

# How Reading eBooks May Matter

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## Purpose

In his 2002 book *Why Reading Literature in School Still Matters*, Dennis Sumara argues compellingly for the reading and interpreting literature as a “focal practice” that “creates the possibility for deep insight” (Sumara, 2002, p. xiii), enabling readers to “push the boundaries of what is considered true about the world” (p. xiii). Sumara emphasizes how “...interpretation practices function to create experiences of self-identity” (p. 8). He notes:

The discussions of literary engagement presented in this book are developed around a theory of learning that conceptualizes human identity as co-evolving with the production of knowledge. Identity is not some essential quality of the individual human subject. Identity emerges from relationships, including relationships people have with books and other communicative technologies based on language. (p 9)

I was intrigued by this idea of forming identity through interaction with a text, and in particular, Sumara’s willingness to include “other communicative technologies” struck a chord with me. Over the past several years, I have been exploring the use of electronic technologies in the reading and researching processes, and as I read Sumara’s work, I began to wonder whether there might be a role for some technological tools in the valuable focal processes Sumara describes.

First, I wanted to be sure I understood the purpose of the exercise Sumara advocates.

The purpose for engaging with literary texts, marking responses, discussing responses with others, and representing them in new forms is not so much to illuminate features of the novel. Instead, the goal is to use features of the novel to

create conditions where reader responses can become developed, collected, and interpreted. (pp. 28-29.)

In order to create critical awareness out of these literary events, some explicit interpretive process is required. (p. 30)

Sumara hopes to encourage students to read, and re-read, developing and interpreting their own responses to the works being read. The goal is not to find some “truth” buried within the text, but to develop a truth for that specific reader in conjunction with the text. As we will see, Sumara also suggests that these responses and interpretations may be fruitfully shared among several readers as well.

Sumara suggests accomplishing this development of insight and truth by a process of reading, annotation, and interpretation:

The commonplace practices I have described suggest that these productive indeterminacies be expanded through the addition of at least two sets of intertext annotations (in the form of in-text inscriptions) supported by individual and collective analysis. (p. 34)

Alongside and following these reading and response activities we engage in what I call “interpretive linking.” For the interpretive text presented in this chapter, for example, I began my work by trying to identify themes from *Fugitive Pieces* that were particularly compelling to me. In the early stages of my work, the phrase “Every moment is two moments” (referring to the confluence of history and memory) continued to present itself as interesting to me. During the time that I worked with this novel, I continued to study historical accounts of World War II, pragmatist philosophy, philosophical hermeneutics, and reader-response theory. In order to create small manageable pockets of interpretation, I took one quote from Anne Michaels’ (1996) *Fugitive Pieces*, one statement from a memoir (for example, Peter Gay’s (1998) *My German Question*) and one statement from a philosophical or theoretical text (for example, Rorty’s (1999) *Philosophy and Social Hope*), typed these into a new computer file, and assigned myself a writing

practice that attempted to link the three ideas together into some sort of interpretation. While not all of these assigned writing/interpretation practices yielded what I considered to be productive insights, many of them did. As these interpretive “puddles” were created, I printed them and filed them in a binder. Over a period of weeks, I continued the process of reading, re-reading, annotating, and re-annotating text and juxtaposing these with one another and with other experiences. As well, I assigned myself the task of creating short interpretive texts, which helped me to notice insights that were interesting and useful to me. (pp. 101-102)

This is an interesting process Sumara is describing. How could technological tools assist, without presenting distractions or obstacles? The process moves through several stages, and involves both “aesthetic” and “efferent” reading. Sumara cites Louise Rosenblatt for these definitions:

For Rosenblatt, the efferent is related to the instrumentally communicative function of language, while the aesthetic emerges from the experience of being drawn into language that fulfills a formulative function. (p. 93)

As we will see, Sumara’s process begins with what Rosenblatt would have called “aesthetic” reading, before proceeding to “efferent” reading, interpretation, cross-referencing, and development of original works. We can investigate how technology could potentially play a supportive and constructive role in each of these phases.

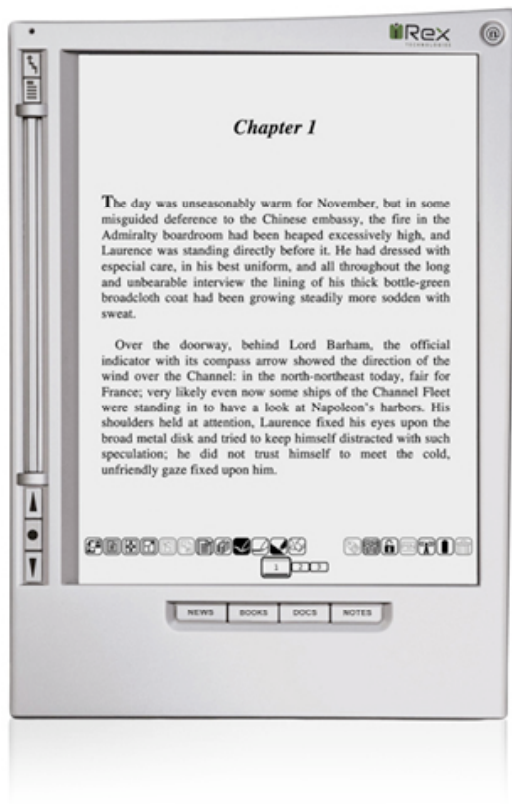
## **Aesthetic Reading**

We often read first for pleasure, and arguably reading for “efferent” or pedagogical purposes interferes with our aesthetic enjoyment of a text. First and foremost, then, a reading environment must be capable of providing a comfortable, enjoyable aesthetic experience.

In the past, this aesthetic experience has been difficult to provide with electronic texts. The first computer screens, based on bulky cathode-ray tubes (CRTs) could only practically be used at a desk or other static environment, whereas pleasure reading is

ideally enjoyed anywhere, in a variety of less formal environments—in a comfortable chair, at the beach, in bed, or while traveling. The advent of liquid crystal displays (LCD) enabled the development of laptop computers, which are considerably more portable than their predecessors, but all but the smallest units still require connection to a power source every few hours, are awkward to hold, can generate considerable heat, and are usually not easily viewed in sunlight conditions.

Within the past few years, new technologies have appeared which help to remedy many of these problems. In particular, the development of a display mechanism called “e ink” has given rise to a variety of small, lightweight devices that can operate for hours or even days or weeks between battery charges and are easily viewable in the same lighting conditions that paper books are.



**Figure 1: The iRex iLiad, first of a new generation of reading devices based on "e ink." (iRex Technologies, 2007)**

If the ergonomic problems of ebook reader devices can be addressed, is there any real reason to presume that electronic books could not provide the same aesthetic appeal as print books? Sumara writes,

Literary practices have become tools to make associations and to preserve personal and cultural memories. The development of computer-assisted electronic communication has expanded these possibilities, offering human beings many more opportunities for identification with others and their ideas than at any other time in history. (p. 10)

While it seems that relational identifications can be maintained through electronically mediated literary practices, they cannot always continue when the boundaries of these interactions are transgressed. (p. 10, in reference to a friend who has tried to use the internet to develop a primary relationship, only to find that these relationships do not grow beyond the electronic exchanges.)

Sumara continues:

It is not only electronically mediated social relations that become difficult when the boundaries of their initial organizational structures are transgressed by face-to-face encounters.... In the past, I have made an effort to meet and become acquainted with the flesh and blood person who has written these books I love. Most of the time, this creates an interpretive problem, since, of course, the persona I meet is not the persona I have come to know through identifications with his or her text. (pp. 10-11)

These passages show little distinction between electronic text and traditionally printed text in terms of the way people are able to form relationships with the texts, and with the authors of the texts. Given that the specific physical obstacles to electronic reading have been largely mitigated at this point, I think Sumara would accept electronic reading as the equivalent of print reading.

However, electronic texts are still not quite as convenient as their print predecessors. They require equipment to read, which carries its own cost, and texts must be obtained

and installed, rather than simply picked up at a corner bookstore or library. What advantages might they offer that traditional books do not, to overcome these limitations?

Now that devices designed for reading are available, electronic books are far more portable than paper books. An electronic book reader can be the size and weight of a trade paperback, but can hold the contents of thousands of books. Anyone reading more than one book for reference purposes can gain an immediate advantage with an electronic book reader. This can of course include access to dictionaries (including translation dictionaries for multiple languages) or encyclopedic content, often helpful when one is reading a challenging text. Thousands of volumes in the public domain are available from sites such as Project Gutenberg (<http://gutenberg.org>).

Another advantage is in the nature of the electronic texts themselves. Electronic texts can be searched, indexed, catalogued, and organized far more readily than physical volumes. As a specific example, in a printed book the reader is dependent on the publisher to provide an index of key terms within the text, a feature usually not even present in fiction. With an electronic text, any term may be searched for within any text, or even across multiple texts. Portions of electronic texts may also be copied quickly and accurately for quotation within other documents.

But there are other, less obvious advantages. Electronic texts may be easily converted to forms accessible by the vision impaired, using text-to-speech software or Braille displays, or the font size may be easily adjusted to meet the vision needs of different individuals. Electronic texts can also be transported quickly to remote and rural areas using the ever-widening infrastructure of land and wireless connections. In many rural areas, particularly in the developing world, shipping in paper or books can be prohibitively expensive. Access to electronic texts could be a tremendous boon. The One Laptop Per Child project hopes to provide low-cost, rugged computers to children in these contexts which would be very well suited to this purpose.



**Figure 2: The XO laptop, designed for the One Laptop Per Child initiative (One Laptop per Child Foundation, ND)**

One advantage of electronic texts becomes apparent only over a span of years. Physical books require storage, and not everyone has the luxury of sufficient living space to devote to multiple bookcases full of favorite volumes. Yet, re-reading over time has special emotional advantages of its own: “With literary identifications, practices of re-reading can alleviate experiences of loss, as can opportunities for explicit interpretation of the literary relationship and its possible effects.” (Sumara, 2002, p.13) One cannot easily re-read if one cannot maintain access to the books. Sumara notes (p. 23) the anguish felt by one of his young students who faced having to leave most of her books—including the copy of *The Giver* being read in class—due to an overseas move. Electronic texts do not need to be packed, and take little space in limited luggage. Electronic texts can (usually) be archived against accidental loss or destruction, as well, though we will see that this is not always the case below.

A final advantage not often considered is that electronic books do not collect dust, which can be a health hazard for many with allergies or asthma. Sumara, whose mother suffered from severe asthma, alludes to this problem (page 55) while discussing his efforts to relocate his mother’s books to attempt to improve her health.

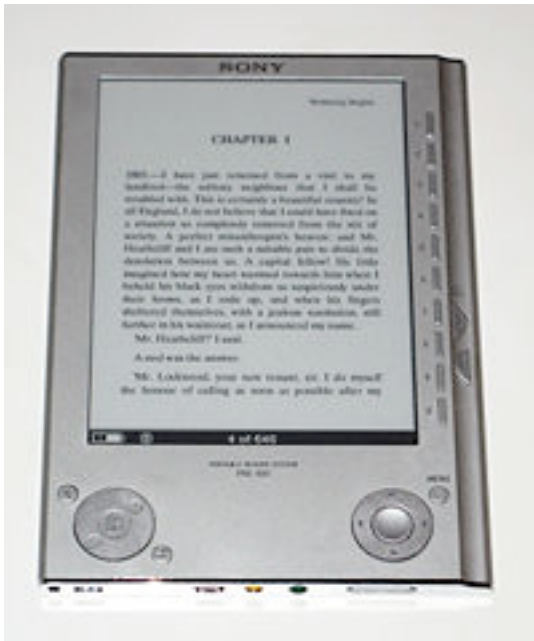
The hardware and software features needed to support these uses are minimal. A reading device needs to be able to store multiple texts, and display them for the user on

command. A simple method of connecting to the internet can provide access to thousands of existing texts, with the number growing daily. The user needs to be able to adjust font sizes or faces to their needs, and the software needs to be able to remember what book the user is reading and what page they are on between reading sessions. The software needs to be able to search within texts, and perhaps across texts, and allow the user to access multiple texts at once (e.g. in the case of reference texts). Most ebook reading devices currently sold—and in fact software available for most PDA devices—can meet these basic needs. But for the kind of reading Sumara is describing, we will require additional functionality.

## **Annotation and Bookmarks**

“In order to develop the structures for the Commonplace Book experience within the classroom inquiry, it was necessary for us to contravene the taboos against writing in school texts. This proved to be more challenging than we thought it would be. Even after providing the students with their own personal copies of *The Giver* that we had purchased, and giving them permission to write in them, students demonstrated considerable resistance.” (Sumara, 2002, p. 21)

Making notes, not just once, but multiple times, as the text is read, is a key part of the process Sumara describes. However, not all portable reading devices make this easy. For example, the Sony Reader 500, one of the first e ink devices to reach the commercial market, has no text input capability.



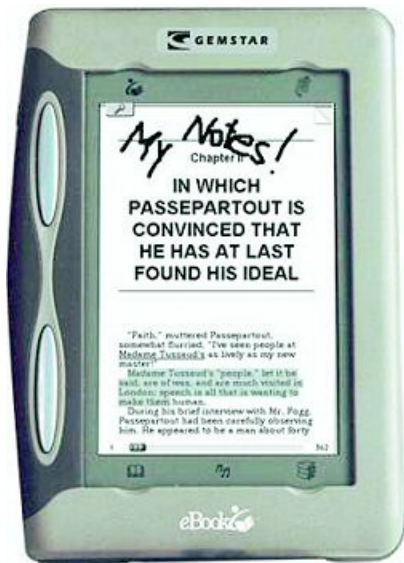
**Figure 3: The Sony Reader (PRS 505) (Rama, 2007)**

Several devices do include input features, though, and these vary across devices. One device (the Amazon Kindle) includes a built-in keyboard. Several devices include a stylus and sensitive screen, allowing the reader to “scribble” notes just as they would on a page. Some devices, such as Palm Pilot PDAs, use a special writing technique (“Graffiti”) to allow the device to recognize hand printing. Other devices store the notes as images (e.g. the iRex iLiad and the eBookwise 1150), which is quite similar to the functionality provided by manually annotating paper books.



**Figure 4: The Amazon Kindle, with included keyboard and wireless connectivity (Greer, 2008)**

However, we can hope that a well-designed reader-response system would exceed the functionality of paper books. Just as we see an improvement in the usability of electronic books when search features are added, so we would also like to be able to search our own notes, within or even between books. At minimum, we need to be able to mark places in text that we can quickly scan to find our previous notations. Both the iLiad and the eBookwise 1150 offer this much functionality.



**Figure 5: eBookwise 1150, the least expensive dedicated reading device currently available, showing notes and highlighted text. (Heise Zeitschriften Verlag GmbH & Co. KG, 2008).**

Electronic texts can also support multiple layers of annotation. When reading *The Giver* with junior high school students, Sumara notes, “As we continued our second reading, I encouraged the students to use a different color pen or pencil to add new notes, to answer questions they had asked, to record new impressions of characters, and to offer new interpretations of events” (p. 22). These multiple layers of annotations are where the richness of the interpretation begins to form. Software could assist this process by providing a color or font face to be automatically used for later annotations (or for different readers in a group, as suggested below). Software could also automatically record the date of the annotation, so groups of annotations could be managed by the time of their creation. One could, in effect, view the book as a series of snapshots over time, hiding or displaying “layers” of annotations as in an archaeological dig. This software has not yet been developed to provide this function, but the iRex iLiad, in particular, has an open development environment based on Linux that could readily support such functionality.

There is no need to limit input forms to keyboard and stylus. Annotations might also be dictated orally and either converted to text using software such as Dragon Naturally

Speaking, or provided as sound files to other readers. Again, these additional modes may provide further accessibility to the interpretation process.

## **Categories and Tags**

In addition to writing annotations in books, Sumara describes marking pages of his books with paper bookmarks, sometimes also bearing notes of their own. This allows sections of readings to be accessed quickly, but is a system limited by the nature of simple categories—at the simplest, there is one category, “bookmarks.” Multiple colored bookmarks or symbols on bookmarks can expand this system, but bookmarks can rapidly become cumbersome and are easily disrupted. This is an area in which electronic texts, combined with well-written software, can offer a considerable improvement over paper-based systems.

The use of marked passages and categories becomes especially important as readers move through aesthetic and early reaction stages and into more efferent interpretation and collation of their thoughts to produce an original work.

“At the conclusion of the week of re-reading students were asked to draw from the major themes of the novel, and their one month of research in between the two readings of it, to support the writing of short essays exploring ethical problems....”  
(Sumara, 2002, p. 22)

Here, Sumara asks his students to transition between reading and annotating to using those annotations to develop a new, separate text. What sorts of features might help students as they move into this phase of a reading project?

The reading and annotation software could provide the ability to assign a category to any given text passage or annotation. The software could then facilitate collecting these portions of text or annotations and providing them in a form that the student-researcher can review, select, and develop into an interpretive work. If multiple sources are being used, as Sumara has done in his family history project as described earlier, selections matching a category could be drawn from multiple texts.

Sumara notes, "...while I do not want to essentialize human identities, I understand that to some extent categories are necessary heuristics." (p. 91) However, fixed categories can have their own pitfalls. Does one set up a list of categories in advance? Should one be able to expand that list as one reads? How will categories be selected or entered per segment of marked text, or per annotation? What if one has trouble deciding which of two (or more) categories a particular passage should be classified as?

Perhaps fixed categories are not quite the answer. There is another, similar technique called "free tagging" that might be more appropriate here. In free tagging, a reader may "tag" a segment of text or their own annotation with a freely chosen keyword, which may or may not match other keywords previously used. Importantly, any number of tags (keywords) may be assigned to a single text segment, and segments may be found later by using any of the selected tags. This allows the nature of the tags to develop organically, and does not force text into artificially bounded categories.

Once several layers of annotations have been made and at least some text and annotations have been tagged, it becomes possible to start to extract lists of text for each tag or group of tags. This can begin to suggest research topics, again in a more organic way. As a reader sees how their text tags and annotations begin to cluster around topics and themes, they may use this understanding to inform further readings, annotations, and tags and may, in effect, begin to build their own topical concordance.

This concordance project may span multiple books, or even additional reference sources. For example, devices such as the Amazon Kindle or the iRex iLiad offer wireless connection to the internet, including references such as Wikipedia and electronic journals. Ideally, the reader would be able to select, annotate, and tag references from this wider net of resources, in addition to the books in their personal electronic library. Software tools such as the Firefox plugin Zotero provide the beginnings of this functionality. Because a larger screen may be helpful at this stage, so more annotations and text segments can be viewed (rather like spreading out index cards on a table), coordination between the reading and annotation device and a computer or laptop with a larger screen becomes desirable.

Students were not asked to represent knowledge that they could locate in the novel but, instead, were asked to become critically aware of their developing identifications with characters and relationships to plot. These practices suggest that engagement with literary fiction is not merely a practice where one identifies with characters, learns moral lessons, and broadens perceptions. While these are possible effects, the use of the Commonplace Book highlights how literary engagements can function as archival sites for creative and critical interpretation. (p. 23)

Widening the sources of data to include in the tagging tool also allows for “scrapbooks” to be created of found media (e.g. images, music, spoken text), snapshots (many mobile phones now include a camera, as does the XO laptop, so adding one to the electronic reader would not seem out of the question) or recorded audio interviews, or drawings created with the stylus (on systems that provide that input method). While printed books may have limited white space available for notes and sketches, electronic books can expand and include as much content as is desired. By providing a personal journal function, separate from any specific text, but with the same annotation and tagging features, the opportunities for rich integration and creative and critical interpretation become even greater.

## **Community Tools**

Up to this point, the technologies described have provided ways to perform the same functions as paper, perhaps a bit more easily, but not in any essentially different way. As we look toward multi-user functionality, we begin to see ways in which technology could mediate entirely new and valuable interactions between individual readers, texts, and communities.

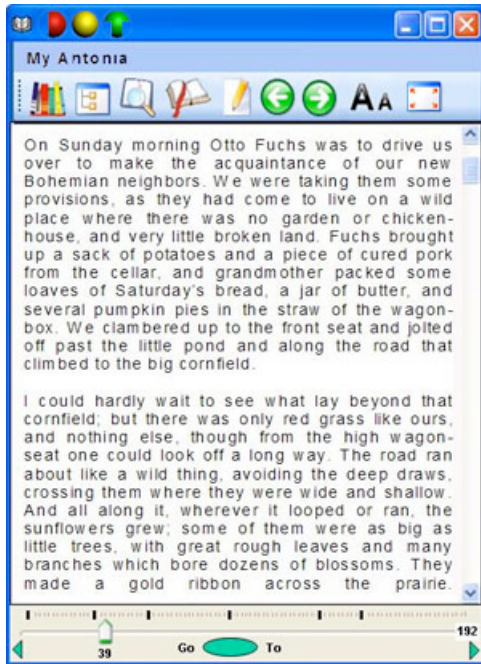
The young adults and children I work with, for example, do not only identify with family and friends that they meet, face-to-face, but, as well, often develop a number of relations in cyberspace. (Sumara, 2002, p. 26)

We can begin by noting, as Sumara does here, that young people are developing a comfort with electronically mediated relationships not experienced by earlier generations. Friends met—and perhaps only communicated with—in online media are a norm, rather than an exception. What might this suggest for group discussions and literary interpretations?

“...the traces of responses found in a book can generate an interesting commonplace for interpretation. These traces become even more interesting if more than one reader creates them.” (Sumara, 2002, p. xv)

When a book exists as one physical copy, only one person can be adding annotations—or reading and reacting to annotations—at any given time. A book can be exchanged with another reader/annotator, but again, only one copy at a time.

With digital and network technology, it is now possible to connect all the copies of a book so that anyone reading a book can publish their annotations, and anyone else can view those published annotations. One example of software that proposes to enable such functions is DotReader (named for journalist Dorothy Thompson, who annotated her own books heavily as she read). The DotReader project is incomplete, and not all features are as we might like to see them to fully support interpretive reading, but it represents a fascinating step in this direction.



**Figure 6: DotReader standard interface showing annotation, highlighting, and bookmarking “tabs” (OSoft Inc., 2006).**

Using software like DotReader, each reader could create their own annotations, and could choose whether to make them public, either at large or within a defined group. Once this has been done, other readers can choose to subscribe to these annotations, viewing them within their own copies of the text. The annotations can be “live,” allowing each reader to view the new annotations as they are published, without requiring a manual or delayed process of exchanging volumes.

How could this affect the reading and interpretation process? Again, we may wish to emphasize aesthetic reading at first, so when a reader first begins to read a text, by default, annotations should be hidden (though the reader should have an option to view them at any time). Readers might be advised to make their own first “layer” of annotations before choosing to browse the annotations of others.

When accessing the annotations of others, readers might search for other readers within their study groups, or within a larger online community of which they are a part (e.g. on a social networking site such as MySpace). After choosing to subscribe to the annotations of another reader, one might see the annotations interspersed in the margins of the text,

either as printed comments, truncated comments, or perhaps as icons one might click to view (or listen to), depending on reader preferences and the nature of the annotations. Another way of presenting annotations would be to split the screen and show the original text in the upper half, with related annotations in the lower half of the screen.

Annotations might be organized and color-coded (or indicated via font face) by date, by author, or perhaps by the relationship of the author to the reader, e.g. if the author is in a membership group with the reader, or is linked by a chain of online “friend” references (again, similar to social networking sites). One could imagine a reader choosing to add the author of a particularly insightful or compelling annotation to their “friends” list, seeing what other books that author has read, and choosing to read those books as well.

One of Sumara’s students, Gina, when commenting on her annotated copy of *The Giver*, explained,

I want to keep it so that my mum can read this book, and see everything that I’ve written in it. And then I’d like her to write in it too so that I can see what she’s thinking. I mean, if she gets to see what I’m thinking I want to know what she’s thinking too. And then, maybe I’ll keep the book and give it to my children and they can read it. It will be like a history! (p. 23)

As annotations are collated and viewed and responded to in turn, one can imagine discussions forming within the pages of texts, assembled from the comments and reactions of readers from all over the world, and perhaps across time and generations, as well.

What are some other side-effects such tools might have? Sumara notes that in the book *The English Patient*, the main character has added to his copy of *The Histories*, “making it a text different from any other copy that exists” (p. 19). How does this idea of uniqueness change if comments can be shared between ebooks? Is my “instance,” with my own annotations and the specific annotations of others that I have selected from a potentially large pool, unique enough to have value similar to the commonplace text constructed by the English patient? I would suggest that the answer is still “yes.” My

choice of annotations can be unique. The process I go through in selecting what I choose to include in my own instance of the book is still a relational process, and the result is unique to my relationship with the ecology growing around the text.

Separately, how does structuring annotations around a text differ from discussing the text in an online forum, e.g. an email list or a discussion board website? It is different because the text is the organization point in the former, and the comments are encountered according to the text they reference, rather than being part of a series of discursive exchanges. Are there ways to blur this boundary, i.e. to allow one to read comments both as part of a discourse and (if relevant) as tied to the text? One way might be to publish a reader's comments in "blog" form, allowing others to view the annotations on a website, with a selected portion of text for context. Social networking sites also frequently provide tools to list "current favorites," such as a book one is currently reading or music one is currently listening to. These data elements could be automatically populated by an ebook reading device. Some younger people also like to keep in touch with one another via text messaging and services such as "Twitter." An ebook reading and annotation system could allow annotations to be published via Twitter, providing a flow of commentary and insight back and forth across distributed networks integrated into subscribers' daily lives.

How would switching between these modes create new relationships within the text and between the text and the readers? Could it be interesting and valuable to build chains of annotations between different texts, but based on authorship or discourse thread or some other parameter, e.g. topic? Certainly one could provide a variety of search functions, but building a coherent chain of annotations could be a challenge. These are areas that might be explored in fruitful ways, now that technology is becoming available to support such functionality.

Earlier we explored the idea of "free tagging" as a way to organize selections and annotations in books. In some tag systems, each user assigns their own tags to the content (in this case, a book), and later visitors can see not only what tags have been assigned by previous readers, but how strong the "tag weight" is, i.e. which tags were assigned by more people. The idea of the "tag cloud" has been catching on in the past few years. This

displays each tag in a different size font, based on how many reviewers selected that tag. One can see at a glance how many tags an item has, but also which are the most common for that item. One can also click on tags to find other items with the same tags. It is a cleverly organic way of categorizing content. Amazon now provides tags and tag clouds for their books, and we could make use of tag cloud functionality when we browse and choose to subscribe to the annotations of others.

Network tools such as MySpace, Twitter, blogs, and discussion boards favor online relationships over local relationships, and in some ways this is regrettable. However, there are also technological tools that facilitate in-person relationships. One of these is Meet-Up, a tool for coordinating local meetings all over the world between people with interests in common. Meet-Up groups already exist based on a number of categories related to reading and writing. One could easily imagine integrating Meet-Up functionality with a book club organization, so that members of local Meet-Up topic groups, which are organized by geographical proximity, could subscribe to one another's annotations and potentially meet to discuss them face to face. Another possibility takes advantage of short-range wireless communications. Several years ago, a company called Cybiko produced a product intended as a PDA for teens and tweens which featured "mesh networking," ad-hoc networks created between units within broadcast range of one another. This functionality allowed owners of Cybiko units to be notified if a friend of theirs (also owning a Cybiko) was within 300 meters, and communicate with them if so, sharing the contents of their units. Though the Cybiko was largely supplanted by cell phone based text-messaging, the One Laptop Per Child project takes advantage of similar mesh networking features with their XO laptop (Lee, 2008). Imagine reading a book in a library, café, classroom, or park, and being notified that someone else was reading the same book within 300 meters, with an offer to subscribe to their annotations and allow them to subscribe to yours—even continuing such subscriptions after the units have passed out of one another's range, over wireless connections. What sorts of relationships might form on the basis of such connections? What kinds of new ecologies within a community might develop?

“I learned early in my teaching that these shared oral readings created important pedagogical opportunities. By thinking out loud with students about my responses to particular characters and situations in the novels I read to them, I invited them to participate with me in the development of ideas. As opposed to much of their school experience that only presented ideas that were, apparently, already fixed and certain, these shared reading activities demonstrated that ideas and identities are always in process.” (Sumara, 2002, p. 58.)

This follows some comments Sumara makes about some of his students exhibiting very rigid personalities (“a strongly ‘fixed’ sense of self”, p. 57), with the suggestion that this can be a problem. Is Sumara “modeling” ambivalence by sharing these readings with his students? Is the face-to-face in vivo experience critical to this activity? How might this interaction change if mediated, for example, by asynchronous discussion boards? Note that Lina Lee (in press) and others have noted that some students are more comfortable participating in discussions on such boards, as they have more time to consider their responses and some feel more comfortable “speaking up” than they would in the presence of the group, especially those for whom English is not a first language. If the participation is, in some ways, less spontaneous, perhaps it can also be more thoughtful and inclusive.

When a reader engages with a work of literature she or he does not merely experience the characters vicariously or learn moral lessons from their actions. As Beach (2000) has explained, the reader’s involvement with text continues to represent the complex ways she or he is involved in various activity systems, such as book clubs or classrooms, which both shape and are shaped by literary relationships. (Sumara, 2002, p. 93)

Again, Sumara emphasizes how readers are part of a larger ecology as they interpret what they read. Just as we like to introduce friends to one another who have not met, we like to introduce our favorite books to our friends, in the hopes of sharing our ideas about them. Perhaps this is the reason for the popularity of institutions like the “Oprah Book Club,” or the Campus Community Book Project at UC Davis or the One Book projects around the

country. We want a shared relationship between ourselves, others in our lives, and at least one text. Perhaps this is also a source of the strength of the various “Peoples of the Book” (Jewish, Christian, and Moslem communities).

How can we encourage this kind of shared relationship with technology? We have explored some ways in which ecologies of literary reflection might grow within a community by allowing readers to subscribe to the published annotations of other members of their communities, and even engage in discussions or chats with other readers, based on a shared “acquaintance” with a text. What if there were ways to see what other books these new friends included in their public lists, then read and subscribe to annotations and conversations about those books? What kinds of organic communities might develop, not all based around one book, perhaps, but around an interlocking web of books and conversations about them?

## **Disadvantages**

It may seem as though I am uncritically advocating the use of technology in this article, but in fact there are several key cautions I think worth mentioning whenever we attempt to use technology in a process that has not formerly required it.

First, there is always the issue of distraction. When we read, whether in aesthetic or efferent mode, our focus suffers from distractions. There are always distractions such as noisy neighbors, ringing phones, or even welcome “distractions” such as meals.

Technologically mediated reading is subject to several distractions in addition to these. The worst is probably distractions caused by quirks and complications of the technology itself. We wish to spend time reading, not fixing bugs with electronic reading systems.

Additionally, new distractions such as email, chat, instant messaging, and web popups may endlessly distract even the most well-intentioned reader from the text. It is not possible to read everything that comes to our attention. But this is, perhaps, part of what we hope the focusing exercise of interpretive reading will help us to master.

Another source of distraction comes from some of the very strengths of the tools. We have seen how ebook readers can make a wider variety of texts and information sources

available. But Sumara reminds us: “Information alone does not guarantee understanding. Information needs interpretation and the latter needs a learned method” (Sumara, 2002, p. 36). The increased access to information may, in fact, distract from understanding, or from a deep relationship with any single text:

In a world that has decided that having access to a lot of information is more valuable than developing committed and ongoing relationships to small amounts of subject matter, it is more difficult to fall in love with anything or anyone. Why re-read books when I have access to new books I haven’t read? Why study with one teacher when I can access unlimited information from the Internet using powerful search engines? Why learn to love one person when I can make many online contacts with new and exciting people? (Sumara, pp. 123-124)

This is a perennial topic of discussion in online discussion boards about ebooks, e.g. MobileRead (<http://mobileread.com>). Commercial ebooks are often sold in an encrypted format, meaning that they can be read on one’s current device, but if one loses the key or changes devices, one may not be able to read the books anymore. (This is done to attempt to prevent “pirates” from sharing books online. It doesn’t work—all the current encryption systems can be broken—and most of the books shared by “pirates” are scanned from paper in any case.) Quite a few of us, as avid readers, find this abhorrent. We want to be able to re-read our books, in whole or in part, any time. Others don’t understand our complaint. They only read once, because “there are so many other new books out there.” An informal poll at MobileRead suggested that approximately half the members re-read at least a few books regularly, with over a third of the respondents reporting extensive re-reading (Dalton, 2007).

If we want to encourage re-reading, especially over extended periods of reflection, we need to be aware that a good ebook system absolutely must not restrict future access to the text, to allow for multiple readings and interpretations. In addition, a system that might allow one to “borrow” an ebook, that one would not be able to access again later, would be unfortunate. Perhaps one could make notes in an ebook, allow the ebook “rental” to “expire,” but keep the notes in a form that could be re-integrated if one

decided to rent the book again, or even accessed without the book, but this seems risky. What if the rental company goes out of business—or simply leaves the business of ebook rental?

There are other problems inherent in a switch to electronic texts, some with more tractable solutions than others. The nature of electronic texts allows readers to choose how to view each page, according to their visual and aesthetic needs. This negates the meaning of page numbers. How should references from an electronic text then be cited? Reflective references (describing sections of text) are one method; numerical methods such as word count or percentile of text may also be considered. Students are already demonstrating difficulty in understanding the difference between appropriate citation and plagiarism. Will this problem become even worse if more texts are available in digital form? And is there a value in having to manually re-type portions of text to be cited within a work a student or researcher is developing? Does this practice provide additional opportunities for focus?

Since its publication in 1996, I have read *Fugitive Pieces* six times. As is my custom, I have penciled responses to each of my readings into the text. (Sumara, 2002, p. 76)

One potential problem I see with annotating on an electronic device is screen size. Most devices for reading ebooks are small; the size of a trade paperback or even smaller. The display of a full-size page will not leave much margin space for notes, let alone multiple layers of notes. But split screens or flexible screens may help to resolve this problem.

I examine documents that have been unfolded and folded hundreds of times over the years. A trace of scent creates folds of memory associated with handkerchiefs, deep coat pockets, and Saturday afternoons at Eaton's department store. (Sumara, 2002, p. 81)

Electronic storage can make it possible to preserve documents and other artifacts from being lost, discarded, torn, eaten by mice. But what do we lose in the tactile and olfactory senses? We know that our memories can be triggered more strongly by smell than sight.

Perhaps this is true for touch, to some extent, as well. Certainly the memories triggered by different senses are different.

Yet with technology, we gain the ability to store some kinds of memories that were impossible before. Voices, for example, or motion. I am reminded of the choreographies that were lost before a way of transcribing them was developed (let alone the ability to capture motion in film or video). I know there are researchers working on the ability to reproduce scents. Someday perhaps we will have the ability to reproduce the sense of touch, as well.

## **Conclusion**

Because my work as a writer has emerged alongside my use of a computer word processor, I find that I simply cannot be creatively productive without the presence of a keyboard and a monitor. In my undergraduate days written work was wholly accomplished with pen and paper (typewriters were only used to transcribe the final draft), but my current work is never produced in this way. (Sumara, 2002, pp. 66-67)

Will writers of the future refer to reading ebooks this way someday? I can't help but feel that despite the caveats noted above, electronic books are going to increase in popularity. Energy and environmental costs associated with the paper printing process, the rapidly growing online economy, and the sheer convenience of ebooks will all contribute to that popularity increase. Our challenge, as those who care about thoughtful reading, is to help to ensure that support for thoughtful reading and reflection is included in ebook reading systems. Hopefully the ideas discussed above will help in that direction.

I do not believe that everyone should be interested in using literary engagement as an interpretation practice. However, I do believe that everyone should have some focal practice that helps her or him make sense of experience. Some people write novels. Other people paint pictures. Other people are expert gardeners. No matter what the practices, involvement in them asks participants to pay attention to certain details (and not others), and this contributes strongly to how they

understand themselves, their relations with others, and their contexts. (Sumara, 2002, p. 159-160)

Will literary engagement, whether with ebooks or the paper variety, continue to be a viable focal practice? According to a report published by the National Endowment for the Arts in 2002, adult literary reading has been declining for decades, at an accelerating rate, across genders, races, education levels, and age groups, with the steepest decline among young adults. “The decline in reading correlates with increased participation in a variety of electronic media, including the Internet, video games, and portable digital devices“ (NEA, 2002, p. xii). But though book readership may be falling, reading in general—and writing—in the form of web pages, especially blogs, may be becoming more frequent activities than ever before, though the types of reading and writing are different than what we have considered traditionally as “literary reading.”

I wonder what kinds of focal practices might develop around the use of online texts and tools? For the most part, people read web pages and other online content quickly, skimming for a few details. Younger people, in particular, tend to skip around pages quickly (Nielsen, 2005). But can even this “skimming” and collecting become a kind of focal practice? Web browsers include a “bookmark” feature, but there are also more elaborate “journal” features for some browsers, e.g. Wired-Marker or Zotero, intended to collect and manage online research resources. Blogs are increasingly used to share web links and reflections on them with other online readers. Del.icio.us is another way in which web “finds” might be shared with others to form organic networks based on annotations and interpretations.

I am hesitant to speculate that these practices will generate as thoughtful and insightful reflections as the practices Sumara has described in such loving detail, however. It is my hope, instead, that as texts migrate to electronic forms, they will find new readership among those who spend most of their reading time online, or with those popular portable electronic devices (as noted in the NEA report). By emphasizing contemporary community-building tools for engaging with literary text in electronic form, we may be

pursuing the best path toward encouraging the growth of a new generation of literary readers.

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