

# Time for Reflection?: Digital Text and the Emerging Paper Divide

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It was an ironic near-miss. As I walked across my university campus the other day, contemplating the world of reading in anticipation of writing this article, I came across a usual sight: a student walking in my direction, head down, engrossed in reading the contents of the phone in his hand. I decided to keep walking towards him, to see what would happen. Luckily, mere milliseconds before a head-on collision, he glanced up, just in time to swerve out of the way. I was close enough to read the contents of his screen, should I have wanted.

Just a few minutes later, walking through a quiet student study area at my academic library workplace, I was struck by another student's enormous grin, as he sat in seeming solitude at a study carrel. As I got closer, I realized he was not grinning at the textbook in his hands, but his phone, hidden within the open pages. However, when I passed by again just a few minutes later, his grin was gone, and so was his phone, replaced by the more serious contemplation of his text.

All of us in the world of reading, from librarians to professors to popular writers, know that we live in a rapidly changing world of texts. **Harvard** librarian **Robert Darnton** has suggested that we all feel the ground shifting beneath our feet, as we move towards a new era of technological innovation.<sup>1</sup> Readers are still reading, perhaps more than ever before, but are doing so differently than ever before, incorporating both print and digital text.

## Print and Digital Coexisting

For anybody working on college campuses, the two students I encountered that day are familiar sights. We are places full of readers engaged in different types of reading. Students and researchers continue to read from books and other printed texts like many generations before them, while having added the continual reading of digital devices to their daily routines.

Sometimes the two media coexist comfortably, sometimes they do not. Many university professors struggle to get the students in their classes to focus on the curricular text at hand, instead of the extracurricular text on their screens. And academic librarians are only really beginning to come to terms with a world in which collections budgets are increasingly devoted to *electronic* academic texts, while our library spaces are ever-increasingly devoted to the *people* engaging in the texts we provide, no matter what format those texts take.

There has also been a lot of talk outside our ivory towers concerning the impact of the digital world on reading. A recent article in the *Washington Post* suggests that the skimming and scanning of our digital devices is making it more difficult for us to concentrate long enough to read books.<sup>2</sup> Meanwhile, the neuroscientist and reading researcher **Maryanne Wolf** thinks

we are a society moving away from the past era of the traditional reading brain.<sup>3</sup> The popular writer and technology critic **Nick Carr** goes further, suggesting our digital devices are driving us to complete distraction.<sup>4</sup> Distractions aside, neuroscientists and other researchers are only beginning to discover the myriad of cognitive differences between reading print and reading on screens.<sup>5</sup>

## Reading Modes: Pleasure, Study, and Information

There are, of course, several different types of reading. For the sake of argument here, I will divide reading into three categories: Reading for pleasure, such as reading a novel, biography or any other text that one does purely for entertainment or leisure; reading for study, which is the attempt to understand something deeply, or to learn something new, such as the reading that university students do as a part of their studies; and reading for information, which people do to have a specific question answered. Informational reading could include things like reading sports news, weather forecasts, or personal text messages.

Obviously the three categories are media independent. A novel can be read on either an e-reader or as a paper book. While university students continue to get lost while browsing library stacks, they have been reading e-journal articles for many years now. And news can come through a Tweet or a newspaper.

Additionally, in many ways, the categories overlap considerably. The grinning student I mentioned earlier was probably reading a text message or social media post on his phone, which was clearly providing him pleasure at the same time that it was providing him information. As part of their course work, students do a great deal of both reading for information and reading for study. For example, their library research involves skimming, scanning, and scrolling through lists of references, abstracts, and other search results (reading for information) before they find the few texts which they will more deeply study. For most of the rest of this article I will focus mainly on reading for study, especially as practiced by college students.

As this is an informal and somewhat personal essay, I will also say a few things about my own connection to the world of reading. I work in a relatively large library surrounded by hundreds of thousands of printed volumes, and hundreds of computer screens. I live in a house surrounded by books, as well as screens, but the books appear to be more prominent, as there are always stacks of partially-finished titles here and there, stacks which continually seem to outnumber shelves on which to put them. I read from screens and on paper, in all spheres of my life, for pleasure, study and information.

I count myself as neither a technophobe nor a technophile. I have loved iPads from the first one I have owned, as much as I love printed volumes. However, I do tend to favor print for study and for deep, reflective, contemplative reading. I am generally fascinated by the world of reading, as I think it is one of the activities that distinguish us as human, and I consider myself blessed to live in an era when that activity is in such a state of interesting flux.

## Reading for Study: A Long-Term Survey of College Students

I have been an academic librarian for nearly two decades. During that time, I have spent a lot of time around studying students and their professors. For the past six years I have been running a questionnaire on the reading habits of students in randomly selected classes which I teach at two Canadian universities: a comprehensive university and a small liberal arts institution. I have also had numerous discussions over the years with professors from many universities across Canada and the United States about the current reading practices and skill of their students.

Thus far I have received completed surveys from 607 participants. These students are in all levels of classes at both the undergraduate and graduate levels, in courses from a range of subject areas in the humanities and social sciences, including religious studies, history, sociology, and English literature, with a pre-dominant number in the latter two subjects.

The questionnaire asks students about the amount of time they spend reading text on paper, on a computer screen, or on a mobile device screen for their studies. It probes how much they read for leisure or as part of a job. It invites them to comment on their preferences regarding reading on paper, or a computer or mobile device screen. It also asks how their reading habits may have changed in recent years, and about their value of in-depth reading. While this study is ongoing, I will outline some of my preliminary findings here, especially as they relate to reading for study.

## With Pen in Hand: A Preference for Paper

A recent study by **Nancy Foasberg** at **CUNY** found that the college students she investigated tended to use print for most of their academic reading.<sup>6</sup> I have found a similar thing thus far in my study. Although nearly 98 percent of the students surveyed reported doing some reading of electronic text on a screen, the vast majority — some 80 percent — prefer reading print on paper. That percentage holds as true today as it was when the study began in 2009.

Most students who prefer to read print say they do so because they like to highlight

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and underline text, as well as write notes in the margins. Those specific methods of in-depth reading for study were among the most common comments of any sort from the whole questionnaire, being repeated time and time again by many participants. One student went on to state that with print “I have a better chance of retaining what I have read.” Research by **Anne Mangen** and her colleagues at the **University of Stavanger** in Norway would back up this student’s conclusion, suggesting that comprehension is better in the print environment than on screen.<sup>7</sup>

### “I Enjoy Turning Pages:” Haptics & Metacognition

Several students in the study also commented on their appreciation of the physicality of paper books. “I enjoy turning pages. I can flip back easier,” remarked one student. Similarly, another suggested that she found it “easier to comprehend [and to] refer back to and mark a page or important sections.” “I like holding it,” suggested another participant. “Just feeling the paper helps.”

I suspect there is much more to this than a sense of nostalgia for the printed book. We are only beginning to appreciate what neuroscientists call the haptics, or the tactile dimension of our technologies, especially as they apply to reading.<sup>8</sup> As we all know, the sense of touch is important to humans, and the sense of holding a text in one’s hand does appear to have an impact on how we cognitively engage that text.

Specifically, this desire to hold the paper may be related to our psychological motivation to learn. In various contexts of human endeavor, psychologists have long told us that our perception of a situation affects our performance. We are more likely to be able to successfully complete a cognitive task if we believe we can. Metacognition, or the ability to gauge one’s own cognitive performance, is correlated to successful learning. “Having a physical copy gives a sense of progress,” one student in my study explained. “You can see how close you are to the end.” Could it be that when we hold a text in our hand, and can readily tell its length, we then subconsciously devote the appropriate amount of brain power to it? Perhaps when we lack this up-front sense of required cognitive effort in our screen environments, we subconsciously tend to stay more shallowly engaged with electronic text?

Research on metacognition has been applied to reading by **Rakefet Ackerman** and **Morris Goldsmith**.<sup>9</sup> They suggest that people often believe electronic text is most suited to the shallow reading of short texts, and that this perception may hinder them from rallying the cognitive resources required to read deeply, reflectively, and responsively in the digital environment. “A screen tempts me to skim instead of absorbing the information,” said one student in my study. It may be that we learn less from electronic text, because we automatically make less of an effort when reading our screens.

### “Facebook Calls My Name:” Distracted Readers

The other very frequent comment from students in this study regarding reading on screen was that they find their electronic devices distracting. “When on the computer, **Facebook** calls my name,” one student quipped. As I have reflected over time about the distracting nature of the online environment, and have watched the students around my own library in front of their screens of various sizes, I have noticed something about their desktop computer use: They often tend to gravitate to computers in large open spaces with many other people around them.

I wonder if some students feel they need a social location to help keep them on task. Perhaps knowing that there are dozens of other students and library staff surrounding them helps to keep them from getting distracted by things on their screens? Laptops, meanwhile, seem to get used everywhere in my library, and are as likely to be found in secluded study carrels and quiet corners as they are in groups around coffee shop tables. However, I do often see Facebook on many of those screens when I walk past those carrels and corners.

### Ease of Electronic Access

Even though the vast majority of students in my study said they prefer reading print for their university studies, they do still read from screens a great deal. Over 97 percent said they do some screen reading for their university work, while 53 percent reported reading electronic texts for at least an hour per day for their studies.

For the minority of students (approximately 20 percent) who said they generally prefer to read on screens for their studies, the word “easy” appeared frequently in their comments. Specifically, their comments usually focused on the ease of access. “It is easier to search for important words and it is quicker to access many texts at once,” one student commented. Many students also referred to the ability the electronic environment provides for scanning text. “It’s easier to scroll through and navigate to find key words,” one student explained.

Several students also focused on the convenience of not having to carry around heavy books. “I prefer reading on a computer screen because then I only have to carry around one device [which is] less harsh on my back,” a student remarked. This preference for convenience is similar to that found in the world of reading for pleasure. In recent years I have noticed that e-readers now seem to outnumber paper books around vacation pool-sides ten to one. *The Economist* has recently reported on **PricewaterhouseCoopers** figures which suggest that e-books now account for nearly one-third of all American consumer book sales.<sup>10</sup> Canada’s *Globe and Mail* has reported data from **BookNet Canada** that puts the percentage only half as high, but which is still remarkable considering where sales were just a few short years ago.<sup>11</sup>

### Extensive Reading & Filter Failure

Putting the very different world of leisure reading behind us and returning again to read-

ing for information and study, it has been said that we are a society moving from intensive reading to extensive reading. Most of us are in a state of information overload and have to do more skimming and scanning of text than previous generations, who may have had more of an opportunity to intensively read things. Another way of looking at the situation would be to say we have to do more reading for information than reading for in-depth study. Like most of us, the students in this study have easy access to large amounts of information.

Of course, college students are a specific group for whom skill at both modes of reading remains important. In my information literacy teaching, I often get my students to practice some extensive informational reading through hands-on exercises on evaluating sources. I get them to skim and scan documents to determine their appropriateness for a specific assignment. That’s part of what we do as librarians — helping students select appropriate information sources from a sea of inappropriate sources. The threat of drowning in that sea is diminished when one has set up appropriate methods of filtering out the things that are not suited to the task at hand. As technology critic **Clay Shirkey** famously said, the problem of our current age is not information overload, it’s “filter failure.”<sup>12</sup>

But as the communications scholar **Shaheed Nick Mohammed** has suggested, we live in a disinformation age.<sup>13</sup> Despite the wealth of information available to us, ignorance persists and thrives. There is a widespread failure to filter information appropriately. Looked at another way, it can be said that there is also a tendency, as the Internet activist **Eli Pariser** made famous, to remain in our own “filter bubbles.”<sup>14</sup> Indeed there is, I would argue, a widespread tendency in North American society to not bother to dig deeper, to read deeply, and to take time out of our busy lives to reflect.

This is the environment in which many students find themselves immersed. Perhaps that has always been the case. But added to that tendency today is the easy and ubiquitous access to an abundance of information. I wonder if that easy access is lessening the *motivation* to seek further and dig deeper. Why bother, when seemingly everything is available at your fingertips, perhaps on the phone in your hand?

### Time for Reflection

In her treatise on the topic, aptly titled *On Reflection*, the Canadian education professor **Ellen Rose** discusses the importance of reflection for the production of original ideas and creative insights. It is a “habit of mind”, **Rose** points out, a synthesizing process that requires solitude and slowness, and which can be derailed by the “continuous partial attention” caused by modern digital devices.<sup>15</sup> I would add that reflective reading can be a meditative process, connected with, but somewhat distinct from the logical, analytical process of deep reading for study. Unfortunately, **Rose** has found that her own students increasingly find little time for any type of reflective or long-form reading. Similar comments have appeared in my survey. “I wish I had enough

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time for leisure and academic readings,” one student lamented. **Rose** is concerned about a growing aliteracy, or tendency for literate people to choose not to read, or at least not to read books or other long-form texts.

In recent years, I have heard professors complain that increasing numbers of their students come to class without having done their required readings, and I have watched especially reading-intensive departments such as English literature and philosophy struggle to attract students. To help counter this trend is my own sphere of influence in the classroom, I try to encourage students in their in-depth reading habits. For example, I have students practice the close reading of a portion of a sample student essay, in an attempt to discover plagiarism. I also show video clips of people like **President Barack Obama** advising college students to be aware of the distracting power of information, or **Nick Carr** encouraging us to take time to slow down and think.

Meanwhile, an English professor recently told me that she has only recently begun to encounter students who do not initially realize the importance of bringing their required texts to class for class discussions. These students are surprised to discover that having an edition of the text on their phones does not suffice for participation in class discussions of those texts. Similarly, an English literature professor at another institution with many first-generation college students recently told me that she is encountering an increasing number of students for whom the whole idea of owning a book is foreign.

### The Emerging Paper Divide

It is likely that convenience is one potential reason those English literature students initially tried to get by with using a free version of texts on their phones. Cost may also be a factor. In recent years in my role of providing service on a library reference desk, I seem to be encountering increasing numbers of students looking to borrow a copy of a current textbook. For certain, textbooks are not getting any cheaper. Even though we are not historically in the business of providing current textbooks to cash-strapped students, libraries do largely exist for a simple economic and social reason. Few researchers can afford personal copies of all the books and other texts they need, so we provide a library for the whole community to share.

As libraries move more and more into the provision of electronic information sources, we need to be careful to consider who bears the cost. When students end up printing our digital reserves, e-journal articles, and e-book chapters, are they spending more money than students used to years ago, when perhaps more of them took notes from printed reserves and paper books at the library? And if they do not print their readings, have we somehow helped to hinder their cognitive deep reading processes? When we purchase

large e-book packages, drawn by the small per-title cost and the space savings, who ends up paying, and how? Have we potentially discouraged those who can least afford it financially from engaging ideas from printed texts — the medium which many students and researchers say best facilitates their deep reading?

Every so often there is a new library that opens somewhere in the world amidst great fanfare about it being the “first bookless library.” Early in 2014, one such public library opened in San Antonio, Texas. Behind the headlines I noticed that it was located in an economically-depressed area of the city.<sup>16</sup> That could be seen as a good thing. In a neighborhood with no other libraries or bookstores, a hip new technologically-advanced facility that looks more like an **Apple** store than a traditional library could potentially do something to help extremely low literacy rates.

However, as I think about all the comments from my students surrounding their desire for print for in-depth reading, I wonder how much such a facility will do to encourage deep reflective reading, and by extension, creative thought. And, by way of comparison, how many Ivy League college libraries have done away with their print collections entirely? In our new world of coexisting digital and printed text, not everyone is abandoning the print.

Digital text is becoming ubiquitous, and relatively cheap. Yes, it is true that new information and communication technologies are doing much good to facilitate learning and encourage literacy in societies worldwide. But at the same time, the technology of printed text on paper is perhaps becoming less accessible. It may be becoming more of a luxury, as it was in centuries past. Who will continue to take the time to reflect and deeply engage the technology of the printed word? And for those who do not, will they appreciate what they might be missing, as they go about their days immersed in reading their digital devices?

Our digital devices are evolving rapidly. As they do, we need to be careful to consider how they facilitate *all* types of reading, for everyone, including reading for study and the associated deep, reflective, or meditative reading processes. But in the meantime, we also need to consider how the lack of access to the technology of print on paper, as well as the technology of digital text, may further entrench educational and socioeconomic divisions in our societies. Since the 1990s much has been said about the digital divide. Maybe we should be equally concerned with an emerging paper divide. 🌳

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