Tips and Trends, written by Instructional Technologies Committee members, introduces and discusses new, emerging, or even familiar technology which can be applied in the library instruction setting. Issues are published 4 times a year.

DIGITAL TEXTS AND READING STRATEGIES
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Overview and Definition
Reading an academic text in a paper format can be challenging, and reading it online adds complexity to the task. The growing number of adult learners using digital texts for academic purposes provides an opportunity for educators to teach students how to effectively read these texts for comprehension and critical thinking. Articles and ideas for teaching digital reading to elementary or secondary students abound, but there are few resources for teaching adult learners how to interact effectively with digital texts. Fortunately, the reading skills that support engaged or deep reading for younger students can be applied to adult learners as well. Furthermore, the tools that many readers use for engaged reading with print text, such as annotating, questioning, and summarizing, are equally useful with electronic texts (Korbey 2014).

Basis for Current Interest
Research about digital reading and comprehension is growing, although it does vary across age groups and purpose of reading. According to a 2018 Pew Research Center survey, more Americans read print than e-books. However, young adults (18-29 years old) are more likely than older adults to read books in a variety of formats and on a variety of devices (Perrin 2018). They are also more likely to read digital texts for school, work, and to research a topic. In academic settings, the trend towards using e-books in the place of textbooks is increasing: 69% of respondents to a 2016 Library Journal survey reported that they had faculty who were replacing, or considering replacing, paper textbooks with e-books. Students state a preference for print texts when it comes to academic learning, but course requirements, portability, and cost are some reasons they give for using an online textbook (Barajas-Murphy 2017).

There are no easy answers for the question of whether a digital text is as effective or more effective than a paper text. In a review of the literature, Singer and Alexander (2017b) found that the length of the text being used in the research study made a difference in comprehension. Participants who were asked to read a digital text that was longer than one page did not have the same level of comprehension as those who read a print text (1028). They concluded that students process digital texts more effectively if they are able to break them into shorter sections.

Digital texts encourage behaviors such as skimming and keyword seeking. One theory is that many readers use this method as a way to manage information overload. Even digital text characteristics such as the layout of the text on the screen and the backlight from the device can create an environment that makes skimming easier and more desirable than deep reading (Konnikova 2014). However, the deep reading needed for learning requires students to ask questions and search the text to answer them and to build connections between their previous learning and the ideas found in the text. Digital texts are uniquely positioned to assist someone willing to dig deep into a topic (Singer and Alexander 2017a, 157).

One of the skills that is needed when reading a digital text is the self-control to manage the distractions of online reading. A physical book presents less of a distraction, and an online text may be filled with distractions that interrupt the learning process (Konnikova, 2014). One technique commonly used to help students manage a difficult text is called SQ3R. The acronym stands for Survey, Question, Read, Recite, Review. These critical thinking skills can be applied to both paper and electronic texts.

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Tools, such as speed reading apps, can also be used to help eliminate distractions and assist students in focusing on the text. These apps display the words fast enough that the reader focuses on the words and minimizes mind-wandering. For reviews of speed reading apps check out Lifewire’s list.

Recommended tools include:
- **Spreeder** - The reader can control speed and display features such as the number of words and the size of the screens. Users copy and paste the text into the box and set the pace and number of words to display at a time.
- **Spritzlet** - Users can add Spritzlet to their browser’s bookmark toolbar to read webpages. It displays one word at a time and allows for adjustments in speed. The bookmarklet can read the entire page or just a highlighted section.
- **BeeLine Reader** - BeeLine reader uses different colors for the text, with the colors changing from one sentence to the next.

Annotation or mind-mapping tools can assist students in note-taking by helping them summarize main ideas and take ownership of the text they are reading (Korbey 2014). There are many annotation tools, including those found in citation management software. However, if these tools are not available or too difficult to use, it is still important to record the information learned. This may mean that the student reads digitally, but takes notes on paper.

Recommended tools for mind mapping and annotation include:
- **Google Docs** - Copying an electronic text into Google Docs and then adding a comment is simple and gives students the flexibility to add and remove notes to the text as needed. The document can also be shared, allowing other students to add their annotations to the document.
- **Adobe Acrobat** - Students can use annotating tools, such as sticky notes, highlights, and strikethroughs, to comment on PDFs.
- **Hypethes.is** - This annotation tool has a social component. With the tool installed in the browser, students can collaboratively annotate webpages.
- **Lucidchart** - This diagramming software allows students to visually map out ideas and capture brainstorming sessions. It can be shared and edited with others. A basic version is free.
- **Freemind** - This mind-mapping software provides typical mind-mapping features and allows the user to add additional content and hyperlinks. It is written in Java and is free.

Recalling information after reading a text is one of the comprehension and critical thinking skills students need in order to use the information for assignments and tests. Software that can assist students in recalling information in a fun and interesting way help.

Recommended tool for quizzing software:
- **Quizlet** - Students can use this software program to create flashcards or other games with the information learned from their text. It is free and available as a mobile app and online program.

Incorporating good reading comprehension skills and pairing it with effective online tools can enhance a student’s ability to learn from any type of text.

**Current Applications in Libraries and Higher Education**

As librarians interact with students in the classroom they may notice that the students are comfortable navigating the internet, but their skills at extracting information may need some refinement. Steven Berg (2013) stated it well:

> Although most of our students are digital natives who grew up using computers and cell phones and other types of technology, most are not technologically literate. Just because a student can access information does not mean that they know how to apply critical thinking skills in such a way that they can use the data well.

Teaching students how to apply critical thinking skills to the information they find is an area where librarians provide an expertise that students will find valuable.
In Mary Snyder Broussard’s 2017 book Reading, Research, and Writing she makes the case that while the ACRL Framework for Information Literacy for Higher Education does not directly discuss reading skills, they are a critical component of undergraduate success with scholarly texts and can be integrated into the instruction librarians provide. She provides seven activities to help improve text comprehension and synthesis: questioning, activating background knowledge, using sensory images, predicting, determining main ideas, using fix-up options, and believing/doubting game (72-83). Broussard recognizes that a librarian’s time is limited when teaching students, but she suggests that we can integrate ideas about synthesizing sources into our current lesson plans, especially when talking about sources.

Social interaction when delving into an article can assist students in deepening their understanding of the text. Inviting others to comment on an article can bring new perspectives to a discussion and can trigger questions that the student had not thought of previously (Schwartz 2016). One professor decided to flip her literature class by having students do a close reading of Jorge Luis Borges’s “On Exactitude in Science.” She describes the pondering, discussing, and insights the students experienced during the class period. Professor Shin summarizes the experience:

“Having spent a full fifty minute period over this one paragraph of a story, one student later reflected that it was one of the most intense and revelatory experiences throughout the term. She was proud and happy to have made something of the given text on her own terms, or rather, on “shared ground” through which she not only exercised her own agency but also realized the power of collaborative, dialectic thinking.” (Shin 2015)

By collaborating as a group on a particular text both students and teacher became engaged and critical readers of the classroom text. In addition, the professor modeled critical thinking and close reading for her students. Modeling and explicitly teaching students how to read digital texts will help them learn to use online texts effectively (Barajas-Murphy 2017).

Applications in Academic Library Instruction

Margy MacMillan and Stephanie Rosenblatt (2015) provide ideas for incorporating reading strategies and activities into an information literacy curriculum. Their blog outlines several ways they have worked with classes to assist students in developing critical reading skills. One area that they are particularly mindful of in their instruction is the emotions students feel towards a difficult text. Presenting difficult digital texts in a library instruction session provides the teacher with the opportunity to relieve student anxiety and provide a few helpful hints about reading for understanding. April Cunningham and Richard Hannon (2013) suggest using a “Reading Apprenticeship” approach, where students learn from experienced mentors how to read difficult texts.

Potential Value

Deep reading provides students with the tools needed to be effective writers and thinkers. Hannah Fielding (2016), a romance novelist and book reviewer, wrote on her blog that deep reading “makes you think, makes you feel and teaches you a lot, both about the world and how to write. It can inspire you, move you, change you – and it stays with you for far longer than light reading.” Libraries are a natural fit for providing the texts for deep reading and for teaching students how to approach journal articles and academic textbooks.

Potential Hurdles

Teaching others how to effectively read a source may feel like it is outside the expertise of an instruction librarian. However, librarians develop effective reading skills as a part of their professional experience. Translating these skills to a classroom setting can be difficult. These challenges may make integrating reading skills into a library instruction sessions uncomfortable and difficult.

Time is also a major concern when incorporating new content such as reading strategies into the curriculum. Time to learn the content, time to prepare and practice lesson plans, and time to implement the strategies in a classroom setting can
be overwhelming to a busy instruction librarian. In addition, teaching reading strategies may feel like a stressful addition to an already packed library instruction session.

Incorporating reading strategies and technology into a library instruction session may not be an option when working with classes that are not under library control. The faculty who integrate with the library instruction program may not have the time or interest in adding content to their syllabus and schedule. They also may not recognize the expertise librarians have in teaching their student reading strategies with digital texts.

**Conclusion**

Engaged reading is the most important skill students bring to an academic text whether paper or digital. Tools can help manage information overload when using a digital text, but in the end, it is the student asking meaningful questions and searching for answers within the text that will make the difference. Librarians can provide the transition students need to transfer deep learning skills from a print environment to a digital world.

**References**


Further Readings
