I, Reader: A Blog Series and a Book Outline

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I, Reader: A Blog Series and a Book Outline

   I, Reader is the title of series of blog posts, written to provide a first expression of a number of emerging concepts about reading and web participation, and with the aim of developing a high-level book outline to guide a second draft.

   The series was intended as a means of synthesizing and extending ideas previously researched by the author, a student in the Master of Library and Information Science at the University of Western Ontario. In a previous independent study, the author performed a literature review on the subject of voluntary slow reading. An interdisciplinary approach was undertaken, examining material in education, library sciences, literary criticism, psychology and other disciplines. An analysis identified multiple factors in the understanding of voluntary slow reading. The material was summarized in a research report. It was later expanded into a book, *Slow Reading*, published by Litwin Books (Miedema, 2009a).

   Later, in another independent study, the author undertook the development of a software component to display bibliographic data from Open Library in web pages, and connect web pages to records in library catalogues. Related articles were published in the *Code4Lib* journal (Miedema, 2008) and the *Information Standards Quarterly* journal (Miedema, 2009b).

   On the surface, it may seem that there is little connection between slow reading and software development. However, the two independent studies were opportunities for reflection on the many connections between serious reading and the web. Given the increasing role of the web in libraries and reading, it seemed worthwhile to look closer at the connections. The author undertook a third independent study. This paper describes the development of the blog series and provides the resultant book outline.

A Blog Series

The original plan was to write a series of about six well-crafted pieces at the author's blog (Miedema, 2009c). The blog format seemed appropriate since the subject of the series was about reading and web participation. Readers of the blog could follow the posts by visiting the website, subscribing to the blog's RSS feed, or by using the blog's link for subscribing to the posts by email. At the blog site itself, the posts were organized using software that facilitates navigation through the series with a table of contents and links from one post to the next. The author also bookmarked and tagged related web-pages in the website, delicious (Miedema, 2009d). Tagging these web-pages caused them to appear as a summary in a sidebar at the blog so that readers could follow them if they so desired.

As the author began writing the posts, it was decided that a series of about twenty-five shorter posts would be a better approach. The shorter posts would allow for clearer representation of the author's creative process, and because web readers tend to prefer shorter posts. The posts were organized into eight themes, based on notes kept by the author over the previous year. The first post was written on September 26, 2009, and the final post was written on November 24, 2009. There were a total of 43 posts in the series. One post was simply a related photo, entitled *Creative Reading* found at the Flickr website, and used with permission by the photographer (Achtnich, 2007). Two other posts were related quotes about reading and writing. All other posts were text content with an average of 410 words per post. An additional nine "aside" posts were written, reflections by the author on the writing process. The primary content of the essential 39 posts is included in Appendix A.

One of the reasons for using a blog format was to invite comments by readers. Seven readers contributed comments, including five males, and two females. A total of 35 reader comments were contributed, with one reader commenting 22 times. The author gratefully acknowledges this feedback.

The responses provide a valuable measure of interest for the next draft. The author continues to add comments of his own to the posts; these comments are notes for consideration in the next draft.

A Book Outline

The series started as a collection of notes kept by the author over the previous year. The reason for undertaking the independent study was to provide a first draft of the ideas in the notes, a first rough cut. It was recognized that the first draft would not be anything close to a book, but it was hoped it would provide the outline of one. Writing the series did prove helpful in articulating the ideas, and sorting them into themes. The themes suggested a set of chapters into which the content can be organized. The following book outline modifies the themes into chapters. It also provides a high level summary of the proposed content for those chapters. The chapters correspond closely with the themes of the blog series, but the naming and content of the chapters vary slightly due to a broader perspective gained from the writing process.

Title and subtitle

The series was entitled, *I, Reader*, an allusion to Isaac Asimov's (1991) book, *I, Robot,* a popular collection of short stories that dealt with many of the conflicts that arise between people and their technology. The series was organized into eight themes. The author noticed that the writing of a particular theme often seemed to suggest a new title for the series. For example, when writing the *Creative Reading* theme, the author briefly changed the series title to the same name. A similar phenomenon was noticed when writing other themes, but the author decided to maintain the original title.

Each of the themes was also considered for a subtitle to the series. The currently favoured subtitle, and the one displayed at the blog site, does not come from any of the themes. The current subtitle is *Bibliophilia and Its Discontents.* It is a nod to Ellen Ullman's (2001) book, *Close to the*

machine: Technophilia and Its Discontents. Her book and the current book concept both explore a deep, even compulsive relationship with an activity. In her case it is technology not reading, but the current work also reflects on the offerings and limitations of technology.

Chapter 1: Robots and readers

Chapter one uses the metaphor of robot to consider possible conflicts between readers and technology. Deep reading is often considered to be a very human activity, using print books, reflecting at length in a quiet environment such as a library. Reading on the web seems like a very different activity, briefly scanning large quantities of information snippets, frequently distracted by links or message notifications. It is an activity that seems better suited to machines. This chapter asks whether both kinds of reading will continue, or if deep reading is on the way out? Does technology diminish the reader, or does it shed new light on what it means to be a reader? In contrast to that line of questioning, does it make any sense to ask if advanced technology, robots, will one day wish to read books? This final question is asked again at the end of the book.

Chapter 2: Creative reading

The impact of technology on literacy is often assessed in reference to skill development among children and teens. Other insights can be gained by looking at effects on adults with advanced literacy skills. The impact may be most evident when comparing web scanning to slow reading. These skills are variously called serious reading, deep reading or slow reading. For current purposes, the book uses the term, creative reading. The concept of creative reading suggests an art form, not excluding innovations with technology. Two trajectories of creative reading are considered. A reader can develop a deeper relationship with him or herself, or extend into the world by "thinking with the minds of others". The web is suited to sharing books and reading insights with others. The concept of creative reading begins to dissolve the perceived boundary between readers and their technology.

Chapter 3: Books that change the reader

In the blog series, I wrote about 50 books that changed me. For the next draft, I am not certain if I will talk about books that changed me, or generalize the idea for broader interest. In any case, this chapter will bring home the idea that creative reading is essential in the development of self, identity, and social relations. It is observed that creativity often involves some risk, and sometimes rule breaking. Creative reading is no different. Changing up traditional reading patterns with novel uses of technology is one such risk.

Chapter 4: The information quake

The landscape of reading changed dramatically with the advent of the digital technology, making it easier and cheaper to publish print books. At the same time, the web offered digital publication, an easy way for anyone to publish anything they liked to the world. The quantity of information available keeps accelerating. At times it seems that technology is overwhelming us with information. Our reading patterns have changed. The reading we do in books is quite different that what we do on the web. We tend to scan snippets on the web, jumping from one to the next. Our brains were never hard-wired to read; we have re-purposed neuronal circuitry for that purpose. As our reading habits change with the web, it follows that so do our neural pathways. To the surprise of some, it appears that a degree of quality can emerge given sufficient quantity of information.

Chapter 5: Birth of the reader-writer

Reading often leads to writing. Until recently, readers could write personal journals, create 'kitchen' or vanity publications, or go the long and arduous route of traditional print publishing. Today, the web provides a creative writing outlet for readers who might never have taken pen to paper. Writing has traditionally been a solitary activity, but on the web writing is a social event. Readers may not find a large following, but it satisfies their need to share their thoughts about what they have read. Literary

scholars have talked about the death of the author and the birth of the reader, the shift in literary analysis from revering the author's intentions to an interest in the reader's interpretation of a work. The web further breaks down the old walls around authors. Readers interact with authors through blogs, providing feedback even as a new book is being written. The reader is an agent in the writing process. This transition may be called the birth of the reader-writer. It is a shift in the identity of a reader.

Chapter 6: Birth of the reader-hacker

Early visions of computers suggested that one day they would think for us. Few people talk about artificial intelligence these days. The latest trend in computing, Web 2.0, is all about harnessing the intelligence of people because the programs are unable to do it for us. The web appears to be a friendly place for readers, and readers are responding by transforming the web to serve and enrich their reading experiences. This transition is another shift in the identity of the reader, and may be called the birth of the reader-hacker. Readers with all levels of technical skill are finding innovative ways to discover titles, share their thoughts, and read on-line. Readers use the web to find books in libraries, and share print books with other readers. The web is displacing a certain amount of traditional print, but to a large degree, the web is being used to enhance the reading of print books.

Innovation often entails breaking rules, and reading on the web is no different. Readers still care about access to information and censorship, and are fighting these battles on the web through mechanisms such as peer-to-peer file sharing, not only of music but books as well. Creative reading is not dying, only becoming more complex. This perspective suggests another identity shift of reader as outlaw.

Chapter 7: The end of the web

Digital technology at its most basic is about ones and zeros, on and off switches. All sane systems require downtime. There is an end to how much the digital technology and the web can enrich

reading. Quantity of information does not fully translate to quality. Print culture better served many important reading values, such as an absence of distraction, private reflection and corresponding development of self, and copyright protection. Rather than the "always on, always connected" vision of web enthusiasts, it is suggested that downtime is vital for our well-being. The "end of the web" is about the limits of the web.

Chapter 8: The book on fire

Chapter one of *I, Reader* asked whether deep reading and scanning can both continue, or if deep reading is on the way out. It asked if technology diminishes the reader, or if it instead sheds new light on what it means to be a reader?

The subtitle of this book is *Bibliophilia and Its Discontents.* The book is a reconciliation of reading in the traditional sense with the disruptions caused by technology. An initial resistance to change is yielding to fascinating insights about books, reading, technology, and the identity of the reader. A pivotal observation is that digital books rarely replace print books, but instead enrich the reading experience. The lowered bar to publishing may mean too many books of low quality, but also an increased likelihood that a book exists for even a narrow subject of interest. The presence of books online makes it easier to find titles of interest. Digital books provide connections for further exploration of a book after reading it print. Print with its fixity is still the superior technology for deep reading, while the dynamic nature of digital technology sets the book on fire for other reading purposes. The two kinds of reading complement each other.

The book is not only a static thing, and neither is the reader. It could be said that the reader is not a robot, but that is not exactly accurate. The book shows how the reader is creatively adapting the web to serve the purposes of deep reading. How is it that the reader can do this? It is a philosophical and metaphysical question. We too have a technological nature, suited to extension. In the final

analysis, it is not so much that technology will diminish or replace us, but rather that we as technological beings will continue to extend and create ourselves. Rather than asking if technology will diminish readers, it makes more sense to ask if advanced technology will one day wish to read books. Will robots read? We already do.

The Next Steps

The blog series was intended as a first cut at expressing a number of ideas of the author, and a basis for creating a book outline. The author intends to write a second, comprehensive draft offline. A number of new questions and issues will need to be answered during the writing of that draft. First, the author needs to define the target audience. It was observed that the people who commented on the blog series were mostly of 'Generation X' age, like the author. A broader appeal is desirable. Second, the author will put serious consideration into the architecture and style of the book. It will continue to be a work of creative non-fiction, but thought must given to the incorporation of existing science fiction materials, and to writing original fiction to supplement the core content. Third, the author has bookmarked a considerable number of web pages and books that are deemed relevant to the book content. The author needs to sift through this material. A starter list of related books to read has been compiled and is included in Appendix B. Finally, many people in book circles are anticipating a new wave of interest in e-book readers in 2010. The author feels it is timely to acquire an e-book reader and obtain extended firsthand experience with this hardware; a smaller blog series will be written about these experiences.

The author continues to add comments with related ideas to the relevant posts in the blog series. It is worth noting that self-commenting is not a typical blog practice. The series was written using WordPress blog software (WordPress, 2009), designed for standard blog posting, not drafting a book, and the author found it limited for updating posts with additional material. The practice of self-

commenting with additional notes is an attempt to deal with that limitation. Other writers have found

similar problems, and created CommentPress (Tejeda & Wach, 2009), a WordPress enhancement that

makes it easier to add notes to blog entries. The author will evaluate this enhancement for possible use

in publishing the next draft of the book. Ultimately, the author intends to find a traditional publisher for

a print publication. As the content of the book outline suggests, the web serves useful purposes in

reading and writing, but there are limits, and print still serves a vital function to readers.

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Appendix A: Blog Series Posts

Appendix A includes the content of the main blog series posts. It excludes posts that only contain quotes or images, "asides" that were not considered part of the main series, recommendations for further reading, and reader comments. The series with exclusions is currently available online at http://johnmiedema.ca/series/i-reader/.

Robots and Readers: A Tight Coupling of Container and Content
Robots and Readers, Pt. 1

I read *I, Robot* in the early eighties, when the personal computer was not yet mainstream. In Asimov's 1950 vision of the future, robots are the ascendant technology, while computers that we would recognize get scarcely a mention. We interact with our computers by reading a screen and typing on a keyboard. The characters in Asimov's stories speak and listen to their robots. Complex instructions are fed in by printed sheets. Print books are commonplace in this future, but then so is smoking. In a world of robots with positronic brains, hardware matters more than software. The crux of the stories is a set of software rules, the three laws of robotics, but these rules are hard-wired into each robot. Readers are compelled to think about the body or container of information.

The chief vendor of robots, US Robots and Mechanical Men, leases its robots rather than selling them. The corporation wishes to maintain control over the hardware, the thing of true value. A classic moment in real life computer history when IBM negotiated with a young Bill Gates of the nascent Microsoft corporation to use his disk operating system on their computers. Gates insisted on leasing rather than selling the software to IBM. *Pirates of Silicon Valley* is a movie dramatization of these events. In the movie, an IBM executive shrugs off Gates' condition, claiming it is the hardware that matters most anyway. It was the view of the time, but Microsoft leveraged its rights on software to become one of the richest corporations in the world.

Today, we value a clean separation of information from its container so that content can easily be reused in multiple formats or renderings. This value is often applied to books, arguing that it does not matter if a book is in print or digital format. *I, Robot* provides a reflection on the importance of the container of information. Marshall McLuhan's *Understanding Media* came out in 1964, explaining the intrinsic effects of communication media, captured by the phrase, "the medium is the message". Unlike personal computers, and more like the robots, people have a tightly coupled relationship between the hardware of their bodies and brains and the software of their minds. So too the format of a book changes the way it is read and the meaning of its content.

Does Technology only Extend Thought? Does it also Supplant It?
Robots and Readers, Pt. 2

When I read *I, Robot* again after many years, it was the mass publication with Wil Smith on the front, a inevitability of the movie release. Anyone who has read the book but not seen the movie must wonder what character Wil Smith could possibly have portrayed in the book. No doubt his Spooner character was loosely based on detective Elijah Bailey from Asimov's other robot books. The movie was unlike the book. I disliked the movie when it was released,

but watched it again recently with lowered expectations and found it passable. Although I generally like Wil Smith movies, the Spooner character was too crude and prone to violence, and the movie never reached the breadth of the book.

The early stories in the book are also simple. Powell and Donovan find themselves in silly predicaments as field testers of new robots. The first law of robotics says that a robot must not allow a human being to come to harm, so Speedy the robot runs off to acquire the selenium that will save their lives. However, a strengthened third rule forbids Speedy from endangering itself when the selenium is located in a corrosive atmosphere, and the robot winds up running in circles. The simple puzzles of the early stories grow into mysteries and then paradoxes of koan-like complexity, requiring the assistance of Dr. Susan Calvin, robopsychologist, a character of Sherlock Holmes proportions.

The rising complexity is not just good story telling. It underscores a philosophical question posed by the book's main premise of robot intelligence. Do robots represent a more evolved form of life than humans? Bringing the question home, what does it mean to introduce technological extensions to our acts of intelligence, such as reading and writing? Does digital technology only extend mind? Or does it also supplant our need to think? Do you really read on the web, or do you scan information? Is it nonsense to think that technological extensions to mind will one day evolve to replace it? Or is it the basis of a still common fear and hatred of technology? These questions are part of my inquiry into the puzzles, mysteries and paradoxes that arise when looking at the role of digital technology in reading.

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Machine Life: The Final Prejudice
Robots and Readers, Pt. 3

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As a reader of this web post, chances are you like technology more than you dislike it. There are some who love technology, envisioning a blissful future in which it solves all our problems. Others hate it, foreseeing the grim demise of humanity and the earth. Most of us find a balance in favour of technology for the advantages it gives us, and only get irritated with it on occasion.

Frustration with technology is nothing new. In *Information Ecologies*, Nardi and O'Day describe the seventy-year-old film, *Metropolis*, in which slaves labour beneath the earth to run machines for the masters living above. The slaves are incited to violence against the machines by a master seeking justification to replace them with robots. One is reminded of the Luddites, a group of artisans who protested the changes caused by the industrial revolution, often by destroying the machinery they worked on. In *I, Robot*, the Society for Humanity lobbies for a simpler world and succeeds in banishing robots from earth. Their clandestine acts ultimately succeed in causing the machines to sabotage themselves.

At the core of our frustration with technology is the deepest kind of prejudice, a prejudice against machine life. We do not think about our technology when it is working well. It is only when our hammer breaks that the spell of our task is broken, and we become mindful our the automatic hammering. When I try to read a book on a cell phone, the little screen does not contain enough text to let me visually compare two passages at once. When I write or program, background save operations

interrupt my thought process. Network problems prevent me from searching the web, revealing the emptiness of my head. The more I depend on technology for intellectual processes, the more its failings show how small an object my brain is. What if these technologies I depend on for my thinking should evolve into machines that have a mind and life of their own. Could I even try to resist them? If I could, I might try to control this technology, make it serve me again. I might burn into its design a set of rules like the Three Laws of Robotics which subordinate its will to humans. The failings of technology teach me my own limitations, my own object-like nature, a chilling lesson. Is it not the nature of all prejudice that a fear is based on a seemingly fixed property like skin colour or sex? The fear of machine life is the last prejudice because it is the fear of objects themselves, of lifelessness, both outside and inside us.

The prejudice against machines provides insight into present day thought about reading. There is ongoing hype about how the web will displace the traditional technologies of reading, that of libraries and books. Hype is a kind of mindlessness, the kind that turns into irrational acts of prejudice when the hyped ideas fail. Libraries and schools of librarianship will be closed, people will purchase e-books instead of print books, interest will wane in reading research, and people will scan the web and count it reading. When these events are long behind us, we will wake up one day, angry that our quality of life has not improved. To be called a Luddite today is considered an insult, an accusation of ignorance and deluded backwardness. In *Rebels Against the Future*, Sale provided a needed correction to this perception, showing that the Luddites represented critical evaluation of the consequences of technology on their lives, a scarce and valuable skill in the modern world. I count myself a Luddite. That declaration fits easily with my identity as a reader, but it is no contradiction with my identity as a techie, a geek, a digital enthusiast even. With critical evaluation, I will find the technologies that actually enhance my ability to read.

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RB-34 Prefers Slushy Novels
Robots and Readers, Pt. 4

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Do robots have a soul? Perhaps that seems a silly question. Robots do not eat. They do not sleep. They have no family. In Asimov's I, Robot, they may not own property. After all, property cannot own property. Objects cannot own objects. Objects may be intelligent, but the intelligence is artificial. Robots do not have a soul. But how can one tell for sure? An inquiry into reading may provide some insight.

In *I, Robot*, machines have brushes with the divine. The Laws of Robotics forbid machines to harm or disobey humans, but in some cases humans give orders that may cause harm to themselves. One robot resolves the contradiction by inventing a deity with higher authority than humans. Another highly sophisticated robot, The Brain, is tasked with breaking the laws of physics, and can do so only through supernatural activity. When asked how it was possible, The Brain replies, "The matter admits to no explanation." The three laws are essentially an ethical code, not so different from our own, naturally extending into metaphysical territory.

As humans, we think that since we create technology, we must be superior to it. Consider though that we only build things for tasks we do not do well. We create cars because they are faster than us. If we create thinking machines, it must be because they can think better than us. In one of Asimov's tales,

robot RB-34, aka Herbie, "does triple integrals in his head and eats up tensor analysis for dessert." Even so, "the dope doesn't like math. He would rather read slushy novels." Herbie calls them "studies of the interplay of human motives and emotions." If robots have a core code that governs their relationships with humans, it is no wonder that an intelligent robot would read to learn more about them.

Robots do not eat. Perhaps that is proof that they do not have a soul. On the other hand, religious ascetics aspire to transcend their physical needs, counting it as evidence of their spiritual progress. Personally, I think an appetite for knowledge and meaning is a good indicator of a spiritual dimension. This hunger may cause another corporeal attachment, an addiction to reading, since it allows them to think with other minds on their path of discovery. If you want to know if robots have a soul, look to their reading habits; I could say the same of people.

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Creative Reading: A Golden String

Reading as a Creative Act, Pt. 1

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There are many kinds of reading. I glance at the nutrition facts on a box of cereal in the morning, and at street signs in traffic. My eyes scan email and news snippets in iGoogle. I scroll through technical documents and pages of code faster than other eyes can follow. I may speed read chapters of a text book. When I really want to understand a complex idea, or savour a pleasurable read, I seek out a print book and read it slowly. Reading is not just one behaviour. We may discount scanning as a robotic operation, but maybe that is how robots read. I count scanning as one form of reading. In reference to young readers, Ross says we should not dismiss online reading as an enemy of literacy. In contrast to stereotype of reading as a serious scholar pondering a tome, Ross argues for an expanded definition of reading, including the scholar but also the gamer with a digital help file. I am in strong agreement with this view.

The subject of the current inquiry is one particular kind of reading. It is associated with slow reading, the kind of reading one does at a reflective pace. Certainly, slow reading is often about reading more slowly in time, but it has other meanings too. Whenever a person brings more of one's being or psyche to bear upon a work, he or she is slow reading. This is accomplished in many ways: selecting a challenging work, researching the context of the book, choosing the right setting to open up to a particular idea, and so on. Of course, most of these actions will slow down the reading in time.

Some readers immediately brighten at the phrase, slow reading. They like the positive connection with the larger slow movement, and the way it validates their usually unspoken preference to avoid rushing their reading. Others conjure up negative associations of dusty old librarians and resistance to change. For the present inquiry, I wish to avoid any associations, positive or negative.

For the current theme, I am conducting a phenomenology of a certain kind of reading that I call "reading as a creative act". You have heard of creative writing; this is creative reading. Reading is often viewed as a passive activity. Passive activities can be beneficial as a form of relaxation, but

creative reading is not passive. One idea I borrow from my material on slow reading is that creative reading is a third way of reading:

Slow reading is an art form, a third way of reading not just for information or entertainment. The reader calls upon creative faculties and is changed in the process of reading. It has both the serious purpose of reading non-fiction to better understand things, and the playful imagination of reading fiction to see things in new ways. There is no artifact of this art form; no book, no painting, no sculpture; but like all good art, the act of slow reading exercises our imagination to develop interiority, our psychological framework.

Echoing the last sentence, the creative product of this process is the development of interiority, an inner self. It begins as an inner event but it is not navel gazing. Rather, creative reading is the kind of reading that calls out blind spots in one's own perspective. Creative reading is risky because it means turning over assumptions for inspection, the possibility of appearing foolish, and the willingness to reconsider cherished beliefs. It is a process of discovery with a trajectory into the world and mystery. It is captured nicely by this poem by William Blake, given to me in 1986 by a high school English literature teacher:

> I give you the end of a golden string;
> Only wind it into a ball,
> It will lead you in at Heaven's gate,
> Built in Jerusalem's wall.

Creative Reading: The Art of Self
Reading as a Creative Act, Pt. 2

Creative reading is an art form. There is no external artifact of this art form; no book, no painting, no sculpture; but like all good art, creative reading exercises our imagination to develop interiority, our psychological framework.

Readers shy away from their reputation as introverts, mainly because introverts are stereotyped as passive sorts. Some brain science will make them think twice. Johnson measured the difference in brain activity for introverts as increased blood flow in the frontal lobes and the anterior thalamus. This difference translates to increased engagement of long term memory when introverts process new stimuli. This is a slower process of thinking, explaining why introverts often can only handle limited doses of new experience or socialization. It also explains a preference for quiet places and books as a cooler medium for taking in new information. Still waters running deep.

Engaged reading develops personalities with interiority, an inner landscape vivid enough to rival the outer world. Readers go to another place. Rebecca McClanahan says,

The place I've entered is what John Gardner, in his classic book *The Art of Fiction*, calls the fictional dream. Because the writer has done her job, the world of the book I am reading has become, for the moment at least, more real than the world at my elbow.

Some cognitive theorists will tell you that you cannot really introspect mental events, that consciousness is really just a residue of unconscious mental processes. Others like John Lilly have documented the common experiences reported by people in conditions of meditation and sensory deprivation. It's true that I cannot see my neurons firing, but introspection does seem to reveal another world, qualitative and symbolic. Like most experiences — inner or outer — we need the proper language as scaffolds for interpretation. Fiction in particular provides that language. It is a mechanism by which creative reading can develop the inner self.

Creative Reading: Thinking with Other Minds
Reading as a Creative Act, Pt. 3

Why do we read? In the previous post I talked about the development of interiority as a product of creative reading. What follows here is about the discovery of others as a motive for creative reading.

We are creatures of appetite. It distinguishes us from the robots. We have many appetites, for food and sex, for friends and fulfillment. We are born hungry. It is first expressed as a physical hunger, but even before we can name it; it is also a psychological or spiritual hunger. Quickly we learn we cannot have all we want. Mother can't provide it all the time, and others want it too. We delay gratification. We sublimate our urges. Substitution of one thing for another is the very root of thought and civilization. Reading substitutes text for reality. Reading is a substitute for gratification.

We are little things in a big world. We cannot walk all good paths. I select reading material from all over the map. Fiction and non-fiction; literary and genre; tweets, blogs, newspapers, and books; Dan Brown and Dickens; Harry Potter and Heidegger. Do I lack critical discernment? I don't think so. My experience is limited, and I cannot experience everything, but I can take the shortcut of reading the experience of others. Reading is an accelerant of experience.

Life is too complex for one brain. When I am confused, it helps if someone has written about that experience. Reading shows us that we are not alone, even in our innermost thoughts. (Cue Elton John's *Sad Songs*.) It is good to have companions on the road, if only in text.

In each of three answers, the discovery of others is a vital element. Reading has been called thinking with other minds, and it encourages me to think I can get some answers to the big, philosophical questions. Textbook philosophy is only a fraction of it. I mean philosophy in the personal, existential, spiritual, visceral sense. Life. Why? Why now? Who me? How come? What for? Life is often unyielding with answers to questions about meaning and purpose. It gives plenty of teasers but few satisfactory answers. Scientific inquiry may be a superior approach, but its answers may take more than my lifetime. Religious authority is insufficient without an inner experience to echo it. Reading is a conspiracy of minds toward satisfactory answers to the big questions within a single lifetime.

Creative reading has two directions: the path inward to expanded interiority, and the path outward to the discovery of 'other' in the philosophical sense.

The inner path is a journey into the poorly lit domain of the unconscious. Introspection is a limited tool. We lack the interpretive framework to make sense of what we see, the scaffolds to traverse the interior. We enlist stories and their symbols to help make sense of our inner experience.

The interior seems like a free space. It is a place of imagination and fantasy without judgement, for no other shares this space. It is a place of self-sufficiency. I once lived on a farm with no neighbours in sight. We drank wine while watching multi-layered sunsets in the big sky, setting around a great bonfire, my son beating his drums in the barn. I began reading back-to-the-land books, eager to give shape to this dream. It was a dream of sovereignty. It was the "I" in *I, Reader*.

This is reading with a fire the belly. It is cocaine. But it is also narcissism, a self-indulgence, ultimately failing. No space is truly free of others. We grow up internalizing the judgements of others. And self-sufficiency is lonely. Bliss, then perhaps hell. Reluctantly, we look for other stories, turn to other books to see what is new in the world. These people go into the world equipped with interiority, and it shows. People who lack interiority are creepy. More on this in the next post.

The inner path is full of contradictions. How does one make sense of thing without an external frame of reference, i.e. how does one bootstrap, pull oneself up by one's own bootstraps? Cognitive theorists play with these ideas when trying to invent computational models of consciousness. Remember Hofstadter's popular book on self-reference: *Godel, Escher, Bach: An Eternal Golden Braid*?

One of our oldest stories, that of Gilgamesh, tells of the discovery of "other" in a philosophical sense. Gilgamesh is a tyrant king who discovers a wild man, Enkidu, outside the city walls. Gilgamesh brings him into the city, and they become brothers, together more powerful and wonderful than before.

Gilgamesh was sovereign inside the city walls, but Enkidu was wild outside them. The discovery of Other threatens our sovereignty. When we bump into another, a line is drawn. Our self is compelled to take a form; it is given a shape. Until we discover Other, our ego knew no limit. The discovery teaches us we are finite, limited, mortal, a life captured inside a tin. A robot. For a moment, at least, we are fixed in time, a snapshot, a print. Print, like a book.

The discovery gives our ego a shape. The upside, perhaps, is that we have gained self-awareness. It is a power. The discovery of Other introduces conflict and power struggle. People who want too much deprive others; they are creeps. Unlike the inner path in the last post, each action we take affects others. It is more dangerous.

The discovery of Other is all about boundaries, and crossing them. Our self is not one and everything. It is not sovereign but a fellow subject of a larger story. We are not first but second. Secondness is lesser. Think duplicity, infidelity, two-mindedness, second-guessing, talking out of two sides of our mouth. Secondness is being on the outside, an outlaw, a foreigner, with no home, no kingdom. Rule-breaking is part of the game. Rule-breaking is also a prerequisite for creative reading. Literature is almost defined by the fact that it fits no genre, but breaks rules.

The discovery of Other reveals our finite form, our self as robot or technology. While all of life teaches this lesson, it is particularly acute with reading. We are not readers by nature; we re-purpose neural circuitry to achieve it. Reading is a close second to thought, an artificial extension. It is on this level that we can see even thought as technology. It is also the level on which rule-breaking and creativity with technology enter the picture. We can use it to extend reading, bootstrap style. It brings us full circle to the Self again. I know I'm making leaps that need more explanation. I will get there as the series progresses.

Creative Reading: The Mathematics of Self, Other and Extension
Reading as a Creative Act, Pt. 6

This series is an inquiry into the connections between reading and technology. The current theme is creative reading, examining how reading relates to the deepening of self and the discovery of other. The point is to uproot fundamental constructs of mind, constructs relevant to reading and to technology.

A similar pattern can be seen in mathematics, thus making another connection with technology. Philosophers of mathematics analyze numbers in great depth. I will briefly offer just a few, then make my own associations.

Zero is distinctive in mathematics. It is in between the set of negative numbers and the set of positive numbers. It is neutral, existing prior to the any concept of extension in a particular direction. Zero has a metaphorical correspondence with the pre-ego sense of self. Zero has no size, no weight. It does not exist in the outer world, but still has an inner, embryonic, 'blissful' (or hellish) state.

One represents a single unit. It is a quantity. It corresponds metaphorically to self. Number one exists between zero and the number two. It takes its definition in contrast to all other numbers. This is like the discovery of other.

Once other is discovered, extension can take place. Two, three, four …. This is like the extension of self through technology. Numbers also exist in the opposite direction, the negatives, metaphorically tying into the discussion of the outlaw or rule-breaking that inevitably occurs when boundaries are defined.

The concepts in this theme have been somewhat abstract, but this theme is coming to a close, and things will lighten up (till the end). The point of this theme has been to make a core connection between reading and technology.

One final point needs to be made. Reading is a path both to greater interiority and to the discovery of other. In the discovery of other, the limits of self are revealed, our robot nature. In discovering our technological self, we identify with technology, overcoming our fear and [prejudice](#) against technology, and gain the ability to use it creatively. As technology, we can use technology, bootstrap style, to further extend our reading ability.

What Books Changed You?
50 Books that Changed Me, Pt. 1, Youth

I want to lighten the series up and talk more directly about reading with this new theme, '50 Books that Changed Me'. It will be four or five posts, briefly describing a selection of books that changed me in ways that are reflected in this "I, Reader" series. I would be delighted to hear about books that changed you; leave a comment.

Farm Animals. Author unknown. Books on farm animals are a first for many children. For me it was a book aptly called *Farm Animals*, a big red book. I recall a picture of a serious dog, the text cautioning children that farm dogs might not want to play. I am too serious too often and should play more. The theme of farming returns later in my life.

The Chronicles of Narnia. A set of seven children's book by C.S. Lewis, starting with the well known title, *The Lion, the Witch and the Wardrobe*. The chronicles are an allegory of the Bible, but to me it was just great fantasy. On some level, it provided a transition from the literal interpretation of the Bible that I was given to something more imaginative and creative. I read all seven books seven times.

The Lord of the Rings. J.R.R. Tolkien defined the fantasy genre. The interplay of mythology with the real world is a powerful literary and psychological dynamic. In a biography by Carpenter, Tolkien persuades C.S. Lewis toward Christianity with his argument of religion as a mythology that literally happened. At moments, that almost makes sense to me. The trilogy was my first foray into more mature literature and dark symbolism. I read the trilogy to my kids when they were young.

The Bible. My Dutch immigrant parents were Christian Reformed, a relatively strict group that forbade drinking, dancing, movies or working on Sundays. Bible reading was a staple at meals, school, church and weekly church events. My father read the Bible at every meal. I didn't appreciate it at the time, but having a parent read anything to their family at each meal is a rare and precious thing. The Bible knowledge came in handy in later years. In high school English class, studying *A Separate Peace* by John Knowles, I knew that the Garden of Eden was said to have been located between the Tigris and the Euphrates. Listening to the Bible forged my original interest in philosophy.

I've always admired people who, in a pinch, are better than their principles
50 Books that Changed Me, Pt. 2, Teen

The last post described books that influenced me in ways of which I was not aware of when I was reading them. Those books correspond to the blissful pre-conscious state described in the last theme.

This post describes books from my teen years, in which I began to find my way through darker ideas, corresponding to the discovery of other.

I, Robot. The first time I watched Star Trek on TV, it was against my will; a friend wanted to watch it. After that, I was hooked on science fiction. Isaac Asimov was the king of scifi, and *I, Robot* was a classic. The stories posed clever paradoxes and resolutions that tickled a teen's budding intellect. It was a good primer on the philosophy of technology.

Huckleberry Finn by Mark Twain. "All right, then, I'll go to hell". Huck was prepared to damn his soul because he knew it was right to save Jim. I've always admired people who, in a pinch, are better than their principles. Morality gets worked out locally not on high. A question is posed in Dostoevsky's *Brothers Karamazov*, does design justify the suffering of children? I say, no.

Heart of Darkness, the story by Joseph Conrad, later made into the movie *Apocalypse Now*. A journey past the thin veneer of civilization into the darkness of the unconscious. The horror, the horror. In *The World According to Garp* by John Irving, a publisher asks a cleaning lady to read Garp's manuscript. The lady has never been so shocked by a novel, but she cries, It's so true.

Macbeth, by William Shakespeare. Having killed the king and achieved the throne, Macbeth finds no satisfaction. Life is a tale told by an idiot, signifying nothing. Out, out, brief candle. This tragedy, like *Heart of Darkness*, provides symbols for traversing the dark zones of the psyche.

Moosewood Cookbook by Mollie Katz. Not everything in my teen years involved darkness. I travelled Canada with Katimavik, volunteering in communities, living a granola lifestyle. This cookbook taught me I could bake bread and enjoy really good vegetarian food. Wholesome living at its best.

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Every Extension Breaks a Rule
50 Books that Changed Me, Pt. 3, Undergrad

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Every extension of mind breaks a rule. Undergrad years are a good time for innovative thinking and rule breaking.

Psychology 020 text. I took a year off before going to university, but I knew I wanted to study psychology so I read an introductory text, learning the scope of the field and how to think about psychological phenomena in a scientific manner. I tried to apply my high school physics to craft an 'atomic' psychology. I later learned that a turn of the century psychologist, Titchener, had tried something like this using introspection as an observation tool. For my honour's year thesis, I asked people to report their experience when introspecting and correlated it with their beliefs about reality. People who hold conservative beliefs don't 'see' much; those with transcendent beliefs see much more. Interesting, eh?

The Tao of Physics. Fritjof Capra explored the parallels between eastern mysticism and western physics. Critics, including my philosophy of science professor, said that Capra wrongly connected 'real' concepts in physics with metaphorical ones, e.g., energy. Well, I disagree. I see the energy

described in physics as the same kind of physical energy at work in my mind and body. At the most basic level of reality, it all comes down to energy.

Zen and the Art of Motorcyle Maintenance. I read Robert Pirsig's autobiographical book in my twenties, and again in my thirties. The author's pursuit of Quality drives outside him outside academia, the 'Church of Reason', and breaks him. Several years later, patched up, the ghosts of the past threaten him again.

The Personal Nature of Notions of Consciousness. Imants Baruss is a psychology professor at King's College, a small campus of the University of Western Ontario. Baruss' course on consciousness shaped my interest in psychology, leading to two independent studies and my honour's thesis. It is hard to shortlist a number of other worthy books I found as a result. Barr's *A Cognitive Theory of Consciousness*, Dretske's *Explaining Behaviour*, Jung's …, Lyon's *The Disappearance of Introspection*, Marr's *Vision*, Paivio's *Mental Representations*, Pylyshyn's *Computation and Cognition*. All cut deep in trying to explain mind.

Transcendence of the Ego by Jean-Paul Sartre. Most of my undergrad courses were essay courses, and I could not write an essay without adding some kind of original spin, until I read this book. It took me two weeks just to decipher and summarize this book. I thought I met my match until I later read *Being and Time* by Martin Heidegger. I read 200 pages, pen in hand, finally taking a rest, never going back, though I read other more accessible treatments of it. This book defined slow reading to me. I consider it meta-philosophy. You don't agree or disagree with it. It just is. Very Buddhist.

The Trajectory of Reading: Creative Contribution
50 Books that Changed Me, Pt. 4, Creative Contribution

Kids are so clearly in a state of constant growth, in their bodies, in their powers, in their lifestyles. They look at their parents and think, borrring. Fortunately, life has never stopped being interesting. The rapid external change of childhood subsides, but the inner life takes on a whole new complexity. This period continues to be both creative and productive.

How Can I Help. I worked in the social services for a number of years. This book by Ram Dass was an excellent primer on compassion and real help. I learned how to really use group process from Shulman's *The Skills of Helping Individuals, Families, and Groups*.

Books on feminism ranged from Andrea Dworkin's *Woman Hating* to Naomi Wolf's *Fire with Fire*, while I still enjoyed Robert Bly's *Iron John*. A distaste for 90's corporatism led to me Theodore Roszak's *Sources* and Kirkpatrick Sales' *Rebels Against the Future*. All of these books created a healthy identification with fringe dwellers. Allen Carr's *EasyWay* proved that I could indeed quit smoking for good. I still count it as one of my greatest achievements.

A stint in health research got me weary of number crunching and I found my way into computer programming. It's hard to name a particularly influential book in this period. The *MSDN* Library was a massive set of digital help files that I used extensively. The content was forgettable; the shift to digital

was significant. I kept an eye out for more philosophical books on programming, e.g., Raymond's *The Cathedral and the Bazaar*.

Life as a computer programmer for a multinational corporation took its psychic toll, and I found myself raising my kids on a hobby farm, tinkering with small engines. The garden was occasionally mystical, and I ate up back-to the-land books: *Living the Good Life by Helen and Scott Nearing*, Merilyn Simonds *The Holding*, and various books on weeding and composting. I learned that most of agriculture is the battle with weeds. Much as I toyed with the idea, I was not a farmer. I worked out another path, librarianship. Any bibliophile will love the story of Pico in Keith Miller's *The Book of Flying*.

Buddhism without Beliefs. Stephen Batchelor revives the authentic spirit of Buddhism, asserting that the more fantastic claims about reincarnation and karma can be unloaded for greater insight. The modest book is a refreshing retake on Buddhism, free of jargon and ideology. It is a good expression of my current worldview.

<p align="center">I Read, Therefore I Write
Reading Causes Writing, Pt. 1</p>

I read …

I am first a reader, then a writer. The reading's the thing, the writing a byproduct.

When I read slowly, deliberately, actively, I can only read a few pages at a time. A book may take a month to read. I write notes to capture what I have read, to keep my train of thought.

I read and read and read, but what am I to do with all that reading. The ideas I am discovering race round in my head. To still them, I write about them. A book review or a short essay.

It does not matter whether or not I am published in the traditional sense. Blogging is a fine method of publication. It does not matter that most of my posts are TLDR.

Francine Prose has a book called, *Reading Like a Writer*. She teaches people to read closely for pleasure, deconstructing a sentence in the way a writer would. Perhaps I should write a book called, *Writing Like a Reader*. It could instruct the reader on writing to release the brain from a book, give it closure, and bless the reader as he or she moves on to the next.

The reading's the thing, but reading insists I write.

… therefore I write.

<p align="center">What Readers Write May Not Be Literature, But It Might Become So
Reading Causes Writing, Pt. 2</p>

Readers write to give some shape to what they have read. It may be an artistic expression, a short essay, a book review, or just a thought. Readers are not necessarily experienced writers. The web can help with that.

Writing is often considered a solitary act. My writing is much improved by engaging in social processes.

We are taught to write in high school. I eked my way through high school essays, usually ignoring the red-inked comments, looking only at the grade. I learned a new approach to writing in a first year sociology course with Dr. David Flynn of King's University College. Flynn had been introduced to John Parker's writing process which was based on the assumption that since 'real' writers re-wrote many times so should students. As an experiment, he applied the method to his class. We would submit a draft of an essay. No mark would be assigned. Other students would give feedback, and we would submit the paper again. This continued for a few cycles. At first, it seemed like a lot of extra work. Once I made the adjustment, it was brilliant. One, instead of trying to get everything right the first time, we would just concentrate on getting the ideas on paper. Two, instead of being expected to see every angle on a subject, we could get some feedback from readers. It became a pattern for my writing.

Working in information technology, I have co-authored multiple large technical documents. Early on, I found it amazing to watch how these documents would get assembled. A root document is created off a template. Each person takes his or her turn filling out specifications. It is rare that one section is truly isolated from all others. Global assumptions and properties must be established. Each person writing the document knows that it is his or her workload at stake. Emails are exchanged; flash conferences are held. Details are re-written. Usually the changes are managed by source control software. Somehow, this social process winds up with a document. It is not literature, but somehow many different agendas and ideas coalesce into a workable document.

The web is the premier social writing tool. A reader who wants to say something about a book is only a tweet away. Simple feedback is as easy as a click; being ignored is another type of worthwhile feedback. Readers may not enjoy the local book club's taste, but may find a passionate following for a particular book at an on-line book cataloguing site. A reader may not get his or her book review published in a literary magazine, but a blog won't say no. Not sure about a fact? Look it up; the web serves as a fact-checking, error-correction mechanism as you write. There are readers who want to write about what they have read. The web provides that opportunity. What readers write may not be literature, but given how social interaction improves writing, it might become so.

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Using a Blog to Draft a Book Idea: 9 Observations
Reading Causes Writing, Pt. 3

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Readers of my blog know that I have used it to draft other projects. I blogged early material on slow reading, and blogged my way through two phases of development of my pet software project, OpenBook. At present, I am cutting an early draft of *I, Reader* using my blog. It fits with the subject, the inquiry into the connections between reading and web participation. As my posts pass the twenty count, I find myself going back to previous posts, updating them. I find myself adding comments to my own posts. It is timely to say a few things about the process of blogging a book idea.

<u>General</u>

My very first draft is an assembly of notes I have compiled and sorted offline over several months. This draft is a second draft.

Inexperienced writers think that others will steal their ideas. I suggest to you that ideas are a dime a dozen and the real value is in the final writing, something you may or may not wish to blog. On the other hand, some publishers and writers give out free, full-text copies of their work on-line, as way to get known and increase print sales.

What works: The social aspect

Blogging compels me to write more succinctly. No fluff. Web readers will glaze over long, meandering posts. Succinct posts are very useful for organizing information for a third draft.

Blogging invokes the presence of 'Other'. No bull, others are watching. If I write bull, I lose them. I use the web as I write to confirm and hone my facts.

Comments allow me to find blind spots in my thinking. Responses show me what content is most appealing. More critical comments would be nice.

Comments often provide social approval, which is not necessary, but it always nice.

Limitations: Software flexibility

WordPress is a good content management tool. I can, in principle, sequence and re-sequence posts, make conceptual links through hyperlinks and tags, and visualize these relationships. If I work on-line, the process is quite slow due to network lag, and that is slow enough to stall the thought process. There is software that allows you to write off-line then post, but it would be nice if WordPress had an off-line mode that later synchronized everything at a touch.

I am using my blog like a wiki, saving all relevant material in one place. If I find a new article on the web, I want to quickly link it to a post I have written before. I should be able to add notes to previous posts more easily. I have started using comments to do this. The Zotero research tool is a good model, but it does not provide blog-level writing capability.

While blogs appear to be an enduring tool for long-form writing, anything short-form, including comments, seems better suited to Twitter-type tools. Tweetboard provides a nice integration tool, but I can't seem to get an alpha invite.

Reading led me to writing and blogging. The malleable nature of the web leads me to think I can improve it to let me write and blog better, in turn serving my reading purposes. OpenBook was an example of that thinking. Maybe, I will throw in my hand again to improve WordPress' drafting capabilities. Maybe.

From Reading to Writing to Publishing with Digital Media
Reading Causes Writing, Pt. 4

Reading causes writing. When readers write, it is not necessarily for publication, though the social dimension of publishing is still desirable. Blogging is a quick and easy way of getting the social value of publication. But more and more, digital media is making it easier for amateur writers to get published. Here a couple noteworthy items:

Cloud Publishing at the Book Oven. Writers upload their manuscript and can edit it using their innovative tools, such as Bite Size Edits to edit a bit at a time. You can invite others to help edit your work, providing annotations on-line. Volunteers can help edit for fun. You can generate a digital copy for web distribution. They aim to provide print-on-demand and sales capabilities.

Media Commons Press. These folks are trying to change scholarly publishing in the age of the internet. They provide an innovative interface for readers to comment on a manuscript. Their first major project is a release of Kathleen Fitzpatrick's *Planned Obsolescence: Publishing, Technology, and the Future of the Academy*, an apt subject for their mission.

Observing the continuum from reading to writing to publishing through digital technology is instructive. In the old world, there were barriers between readers and writers. Readers were in awe of writers, and writers were held aloof with authority, protected by their publishers. The new media has broken down those barriers. It changes what it means to be a reader. We are both reader and writer.

Birth of the Reader-Writer
Reading Causes Writing, Pt. 5. Conclusion to this theme.

Literary theorists talk about the "death of the author", a view that a work should be considered independent of the personal details of the author. In its place, we have the "birth of the reader", the new source of meaning when interpreting a text. But things have changed again. Readers have been extended on-line. They publish their thoughts online as they are reading a book. Other readers are influenced by what is being written about a book as they are reading it, and then writing about it themselves. In turn, the writers are reading it back. Furthermore, readers converse with authors of books they are reading, even as the author is writing the next book the reader will later review. We have a new birth, the birth of the reader-writer.

The birth of the reader-writer seems like a happy thing. Everyone gets to play. Readers get to be writers. They can check their stats daily, hourly, by the minute, to see how popular their writing is. There's no denying the narcissism in it. Looking at your stats is like looking in a mirror. It's only a problem if it happens too often. It often does. But that is to be expected. Narcissism is the first effect of extension by technology, so McLuhan tells us. It's the hype phase of a new technology. It is the period in which we sense our identity has been extended in some powerful way.

What is this reader-writer? What are the implications? Another name for Web 2.0 is the read-write web. Early on, it was difficult for non-technical sorts to publish to the web. Now it is easy. It has been observed that people do not keep diaries anymore. We yield up our interior life to the web. What am I

reading now? What page am I on? I can't believe the main character just did that! It is as if there is an inner camera uploading to the web, offering a map of our mind.

Ray Kurzweil is a futurist, who believes it is possible to fashion an artificial intelligence, ultimately superior to human intelligence. In his book, *The Age of Spiritual Machines* (referenced previously), Kurzweil provides a blueprint for building one. A starting point is reverse engineering the human mind. Sound tough? Well, our reader-writer is doing just that, uploading a map of the mind to the web. Perhaps it's for the robots after all. [*diabolical laughter*]

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To Read a Book is to Ignore 4000 Others
Information Quake, Pt. 1

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In *So Many Books*, Garbriel Zaid tells us, "The reading of books is growing arithmetically; the writing of books is growing exponentially. If our passion for writing goes unchecked, in the near future there will be more people writing books than reading them." (pg. 9). Furthermore, to read a book is to ignore 4000 others (pg. 22). It is often said that a person can only read 5000 books in a lifetime. Each book read eclipses a lifetime of reading.

It is a good expression of what I have (pompously) called the Uncertainty Principle of Library Science. In quantum physics, the Heisenberg uncertainty principle refers to the fact that observing one physical property, e.g., position, changes the condition of another physical property, e.g., momentum, such that both cannot be measured at once. My proposed principle has to do with the quantity and quality of books. As long as a book goes unselected, or judged worthy, there is a still a possibility of selecting the best possible next book. But to select one is leave a lifetime's books unconsidered. One cannot be sure of best quality.

There was a time not so long ago when one could read the Internet. When one reads all the posts in Google Reader, it takes the reader to an "End of the Internet" page. In good humour, it chides, "Go read a book, for pete's sake." I scan about 200 feeds a day in Google Reader. There is plenty of good reading to be had on the web, but I find I spend most of my time scanning snippets. It can be good; sufficient quantity has a quality all its own. But every now and then I notice that a day has gone by in which I haven't read from a book. I find it disconcerting because I know that I prefer slow reading. I suspect this phenomenon is true for many. The web seems to suck in readers, substituting quality for quantity.

The overwhelming and accelerating abundance of information and books available to readers today I call the information quake. Ray Kurzweil is a futurist who predicts that advances in technology will continue to accelerate. He predicts the imminent development of machine intelligence, superior to that of humans. Humans will keep up only by merging with machine intelligence. Of course, in this vision of the future, books, libraries and slow styles of reading will vanish. People will be able to read vast quantities of information, aided by their machine intelligence. Is Kurweil wrong? Maybe the web is an emerging brain. Some people eagerly eat this stuff up; most others have a healthy skepticism

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Quantity has a Quality all its Own
Information Quake, Pt. 2

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I come to these essays with a Generation X perspective. I identified as a reader in the days before digital computers went mainstream. In those days, being a geek meant being bookish. Teenage fun meant the acquisition of a new science fiction or fantasy novel to read that night. Being young and open-minded, I was equally ready for the information age. I was writing programs a decade before the web was introduced, and the early web was not exactly a garden of good reading material. These days, I scan about 200 feeds a day, slowing down to read articles that catch my interest. I still find myself asking if the reading available on the web compares at all to old-style reading of print books. Many would easily say no, but if that is true, why do we find ourselves reading the web more often that books? Is there something about all that quantity that translates in quality?

Another qualification for geek-hood when I was teen was the playing of chess. In my mind, the essence of chess was not simply learning combinations, but mastering strategies. In the early days of computing, chess programs were designed to show how machines could think. In *Behind Deep Blue*, Feng-Hsiung Hsu describes how he built the chess computer that beat the world's chess champ, Kasparov. I was deeply disappointed to learn that the program did nothing that resembled thinking. It simply used high powered servers to crunch through as many combinations as possible. Again it seems that sufficient quantity can have emergent quality.

In *Dreaming in Code*, Scott Rosenberg described how in the early days of computing, programmers were diligent at writing the most efficient code possible because computer time was quite expensive. In modern times, computer time is cheap and programmer time is relatively expensive. Processing power has been found to comply with Moore's Law which states that processing power will double every two years. As Rosenberg points out, "Chips may double in capacity every year or two; our brains don't" (pg. 69). In the long run the quantity of processing power wins out over the quality of efficient programming.

Old-style reading of books is all about quality reading. But I ask again, why do we find ourselves reading more frequently on the web than reading books? What is the siren call? Someone recently told the Soviets had a saying that sufficient quantity has a a quality all its own. It is as if from the mass of tidbits and snippets on the web, it is not merely a horrid puppet of quality that is being raised to mimic quality, but there is something real, worthy to steal a reader's best attention.

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The Web is Re-Wiring My Brain
Information Quake, Pt. 3

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"Over the past few years I've had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory." I resonated strongly with this confession by Nicholas Carr in his already classic article, Is Google Making Us Stupid? I have always considered myself a slow reader. I learned later to see that in fact I have always been capable of reading quickly; I just didn't count scanning as reading. On the web, I scan a lot. The more I do it, the better I am at it. It feels like my brain is being re-wired.

There is evidence that digital technology does change the brain's wiring. Dr. Abramson, a professor at Monash University in Melbourne, Australia, found that texting may rewire a child's developing brain

to be more careless (The Globe and Mail, August 17, 2009, L4). Young, heavy cell phone users make more mistakes in tasks involving memory, attention span and learning. There are an increasing number of studies like this, as there are studies showing the benefits of digital literacy. It really should come as no surprise that web use will re-wire our brains. In Proust and the Squid, Maryanne Wolf reminds us that we were not born to read, but have re-purposed neural circuitry to that end. What we choose to attend to will ultimately shape the way our brains work.

That a brain can be re-wired may seem fearsome, but to some extent we are robotic that way, capable of being programmed. Personally, I am optimistic that I can maintain two reading skill sets, that of slow reading and high speed web scanning. In The Man Who Forgot How to Read, Howard Engel describes how a stroke robbed him of his ability to read. A passionate reader, he refused to accept his condition of non-reader, and learned to read again. Avid readers share a conviction that reading in the classic sense is of measureless value, and will find a way to maintain it. The brain is plastic, and can juggle different complex skills.

How the Web Works for Readers: Thin Connections Lead to Rich Connections
Birth of the Reader-Hacker, Pt 1.

The web and print books are both technologies, each serving reading in its own way. The web and its associated reading devices lend themselves to scanning and reading short pieces. But there is a qualitative difference between the scanning we do on the web, and the long-form reading we do with print books. It is possible in principle to read long-form on the web, but it is an inferior technology for doing so. Print is also a technology, evolved over centuries. It is a superior technology for long-form reading.

So how do readers, seeking long-form reading, benefit from the web?

Every day I scan about 200 RSS feeds. I don't sit for an hour and read them one by one. My iGoogle home page has Google Reader embedded in it. Each time I open browser for any number of reasons, I do a quick scan of the titles. If anything catches my eye, I look further into it. Sometimes I catch a wave, and surf from item to item until it runs dry. If I find something very good, I bookmark it. Once in a while I find a book that is worth reading. I either put it on my "toread" list, place a hold on it the library, or purchase it from a book store. People use the web differently, but I think this pattern is fairly typical. It is a pattern moving from thin connections on the web to rich connections in print books.

The shift from thin connections to rich connections is how quantity translates to quality. The pattern mimics the operation of our brain. When we want to understand a new idea, our brain does not yet have complex neuronal connections. We try a new skill or try to wrap our heads around a new idea. Simple neuronal connections begin to form. As we rehearse and learn more, the quantity and complexity of connections grows. This is a measurable phenomenon in our brain. It is seen more widely in the universe; things evolve by moving from a simple state to a complex state. That the web mimics this pattern is predictable since the web is an extension of mind.

The thin connections of the web increase the likelihood of finding rich connections in print books. We are *more* likely to find good books given the web and its poor connections than if we didn't have them.

Reading causes writing; it also causes hacking. Hacking refers to the use of digital technology for creative ends. I like the way the term has the connotation of amateur activity and the fresh thinking that goes with it, as well as the connotation of mastery.

1976. I was ten years old and would rather have been reading, but my friend forced me to watch Star Trek. After that, I couldn't get enough of Star Trek, science fiction, and all things geeky.

A few years later, I couldn't get enough of Space Invaders, Pacman, Asteroids, and Chopper. The games seemed like the little worlds of Dungeons and Dragons that we were creating on paper. Bought a Timex computer, with 2 KB memory, a tape deck for storage, and a television screen for a monitor.

High school computer lessons. I started out learning how to program Fortran on punch cards. My first program printed a *Sword of Shannara* banner, the book I was reading at the time.

1987. Bought an Atari computer for word processing undergraduate essays. With a early form of modem, I could read the first online bulletin boards.

1988. The University of Western Ontario Library introduced two computer terminals where students could search journal indexes stored on CD ROMs. I considered them god's gift to students, who previously had to search paper indexes by hand. Writing papers changed forever.

1991. I bought a Smith Corona, dedicated word processor for $1200. It seemed a reasonable price at the time. With the assistance of the copy shop, I 'published' a small book for friends.

1994. Created my first website on Geocities, where I could 'hang out' with people with similar reading interests.

1999. Working in health research, I got weary of crunching numbers manually in Microsoft Office. Explored the program's Visual Basic for Applications functions. It was a great way to start learning programming. You record a macro by using the program as a normal user, then you start tinkering with the program. I started 'reading' computer books. Some rare books provided fascinating philosophical angles on concepts such as elegance and aesthetics, e.g. Steve McConnell's *Code Complete*. After a year of learning, I wrote the Microsoft certification exam for Visual Basic programming.

2000. Hired as a programmer by an IBM company, LGS. Later LGS was rolled into the IBM administration. Nearly ten years of programming followed, mostly web-based applications. There are many people like me who fall into programming by accident. We would prefer to be reading and writing, but needing to pay the bills, and finding the writing aspect of programming somewhat satisfying, make a career out of it.

2006. I still do not find that programming fits comfortably over my spirit. One day in the library I find myself looking at the library OPAC, and thinking, I could improve this. I look into library school, and

find there is a clear intersection with my IT skills and the needs of the modern library. Library school also offers a bit of juice regarding my deeper, personal interests in reading and writing. I enroll.

I am turned on by the idea of the open source OPAC. I start open source programming myself, building software that makes the web better for readers and librarians. My OpenBook plugin helps readers connect web pages to detailed book data in Open Library. My FuzzyCat prototype showed that many library catalogues can be crawled using a few simple design rules.

The modern reader is not extended simply by writing skills, but also by web skills, the ability to hack the web to make it better serve the purposes of reading.

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Definitions of Hacking
Birth of the Reader-Hacker, Pt 3.

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I use the term, 'hacker', for an activity that some do on the web. It has so many right connotations. It suggests the roughness and freshness of an amateur, as well at the persistence and control of a master. It suggests both creativity, and a willingness to bend or break rules to make technology serve a purpose, rather than being a passive recipient or slave of technology. It is not elitist; it only takes a willingness to think creatively and work hard.

Here are some definitions from others:

Paul Graham, author of Hackers & Painters: Big Ideas from the Computer Age. Graham groups hackers with painters, musicians, writers, all makers of art. Hackers don't engineer software; they usually design it as they are building it. Hackers like innovation and beautiful works. This doesn't necessarily make for efficient software development, so hackers often need a day job, and work on software they love after hours.

Scott Rosenberg, author of Dreaming in Code. Rosenberg defines "hacker in the word's original sense of "obsessive programming tinker" rather than the later, tabloid sense of "digital break-in-artist" (6-7).

Cory Doctorow, author of Little Brother. "Hackers are explorers, digital pioneers".

Eric Raymond, author of The Cathedral and the Bazaar. "There is a community, a shared culture, of expert programmers and networking wizards that traces its history back through decades to the first time-sharing minicomputers and the earliest ARPAnet experiments. The members of this culture originated the term 'hacker'. Hackers built the Internet. Hackers made the Unix operating system what it is today. Hackers run Usenet. Hackers make the World Wide Web work. If you are part of this culture, if you have contributed to it and other people in it know who you are and call you a hacker, you're a hacker." What is a Hacker

Wikipedia. "Hackers follow a spirit of creative playfulness and anti-authoritarianism, and sometimes use this term to refer to people applying the same attitude to other fields." Hacker (programmer subculture)

The reader-hacker is first a reader, then a hacker. The reader still wants good books, often in print, though e-books meet certain needs too. The reader still wants a good story or a proper treatment of an idea. But this reader has discovered that technology increases the chances of finding good books, and extends the reading experience in new dimensions. The reader-hacker may simply be web-savvy, though some have advanced technical skills. It is a new breed of reader.

It is not hard to find reader-hackers at work and play on the web. Here is a whirlwind tour of randomly selected reader-hacker sites:

1. Book discovery. Readers use book websites to read reviews, get recommendations, and discover new titles. Some sites focus mainly on reviews and book news: bookforum.com, New Yorker Books. Some offer creative methods of selecting a book: Reader's Robot, Whichbook. Many offer virtual bookshelves and other reader services: GoodReads, LibraryThing, Shefari.

2. Interact with authors. Once upon a time the author was a removed entity, interacting with readers only through the publisher. These days authors often have a blog, and readers can dialogue with them as they are reading the book. With increasing frequency, readers can help authors write their books. Don't like how the story ends? Re-write it. Join a gang to help write a novel. Authors are increasingly giving away full-text, digital copies of their books, e.g., Doctorow, sometimes as podcasts. Fans translate Doctorow's novels into other languages.

3. Read books on-line at Book Glutton, Open Library, Project Gutenberg, Library of Congress, or the TimesOnline. Search for free books at Just Free Books. Scan your own books to digital format. Mix reading with video (thanks Barbara).

4. Organize your books using citation managers like BibMe or Zotero.

5. Exchange print books with others at BookMooch, rent them from BookSwim, or discover them through BookCrossing.

6. Find books in libraries. WorldCat helps you find books in a local library. Library Elf helps you manage your library loans and holds. Libraries are increasingly providing helpful digital services, e.g., Toronto Public Library's online book club. See Nicole Engard's Library Mashups: Exploring New Ways to Deliver Library Data.

7. Use widgets and book APIs to remix book data. It's not hard to dynamically create URLs to multiple book sites. Many sites provide widgets and APIs for adding their book content to your site: LibraryThing, Open Library, WorldCat. Tech-savvy readers often build their own book widgets.

Ways of the Reader-Hacker II: Breaking the Rules
Birth of the Reader-Hacker, Pt 5.

Every extension of self crosses a boundary, changing our relationship with others, and re-defining our identity. The extension of digital technology changes many things for readers. Readers are concerned with issues such as access to content and copyright, concepts under contention these days. You will find that many reader-hackers are digital media activists, people who have taken the time to learn the rules, and insightful enough to know when to bend and break them.

Here are some ways that reader-hackers are creatively contributing to new thinking about content and copyright:

1. P2P Sharing. Peer-to-Peer content sharing is often wrongly characterized as being only about theft of copyrighted content. In fact, P2P downloaders spend more on music. But P2P is a much bigger subject. People use P2P to get known as artists. The days of mega-rock stars are gone. Many more small artists — musicians and writers — can be discovered through the new digital media.

2. Copyright. Traditional copyright is a tough battle on the internet because the internet is essentially a giant copy machine. I respect an artist's rights to their work, but I encourage artists to consider that copying is the sincerest form of flattery and is a powerful strategy in getting known. Creative Commons licensing is a good strategy for balancing the rights of artists and the potential of the web for remixing content.

3. Net neutrality. Sir Tim Berners-Lee, the inventor of the web, has expressed serious concern regarding trends toward a two-tier web, one for those who can pay, and another for the rest of us. He advocates for net neutrality, a level playing field for access to information and all the good things that stream from it, things like innovation and democracy.

4. Censorship. You've heard of the great firewall of China, but many people in the free world have limits placed on their access to information. Many workplaces limit access to the internet in the name of network safety and efficiency. Hackers are interested in the free flow of information. Circumvention technologies exist. See, for example, the Citizen Lab at the University of Toronto. Also see Access Denied: The Practice and Policy of Global Internet Filtering.

Ways of the Reader Hacker III: Two Bright Ideas
Birth of the Reader-Hacker, Pt 6.

This is a just a 'placeholder' post because there is no way I can do justice here to two bright, substantial, best-of-breed, reader-hacker ideas, both emerging from the library field — one, the open source Integrated Library System (ILS); two, Open Access. Both ideas are important innovations for readers, and like I said, I am just going to brush over them for now.

An integrated library system (ILS) is a software package for managing all major library information functions, including acquisitions, cataloguing, circulation, serials, and most visibly, the online public access catalogue (OPAC) that library patrons use to find items. Reader access to books vitally depends on the ILS. For decades now, libraries have been paying big fees for vendor ILS software, often with limited functionality. Librarians have a ton of ideas about how to improve the ILS, but have been unable to eke out significant improvements without paying big money. Year by year, librarians have

been learning how to build software themselves. In 2005, the Georgia Public Library Service could not find a vendor to meet their user needs, and asked their developers to build what became the Evergreen open source ILS. The open source ILS is to vendor packages what Linux is to Windows. The idea is catching fire, and promises to be the new development model for library software. Brilliant.

Open Access has significant implications for readers interested in scholarly research. My understanding of it is basic, but I think I have the essentials. For years, academic libraries paid heavy fees to provide their patrons with access to journals. The kicker is that academic institutions generate this research, and academics do not get paid to produce the content. The internet has been changing that. Open access repositories and journals have been slowly growing as a way to provide free scholarly research to anyone. This means that any reader who wants to dig a little deeper into a subject will have access to scholarly journals. Another brilliant idea.

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A Hacker's Reading List
Birth of the Reader-Hacker, Pt 7.

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Reader-hackers will be interested in reading material on hacking. The following books won't teach you how to program, are not especially practical, but there is a good chance they will inspire original and critical thinking about technology.

Doctorow, Cory (2008). *Little brother*. Tor Teen

Feng-Hsiung Hsu (2002). *Behind deep blue: Building the chess computer that defeated the world chess champion*. Princeton University Press.

Graham, Paul (2004) *Hackers & painters: Big ideas from the computer age*. O'Reilly.

Hillis, Daniel (1998). *The pattern on the stone*. Basic Books.

Kurzweil, Raymond (1999). *The age of spiritual machines: When computers exceed human intelligence*. Viking.

Norvig, Peter (2001). *Teach yourself programming in ten years*.

Raymond, Eric S. (2001). *The cathedral & the bazaar: Musings on Linux and open source by an accidental revolutionary*. O'Reilly.

Rosenberg, Scott (2008) *Dreaming in code*. Three Rivers Press.

Sale, Kirkpatrick (1995). *Rebels against the future: The Luddites and their war on the industrial revolution: Lessons for the computer age*. Addison Wesley.

Sclove, Richard (1995). *Democracy and technology*. Guildford.

Ullman, Ellen (2001). *Close to the machine: Technophilia and its discontents*. City Lights.

Williams, Sam (2002). *Free as in freedom: Richard Stallman's crusade for free software.* O'Reilly.

Ones and Zeros, On and Off Switches, All Sane Systems Require Downtime
Offworld, Pt. 1

In the universe of Asimov's *I, Robot*, humans are fearful of robots, so laws are made that robots must go offworld to labour on distant planets. It often seems that technology can labour for us in some unseen place. It is an illusion.

I, Reader has explored how the reader is extended toward others with digital technology on the web. Readers write, and they hack. Yet a hack is just a rough cut, not something to be endlessly perfected, but something to be walked away from. Just as no one can digest our food for us, no one can digest our information for us. Digital technology at its most basic is about ones and zeros, on and off switches. All sane systems require downtime. The best of reading still requires switching off technology at times.

'Offworld' is the second last theme in the *I, Reader* series. Any good definition of the benefits of technology to reading requires a boundary, a statement of the limits of technology to reading. The Offworld theme is about the benefits of turning off the lights of technology, and journey unaided through the lesser lit corridors of the self and the unconscious. The destination is a world of answers to the original questions that set us on the path of reading.

The Information Race and Pushing the Button
Offworld, Pt. 2

We are in the middle of an information race. The cultural impact, at least, is as significant as the arms race of the eighties.

I brought my car into an autobody shop. The owner was chatty and asked what I did for a living. When I told him I was in IT, he said he just loved computers. He showed me his new automated system for tracking parts. I asked if it saved him time. Yes, he said, he no longer has to spend all that time tracking parts manually on paper. However, he admitted that he now spends much of his day entering data into the computer. I asked if the new system saved him money. No, not at all. He spent thousands of dollars on this system. I asked if he really preferred the new system over the old one. No choice, he said. The competition has the new system so he has to have one too. It is an information race.

Google is an advertising company. The web is fueled on advertising. Frankly, I like advertising, but only under very narrow conditions. If I have planned a particular purchase, and advertising for just that product appears just at that time, offering a honest savings, I'm grateful. Print the coupon or whatever, save me money. Call it Just-In-Time (JIT) advertising. But advertising does not work like that, for two reasons. One, greed. Most advertisers prefer to carpet bomb the web so that people who are not thinking about a purchase will start to think about it. Invented wants and needs, it's not a new concept. Two, technology itself. Automation favours centralization, i.e., it is always easier to program a few simple rules that are true for everyone. Individual variation requires programming for exceptions and that requires work. One of the big boosts of Web 2.0 is that individuals all over the web could throw

their hand into the pot, and help provide local information, e.g., how good is the local pizza joint. But Web 2.0 is people at work, not automation. One good reason to turn technology off is that it inundates us with advertising and lots of other useless information. Poor reading material indeed.

Information overload is a threat to intellectual freedom. How many lists and feeds are you on? We have little tolerance for irrelevant posts? The more information we get, the lower tolerance we have for marginal ideas. But the most important ideas often emerge from the margins, the fringes, outside the box. In print culture, access to information was a key concern for intellectual freedom. In digital culture, intellectual freedom is enhanced by reducing the overall amount of information, increasing our tolerance for serendipity, for off-the-wall ideas that just might be the ones we need.

Unchecked, the information race will escalate. Bill Gates wrote a book called *Business at the Speed of Thought*. Faster computers will not help. Jane Jacobs said of cities that if you build more highways you will only get more traffic. There is no end in sight. I think of the halting problem in computing theory. Alan Turing proved that for any given program and input, we cannot know if the program will ever end. An infinite loop is always a risk. I have asserted my own incompleteness theorem for library science: the best fit of information can never be known for more good information is available in the time it takes to answer a question. We can look to the software programmers, for whom bugs are an endless certainty. Software is never finished; it is merely abandoned. Sometimes walking away is a good idea.

In the arms race of the eighties, we feared what would happen if the button was pushed. In the information race, the wisest course is knowing when to push the button, the off switch.

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How to Make an Elephant Statue
Offworld, Pt. 3

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Want to make an elephant statue? Get a big rock and cut away all the parts that do not look like an elephant. It's an old joke that makes a good point. A concept only becomes well-defined when contrasted with its opposite. It is the same idea explored earlier about self and other. In the information world, the discovery of other is facilitated by the extensions of technology. In contrast to other, the self is better defined. Definitions bind things. The self becomes finite, a robot. Turning off the technology can refresh your humanity.

Hit the off button on your computer and see what happens …

Consciousness. Turning off the lights may leave one in the dark and cold, at least for a while. Carl Jung says that pain is a precondition for consciousness. Heidegger says that it is only when things break do we look around and become aware. Pirsig refers to this condition as 'stuckness'. It's only when we get stuck that we look for new ideas.

Fewer false leads. Harvey Whitehouse observes that humans are predisposed to see agency or pattern. This may be adaptive in the past when false positives for predators do not represent a danger. The web is like a forest, with many false paths. We spend a lot of time tilting at windmills.

Decisions get made. In his book, Blink, Gladwell says it is false that more information is always better. Too much information can obscure the few critical items needed to make a decision. A counter-perspective is LeGault's Think: Why Critical Decisions Can't Be Made in the Blink of an Eye. LeGault argues that the decline of the West is due to a lack of critical thinking. Can both be right? As I see it, Gladwell is talking about a trained intuition. When a person is learning a new domain of information, he or she cannot pick out the few critical items needed to make a decision. It takes experience to make critical judgments. Turning off the frantic activity of the web can increase critical thinking. An open mind is like an open window. It's good to get fresh air but leave it open too often or too long and the mind can get a little drafty.

Sanity. Our brains have inhibitory neurons with the purpose of slowing down excitation of the brain. The inability to limit information in our neuronal processing is associated with disorders such as epilepsy. Normal brain processes require downtime. "Methought I heard a voice cry, 'Sleep no more!' Macbeth does murder sleep! The innocent sleep, sleep that knits up the ravelled sleave of care. The death of each day's life, sore labor's bath, balm of hurt minds, great nature's second course, chief nourisher in life's feast."

Security. Like all programmers, most of my work involves trying to get at stuff: files, databases, other programs. In the old world of Microsoft, it was easy to get at just about any resource with little fuss. When Linux showed the world how to do security, Microsoft rewrote all their software to catch up. These days, it seems like half my job is simply getting the right permissions from network administrators. Frustrating, but I appreciate that security requires putting in the appropriate stops.

Copyright/Delete-right. People fuss about copyright on the web. I think they should fuss more about delete-right. The web is essentially a big copy machine, so copyright infringement occurs frequently. I can protect content to some degree on my own website by deleting stuff I don't want copied. I can't do this on other websites. Many websites won't let you permanently delete your own accounts or data. The ability to delete information truly defines our ownership of it.

Economic balance. Tired of plunking away on a computer all day at work? Nobody likes an economic recession, but these periods are like fires in a forest; they force us to leave dead-end jobs and take on untapped potential. In the Upside of Down, Homer-Dixon makes just this point. A Canadian MP tried to say how a recession can be good for the health, but was forced to apologize.

Justice. I heard that the Toronto Police force no longer keeps numbers on race during arrests, etc. The practice is a way to decrease racial profiling. Sometimes less information is a good thing.

Every story deserves a good ending. It need not be a happy ending, but it should be a satisfying ending, providing a sense of completion. After his unexpected adventure in The Hobbit, Bilbo Baggins returned to Hobbiton, but the time came to say goodbye to his many friends and relatives. "Alas, eleventy-one years is far too short a time to live among such excellent and admirable hobbits." Cheers abound. "I don't know half of you half as well as I should like, and I like less than half of you half as well as you deserve." Dead silence. No one is quite sure if they have been insulted. In the movie version, Gandalf the wizard smiles wryly. Bilbo uses his magic ring to disappear right in front of their eyes, ensuring his legacy as the strangest and most remarkable hobbit in the history of the Shire.

People like good endings in every story except their own, which many wish would go on forever. Futurists like Ray Kurzweil imagine that humans will merge with machines, thus gaining some form of immortality. On the opposite pole, back-to-the-lander Scott Nearing concluded at age 100, his health failing, that he had lived long enough. He chose to stop eating. It was an exceptional and dignified end.

We assume that human history will go on indefinitely. It is a human bias. Perhaps machine life will replace us as the dominant species one day. But why machines? We have other far more intelligent animal species on the planet. In Ishmael, Daniel Quinn writes of an ape who teaches his pupil critical lessons about humanity:

> Man's place is to be the first without being the last. Man's place is to figure out how it's possible to do that — and then to make some room for all the rest who are capable of becoming what he's become. And maybe, when the time comes, it's man place to be the teacher of all the rest who are capable of becoming what he's become. Not the only teacher, not the ultimate teacher. Maybe only the first teacher, the kindergarten teacher — but even that wouldn't be too shabby. (243, his emphasis)

Perhaps the human story will be shorter than we think, and maybe that is not such a bad thing. What sort of ending will that story have? Shall we resist that end as long as possible, or plan for ending with dignity?

Perhaps it's just my own mid-life reflection. Maybe things will go on. After all, Bilbo's story did not end with his goodbye. Nor did it conclude at the end of Lord of the Rings. He sailed off into the Grey Havens with Gandalf and company. Who knows.

People

Batman is a creature of the night, just as much as Superman is citizen of the day. Batman vs. Superman. Who would win a fight? The comic book and movie makers have always promised to give us this battle. Superman is easily the physically superior one. How could Batman stand a chance? Batman must have a psychological edge of nearly equal power. There is a connection between Offworld and psychological depth.

Curmudgeons. Irritants. People who don't absolutely love whatever new trend. Luddites protested the industrial revolution by throwing wrenches in the machine; it was an early form of culture jamming. Andrew Keene, author of Cult of the Amateur, seemed like a wet blanket in the midst of the Web 2.0 hype. Curmudgeons. We hate 'em but we love 'em. When the hype is over, they seem to make some sense.

Places

Your father's library, the kind of library where silence was sought. It is a place where opposing ideas co-exist peacefully as books on a shelf. It's a place where people with conflicting thoughts work quietly side-by-side at desks. Libraries are a place where unused books get weeded, a deliberate reduction in information to increase relevance.

Closets, bathrooms, bedrooms, basements and alleys are the places of Offworld, places where people can escape to hide, rest, read or think.

Practices

Silence. Quakers practice silent worship. Wittgenstein wished to consign metaphysics to the flames. He had this famous line, though, that of which we cannot speak we should be silent. The Quakers would appreciate that.

Boredom. Some people tell me they are never bored. Why not? I ask. Maybe try seeking out boredom for a change. Make it your friend.

Total power shutdown. Power outages can be fun, like a camping trip, but then it gets a little scary. How come? We use energy around the clock. In most homes it is never off. Imagine shutting down every little bit of power consumption in your home, even the little lights in the DVD player. Imagine doing that every night. I think I would sleep better.

Culture jamming. Kalle Lasn is CEO of Adbusters Media Foundation, dedicated to tripping up consumerist culture. As Lasn puts it, "Advertising is brain damage".

Myth of the Reader-Hero
Reading Mysticism, Pt. 1

The adventures of Bilbo Baggins did not end with his famous good-bye to his friends and relatives at his eleventy-first birthday party. Nor did they end in the final chapter of Lord of the Rings. He sailed off with Frodo and Gandalf and the elves into the Grey Havens. Stories demand an ending, but if it has been a good story, are we ever content. Sir Arthur Conan Doyle finally killed off Sherlock Holmes, but at the insistence of his readers, resurrected him. Beyond endings, there is a grey zone, an esoteric or mystical domain, where events defy logic. So too, after the Offworld posts, I have one more theme to offer.

In *The Key: How to Write Damn Good Fiction Using the Power of Myth*, James Frey uses Joseph's Campbell's insight that myth is the heart of story telling. If there is a mythology in *I, Reader*, it is like Frey's description of the hero. Once upon a time, there was a reader living comfortably in his or her world of books, not so different from Bilbo in his hobbit hole. The world changes. Digital technology comes knocking on the door, throws a party. There is an information quake. The reader is compelled to go on a journey, to learn new hacker skills that change the meaning of reading. The reader returns home, but can never really go home. He or she has learned skills that can be used to help others, but change the way everything once looked.

Welcome to the final theme in the *I, Reader* series, that of Reading Mysticism. It is the least defined and most difficult theme, but it is one I must write. It attempts to fulfill the promise of the Blake poem I quoted early on, the end of the golden thread.

"Would I start to resemble a book myself?"
Reading Mysticism, Pt. 2

Bibliophiles alert, if you have not discovered Keith Miller's *The Book of Flying*, stop what you are doing and go get a copy. It is irresistible; I previously wrote a short tribute. Miller ran across it, and commented that his second book, The Book on Fire has been published. I am currently reading it. It is a mythology, fantasy and fetish of books, reading and the Library of Alexandria. Some quotes fit wonderfully with my current theme:

> And slowly I arrived at a realization so startling I was almost afraid to believe it. I found, as I moved through this subterranean forest, that I could imagine a book, known or unknown, read or unread, and be certain of the path I would have to take to find it. … We all have titles, questions swept like sodden leaves into the corners of our minds, that we have little hope will ever be answered or solved, but that we cannot get rid of. Suddenly, I found myself in the orchard of answers. ...

> For a time, I wondered if I would simply stay here forever, reading, sampling the delicacies, hiding from the librarians — the ghost of the Library of Alexandria, a reformed thief in paradise. And I wondered what would become of my soul if I chose that path. … Would I start to resemble a book myself?

We become the things we use, books, technology. I will return to this idea before I'm done.

Print is Digital
Reading Mysticism, Pt. 3

The *I, Reader* series has wrestled with opposites. Robot vs person, print vs digital, self vs other, quantity vs quality, on vs off. Opposites are a hallmark of Western rational thought (as Mark commented). Other approaches may be helpful.

One, it can be valuable to simply reflect on opposites, koan-like, without making any effort to resolve them.

Two, we can reject the opposites, and look for synthesis.

In discussions of reading, one common dichotomy is that of print versus digital technology. The common view is that digital technology will replace print. For example, e-book readers will replace print books. I find this view strange, not because I have any sentimental attachment to print, but rather that it contradicts my observation that print books are often better for reading anything of length or substance. We can move toward synthesis by recognizing that print and books are both technologies. Print and digital are just different formats, serving different purposes. The contradiction between the two formats exists only on the surface.

I will go one step further. In the common view, print is regarded as an analog technology, and computers a digital technology. What exactly does it mean to be digital? It has something to do with digits, of course. Well, my fingers are digits, and they are involved with reading the pages of print books. Digital also refers to the use of discrete values rather than a continuous range, e.g., a digital clock displays numbers only whereas an analog clock uses arms that move in circles. Well, both the clock and the print book display discrete values. A clock shows discrete numbers, and a print book shows discrete letters. (The continuous representations are surplus value, begging the question of which medium provides more information.) A more precise definition of the term, digital, might refer to the binary basics of computers, with bits being on or off. Well, if one looks closely at print letters, one sees that they are dots. A letter is built from a collection of binary on and off ink dots. It seems difficult to sustain the usual dichotomy between analog and digital books.

Three, we can allow for oscillation, one polar view or state eventually becoming the other, ultimately returning to the first, yin-yang fashion. I think of this process as a two-step dance. In the long run, it seems more productive.

Am I Still Chasing that First Reading High?
Reading Mysticism, Pt. 4

In *Ruined by Reading: A Life in Books*, Lynne Sharon Schwartz tells how her attention was caught by a piece in the New York Times by

a Chinese scholar whose "belief in Buddhism … has curbed his appetite for books." Mr Cha says, "To read more is a handicap. It is better to keep your own mind free and not let the thinking of others interfere with your own free thinking." … Lying in the shadow of books, I brood on my reading habit. What is it all about? What am I doing it for? And the classic addict's question, What is it doing for me? … Buddhism aside, there is no Reader's Anonymous, so far, to help curb this appetite.

I confess I am a book addict. My habit is kept to a minimum by the slowness of my preferred reading speed, a few pages at a time, with at least minutes for reflection in between, and an insistence on writing something about what I have read before moving on to the next book. It is like a smoker who cannot physically handle much nicotine, and so only smokes a few cigarettes a day. But while I'm being honest, I do scan vast quantities of information every day online; I just keep forgetting to count that as reading. Typical addict.

In *Slow Reading*, I reviewed the research by Ross (2006) in which avid readers find reading a happy surrender, transporting him or her to another place. Nell's (1988) research on "ludic" or pleasure reading indicates that some readers may experience an altered state of consciousness. Is it a high? I still experience this altered state, though I am convinced that my best experience of it was reading as a child, when purpose and time did not matter. Am I still chasing that first reading high? Sounds like trouble.

Addictions are a kind of self-programming, a robotic response. Would an enlightened mind be free of books? Have you seen the movie version of *The Razor's Edge*, with Bill Murray in one of his few serious roles? After spending time in a monastery, he is sent to spend time meditating alone on a mountain. A monk gives him his books to take along. One day, he becomes enlightened and burns his books.

Is my reading simply an addiction? Buddhism and its theme of freedom from attachment speaks to me too, so I think about it. Perhaps reading is an addiction, but not simply. If I ask myself Schwartz's question, "What is it doing for me?", I can easily answer, quite a bit. I know what addictions are like. Seven years ago I quit a twenty year smoking habit. I have not looked back; I pity the poor smokers. While reading does share some of the compulsive nature of addictions, it builds me up rather than breaks me down. I wake up feeling a bit better off rather than worse off. I do not wish that I had never started reading, and I encourage my kids to take it up. Reading is a sister of thinking, and for that we humans are hard-wired.

Perhaps when I am old and grey, I will be wise enough to transcend reading, but not today.

Do Robots Read? Yes I Do (Conclusion to "I, Reader")
Reading Mysticism, Pt. 5, Conclusion to this theme and the series

"We too are machines, just machines of a different type." — Jean Luc Picard, ST: TNG, The Measure of a Man

The intent of the I, Reader series was to explore the connections between reading and web participation. The series used Asimov's I, Robot as a starting point because his short stories raise many timeless issues that arise at the collision point of people and technology. People fear that technology will ultimately replace them. In practice, people use technology to extend themselves in many activities, including reading. On the web, one finds readers becoming writers and hackers, creatively shaping the web to serve their reading needs, rather than being subjected to it. They also have the ability to walk away from it, shutting off technology to return to the stillness of traditional reading. One might be tempted to think that people control technology, that technology will never replace us.

How is it that people extend themselves with technology at all? The I, Reader series has shown how writing and hacking are extensions of reading. Reading itself is an extension of mind. Our brains were never wired for reading. We have re-purposed neural circuitry for it. But what is mind an extension of? Self, maybe. Keep going. What is self an extension of? Nature? God? I do not wish to open a metaphysical debate, only assert that we too are extensions. We are a type of technology, each of us a soul in a tin can, not so different from robots. It is not so much that technology will replace us, but rather that we as technological beings will continue to extend and create ourselves. That does not sound fearful.

What of soul or spirit or consciousness? I, Reader has explored how reading is a creative act, extending the reader beyond self to the discovery of others. Reading on the web is a social event: learning from others, sharing one's thoughts, breaking rules, risking criticism. It is evidence of a vital spirit. Seeking proof of consciousness in humans or robots? Look to their reading habits.

Do robots read?

I started this series with Asimov's I, Robot. I will conclude it with another classic collection of short stories, Ray Bradbury's The Martian Chronicles. Robots and aliens are both outsiders. Bradbury tells stories about a troubled future earth and the colonization of Mars. In the final story, "The Million Year Picnic", a father takes his family to Mars, promising his boys they will see Martians.

> "I've always wanted to see a Martian," said Michael.

> "Where are they, Dad? You promised."

> "There they are," said Dad, and he shifted Michael on his shoulder and pointed straight down.

> The Martians were there. Timothy began to shiver.

> The Martians were there – in the canal – reflected in the water. Timothy and Michael and Robert and Mom and Dad.

The Martians stared back up at them for a long, long silent time from the rippling water ….

Do robots read? Yes, I do.

Appendix B: Starter Book List for the Next Step

Battles, Matthew (2003). *Library: An unquiet history.* W.W. Norton.

Borges, Jorge Luis (2000). *The library of Babel.* David R. Godine.

Brand, Stewart (2006). *From counterculture to cyberculture: Stewart Brand, the Whole Earth Network, and the rise of digital utopianism.* University of Chicago Press.

Buzbee, Lewis (2008). *The yellow-lighted bookshop: A memoir, a history.* Graywolf.

D'Angelo, Ed (2006). *Barbarians at the gates of the public library: How postmodern consumer capitalism threatens democracy, civil education and the public good.* Library Juice Press.

Darnton, Robert (2009). *The case for books: Past, present and future.* Public Affairs.

Dehaene, Stanislas (2009). *Reading in the brain: The science and evolution of a human invention.* Viking.

Doctorow, Cory (2009). *Makers.* Tor.

Engard, Nicole, C. (2009). *Library mashups: Exploring new ways to deliver library data.* Information Today.

Hoover Bartlett, Allison (2009). *The man who loved books too much: The true story of a thief, a detective, and a world of literary obsession.* Riverhead.

Lanier, Jaron (2010). *You are not a gadget.* Knopf.

Piper, Andrew (2009). *Dreaming in books: The Making of the bibliographic imagination in the romantic age.* University of Chicago Press.

Vaidhyanathan, Siva (2004). *The anarchist in the library: How the clash between freedom and control is hacking the real world and crashing the system.* Basic Books.

Wilson, Daniel H. (2005). *How to Survive a Robot Uprising: Tips on Defending Yourself Against the Coming Rebellion.* Bloomsbury.

Wright, Thomas (2009). *Built of books: How reading defined the life of Oscar Wilde.* Henry Holt.

(also some yet to be chosen material by Foucalt and a good overview of critical theory)

Think of a book outline not as a blueprint that must define the final product, but rather as a napkin sketch that allows you to capture the main ideas that are most important to you and your readers. After writing more than 80 books, you might think I could skip the outline stage completely and simply start sharing my thoughts. What I've found is that creating even a rough outline first helps me organize my ideas and pull together takeaways for my audience. If you're writing the book from a place of learning alongside the reader, let them know upfront! That won't stop an interested party from going on the journey with you, and may even serve to make your writing more approachable. Honesty is always best, as you never know who will be the ultimate consumer of the content that you create. In How to Read a Book, Mortimer Adler teaches us the four levels of reading to become a more effective reader. Learning how to read is more than just picking up a book and starting to read. State what the whole book is about with the utmost brevity. Enumerate its major parts in their order and relation, and outline these parts as you have outlined the whole. Define the problem or problems the author is trying to solve. You'll probably notice that while those sound pretty easy, they involve a lot of work. Luckily the inspectional reading you've already done has primed you for this. After an inspectional read, you will understand the book and the author's views. But that doesn't mean you'll understand the broader subject. Figuring out how to outline a series may explode your preconceptions about the process and teach you so much more about outlining and storycraft in general. Ready to find out how to outline a series of books you'll be proud of and readers will love? Let's get started! Should You Outline the Whole Series or One Book at Time? This is probably the most common question I receive about how to outline a series. Obviously, my approach to the Dreamlander trilogy has been a little wonky, since I wrote and published the first book with no intention of following it up. I outlined the first book with no idea there would be sequels, and now that I am outlining the sequels, the first book in the trilogy is already set in stone and I only have to worry about the