

Assessing the New Literacies of Online Reading Comprehension: An Informative Interview With W. Ian O'Byrne, Lisa Zawilinski, J. Greg McVerry, and Donald J. Leu at the University of Connecticut

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The constantly changing nature of literacy, brought about by the Internet and other forms of information and communication technologies (ICTs) has pressed researchers and practitioners to seek new ways of addressing the complexities of reading comprehension and writing on and with the Internet. As texts have shifted from printed pages to electronic screens, researchers have wondered whether current models and conceptualizations of reading and writing apply equally well to a drastically new and interactive electronic medium such as the Internet. We wondered, too, whether the skills, strategies, and practices that have been validated and used successfully with print texts be tailored for use in online environments or whether the nature of the new medium requires a dramatic reconceptualization of literate activities and literate practices, which characterize effective reading comprehension?

In this interview, we asked members of the New Literacies Research Lab, Professor Don Leu and his colleagues Lisa Zawilinski, Greg McVerry, and Ian O'Byrne, at the University of Connecticut to help shed some light on the nature, teaching, and assessment of the new literacies of online reading comprehension. Specifically, we asked them to (a) discuss whether there are differences and similarities between reading comprehension on the Internet and in print-based reading environments, (b) describe whether

the new literacies of online reading comprehension can be assessed and how, and (c) report on recent and emerging work relative to the new literacies of online reading comprehension that they and others are doing around the world. The text of the interview follows.

Editors: *Reading comprehension and learning on the Internet has received much attention over the last decade. A number of researchers (e.g., Coiro, 2003; Henry, 2006; Leu, Kinzer, Coiro, & Cammack, 2004; Leu, Zawilinski, et al., 2007) have attempted to describe the differences and similarities between reading comprehension on the Internet and in print-based reading environments. In what ways is online reading different from or similar to traditional print reading?*

Members of the New Literacies Research Lab: It is increasingly clear that that online and offline reading comprehension are not the same (Coiro, 2007; Leu et al., 2005). Online reading comprehension is almost always a problem-solving process with informational text. It begins with a question and takes place within a nearly limitless informational space where anyone may publish anything. It also takes place in a context where readers regularly communicate with others about the problem they're trying to understand. Each aspect alters traditional reading comprehension processing in important ways. (To view videos of online reading comprehension, visit www.newliteracies.uconn.edu/iesproject). Our work shows that online reading comprehension skills cluster around these five areas: (1)

reading online to generate a problem or question from one's social context, (2) reading to locate information online, (3) reading to critically evaluate information online, (4) reading to synthesize information online from multiple sources, and (5) reading to communicate and exchange information online with others. We position our work within the larger theoretical work taking place in new literacies (Coiro, Knobel, Lankshear, & Leu, 2008) and refer to these skills as the new literacies of online reading comprehension.

One example of these new online reading comprehension skills can be seen when we read to locate information on the Internet. This includes knowing which search engines to use, how each functions, and how to read and interpret the search engine results that each generates. We find that many middle school students use a ".com strategy" rather than a search engine (Leu, Reinking, et al., 2007). They simply use the URL window and enter the subject + .com. We think this comes from their popular culture needs where, if they have a question about Britney Spears for example, they can quickly find useful information by entering "BritneySpears.com." So, when we give students a question about the Iraq war, they will often enter "Iraqwar.com" into the URL window rather than use a search engine. Similarly, many students do not read search engine results. Instead, they use a "click and look strategy" where they click their way down the list of search engine results looking to see what appears, without reading the search engine results to select the best entry for their particular problem. Similar reading skills, novel to the Internet, are required in each of the other areas outlined above.

The reading skills associated with locating and critically evaluating information on the Internet may be especially important during online reading comprehension. They appear to function in a manner similar to phonic and phonemic awareness skills during offline reading comprehension. If you cannot decode words accurately and effortlessly offline, comprehension becomes very difficult. Online, if you cannot read to locate and critically evaluate information it becomes very difficult to solve the problem that initiated your online reading episode. Henry (2006) has suggested that the reading demands of locating information on the Internet may be an important bottleneck skill area. The same is likely to be true for the reading skills of critical evaluation required on the Internet.

Editors: *Why is it important for us (theoretically and practically) to figure out how to assess the new literacies of reading comprehension and learning on the Internet?*

Members of the New Literacies Research Lab: If you believe that reading comprehension on the Internet is an important aspect of daily life, current assessment practices are increasingly out of step with what our students require. None of the state reading assessments in the United States and few assessments

in nations around the world assess the new literacies of online reading comprehension. This is a very perplexing situation to us. If we seek to prepare our students for their future, it would seem essential that we would want to evaluate their ability with online reading comprehension.

One of the most important, and largely ignored, ironies of current educational policy in the United States is that assessment practices in reading ensure that the rich get richer while the poor get poorer. Students in the poorest schools in the United States have the least Internet access at home (Cooper, 2004). Because of intense pressure from policymakers to raise test scores, the reading curriculum for these poorer students focuses almost completely on passing state reading assessments that have nothing to do with the new literacies of online reading comprehension (Henry, 2007). Conversely, students in our wealthier school districts have the most Internet access at home (Cooper, 2004), and these districts feel far less pressure to raise test scores in reading on state assessments (Henry, 2007). They are already doing very well. As a result, teachers integrate Internet reading assignments in these districts much more frequently, especially since students have Internet access at home. We worry greatly that current public policies and assessment practices deny important reading skill acquisition among a population that deserves our help the most. This is especially important for any society concerned about equity and opportunity for all children.

Editors: *How can we most effectively assess reading comprehension and learning on the Internet?*

Members of the New Literacies Research Lab: Some states believe the answer to this question is to simply place traditional reading assessments on the Internet. Unfortunately these tests simply measure offline reading comprehension online; they do not measure a student's ability to read, comprehend, and problem solve on the Internet. The best approach to measuring the new literacies of online reading comprehension is to measure students' abilities to actually read and solve problems with information on the Internet.

A promising approach to the assessment of online reading comprehension will soon appear in the 2009 PISA international reading assessment. This will use a closed, multimedia simulation of Internet information, requiring students to locate, critically evaluate, synthesize, and communicate information.

While many nations around the world have signed up to take this supplemental portion of the PISA reading assessment, the United States has chosen not to participate. This will make it impossible for the United States to evaluate how its students perform with online reading comprehension compared to 15-year-old students in other nations. Public policymakers in the United States still do not understand the centrality of this issue for our future. Indeed, the National Assessment of

Educational Progress has chosen to deliberately leave online reading comprehension out of this supposed “gold standard” of reading assessment until at least 2019.

Editors: *Are there examples of existing or newly developed strategies and/or measures aimed at assessing students’ reading comprehension and learning on the Internet?*

Members of the New Literacies Research Lab: At the new Literacies Research Lab at the University of Connecticut, we have developed measures of online reading comprehension assessment (ORCA) and supported the development of other measures such as the upcoming PISA assessment. Most recently, we have developed an ORCA with David Reinking and his team at Clemson University for use in a federal research grant to study online reading comprehension instruction. All of these ORCAs have good psychometric properties, being both reliable and valid. Ian O’Byrne and Greg McVerry have also been developing an assessment of dispositions for online reading comprehension (McVerry & O’Byrne, 2008). Other research suggests that online discussion board activities (McVerry, 2007), the use of Google Docs (Zawilinski, 2008), and working with multimodal texts (O’Byrne, 2007) may make visible students’ online reading comprehension skills to teachers for informal assessment.

Editors: *What essential questions about reading comprehension and learning on the Internet should be addressed if teachers are to effectively assess and teach students’ reading comprehension and learning on the Internet?*

Members of the New Literacies Research Lab: Two questions are paramount. First, what is the full range of skills essential for effective online reading comprehension and learning? Second, how can we best support the development of these skills within schools and classrooms? Answers to both questions are emerging in the work that we and others are doing around the world.

Editors: *Your work has received funding for research, professional development, and curriculum development. Please describe this work and how it has contributed to the preparation of students and teachers for the new literacy and learning skills required by the Internet and other information and communication technologies.*

Members of the New Literacies Research Lab: The work we have done has shown how online and offline reading comprehension is not isomorphic and how online reading comprehension requires additional, new reading comprehension skills. It is also beginning to identify some of the essential online reading comprehension skills and strategies necessary for success. Finally it is beginning to help us understand how classroom instruction will be changing in order to support students in acquiring these new skills and

strategies necessary for effective online reading comprehension. We are especially excited about a promising new model for teaching the new literacies of online reading comprehension that we are developing within one-to-one laptop classrooms, Internet Reciprocal Teaching (Castek & Reinking, 2006; Leu et al., 2008). We integrate all of this work into our ongoing efforts in curriculum development, professional development, and teacher education projects. Our goal is to prepare students for the new literacies of online reading comprehension that will define their future.

Concluding Thoughts

The ongoing research conducted by members of the New Literacies Research Lab and others around the world has contributed a great deal to our current understanding of the nature and complexities of new literacies of online reading comprehension. New discoveries stemming from this research advance prior research in other disciplines, such as library media, educational communications and technology, and effective uses and best teaching practices associated with the Internet and other communication technologies. We expect these advances to open new possibilities for theory, research, and practice to support efforts that address the instructional and assessment needs of diverse students when reading online.

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Using Gaming to Improve Literacy

The American Library Association (ALA) has received a \$1 million grant from the Verizon Foundation to launch an innovative project to track and measure the impact of gaming on literacy skills and build a model for library gaming that can be deployed throughout the United States.

“Gaming is a magnet that attracts library users of all types and, beyond its entertainment value, has

proven to be a powerful tool for literacy and learning,” said ALA President Lorienne Roy.

For further information about the project, read the ALA press release (www.ala.org/ala/pressreleases/2008/june2008/verizon08.cfm) or visit the Verizon Foundation website (foundation.verizon.com). Adapted from *Reading Today Daily*, which can be found at blog.reading.org.