drawing on previous experiences, prior knowledge and summarizing key ideas (p. 96). Lawless, Schrader, and Mayall (2007) found that students who were given content-specific background-building information prior to their Internet reading activity actually performed more complex navigational tasks in search of information than did a control group (p. 298). Ideally this background knowledge would come in a variety of modes including print text, audio-visual formats, and online text.

Teacher-librarians can use these findings related to the complexities of online reading to advocate for both online and print resources and assessments. With the advent of anytime anywhere learning, teacher-librarian support is essential when the child dictates their own readiness, outside of the scheduled classroom. Teacher-librarians can assist by proposing situations that emphasize online process over outcomes and flexible modes of discovery over subject-specific knowledge (Livingstone, 2012, pp. 17-18). Studies show that a blended learning class environment, partially online and partially face-to-face, is more successful than either strategy on its own (Livingstone, 2012, p. 12). Similarly, having access to these resources everywhere, through implementations like online teacher content spaces and wireless internet connections, would be beneficial.

An answer to developing rich online content will inevitably involve professional learning in the areas of using learning management systems for communication and collaboration. The teacher-librarian can facilitate the management of these environments, and lead staff to more confidently implement these goals. Students can also help build the content and gain a deeper understanding of the complexity of hypertext environments through creation of a collaborative online space, such as a wiki. The wiki is a rich environment where students can learn about reading 3-D text, but more importantly they can learn to construct it. Making collaborative choices of organization, hyper linking, tagging and content will give students the deep insight into how online spaces are designed.

The teacher-librarian is in a unique place to maintain a continuum of reading comprehension to help students and staff as they develop digital fluency. Doug Achterman (2010) says:

technology has fundamentally changed the definition of literacy, and school librarians are among those at a school site best positioned to lead explorations

and help school communities consider the ramifications of that change, as well as to develop educational approaches that effectively exploit technologies and build new literacy skills. (p. 79)

Giving students the confidence to adapt in new learning situations online is more important than content (Dobler, 2007, p. 95). Livingstone (2012) advises that teachers ensure that student interactions with online environments reflect new literacies, and aren't just online ways to perpetuate 20th century skills (p. 16). Achterman (2010) also advocates that teacher-librarians need to recognize that "in some respects, teachers may be less literate than their students" (p. 81). Instead of seeing this as an insurmountable problem, there is another unique opportunity that a teacher-librarian can play to build whole school consistency. While teacher-librarians are seeking instructional strategies to enable their students, they can also seek support for their own development in digital fluency (Dobler, 2007, p. 97). Achterman (2010) says the challenge for the school librarian as a literacy leader is twofold:

- 1. to help the school community understand the need to expand our traditional notions of literacy to include new literacies; and
- 2. to lead, through study, communication, staff development, curricular planning, and collaboration with classroom teachers, the exploration of new literacies, examining current research and trying promising strategies that may lead to best practice. (p.81)

Leading through example can help to bring the entire school community to develop digital fluency.

As the internet continues to morph, teacher-librarians can help in a number of ways. However, the most important moment of impact is before the reader engages with the text at all: giving background knowledge in content areas before the pursuit of deeper material. The challenge is no longer to get comfortable with technology but to be comfortable with being uncomfortable. Knowing that each user and reader will come to each text on a variety of technology devices, with a multitude of further elements affecting each variable, means that teacher-librarians will have to get better at troubleshooting. The role of the teacher-librarian to facilitate the relationship between text and user has become more imperative than ever to the literacy of our students. Lawless, Schrader, and Mayall (2007) say:

New learning environments, such as that provided by the Internet, may very well require new approaches for capturing and examining the processes and artifacts of reading. Indeed, the possibilities are endless, but the potential for improving instructional practice and learning success is infinite. (p. 301)

With the emergence of Web 3.0 tools, reading will certainly change again. Whether technology will continue to be used as a tool or the implications of online literacy will fundamentally change pedagogy, the teacher-librarian will remain an essential part of this process.

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