THE MORALITY OF READING IN A DIGITIZING WORLD

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Abstract

Everyone is surrounded by language, whether it comes from a voice, a printed page, a computer screen, or a host of other technologies and practices that all help create, store, disseminate, and present texts to people. Taken as a whole, this world of text, of language embedded in things, is a pervasive and profound part of human life. We use text to live, we live with text, and the quality of our lives, if not our very existence, depends on what texts exist, how they exist, and how everyone relates to them.

Text allows people to do things, but are those things worth doing? We might be changed by text, but are those changes for the better? Questions like these lead the debate away from empirical concerns for effectiveness or choice to moral concerns for why one kind of life is better than another, and thus for why one organization of the textual world is preferable to others.

While morality can focus on the value of a specific character trait or action, the fundamental moral question is the nature of freedom, meaning our ability to participate in the world in a conscious and effective way. Propaganda might create proper beliefs and good behaviour, but well-behaved slaves are still slaves, and they are little different from well-trained pets or well-oiled machines.

The importance of freedom connects back to the challenges and opportunities created by the textual world. But the textual world is connected to everything else: to government, to the economy, to social expectations, and to
the technologies that are available and effective at any given time. The morality of reading is not simply about reading well, it is about understanding and evaluating the conditions in which reading well and reading at all are possible, and therefore about the conditions in which we are able to improve our lives and ourselves.
# Table of Contents

**Abstract** .................................................. v

**Chapter 1: Introduction** ................................. 1

  The Choice to Digitize ................................ 15

  Morality .................................................. 23

  Conformity or Freedom ................................. 29

**Chapter 2: Ideals of Reading in 17th century England** ................................. 34

  Chaucer and the Exceptional Reader ................. 35

  Milton, Censorship and Character .................. 42

  Hobbes, Seduction and Absolute Sovereignty ........ 53

**Chapter 3: The Uses of Text** .............................. 70

  Information and Skills ............................... 83

  A Sense of Others ................................... 90

  Narrative ............................................. 107

**Chapter 4: The Value of Textual Technologies** ................................. 119

  Persistence ........................................... 122

  Quantity ............................................. 127

  Quality ............................................... 134

  A Sense of the Textual World ....................... 147

  Beyond the Printing Press ......................... 149

  The World of Text .................................. 157
We should note the force, effect, and consequences of inventions which are nowhere more conspicuous than in those three which were unknown to the ancients, namely, printing, gunpowder, and the compass. For these three have changed the appearance and state of the whole world....

Francis Bacon, *Novum Organum*, Aphorism 129
I am haunted by Walter Benjamin.

His writings have appeared on my reading lists and my desks for many years. Fragments of his widely-reproduced essay "The Work of Art in the Age of Mechanical Reproduction" have been scattered through much of what I have read and even some of what I have written. I have even looked at some of his other works — but not enough, and not well enough.

The English translation of Benjamin's *Arcades Project*, a monumental, partially destroyed, and unfinished work that arose from his physical and intellectual wanderings around Paris in the 1930s, was finally published in 1999. My copy, purchased soon after from an online bookstore, has sat on a shelf next to my computer ever since. I have writing to do, and *The Arcades Project* is not very high on the list of what I need to read. At least so far. I realise that the book is important, but there are so many other books and articles that are directly relevant to my topic — on the morality of reading in a digitizing age — that unless an obvious imperative develops, it will be difficult to add yet another book to the list. Even if it is written by Walter Benjamin.

But the book is not easy to ignore. Whether it is on my list right now or not, *The Arcades Project* remains on a nearby shelf, its thick spine always ready
to be the object of a glance, or the unfocused background of a distant and somewhat vacant gaze. Like most of the other books on my shelves, *The Arcades Project* is waiting, patiently or otherwise, for me to finish writing, to turn off the computer, and to turn my attention elsewhere. My books are like bored ghosts, waiting to be seen. And if I am to be honest, many of them never will be.

It may be too easy to think of books in these terms, to think of them as pets, as companions, or as "vials of reason," as John Milton once suggested. Yet the books still stand on my shelves and their materiality — their various locations, shapes, sizes, ornaments, contents, and histories — all remain sources of anxiety, or at least of guilt, because they create a sense of what might be read, of what remains to be read, and of what should probably have been read already if only I had organized my time better. On the shelves, my books are objects of longing, a longing that is not simply a desire to hold the books themselves, but also a desire to exist in a specific way, to read the books in the quiet days of undistracted reflection. But I have a deadline, and that kind of reading is not very practical right now. Yet I remain someone who lives with books, literally surrounded by books, and that is why they haunt me.

But such talk of haunting is not idiosyncratic. Nor is it untimely. We are all somehow haunted by books, pestered by the thought of them. People, at least certain people, are worried by a vision of the world where books will be gone or, what is probably worse, will be unwanted. Whether one speaks of the

Chapter 1: Introduction
move from atoms to electrons, from the printing press to the internet, from analog to digital, or from reading to watching and surfing, changes in information technology have become key collective concerns. But how should we think about these changes? What should we plan to do and try to avoid? What can we hope for and attempt to accomplish in the face of a profound and possibly unstoppable change in the very foundations of our textual world?

There are those who argue that the qualities of the book cannot be transferred to the electronic screen and that if we lose the printed book we will lose something of significant and irreplaceable value. The printed book is not simply a physical object, it is the basis of a reading community and, perhaps, the source of a particular kind of individual who has the capacity to think in ways that the computer can make harder or impossible.

There are also those who celebrate the rise of digital technologies and the possibilities for human existence that are connected with newer ways of communicating, of storing information, and of creating text. Rather than dangers, some people see opportunities. For them, the computer not only solves some of the practical problems of printed books (such as limited access and high retail costs), it can also create fundamentally different forms of expression and understanding. In other words, not only can the computer replicate the world of printed texts more effectively, it can also create new kinds of text that are very difficult if not impossible on a printed page. Or at least that is the argument.
Whether defeated or triumphant, with the increased capabilities of computers and their texts, the status of printed books as a medium of textuality has been brought into question. Does something different happen when people read electronic text rather than text printed on a page? What are the economic, social and personal implications for downloading an unformatted book from the internet rather than buying it from a bookstore or borrowing it from the library? If certain kinds of reading are so important, how should we try to use and direct computer technology in more valuable and effective ways? How, if at all, are the emerging reading technologies relevant to the role of reading in the cultivation of human character? It is not enough to simply describe different relationships with texts that are located in different media. There are projects to be imagined and values to be debated.

What I know of Benjamin's writings can be of some help.

Benjamin's best-known essay, "The Work of Art in the Age of Mechanical Reproduction," was first published in 1936. In it he focuses on the contrast between painting and photography. The important practical changes with photography are the processes of creation and reproduction. These changes are to some extent evident in the development of lithography in the late 19th century. Benjamin notes: "Lithography enabled graphic art to illustrate everyday life, and it began to keep pace with printing."¹ By this Benjamin means that the speed that a lithographic picture could be produced and

reproduced enabled “graphic art to illustrate everyday life,” which among other things connected it more closely to the production of daily newspapers. Pictures could be produced as quickly as words. Photography, which was developed several decades later, further increased the speed with which illustrations could be produced, reproduced, and distributed. But photography, as it connected to the already existing technologies of reproduction, also changed the artistic, social, and economic character of the work of art. All of the skill and artistic energy necessary to paint a picture became focused on the "eye looking into the lens." The work of art, the artist, the reader, and the relationships among them changed in fundamental ways as a machine and chemistry took over most of the process of representation.

Prior to the age of mechanical reproduction, the work of art had a different kind of presence, an “aura,” which Benjamin explains in terms of the natural aura that a distant mountain would have for his readers. The aura of art not only arose from the distance of the object from the viewer, but also from its uniqueness. Once works of art could be mechanically reproduced, they lost not only their uniqueness, but also their distance and relevance. There may be a particular painting called the Mona Lisa that now hangs in the Louvre and can be visited by anyone who goes to the museum, but with modern technology, there are reproductions of the painting everywhere. Before mechanical reproduction, copies of works of art were typically evaluated as

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forgeries and all the desire to see the image was a desire to see the original. With mechanical reproduction, copies became commonplace and, rather than being judged as forgeries, were part of the expected circulation of images in the society. Everyone could have a copy and, escaping from the rarefied spaces where original paintings had to be viewed, photographs could be viewed anywhere by anyone at any time. Changes in access, therefore, profoundly changed how people related to the artistic products that they were experiencing.

Approaching the same shift again but in different terms, Benjamin discusses the cult value of the work of art. The cult value connects back to its use in religious and magical practices (such as the paintings on the walls of caves used by early hunter-gatherer societies). With photography, Benjamin argues, the exhibition value displaces the cult value of the object. What matters with photographs is not their unique material existence, but their being on view, their being easily reproducible, and their being accessible to everyone. Rather than a unique object with a single and profound use, the image becomes an everyday commodity that is everywhere and barely noticed.

One key shift in evaluation revolves around the status given to the original artistic object. Benjamin argues that whereas the concept of the original is central to the concept of authenticity (where reproductions are always evaluated in terms of an original artistic object), with technological reproduction, a concern
for the authenticity of an original work of art is exchanged for a concern for the causal immediacy created by chemical and mechanical processes. The artist is replaced by the photographer and the photograph becomes an evidence-creating instrument valued above any painting. Benjamin points out that the reproduction can actually capture things that escape human perception (such as when pictures are enlarged to show detail or when a fast process is filmed and then replayed in slow motion). Whereas the painting creates a sense of physical and aesthetic distance, the photograph encourages a belief that the observer is looking directly at the world.

The sharp contrast between painting and photography also parallels a social distinction between the aristocracy and the masses. Benjamin argues that mechanical reproduction is connected to the increased significance of the masses in modern society. While painting was aristocratic, photography and film were suitable to a mass society. A mass society, it should be stressed, is not the same as a democratic or a free society, as Benjamin's discussion of the role of photography in fascist political movements at the end of his essay makes clear. What is important is that images, as reproduced through photographs, become easily accessible to everyone and so have a direct influence on everyone at the same time in roughly the same way.

What Benjamin's essay opens up for his readers is an awareness of the importance of images (and texts) to people, which not only includes the personal habits and values of a single person, but also the broader structures of

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5 Benjamin, *Illuminations*, page 223.
meaning, value, and power that characterize a society and distinguish one social organization from another. Benjamin is writing in the heart of western Europe at a time when photography and film have challenged the status of painting and of the fine arts in general. He is also writing at a time when mass culture and mass forms of economic organization (whether consumer, communist or fascist) have challenged aristocratic social and economic forms.

While a close reading of Benjamin’s essay is fruitful for a discussion of reading in a digitizing world, criticisms can be raised, specifically concerning the coherence and the historical accuracy of his account. One worrisome aspect of Benjamin’s argument is how he shifts the examples that he uses to support the specific points he is trying to make, but never offers a generalized account of how one example connects to the others. For instance, he writes about Renaissance paintings when focusing on the aura and then writes about cave paintings when focusing on the cult value. Should cave paintings and the *Mona Lisa* be understood in the same way? Are they part of the same group of objects that are equally opposed to photography? Must the aura and the cult value of an image always exist together? Likewise, whatever else may be said about the contrast between painting and photography, the contrast does not correspond to the contrast between cult and exhibition. Paintings have always had an exhibition value — the key question is who is allowed to see the paintings. With paintings, the exhibition occurred primarily among the aristocracy and they were produced so that aristocrats could display their wealth to other aristocrats.  

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Chapter 1: Introduction
displayed publicly — that is, to the masses — but they were still exhibited, and likely commissioned in order to be exhibited specifically among the aristocracy. The problem with Benjamin's discussion is that his account is framed in terms of broad historical periods, which obscures a considerable amount of social complexity. Exhibition may become more important, or more relevant to specific classes, but the shift is not as absolute as Benjamin suggests.

Another way to express the problem in Benjamin's account is to point out that he does not bring the observer into the relationship. He gives the objects that are created by art and technology an independent existence and quality, and thus treats a secondary quality such as the object's aura, which arises in the relationship between the observer and the object, as if it were a primary quality, which would have something to do with the object itself. Thus, for some people in some situations the distance that is experienced between the object and the viewer, which Benjamin refers to as the aura, can exist with photographs and film as well as with paintings and statues. What matters is how the observer is situated in relationship to the image and, while the kind of representation can encourage one kind of situatedness rather than another, the kind of representation is not the only factor in determining whether a person experiences an aura when looking at a work of art.

One troubling but interesting aspect of "The Work of Art in the Age of Mechanical Reproduction" is that at no point does Benjamin discuss books,

7 John Berger discusses the relationship between oil painting and bourgeois society point in *Ways of Seeing*, chapter 5.
whether in manuscript or print. He does not mention writing at all. While his focus is admittedly on painting and photography, and he makes some mention of sculpture and architecture, but in an essay on mechanical reproduction, it is strange that he barely mentions either writing or the printing press. Of course, the omission of the printing press makes Benjamin’s historical narrative cleaner, but it does so at the cost of a great deal of historical detail. The omission creates a blindness towards important connections between art, printing, and the larger economic, social, and political aspects of changes in media technologies. What, for instance, is the relationship between 18th century engravings, such as could be found in medical and exploration books, and early 20th century photography, which more or less replaced those earlier engravings but maintained many of the same characteristics and affirmed the same values of objectivity? Likewise, people could wonder how the relationship between the printing press and capitalism in the 17th century connected to the relationship between art and capitalism in the 19th century that Benjamin discusses. But these are not questions that Benjamin raises in the essay.

Ignoring the printing press when talking about the age of mechanical reproduction does more than simplify Benjamin’s discussion. The omission also allows, or encourages, Benjamin to turn a complex social process into one where changes in technology are the sole explanations for social changes, and where changes in technology are themselves left unexplained and unanalyzed.
But while photography is an important technological change, it is also important to consider why it was produced, who produced it, what its intended uses were, and whether it was used in other ways. The impact of photography was profound, but was this impact intended, encouraged, or influenced by other factors that were at work prior to photography being developed? An appeal to the shift from an aristocratic to a mass society is important, but it is only a fragment of the discussion.

Another of Benjamin's better known essays, "Unpacking My Library: A Talk about Book Collecting," is framed by a description of a day that Benjamin spent unpacking his personal library, transforming the chaos of crates into the order of shelves. Benjamin here reflects not only on his own relation to his books, but also on the way that books circulated in his society. The essay makes no mention of the uniqueness of manuscripts, which would roughly correspond to the painting as an original work of art. With books, the key contrast is not between what is unique and what is everywhere, but between what is relatively scarce and relatively common, or what is relatively desirable and relatively uninteresting. Benjamin recounts, for instance, a time when he went to an auction and found a particularly hard-to-find book that, in his words, "had inspired in me the ardent desire to hold on to it forever." The book collector is not much different from the art collector, or from any kind of collector, for whom the objects that are collected are given a special, sometimes

8 Benjamin, *Illuminations*, page 64.
mystical status. With printed books, the objects of mass production can acquire an aura that Benjamin had otherwise limited to the unique productions that existed before mechanical reproduction was possible.

Benjamin’s personal relationship with specific books evokes memories, not only of when and how they were acquired, but also of what the books have done to him and for him. But it is to the collection itself that he recognizes the highest connection: “for a collector — and I mean a real collector, a collector as he ought to be — ownership is the most intimate relationship that one can have to objects.” The act of unpacking a library, and of packing it up in the first place, is evidence of a specific and moral relationship to the world, where the objects that surround us are also objects that we imagine ourselves in conversation with and that we imagine ourselves owning. Benjamin lives in a world that is both punctured and softened by books. The text in his books challenges him, it is crucial to his intellectual development and his ability to engage with the shouts and profanities of the world. But books are also objects that bring comfort, familiarity, and solitude. Once unpacked, his library is imagined as a dwelling, "with books as the building stones." Benjamin’s library, a private library made from tangible textual objects, is also a social one, mediating his relationship to the outside. While no two books have the same history or the same fate, other people, both his friends and his opponents, have similar books, and without the booksellers and auctioneers, Benjamin’s library

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could not exist. Benjamin could not exist.

In "The Work of Art in the Age of Mechanical Reproduction," Benjamin had turned qualitative distinctions between different kinds of images into a single historical division — the "ages" — between the time before and during mechanical reproduction. In "Unpacking," while the historical character of the books in his collection is constantly emphasized, it is the history as understood by the book collector, who relates to the objects in terms of relative desirability, scarcity, and cost. The important thing that Benjamin had claimed was now lost in the case of paintings (the aura, the magic, the reverence) remains with printed books, even though printed books are created mechanically. Printed books thus do not simply make Benjamin’s history messier, they do not fit.

In "The Work of Art," Benjamin’s attempt to connect a variety of issues around that single historical divide obscures the value of what he is saying. If we ignore the historical narrative, however, what Benjamin offers are different ways of understanding how images circulate in societies. We can consider the cultish value of an image or object. We can consider an image’s connection to social rituals, or how the object’s history is connected to its reception. We can consider how many copies of an object exist, how they are produced, and what the relationship is between copies and the original. We can consider who has access to which images, and what role or value the images have in those people’s lives. We can consider how one way of producing and reproducing
images relates to all the other ways that are available. Lastly, we can consider how the reproduction of images connects, as both cause and effect, to economic, social, political and moral conflicts.

While Benjamin is concerned with addressing issues of texts and meaning at a time when photography was becoming important, it is possible to reconsider these issues at a time when other technologies, and in our case digital technologies, acquire prominence. As with printed books, the often-complex relationships that people have with the files and the ephemera on their computers can be described in some detail. Not only do more people have more digital files than they ever did, the times, the places, and the manners of interaction with these files have changed considerably. Computers have become faster, they have become cheaper, and they have become more portable. They have also become more capable of handling different kinds of text (including sounds and images) and of doing more things with the text that they can handle. More people have come to rely more heavily on these ephemera, and spend more time working with them, whether they want to or not. Yet it is difficult to imagine how an essay written today that describes someone unpacking a computer or copying files to a new hard drive could find any resonance with Benjamin’s essay. People unpack computers. They download and open files. But the relationship is different — the people do not have the same hopes, desires, plans, or fears when they are using the new textual technologies. Benjamin’s questions may still be with us, but the answers have to be given in a very different world, and while Benjamin offers a world
where technology affects how people approach the objects created by
technology, we are faced with a choice.

• The Choice to Digitize

The choices that we make concerning text and textual technologies will
have profound implications for human existence. We are surrounded by the
buzz of policy and consumer discussions, but there are profound issues behind
these discussions. Thus, while it may be easy to focus on the momentary
questions, it is more important to sort through these discussions to explore
what is at stake. Rather than thinking about what book or webpage should be
looked at next, the better question is: why should books and webpages be read
at all? As John Ralston Saul has said:

The problem is not to teach skills in a galloping technology, but to teach
students to think and to give them the tools of thought so that they can react
to the myriad changes, including technological, that will inevitably face
them over the next decades.11

One problem with basing the discussion on specific technology is that if you
wait two or three months, let alone two or three years, the limits and
possibilities of the available technology will have changed and the argument
will become thoroughly dated. For instance, electronic text is inferior to print
because the display technology (as well as the reading posture) that is

11 Saul, Unconscious Civilization, page 69.
demanded by the computer is exhausting to anyone reading for an extended
period of time. In 1995, for instance, Crawford and Gorman claim in *Future
Libraries* that:

The reader sees the dots, subliminally at least, when reading text on the screen.

The mind is doing extra work to resolve those dots into characters and words.\(^\text{12}\)

But that is only true when the size of the dots are too large and the refresh rate
of the monitor is too short. Some of the design problems with the electronic
book arise from the limits of the computers on which the books depend. Some
of these limits have been overcome. Reading on a laptop computer, for
instance, is easier on the eyes and offers some flexibility of posture and
location. High definition monitors could be introduced in the next few years,
which will make the image much crisper. There is no final list of features. But
how, then, can technology ever be evaluated effectively?

The point is not to engage in immediate problems by appealing to
immediate needs and available technologies. Rather than focusing on a
particular set of electronic equipment, it would be better to step back a bit from
the advertising promotions and consumer complaints and try to create a
broader approach to the problems, an approach that will not only help us to
evaluate the things that are put in front of us, but also to help us guide what
kinds of tools and habits we will try to make available in the future. To step
back from the technology, however, it is essential to create a space where the
important issues can be raised, and where important thinkers of the past can be


Chapter 1: Introduction
called upon, not so much to offer a better solution, but to help inspire a better discussion.

The task is a philosophical one — to clarify the problem, to explore what is at stake, and to evaluate the arguments that are being offered. A considerable amount of the current debate over digitization and the value of the printed book does little to help clarify the issues. Instead, the literature is dominated by overpromotion, nostalgia, and an unwarranted focus on irrelevant questions which make the important questions more difficult to engage with.

Negroponte’s *Being Digital* is a good example of a book that overpromotes technologies, offering a dazzling image of a glorious and unavoidable future where, if something is not happening now, the reader is told to “just wait and see.” Negroponte is interested in what typical people living typical lives will be able to do, and most importantly what they will be able to buy. *Being Digital* ties many of these themes into a single image of life in a digital world. The book details the distinctions between material and digital existence (analog and digital, atomic and electronic) and imagines a life, not too far in the future, where people will live digital lives of freedom, happiness, and success.

The appeal to unimaginable and positive technological development is an effective argument against those who criticize digital technologies simply by appealing to limitations in the current technology. Eventually, for people like Negroponte, digital technology will be able to do anything — it is just a matter
of time. But this appeal is also a way to evade questions about the value of different technology, whether now or in the future.

While the beginning of Murray's *Hamlet on the Holodeck* focuses on establishing that the move to computers will not mean the end of books, Murray later argues that "In a hundred years, we'll think of the book as we do the storyteller today."\(^{13}\) Beyond the vagueness of who *we* are and how *we* collectively think of storytellers today, her argument here is that digital texts, far from incorporating what has gone on before, are in fact radically different from what has gone on before. The storyteller and the book do not become digital, they are superceded by some digital technologies that are understood to be their replacements.

What this technological cheerleading often fails to address (and the failure is covered up to a large degree by the cheerleading) is that technology is a complicated thing that has limitations, costs, and undesired implications. Not all technology is good, and not all good technology is completely good for everyone in every situation. But by focusing on giving people what they want (or should want, or will eventually want anyway), the complex and sometimes negative aspects of technology become non-issues. Negroponte is not concerned with raising digital technology as a moral or political issue. In fact, at the end of the book he argues that the messiness of political conflict will be dissolved into internet chat-rooms and on-line voting, as if the switch from

\(^{13}\) Holtzmann, *Digital Mosaics*, page 186.
analog to digital will transform politics from a win-lose to a win-win relationship.

Another important and common example of over-promotion is the claim that all forms of text that have already existed either have been, or will be, consolidated into digital form. Murray, for instance, claims that “All the major representational formats of the previous five thousand years of human history have now been translated into digital form.”\textsuperscript{14} For Murray, this is a throwaway claim that is also a typical motif in the literature, where digital technologies are primarily consolidating technologies, encompassing everything that has occurred before their arrival. Murray suggests either that nothing changes when text is digitized, or that digitizing actually improves the text in important ways. While this may be true, at least eventually, it requires more than a simple assertion. The argument is like claiming that one of Shakespeare's a play can simply be "translated" from the stage to the page and that the translation improves the text. Of course, there may be many ways that a printed play is superior to an acted play (the ability to reread, to look up passages, to include notes, to vary the speed of reading, etc.), but it is wrong to say that the texts in the two media are the same thing, that the "translation" is without problems, or that acted plays are no longer needed.

What is most troubling with much of what has been written is the frequent silence regarding the political and moral dimensions of these technological changes. Just because computer technology can do something

\textsuperscript{14} Murray, \textit{Hamlet on the Holodeck}, page 27.
does not mean that it is a good idea to let it; or, rather, just because digital advocates hope that computers can do something in the future, it does not mean that people should commit resources to develop those functions now in favour of other possible texts.

One of the places where Negroponte comes closest to opening a real political discussion is near the beginning of Being Digital, where he writes:

Some people worry about the social divide between the information-rich and the information-poor, the haves and the have-nots, the First and Third Worlds. But the real cultural divide is going to be generational. When I meet an adult who tells me he has discovered CD-ROM, I can guess that he has a child between five and ten years old. When I meet someone who tells me she has discovered America Online, there is probably a teenager in her house. One is an electronic book, the other a socializing medium. Both are being taken for granted by children the same way adults don’t think about air (until it is missing).15

This paragraph, which helps frame the rest of Negroponte’s book, is a good example of how bad the discussions of information technology can get. There are, no doubt, generational differences. But to say that the real (and presumably only important) cultural divide is generational is nonsense. At the very least Negroponte should recognize that he is talking about middle-class American households and that if 50% of American teenagers had personal computers at home when he wrote the book, that those computers are not

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randomly distributed across the country or that "having a computer" means that all the computers have the same power and connectivity.

Focusing, as Negroponte does, on the connection between computers and the home is also misleading. Most computers are not in homes, they are in government and business offices. As a result, if someone tells me about something new that they are doing on their computer, I suspect that they have been forced to learn it to keep a job or to avoid looking stupid or to gain access to the files that someone else at work has created and is expecting them to open.

Later in the book, Negroponte raises the question of access again, this time in the context of how much people should have to pay for information. It should be noted that one must always be suspicious of an argument based on the claim that "most people would agree." He writes:

Most people, including those at National Geographic, would agree that a six-year-old child who uses their picture archive for homework should have access to those bits for free or almost for free. By contrast, if I were to use it for a paper or a business plan, I should pay a fair price and maybe even a tad extra to subsidize the six-year-old. Now the bits not only have a different value, but that value varies in accordance with who is using them and how. There are suddenly welfare bits, minority bits, and handicapped bits. Congress will have to be very creative in working out a framework for an equitable system.
This passage does not fit well with Negroponte's claim everywhere else in *Being Digital* that information will become cheaper and more plentiful and that the real divide is between generations, not between the haves and the have nots. In this passage, the split is between the needy and the wealthy, or more accurately between the student and the businessman (assuming that the rich student should pay the same as the poor one). One thing that is lacking in this discussion is a sense of who should be paying what: should government subsidize payments or should companies charge less? Claiming that the solution will arise from Congressional creativity is a cop out, and it is just as easy to imagine that subsidizing access to information will come at a cost to other parts of the education budget or that the whole issue will be localized and that regional inequalities will increase.

Readers may also notice how Negroponte imagines the whole system as benevolent: that corporations will charge the rich more than they charge the poor and the government will support the needs of the powerless rather than the powerful. The unquestioned trust in authority is equally pronounced when Negroponte mentions the importance of U.S. military funding in the creation of information technologies.  

17 There is no attempt to discuss the negative uses of those technologies. At no point, for instance, does Negroponte mention the word "surveillance" or raise the question of personal privacy. The idea that

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17 He talks, for instance, of the military's support in developing virtual reality as a way to train soldiers. Negroponte, *Being Digital*, page 66.

Chapter 1: Introduction
information technology can be used to help bad projects or support vicious
causes is never mentioned in the discussion. The solution, far from being a
political battle, is simply a challenge to our political leaders to be creative.
Negroponte’s optimism remains dominant. But it is an optimism based on a
systematic blindness to the negative consequences, or at least possibilities. For
Negroponte, there will be no losers, only a happy system where everyone
succeeds. His vision is absurd, and Negroponte’s book, approached politically,
is no better than the worst kinds of propaganda, not only encouraging readers
to think in a particular way, but also encouraging readers to not think very
hard at all.

• Morality

Negroponte offers an image of the good life, a life of leisure where
computers do as much work as they can and humans are left to do what they
want to. What humans want to do, for Negroponte, is to consume whatever
their computers offer them. In fact, the moral basis of Negroponte’s argument
is consumerism. People want to be entertained, they want the difficult parts of
their lives made easier, and they want computers in the same way that the
Roman aristocracy wanted slaves, as workers and entertainers.

But this ideal of human existence has not gone unchallenged. The good life
is not obviously the life of lazy pleasures. In Silicon Snake Oil, Clifford Stoll
offers a warning to his readers: the internet, he argues,
is an unreal universe, a soluble tissue of nothingness. While the Internet beckons brightly, seductively flashing an icon of knowledge-as-power, this nonplace lures us to surrender our time on earth. A poor substitute it is, this virtual reality where frustration is legion and where — in the holy names of Education and Progress — important aspects of human interactions are relentlessly devalued.18

We do not have much time in our lives and there are many things that we could be doing, and we need to choose wisely; we need to think about what we are doing and what is worth doing. Why this goal rather than these other ones? Stoll suggests that there are other things to do in life than to work or play on a computer. However, Stoll fails to offer reasons why one way of life is better than another. Stoll’s challenge is provocative, but he offers no serious way to answer the challenge. Why is it better to spend the day gardening than it is to play a video game? What if someone hates to garden, or ends up spending too much time gardening and neglects everything else?

Stoll’s concerns are not new. Consider, for instance, Seneca’s warning from the first century A.D. in one of his Letters from a Stoic, when he hears that his friend is expanding his reading.

Be careful, however, that there is no element of discursiveness and desultoriness about this reading you refer to, this reading of many different authors and books of every description. You should be extending your stay

among writers whose genius is unquestionable, deriving constant nourishment from them if you wish to gain anything from your reading that will find a lasting place in your mind. To be everywhere is to be nowhere. 19

Reading a great deal of text, whether on the computer or in printed books, may mean that people are busy, but, for Seneca, this reading would likely do very little that is morally worthwhile. In fact, reading that much text does much harm because it leads people away from what is important in life towards distractions. Just as Milton had worried about "the lost Labor of much unprofitable reading," 20 for Seneca and Stoll the moral implications are crucial concerns. If people read in an improper way, they may become confused, but they also lose the ability to self-consciously control themselves and direct their actions towards the good.

In The Apology, Socrates claimed that the unexamined life is not worth living, 21 but that leaves open the question of what kind of examined life is worth living, or what people should do when they are examining their lives. Socrates hints at an answer in the Apology: the examined life is somehow connected to a life that is righteous and steeped in dialogue, in other words to a life of philosophy. But the hints in the Apology are only hints, and the answer that can be scraped together from the other Platonic dialogues creates more questions than it does answers. One could wonder, for instance, at the relationship between the ideal of the examined life and the role of myth in The

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19 Seneca, Letters From a Stoic, page 33.
Republic, where the philosophical elite are the only ones that even have the capacity for self-examination and where everyone else is encouraged not to think about their lives very much at all. But even if the messages in the Platonic are strange or even incoherent, Socrates’s claim in The Apology remains nonetheless an important way to orient discussions concerning human life. The emphasis on the examined life focuses attention on the importance of awareness, and specifically of awareness of what is morally valuable. Moving the discussion to consider a moral approach means connecting immediate, and perhaps transitory, social and political issues to persistent philosophical debates. How people evaluate reading in a digitizing world thus becomes tied to how people understand the ultimate goals of human life. Reading becomes a concern for morality.

But what is morality?

There are several accounts of morality available from western philosophy. Choosing one account is certainly tempting because it would create at least the appearance of clarity. But what the discussion would gain in clarity it would lose in relevance. If one account of morality is affirmed, then unless its triumph can be established over its main competitors, the subsequent discussion can be rejected easily by people who build their morality on other foundations. As far as I can tell, no one has succeeded in establishing one moral system as triumphant; and I doubt that I could either.

The most practical response is to defer characterising the good life, and instead consider how various accounts of the good life connect to the problems
that digital technologies raise. As John Dewey writes in the introduction to his

Ethics:

it is possible to affirm that there is a place in the moral life for reason and a
place for happiness, — a place for duty and a place for valuation. Theories
are treated not as incompatible rival systems which must be accepted or
rejected en bloc, but as more or less adequate methods of surveying the
problems of conduct. 22

The competing moral systems that Dewey is writing about are sometimes
referred to as deontological and utilitarian ethics, and are typically connected
back to the writings of Kant and Mill. Both of these ethical systems focus on the
value of people’s actions, and both generate rules that are justified either by
absolute rights and duties (deontological) or happiness (utilitarian). There are
other foundations that can be appealed to, such as justice, fairness or an array
of divine pronouncements. In any case, the evaluation is typically presented as
part of a deductive system that begins with moral absolutes and ends, with
little attention to the circumstances, by determining whether a specific action is
right or wrong.

In contrast to such rule-based moral systems, a morality that focuses on
personal virtues typically expresses what is valuable in terms of ideal
characteristics which people ought to strive towards (or be forced to conform
to). Dewey also discusses this general approach to morality, which is connected

22 Dewey, Ethics, page vi.
back to an unjustified set of habits or social expectations. Dewey notes in his discussion of the Platonic dialogues that:

it is frequently asserted that even if the mass must follow custom and law without insight, those who make laws and fix customs should have sure insight into enduring principles, or else the blind will be leading the blind.\textsuperscript{23}

Why should a society encourage people to do certain things and not others? The answer can go in many directions, some of which rest on power — “because I was told to” — and others rest on mere whim — “because I want to.” To anyone taking these questions seriously, however, neither answer has much value at all: the one being a simple appeal to authority — but why this authority and not a different one? — and the other being a simple appeal to desire — but why this desire and not a different one? The ideals, then, must themselves be justified, not in terms of rules of action, but in terms of a higher ideal, an image of the perfect or best person. The process, justified by moral philosophy, is typically narrated as a process of growth, development, or maturation — the morally flawed character is gradually improved, becoming more balanced and acquiring more and better abilities. Often, the ideal is presented through examples of good and bad (as in casuistry or in children’s literature) or through descriptions of a desirable goal (as in Thomas à Kempis’s \textit{Imitation of Christ} or Ralph Waldo Emerson’s “Uses of Great Men”). The biographies of these characters are used in a moral way because they are given a normative function in people’s lives — they are used to suggest (or tell)

\textsuperscript{23} Dewey, \textit{Ethics}, page 172.
people what they ought to become.

• Conformity or Freedom

If morality is about acting correctly, however, then it becomes less important whether people are aware of why they are acting. Consciousness and intention are less important than the behaviour itself, or, rather, consciousness and intention become things that people try to manipulate rather than reason with. Social conformity thus becomes the foundation for creating moral people and a just society. The recommended tactics to create a moral world are varied: laws should be made that can secure moral goals, rewards should be granted to people who are well-behaved, children should be given books to read that build character, and, at the extreme, the entire weight of political and social power should be used to ensure that people act the right way and have the right kinds of character. At the extreme, people are treated like dogs who need to be trained: the better the training, the more automatic becomes the proper actions. Morality, in this case, exists when freedom no longer exists.

The focus on proper behaviour has been a persistent theme in political thought. One notable recent example is B. F Skinner’s Beyond Freedom and Dignity. Skinner’s goal is to move beyond human freedom towards a world controlled by social engineers where everyone acts appropriately because the world is organized to create those kinds of actions. Skinner argues that what people consider to be autonomy is in fact a sign of our temporary ignorance concerning the origins of human behaviour. He writes:
Autonomous man serves to explain only the things we are not yet able to explain in other ways. His existence depends upon our ignorance, and he naturally loses status as we come to know more about behavior. The task of a scientific analysis is to explain how the behavior of a person as a physical system is related to the conditions under which the individual lives. The concept of autonomy is thus an early stage in a scientific narrative of progress that will eventually do away with the need for such a concept at all.

Skinner claims:

As a science of behavior adopts the strategy of physics and biology, the autonomous agent to which behavior has traditionally been attributed is replaced by the environment — the environment in which the species evolved and in which the behavior of the individual is shaped and maintained.

Skinner’s position arises from metaphysical categories and conflicts dating back to the middle ages. In particular, his argument operates within the dichotomy between free will and determinism, and is tied to the belief that a determined world creates the possibility for humans to completely control human behaviour. If there is no free will, then people are determined. If people are determined, then their actions are caused by events outside of themselves. If my actions and character are fully determined through social engineering, then what is the difference between my actions and the actions of a machine, or a rock slide, or anything else that has been caused to behave in one way rather

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25 Skinner, Beyond Freedom and Dignity, page 184

Chapter 1: Introduction
than another? Morality loses its meaning, or rather it simply means conformity. Because the outside can be scientifically and politically controlled, the scientist can, in principle and eventually, completely determine what people do and who they are. What and how people read, then, would become one more factor in the overall system of determinations. The world is limited to physical cause and effect, and thus physics provides the ability to predict and to intervene, at least once scientists become kings or kings become scientists.

What is absent when writers focus on conformity is a concern for the human agent as a participant in the process. But there is another way to understand freedom which focuses instead on a relative freedom from parts of the social and political world. Montaigne, for instance, writes in “Of Solitude”:

All of us who can must have wives, children, property, and, above all, health; but not be so attached to them that our happiness depends on them; we must reserve for ourselves a private room, all our own, subject to no one, in which we may establish our true freedom and our principal retreat and solitude. Therein we must customarily converse with ourselves, and so inwardly that no outside commerce or communication may there find place; we must there examine things and make merry over them, as if without wife and children and worldly goods, without retinue and servants, so that, if the cause of their loss shall come to pass, it may be no new thing to us to do without them. We have a soul that can be turned to itself; it can be its own company; it has the means of attack and of defence, of giving and of receiving."
Montaigne’s separation is imagined as his tower, located on his estate in Périgord in the Aquitaine region of France, where he would often retreat from the world to read, to write and to think. Eisenstein notes how Montaigne “could see more books by spending a few months in his Bordeaux tower-study than earlier scholars had seen after a lifetime of travel.”

The retreat and the freedom become linked to the products of the printing press. Montaigne is not basing his image of human freedom on the free will that is impossible in a deterministic physics. Rather, the goal is to create a space, which is physical, psychological, and political, which allows individuals to retreat, to avoid being automatically subsumed by social affections or political demands, and to find a way to talk back to those demands. Whereas Skinner uses our inability to disconnect from the causal world as a justification for our passivity, Montaigne offers an image of periodic separation, not from the world as such, but from various social and political factors. The moral life, then, depends on a capacity for freedom, or, more accurately, on a power to resist or avoid the outside once when it is important to do so.

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A good reader could mean someone who can read quickly, or someone who can read difficult things and understand them, or someone who has read a great deal of text, or someone who has read the best kinds of text and not

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wasted time on what is not worth reading, or someone who can offer
interesting and insightful interpretations of texts, or someone who has become
a good person through reading, or someone who is able to resist the dominant
ways of reading and read things in different ways.

A morality of reading could limit the understanding of the good reader to
one or a few of these different senses of the term. Morally acceptable reading
might, for instance, entail reading a large number of diverse texts, which would
thus allow the reader to understand and appreciate the moral choices that are
faced. Reading that is morally valuable may depend on how reading forms
human character, which in turn is given different moral values depending on
which kind of character is formed. In the first case the morality of reading is
connected to a kind of empowerment, while in the second case the morality of
reading is connected to a kind of indoctrination.

The morality of reading is connected to changes in technology insofar as
different textual technologies have different implications for how people live
their lives. It is not that the character of the good life necessarily changes,
although that may be true, but that the possibility of and strategies for
achieving the good life change.

In the age of the printing press, the account of the good life began to talk
about the role of printed books.
Chapter 2

Some Ideals of Reading from 17th Century England

It is possible to date the first successful use of a printing press in Europe with some degree of accuracy to the 1450s. The first use of most technologies are equally easy to determine. However, almost every other development connected to the printing press is much more difficult to date. When did Europe change from orality to literacy or from manuscripts to books? Or at what point did the reading public come into existence? There is no date; instead, there is a gradual change, much like a sunrise, and it is only well after the process has started that it is clear what has been happening. But the reading public is at least as important as the printing press when discussing the value of the book: in fact, if the reading public did not develop, then the printing press would have been much less important and probably would have remained an interesting machine used to produce theological texts for a few large European universities.

The general lack of specific dates and the plethora of historical tendencies make it difficult to reconstruct a history of the moral and political philosophy of reading. At what time did reading and the printing press become topics for philosophers? There may be a specific time when the printing press was first
mentioned by a philosopher in a philosophical text (assuming that these terms can be adequately defined), but the first mention of something is not the same as taking something to be a topic of concern or as taking something for granted.

Yet, however obscure the early modern history of the philosophical discussions of printing, it is nonetheless clear that by the middle of the 17th century the political and moral power of printing and reading were recognized and debated. Not only had the Bible been translated into European languages, there was a broad readership that had access to a wide range of pamphlets, books, and broadsheets. People were reading. Enough people were reading to make a political difference. And when people read, the books had an impact on how they thought about the world and what they did. Reading was not the only political concern, but it at least had become a central political concern.

Reading was not always been either so pervasive or significant.

• Chaucer and the Exceptional Reader

Working in Holland, William Caxton produced the first book printed in English in 1475, *The Rucuyell of the Histories of Troy*, and set up the first printing press in London the following year. But images of reading existed in England well before that time. In the prologue to the *Canterbury Tales*, written between 1387 and 1392, but first printed by Caxton in 1476, Geoffrey Chaucer described a character that would become a cornerstone of modern images of reading.
its original, it is a passage that most people now would find difficult to read, although it is easier if the words are read out loud, especially if someone else is reading. Chaucer is describing the clerk in the prologue to the Clerk’s Tale:

A CLERK ther was of Oxenforde also,
That unto logike hadde long ygo.
As lene was his hors as is a rake,
And he was not right fat, I undertake;
But loked holwe, and therto soberly.
Ful thredbare was his overest courtepy,
For he hadde geten him yet no benefice,
Ne was nought worldly to have an office.
For him was lever han at his beddes hed
A twenty bokes, clothed in black or red,
Of Aristotle, and his philosophie,
Than robes riche, or fidel, or sautrie.
But all he that he was a philosophre,
Yet hadde he but litel gold in cofre,
But all that he might of his frendes hente,
On bokes and on lerning he it spente,
And besily gan for the soules praie
Of hem, that yave him wherwith to scolaie.
Of studie toke he moste cure and hede.
Not a word spake he more than was nede;
And that was said in forme and reverence,
And short and quike, and ful of high sentence.
Souning in moral vertue was his speche,
And gladly wolde he lerne, and gladly teche.¹

In Chaucer’s description of the clerk, readers are presented with a character who values books over many other things, and in particular over other worldly objects. We are shown the close connection between learning and teaching, and how both are mediated by reading. The clerk owns twenty books of “Aristotle, and his philosophie,” which does not mean that he has twenty separate volumes — a “book” at this point often being the same length as a chapter is now, and not necessarily a separate physical object. At the end of the description, the clerk is glad to teach not because he wants to make money (to fill his almost empty coffers). The clerk’s goal, which frames his entire life, is to participate in the life of the text and the life of the mind. To do this, he

¹ Chaucer, *Canterbury Tales*, Volume I, pages 10-11. A modern translation reads: “Also there was a SCHOLAR from Oxford who had long been studying Logic. His horse was as lean as a rake, and I give you my word that he himself was no fatter, but looked both melancholy and hollow-cheeked. As he had not yet found himself a benefice and was too unworliday to take secular employment, his overcoat was pretty threadbare. For he preferred his library of Aristotle’s philosophical works bound in black calf and red sheepskin at the head of his bed, to fine clothes, the fiddle and psalter; yet for all his philosophy and science he had but little gold in his coffer. He spent everything he could get from his friends on books and learning, and in return prayed assiduously for the souls of those who gave him the money to pursue his studies. Learning was his whole solicitude and care. He never spoke a word more than necessary, and when it was the due formality and respect, brief and to the point, and lofty in theme. His conversation was eloquent with goodness and virtue; he was as glad to learn as to teach.” (Wright’s translation, page 8).

Chapter 2: Reading in 17th Century England
becomes uninterested in most of the world, he even limits the words that he speaks, and focuses on the part of the world where texts can be found and people interested in texts can be found to talk to. We are thus shown two competing economies, one based on gold, commodities and social interactions, and the other based on learning. Learning is not necessarily based on material exchange: gold can be spent on education and on books, but learning can also be a gift, and teaching is always a calling that pays little attention to compensation.

Much as this image may resonate with the ideals held by some modern readers. Yet Chaucer’s image is from a world before the printing press, where the price of a single book could take a lifetime of toil to afford, and where finding a book to read was the hardest part of the whole process. With Chaucer, the reader is an exceptional person, a single human being in a much larger group made up of people who, while often intelligent and engaging, apparently own no books of their own and seldom, if ever, read. The books, then, mark the character; they mark the way of life and the deepest convictions that the person has. They cost too much to be acquired for superficial reasons.

When reading Chaucer’s image of the reader, and in particular when comparing the clerk to the rest of the travelling party, it is important to realize what would eventually arise in a print culture. The clerk may be one of Chaucer’s ideals, but the activities and values associated with reading were not what would be typical now. We can take for granted that copies of the same
edition of a book are all the same. We can take for granted that if one book is lost or destroyed, another one can be found to replace it. We can also take for granted that many people, with appropriate skills, have worked to produce a good, if not a very good edition, of the text that we are reading. And, most importantly, we have far more to read than anyone could even dream of in the Middle Ages. A massive library in 13th century Europe would have a few hundred books. Now, a library of the same size could be purchased for less than $50 at any used bookstore. The clerk's collection would cost a few dollars at most. The quantity, at least, would be the same. But too much has changed with the development of printed texts for mere quantity to be the main concern.

By the 17th century, however, the exceptional character of Chaucer's reader became generalized. Books stopped being rare, at least for the middle class in most of Europe. Books and pamphlets were not expensive, for both technological and economic reasons. Rather than a single character in a much larger group, then, the reader was transformed into a general characteristic — everyone was a possible reader. Reading was commonplace, at least to the point where people who could read were no longer counted as a separate and somewhat strange kind of human distinguished from the knight or the parson. Instead, we see a generalized separation between the literate and the illiterate and in place of the exceptional reader we see the creation of the bibliomaniac, someone who likes books a little bit too much. The term "bibliomania," which
refers to a rage for collecting and possessing books, arose in the late 18th century, followed soon after by Dibdin's *Bibliomania, or Book-madness*, containing some account of the history, symptoms, and cure of this fatal disease. At Dibdin’s time, literacy was a general ability. The best people read all of the best texts, and so Chaucer's clerk could be understood as a precursor, an early visionary, and a foundation for the ideal that would ground modern European civilization.

The technology, the society and the reader changed. Books became cheaper, they could be found with much greater ease and they could be purchased in a greater quantity. The physical organization of the book also changed, acquiring standardized fonts, punctuation, and pagination. Reading also changed. Literacy rates in England are difficult to estimate, in part because the data is very limited and in part because it is difficult to decide what counts as being literate. Some of the descriptive problems include determining with some degree of accuracy what the rates of literacy were, how important literacy was as a social skill, and what was meant by literacy in the first place. These problems have been discussed in some detail by David Cressy in *Literacy and the Social Order*. He notes, for instance, that it is relatively easy to measure how many people were able to sign their names in England at a particular time because of church documents. It is also evident that by the end of the sixteenth century, people in England were encouraged to read and

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study the Bible privately at home. Clearly, something was going on, and the interaction between reading and the printing press was clearly having a profound impact on English society. The literacy rates were always increasing, sometimes slowly and sometimes quickly, especially in response to some technological or social change. More books were printed, more people were reading, and more books and readers acquired a larger social and political significance.

While the existence of a large readership is an obvious correlation to the economic success of the people who owned the printing presses, it is important to also recognize the social and technological aspects of book production. The mass production and dissemination of books requires such things as mechanical printing presses, standardized typefaces, and reliable sources of durable paper. Publishers created books for readers who wanted to buy them, but reading habits were also created by the availability of books. By the 17th century, books and pamphlets also became a key tool in political debates, not only as tools for debating, but also as a key topic of debate of their own. What books should people read? What freedoms should be given to the printers? These questions became charged political questions.

Two important works in 17th century English political thought that engaged with the political and moral aspects of printing and reading are John Milton's *Areopagitica*, first published in 1644, and Thomas Hobbes's *Leviathan*, first published in 1651. While Milton's *Areopagitica* was written in response to

Parliament's attempt to control intellectual debate at the height of the English Civil War, Hobbes's *Leviathan* was written in response to the turmoil of nine years of drawn-out conflict. In 1644, the civil war had been going on for two years and, while the Scottish Presbyterians had entered the war the previous year on the side of Parliament, the conflict had become increasingly vicious and was deadlocked. By 1651, however, the civil war was largely over and Parliament, with Oliver Cromwell at the head of its army, had established some control over the country. The main royalist armies had been defeated by 1645 and the king was beheaded in 1649.

The debates in Hobbes and Milton are still important in part because when writers consider the rise of digital textuality, they typically do so with an image of the printing press that emerges from the conflicts in England during the 17th centuries. The story may begin with Gutenberg in the 15th century, but the key issues, and the terms in which they are debated, are connected to the rise of the newspapers, the pamphlets, the mass production of books, the writings of the English Renaissance and the political importance of the reading public.

- **Milton, Censorship and Character**

  In the early 1640s, the English Parliament was dominated by Puritans and Oliver Cromwell was a lieutenant-general. The political struggles were intense and had expanded to every aspect of English political and social life. The issue
was not simply who should have power over the English people, but what kind of people the English should be. In 1643, it had been proposed that Parliament establish a licensing system to police the authors and publishers throughout England. The proposal meant that authors would have to submit their work for approval prior to having it published. *Areopagitica* is Milton's response to this specific proposal, but, as will be urged, his arguments connect to many larger issues that remain important today.

Among the arguments that Milton offers against licensing, there are some that have little to do directly with the value of reading and printing and more to do with how impractical the whole system is. Not only would licensing require well-paid and skilled censors, who, if they could be found, would probably rather be writers anyway, it would also require more than just censoring books. He argues, for instance, that:

> evil manners are as perfectly learnt without books a thousand other ways

> which cannot be stopped, and evil doctrine not with books can propagate,

> except a teacher guide, which he might also do without writing, and so

> beyond prohibiting...  

Milton extends the argument another step, pointing out that the source of corruption could be anything: "whatever thing we hear or see, sitting, walking, travelling, or conversing, may be fitly called our book, and is of the same effect that writings are...."  

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experience can be the source of that corruption. In *Areopagitica*, Milton does not actually explain how people become corrupted. The strength of the argument, however, rests on the idea that if politicians and puritans base their argument for censorship on corruption, then how can they stop with the corruption caused by books? The proposed legislation simply will not work.

But impracticality is not Milton's central argument against the political control over the reproduction of text. The most important arguments revolve around the status of the author and the importance of intellectual adversity. For Milton, there is an intimate connection between books and authors.

"Unless wariness be used," he writes:

> as good almost kill a man as kill a good book: who kills a man kills a reasonable creature, God's image; but he who destroys a good book, kills reason itself, kills the image of God, as it were in the eye. Many a man lives a burden to the earth; but a good book is the precious lifeblood of a master spirit, imbalmed and treasured up on purpose to a life beyond life.\(^6\)

For Milton, books contain the products of a rational soul, whose value is underwritten by the connection between the soul, reason, and God. It is wrong to kill a rational creature and therefore it is wrong to destroy the rational productions of a rational creature. In this case, killing is not the slaying of an "elemental life, but strikes at the aetherial and fifth essence, the breath of reason itself."\(^7\) To destroy a book, then, is to destroy the most important production of a human being, it is to destroy the best products of the soul.

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Books are like the dragon's teeth that could change into warriors. Invoking this classical image, Milton suggests that books are not actually human beings, but if used correctly, they can be treated as like human beings, always ready to fight either for or against the reader. A person's decision to read a book is then like a decision to talk to someone. Books contain human thoughts, and so to destroy a book is to destroy a potential conversation because it destroys human thought.

Milton describes the relationship between readers and texts in various ways. For instance, reading is like eating. However, Milton changes some of the obvious implications of this analogy. He writes:

For books are as meats and viands are; some of good, some of evil substance; and yet God in that unapocryphal vision said without exception, "rise Peter kill and eat;" leaving the choice to each man's discretion. Wholesome meats to a vitiated stomach differ little or nothing from unwholesome; and best books to a naughty mind are not unapplicable to occasions of evil. Bad meats will scarce breed good nourishment in the healthiest concoction; but herein the difference is of bad books, that they to a discreet and judicious reader serve in many respects to discover, to confute, to forewarn, and to illustrate.8

While bad food is useless but not harmful to the good eater, to the good reader bad books are both useful and harmless. Leaving aside for the moment the

problem of how someone tells whether food is good or bad (given that Milton transfers any qualities found in the food to the eater’s reaction to the food), Milton shows no concern for the mediocre reader or the mediocre eater, one who is neither extremely strong nor extremely weak. What advice is there for the eater with the typical stomach, for whom unwholesome foods are bad and wholesome foods are good? Milton offers no advice. In fact, he has to refuse to give advice, or the analogy works against the argument he is trying to make. If reading is like eating, and if some people get sick when they eat bad food, then it may still be worth censoring what some people eat so that they will eat well and be happy. For Milton, on the other hand, readers and eaters are only strong and weak, and their strength in no way depends on what they read or eat. The reader dominates the process of reading.

Milton also offers a theological understanding of the value of books. If you destroy bad texts, then you destroy the possibility of choice, which means that you destroy the possibility of people being good as well. For Milton, it is not enough to repeat proper beliefs.

A man may be a heretic in the truth; and if he believe things only because his pastor says so, or the assembly so determines, without knowing other reason, though his belief be true, yet the very truth he holds becomes his heresy.\(^9\)

Even bad books can be useful, and in fact may be more useful than good books. When reading, people can be challenged by works that they disagree

with. Letting bad books survive, then, is not simply a begrudging acceptance of differences of opinion. Bad books are useful because they make people better by making them realize why they believe what they believe. Bad books are still bad. The alternative is a stifling conformity, a “rigid external formality”\textsuperscript{10} that leaves people stupid, weak, and incapable of choosing between good and evil. Engaging fully in debate, then, is an important part of the road to salvation. As a result, Milton argues that heresy is not a question of public statements regarding faith, it is the lack of an internal capacity to understand the faith and to understand why one set of beliefs is true and another is false.

While Milton does not attempt to, we could imagine the argument he could make in favour of the printing press over either manuscript or oral text. The key improvement is preservation (the printed vials are more secure than manuscript vials, and vials are all but impossible in an oral tradition). The political order and the individual both benefit when the technologies, the laws, and the social practices are all working well. When the system does not work well, human beings suffer an intellectual loss which is also a spiritual loss (either death, as in the case of the author, or ignorance and damnation, as in the case of the reader).

Milton’s argument in Areopagitica revolves around the image of the text and the reader, and on the secondary status given to the author as a material being. The text must be read in the right way, in appropriate conditions and so on. The stress on how to read makes what to read and what conclusions to

draw secondary — if you read well, then you can read anything. As a result, it does not matter how well an author writes. Milton notes that:

a wise man, like a good refiner, can gather gold out of the drossiest volume,

and that a fool will be a fool with the best book, yea, or without book; there is no reason that we should deprive a wise man of any advantage to his wisdom, while we seek to restrain from a fool that which being restrained will be no hinderance to his folly.\(^\text{11}\)

If readers are strong, they can resist the external influence of what they are reading; and if they are not strong, then books will not have any real impact at all. Books thus end up having no direct impact on readers, or at least the impact does not involve any sort of direct causal force. Suggesting an image that Milton does not use, people read in the same way that cats play with injured mice — always when and how they want to. Human character arises elsewhere, and books are at best something that affirms or finishes what already exists.

Yet Milton is not a humanist. He is someone who gathers humanist ideals around a cherished national identity and uses those ideals to criticize people from other places. Milton is a Protestant, but he is also connected to the well-educated and well-monied class that ruled England at the time. When he imagines his readers, then, he is not imagining a dispersed populous who live very different lives, he is imagining a relatively closed elite that has profound

but internal differences of opinion. Thus when Milton writes that "none can love freedom heartilie, but good men,"\textsuperscript{12} there is a considerable amount of social coherence implied by the term "good men." The nationalist, aristocratic and theological elements of the argument are closely intertwined. Milton claims, for instance, that:

\begin{quote}
Now once again by all concurrence of signs, and by the general instinct of holy and devout men, as they daily and solemnly express their thoughts, God is decreeing to begin some new and great period in his church, even to the reforming of reformation itself; what does he then but reveal himself to his servants, and as his manner is, first to his Englishmen?\textsuperscript{13}
\end{quote}

God has chosen the English, who are strong and free, for the next great religious improvement in the faith. God, then, is the source of the different religious ideas, which creates at least a minimal legitimacy for almost any Christian sect — so long as the groups are Christian (and especially if they are English).

\begin{quote}
Under these fantastic terroors of sect and schism, we wrong the earnest and zealous thirst after knowledge and understanding, which God hath stirred up in this city.\textsuperscript{14}
\end{quote}

Milton's appeal to a theological nationality reduces the anxieties connected to an open readership. Even if people strongly disagree, they are still all part of

\textsuperscript{14} Milton, \textit{Areopagitica}, Volume IV of \textit{The Works of John Milton}, page 322.
the same process, a process that not only makes them better (through engagement) but also that leads to the reunion of the Christian faith (through an ordered diversity rather than a conforming unity). Milton's tent is a very large one, but it stops decisively at the coast and the slums. It is the English who will carry Christianity to the next level, a little closer to salvation, and only then will the rest of Europe, the Spaniards included, be reformed.

So much for the image of the strong and engaged reader. When Milton is concerned with the formation of character, he adopts a significantly different attitude towards reading. In *Of Education*, a short work which was also published in 1644, Milton echoes fairly traditional Renaissance images of education where the goal is to cultivate boys through studying classical Greek, Roman, and Christian texts. There are no images of strong readers confronting dangerous texts. There are simply lists of what ought to be read which, taken as a whole, is "a compleat and generous Education that which fits a man to perform justly, skilfully and magnanimously all the offices both private and public of Peace and War."\(^{15}\) The purpose of education, in other words, is to create people who have the intellectual strength and desire to engage in the political and textual debates which were so central to *Areopagitica*. Students do not choose what to read, the teacher decides what the students should read in order to "temper" in them an admiration of virtue and "infuse" an "ingenuous and noble ardor, as would not fail to make many of them renowned and

matchless men.”16 If early education is well organized, involves sufficient challenges, and furnishes appropriate beliefs, then men are made masters of themselves and of texts, and thus have the strength to engage effectively with the world. One key goal for Milton is that:

they may not in a dangerous fit of the Common-wealth be such poor, shaken, uncertain Reeds, of such a tottering Conscience, as many of our great Counsellors have lately shewn themselves.17

But the strength here has to be created through education. The boys are being formed into men, and they are given almost no input in the process. There are two exceptions. First, after the students have acquired good general precepts and a grasp of “the Italian Tongue,” Milton accepts that “soon after, but with wariness and good antidote, it would be wholesome enough to let them taste some good choice Comedies.”18 Absent is the idea that bad meats offer no danger to the strong stomach: rather, the task at hand is to create a strong stomach that can handle such bad meats as comedies. The second instance when the students are given a choice over their education is when they are in their early twenties. At that point, they are allowed to visit other countries, “not to learn Principles but to enlarge Experience, and make wise observation....”19 In other words, once the boy has been turned into a man, once the precepts, the strength, and the desires have already been established,

it is then possible to take on other visions of the world, whether that be other countries or, as in *Areopagitica*, other beliefs. In Milton’s terms, once “breeding” has been completed, once people are finished adults, then it is possible to send them out into the world to face adversity and choice because then they can resist adversity and choose correctly.

Milton’s account of the ideal reader tends to be ignored by the secondary literature, which instead celebrates the arguments for freedom of expression while it misses the exclusions. In *On Education*, Milton discusses the formation of the adult Protestant English male reader, the one who will be capable of reading the difficult, dangerous and contrary works. In *Areopagitica*, he is considering how the conversation ought to proceed amongst the adult English Protestants that have already been properly formed. There are only hints at how everyone else should be approached. The Papists, for instance, should be excluded from the debate and their works ought to be destroyed (although after they have been printed, not before).

Milton’s optimism regarding the value of reading thus depends on the way that he organizes human groups so that only some people and only the right people are part of the reading world to begin with. Those who are looking for an open vision of reading in Milton should thus be left with a disturbing sense that the arguments in favor of a free press are based on a very exclusionary politics: it is as if the press ought to be free because only the best kinds of people are able to read and write in the first place.
• **Hobbes, Seduction and Absolute Sovereignty**

The discussion of the reader in Hobbes's *Leviathan* shares very little with Milton's *Areopagitica*. Hobbes was a royalist who supported the sovereign's total dominion over all aspects of textual reproduction and distribution. Like the Puritan parliamentarians who sought to control the printing press, Hobbes argues that the process of printing and reading was something over which the government ought to exert extreme care and absolute control. Unlike the Puritans, however, Hobbes's position was not based on an account of religious impurity. For Hobbes, the chief danger is insubordination and his corresponding primary goal is overt political obedience. As with Milton, Hobbes shifts the idea of heresy away from religious heterodoxy, but for Hobbes, heresy becomes a political concept, connected less to truth or the incapacity for humans to tell the difference between good and evil, and more to disobedience to the sovereign, who is also the source of the human religious order.

The importance of the text connects to the importance of rhetoric, a term that is not mentioned in *Areopagitica*. The absence is not accidental — were Milton to focus on the seductive powers of words, where the impact that words have is distinct from the conscious meaning that the words convey, then it would be more difficult for Milton to so conclusively claim that reading is a
safe relationship among strong readers. For Hobbes, the reader's exposure to text is a kind of seduction.

Now the nature of eloquence is to make good and evil, profitable and unprofitable, honest and dishonest, appear to be more or less than indeed they are; and to make that seem just which is unjust, according as it shall best suit with his end that speaketh: for this is to persuade. And though they reason, yet take they not their rise from true principles, but from vulgar received opinions, which for the most part are erroneous. Neither endeavour they so much to fit their speech to the nature of the things they speak of, as to the passions of their minds to whom they speak; whence it happens, that opinions are delivered not by right reason, but by a certain violence of mind. Nor is this fault in the man, but in the nature itself of eloquence, whose end, as all the masters of rhetoric teach us, is not truth (except by chance), but victory; and whose property is not to inform, but to allure. 20

These mistakes arise in part on the power of the author and in part from the weakness of the reader.

But Hobbes does not simply offer an account of the dangers of reading in terms of rhetoric and the deceitfulness of speakers. Reading is used "to imprint in their minds a belief." 21 Even if it is a special kind of activity, and one that is limited to human beings, it is also necessarily a material, mechanical activity subject to the same laws of cause and effect that everything else in the world is.

People can thus be overwhelmed by the stream of social opinion. Hobbes’s account of reading thus fits well into his strict determinism and so the process of reading shares many attributes with other physical processes. Reading, for instance, can carry intellectual diseases.

The Grecians, by their colonies and conquests, communicated their language and writings into Asia, Egypt, and Italy; and therein, by necessary consequence their demonology, or, as Saint Paul calls it, (1 Timothy iv. 1) their doctrines of devils. And by that means the contagion was derived also to the Jews, both of Judea and Alexandria, and other parts, whereinto they were dispersed. 22

The spread of dangerous ideas is likewise part of the physical world. Bad words and pernicious ideas are like infections which, while they can be stopped, will also often have an impact on people whether they realize it or not. The process is not just rhetoric, if only because the speaker may not be aware of the process either. Rather, there is a generalized material process that connects human minds and external textual technologies.

Hobbes’s account of reading also profoundly undercuts the idea of human freedom. In fact, his discussion of reading is one of the primary ways that Hobbes tries to demonstrate that freewill is a meaningless concept and that the reader is never in control. The contrast with Milton here is stark. While Hobbes entered into extended controversies with various people, he only rarely

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mentions Milton's works. However, reading his engagement with John Bramhall, the bishop of Derry, allows us to imagine what Hobbes could have said in response to Milton's account of a textually distanced reader. For Hobbes, all questions of human action and existence are referenced back to what affects the will. He goes into considerable detail, but the general idea is summarized well in *Human Nature*, when Hobbes writes of how “external objects cause conceptions, and conceptions, appetite and fear, which are the first unperceived beginnings of our actions.”\(^{23}\) A free will, therefore, if it has any meaning at all, means freedom from external compulsion after the will had already been determined by previous material factors. Freedom is thus consistent with necessity. Hobbes explains:

> when I say the action was necessary, I do not say it was done against the will of the doer, but with his will, and necessarily, because man's will, that is every volition or act of the will and purpose of man had a sufficient, and therefore a necessary cause, and consequently every voluntary action was necessitated.\(^{24}\)

Hobbes turns reading into an efficient cause of the human will, where reading has an external, non-coercive impact, which undermines any robust notion of human freedom. Reading is important because Hobbes is a materialist, where reading (and language in general) is discussed in physical, causal terms,


focusing on "the force of words" rather than their meaning. Human beings do not automatically control the impact that text has on them.

What a text means is only one facet of how a text affects a reader. The speed of the text, the narrative structure, the physical conditions of reading, and a host of other factors are also important. Thus, for Hobbes, there are times when an evil text will have an evil influence, not because the reader recognizes the text as evil or because the text has a corrupting influence, but simply because the reader is affected by the text in a way that has an evil result. He argues against histories and fictions in these terms.

The vain-glory which consisteth in the feigning or supposing of abilities in ourselves, which we know are not, is most incident to young men, and nourished by the histories, or fictions of gallant persons; and is corrected oftentimes by age, and employment.

There is nothing essentially wrong with either histories or young men, but there are times when the two together have negative consequences. But there is still a general correlation between what is read and the impact that the text has. Ancient romances, for instance, are inappropriate to a monarchical system because they encourage people to think through a textual space against their political space. Hobbes likewise claims, in direct opposition to Milton, that "the praise of ancient authors, proceeds not from the reverence of the dead, but

from the competition, and mutual envy of the living." In *Behemoth*, Hobbes had argued that the English Civil War was caused by people reading the wrong books.

And by reading of these Greek, and Latin authors, men from their childhood have gotten a habit, under a false show of liberty, of favouring tumults, and of licentious controlling the actions of their sovereigns, and again of controlling those controllers; with the effusion of so much blood, as I think I may truly say, there was never any thing so dearly bought, as these western parts have bought the learning of the Greek and Latin tongues.28

The result, as Hobbes had earlier described in *Of Liberty and Necessity*, is "the introduction of factions and national quarrels into matters of religion, and consequently all the calamities of war and devastation."29 Diverse ideas do not create strong readers, they create factions.

But reading does not exist in isolation. The process is also connected to the social order that divides the mass of people from the powerful. "The punishment of the leaders and teachers in a commotion, not the poor seduced people, when they are punished, can profit the commonwealth by their example."30 Textual technologies, then, are tools for transferring ideas to the masses, who are always recipients and never creators.

Common people know nothing of right or wrong by their own meditation; they must therefore be taught the grounds of their duty, and the reasons why calamities ever follow disobedience to their lawful sovereigns. But to the contrary, our rebels were publicly taught rebellion in the pulpits; and that there was no sin, but the doing of what the preachers forbade, or the omission of what they advised.\textsuperscript{31}

The universities share the general blame:

For seeing the Universities are the fountains of civil and moral doctrine, from whence the preachers, and the gentry, drawing such water as they find, use to sprinkle the same (both from the pulpit and in their conversation), upon the people, there ought certainly to be great care taken, to have it pure, both from the venom of heathen politicians, and from the incantation of deceiving spirits.\textsuperscript{32}

The key political fights are between elites, expanded by the printing press, by sermons, and by other textual technologies to the unthinking masses. Milton, of course, was also an elitist. The main difference here is that whereas Milton ignores the masses, Hobbes makes the masses much more important, not as separate intellectual agents, but as pawns in the struggles amongst the political and intellectual elite.

Unlike Milton, who builds an image of reading on an account of a national and social hierarchy, one of the key aspects of Hobbes’ argument is that

people, regardless of their social position, have the same metaphysical status. Hobbes does not appeal to national identities. He does not appeal to a divine dispensation. In *Leviathan*, he barely distinguishes the sane from the mad. Instead, his argument is based on a political account of reading that is in turn based on a mechanistic account of the world.

Even though reading is a social process, involving our physical relationship with external objects that have been created by authorized institutions, our beliefs are something very different. As Hobbes repeatedly points out, while the sovereign ought to control what we say and do, what we believe is something beyond observation and therefore beyond direct political control. Consequently, Hobbes argues,

> in every commonwealth, they who have no supernatural revelation to the contrary, ought to obey the laws of their own sovereign, in the external acts and profession of religion. As for the inward thought, and belief of men, which human governors can take no notice of, (for God only knoweth the heart), they are not voluntary, nor the effect of the laws, but of the unrevealed will and of the power of God; and consequently fall not under obligation.33

Hobbes repeats this theme on several occasions, carving out a separate but apolitical space for personal, private beliefs.

> I say, he cannot in this case observe the same in his actions, nor in his discourse with other men; though he may without blame believe his private

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teachers, and wish he had the liberty to practice their advice, and that it were publicly received for law. For internal faith is in its own nature invisible, and consequently exempted from all human jurisdiction.34

The sovereign's domain, therefore, is necessarily limited to external expressions of faith, and leaves internal beliefs alone. In this case, at least, Hobbes appeals to a religious theme very much in keeping with Milton's argument.

For our Saviour himself came not to judge, that is, to be king in this world; but to sacrifice himself for sinners, and leave doctors in his Church to lead, not to drive men to Christ, who never accepteth forced actions, (which is all the law produceth,) but the inward conversion of the heart; which is not the work of laws, but of counsel and doctrine.35

For Hobbes, the act of reading is a public act that is properly the domain of the sovereign, who may not be able to control a person's inner life, but is ideally in control of the world in which and through which that inner life is created. Even physical threats are given a much longer, and much more internal role. In *Philosophical Rudiments*, Hobbes writes that "the end of punishment is not to compel the will of man, but to fashion it, and to make it such as he would have it who hath set the penalty."36 The goal, in other words, is for the sovereign to

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use the external, public world to mould the subject’s inner, private world, even if political jurisdiction cannot extend to that inner world directly.

The outlines of Hobbes’s solution to the problems of political order are well-known. The extreme dangers of the state of nature and the theoretical analysis of conflict creation and resolution both justify the creation of an absolute sovereign power. Much has been written on the importance of the state of nature in Hobbes’s justification of absolute sovereignty — the war of all against all makes the situation so dangerous that anything, even a randomly chosen absolute monarch, desirable. In addition, while the state of nature is dramatic, Hobbes’s discussion of how people relate to text in *Leviathan* is an equally compelling justification by showing in detail the pervasive impact that text has on people. The experience of words is not coercion, but it remains a form of external control. Given Hobbes’s materialism, there is no way out of the system, and so readers can never be fully trusted unless their texts and their world are fully controlled. The strongest image of how people relate to text in Hobbes’s work is when he discusses the incident at Abdera. In *Leviathan*, he writes that:

> There was once a great conflux of people in Abdera, a city of the Greeks, at the acting of the tragedy of Andromeda, upon an extreme hot day; whereupon a great many of the spectators falling into fevers, had this accident from the heat, and from the tragedy together, that they did nothing but pronounce iambics, with the names of Perseus and Andromeda; which, together with
the fever, was cured by the coming on of winter; and this madness was
thought to proceed from the passion imprinted by the tragedy. 37

For Milton, reading is like watching a play from a safe distance, where the
causal connection is not something to worry about. The reader does not
become caught up in the text, and reading is simply a preliminary step to
determining the truth of arguments. With Hobbes, reading is another aspect of
the material world, and it is an aspect that has a special relationship to human
thoughts and actions. Cold and heat may affect what we dream, or make it
more likely that we are angry or aloof, but reading can also possess us.

With Abdera, however, Hobbes is not offering the reader a way to avoid
textual possession. Quite the contrary. His writings are designed to have the
same sort of impact, and to show that texts are an important part of the social
world. The sovereign cannot get inside of people’s heads, but words can.38
And while words may not automatically and unerringly support the social
order, in the way that the sovereign’s physical force could, the impact that
words have is at least as pervasive and long lasting as any physical threat.

The organization of texts in Hobbes’s social world is thus crucial to the
proper organization of the commonwealth because it is through reading that
people form an understanding of the world. The sovereign must control
everything that is printed, if only because that control, if done well, will make
disobedience impossible and punishment unnecessary.

38 See Johnston’s Rhetoric of Leviathan and Skinner’s Thomas Hobbes and the Rhetorical
Tradition.
It is therefore the duty of those who have the chief authority, to root those out of the minds of men, not by commanding, but by teaching; not by the terror of penalties, but by the perspicuity of reasons. The laws whereby this evil may be withstood, are not to be made against the persons erring, but against the errors themselves. Those errors which, in the foregoing chapter, we affirmed were inconsistent with the quiet of the commonwealth, have crept into the minds of ignorant men, partly from the pulpit, partly from the daily discourses of men, who, by reason of little employment otherwise, do find leisure enough to study; and they got into these men's minds by the teachers of their youth in public schools. 39

But the sovereign power here is not only negative, stopping unwanted texts from being reproduced. Hobbes also encourages the sovereign to be proactive, to create texts that can ensure the safety and peace of the commonwealth. Citizens ought to be possessed by the kinds of narratives created by a well-organized scientific and logical account of the world.

I therefore conceive it to be the duty of supreme officers, to cause the true elements of civil doctrine to be written, and to command them to be taught in all the colleges of their several dominions. 40

Thus, even while the sovereign cannot know "the secret thoughts of men," it is still possible to arrange the world in such a way that those secret thoughts are

controlled, are orderly, and will never become socially dangerous. The solution demands that the sovereign control all aspects of the social organization of text because texts are one of the key ways that the outside determines the inside. For Hobbes, reading is just one more physical impact in a completely closed physical process. There is nothing outside of the causal world. As a result, human behaviour is little different from the behaviour of other machines. Thus:

horses, dogs, and other brute beasts, do demur oftentimes upon the way they are to take, the horse retiring from some strange figure that he sees, and coming on again to avoid the spur. And what else doth a man that deliberateth, but one while proceed toward action, another while retire from it, as the hope of greater good draws him, or the fear of greater evil drives him away.\textsuperscript{41}

For Hobbes, reading is something that is done to us as much as an activity that we do. Reading has an impact on us because we are physical entities that are affected by physical processes. For Milton, the impact of reading as a kind of nourishment was understood in terms of the strength or weakness of the reader. For Hobbes, even if a particular book can be resisted, the process of nourishment is all-pervasive and so resistance is something that itself must have been created by a previous submission.

\textsuperscript{41} Hobbes, \textit{Of Liberty and Necessity}, of \textit{The English Works of Thomas Hobbes} Volume IV, page 244.
The contrast with Milton is profound. Whereas Hobbes grounds his account of Christian morality on obedience and thus advocates an outward (and thus inward) conformity, Milton grounds his account of Christian morality on conscience and rationality. Milton writes:

A man may be a heretick in the truth; and if he beleve things only because his Pastor sayes so, or the Assembly so determins, without knowing other reason, though his belief be true, yet the very truth he holds, becomes his heresie.\textsuperscript{42}

The "iron yoke of outward conformity"\textsuperscript{43} does not ensure salvation, but rather damnation. If people do not understand why they believe something, and therefore if people have not been exposed to contrary accounts of the world so that they could better evaluate what to believe, then they are not truly rational, and therefore they are not truly human. Theologically, ignorant people are damned. The implication of Milton's argument for politics is that the social control of text is wrong, not because it is politically illegitimate, which is also the case, but because it limits the capacity of people to engage in the important debates over truth.

The difference between the thinkers is stark, however, only if \textit{Leviathan} is compared to \textit{Areopagitica}. If Milton's \textit{On Education} is included, then the difference is not as severe. In Hobbes' terms, what Milton is arguing is that books are used to create people who, in later life, are able to resist certain kinds


of books and in fact thrive in relation to adverse books. The key difference, in this reading, is that Hobbes is much less optimistic about the shift from child to adult, which leads to the difference that Hobbes relies on the sovereign while Milton relies on a national republic elite.

Milton and Hobbes share a belief that there is a close connection between human character, social order and text. They share a belief in the importance of reading. But at that point their respective accounts diverge. Affirming different accounts of human character, the social order, reading, texts, and ultimately the nature of the universe, Hobbes and Milton offer profoundly different ways to evaluate text and textual technologies. Should the press be free from political intervention? Should people be allowed to read what they want to? What kinds of texts should be produced and who should those texts be given to? The answers, as well as the reasons, given by Milton and Hobbes are significantly different.

In the imagined debates between Milton and Hobbes, we can imagine elements of the contemporary debates over digitizing texts. There are some clear contrasts: different ideas of readership, different ideas of text, and different ideas of the relationship between readers, texts, and society. Whereas Milton argues that well-trained citizens are capable of engaging in serious political discussions, Hobbes undermines any belief that people can be trusted. According to Milton, we can avoid, and even benefit from, the seductions of
dangerous text; for Hobbes, however, we are always threatened. For both, however, there is a close connection between reading, freedom and the best kinds of human life. With Milton, the best life is one that is engaged in intellectual debates that not only lead to truth, but also that improve the people who are debating. With Hobbes, the best life is one of obedience, where the reader reads the texts that enhance a close connection between the reader and the social order. Whereas Hobbes worries about disobedience and Milton worries about blind conformity, for both there is a deep connection between reading, the social order, and the best human life. The life of the reader is the life of the political being, and so the fate of reading ends up being the fate of humanity and the fate of society. The reader, the text and the social institutions are thus intertwined, and a change in one would be expected to have a profound impact on the others.

We, of course, are seldom concerned with the dangers of unlicensed printing presses or of people watching plays and reading Greek romances, but we are concerned with what texts are available to people, what people are reading, what they are doing with those texts, and what those texts are doing to them. We are also concerned with who creates text and who controls the reproduction, the distribution, the promotion, and the use of different texts. Milton and Hobbes are nonetheless useful for engaging with some of the primary themes of the current debates because they represent two common positions.
Milton and Hobbes were debating the best way to organize text, and responding in particular to the challenges and opportunities of the printing press. For both thinkers, the organization of text is closely connected to the organization and possibilities of human existence. Milton and Hobbes exist at two extremes of the same debate, connecting opposite accounts of human nature with opposite accounts of sovereignty and legitimate political power—people are free or people are determined, thinking can be trusted or thinking is always suspect, the best sovereign will rule absolutely or the best sovereign will barely rule at all.
In a letter written to Francesco Vettoria in 1513, Machiavelli describes his life after he was exiled from Florence and the Medici royal court. He first relates the mundane time spent in the countryside “mucking about all day, playing cards” and arguing with the local people over the price of firewood. And then, he relates:

When evening comes, I go back home, and go to my study. On the threshold I take off my work clothes, covered in mud and filth, and put on the clothes an ambassador would wear. Decently dressed, I enter the ancient courts of rulers who have long since died. There I am warmly welcomed, and I feed on the only food I find nourishing, and was born to savor. I am not ashamed to talk to them, and to ask them to explain their actions. And they, out of kindness, answer me. Four hours go by without my feeling any anxiety. I forget every worry. I am no longer afraid of poverty, or frightened of death. I live entirely through them.¹

For Machiavelli, the journey to his study and to his books is a journey away from his current social life to a textual court of the dead. He is not simply escaping from the low-life around him, he is also trying to reconcile himself to

his political exile by finding solace in a place where he can still play the role of someone who is important. When you are exiled from the living court, a textual one is a workable substitute. With Machiavelli, readers can do things because they read and they can use what they read, and what they remember having read, to imagine conversations that would otherwise be impossible. But things are also done to people who are reading. Reading changes readers, often because they want to be changed. The process is cathartic, transformational, and thoroughly elitist — he is only engaging with the best people and only doing so for his own interests. Machiavelli is talking to the great figures of the past, asking them to offer guidance and images of a virtuous life. The conversation, while it may be imagined as a real conversation, is also a highly textual one, where histories and books are the primary source of Machiavelli’s sense of who he is talking to and what they are talking about. One can think, for instance, of Machiavelli’s Discourses on Livy’s history of Rome, where the Machiavelli as reader, Machiavelli as author, the text, and the imagined historical author combine to create an understanding of the world. Similar images can be found in many texts that emphasize the value of solitary reading, both as therapy and as a way to cultivate human character. As with Montaigne’s tower, Machiavelli’s study does not bring people into society so much as it creates a separate and private place that nonetheless remains a very human place, where the reader is able to relate to the interesting and the great, no matter if they are alive or not.

2 See Jacobson, Pride and Solace, chapter 2. Jacobson focuses on the role of writing as a way for Machiavelli to reconcile himself to his fallen position.
Compare Machiavelli's image of the reader with the opening of Descartes' *Meditations on First Philosophy*, first published in 1641. Descartes relates a similar retreat from society to a place where real thinking becomes possible, but the role of text is very different — no longer a source of friends and wisdom, text becomes an important source of the opinions that must be questioned. Descartes writes:

Several years have now passed since I first realized how numerous were the false opinions that in my youth I had taken to be true, and thus how doubtful were all those that I had subsequently built upon them. And thus I realized that once in my life I had to raze everything to the ground and begin again from the original foundations, if I wanted to establish anything firm and lasting in the sciences. But the task seemed enormous, and I was waiting until I reached a point in my life that was so timely that no more suitable time for undertaking these plans of action would come to pass. For this reason, I procrastinated for so long that I would henceforth be at fault, were I to waste the time that remains for carrying out the project by brooding over it. Accordingly, I have today suitably freed my mind of all cares, secured for myself a period of leisurely tranquility, and am withdrawing into solitude. At last I will apply myself earnestly and unreservedly to this general demolition of my opinions.3

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3 Descartes, *Discourse on Method; and, Meditations on First Philosophy*, page 59.
The contrast to Machiavelli is extreme. There is a kind of clarity in Descartes’ ideal that Machiavelli’s humanist conversation cannot match. For Machiavelli, what is taken to be the good life is intimately connected to the life of reading, of writing and of interacting with people who are worth interacting with, meaning people of superior experience, insight, and learning. For Descartes, the best life is one where opinions are challenged and the sources of those opinions is replaced by another kind of intellectual activity — one that does not involve speaking, writing or reading.

As with Machiavelli, the physical arrangement of Descartes’ world is also an image of his metaphysical position. But with Descartes, there is a sharp contrast between material and spiritual existence. The world may be subject to relations of cause and effect, but what is central to humanity (the soul) always exists apart from the world.

Whereas Machiavelli leaves the world of human interaction to enter a world of books where other, rarefied voices can speak to him, Descartes leaves the society to enter an isolated world where he is alone, with neither outside text nor other people, and with only himself to talk to and an idea of a transcendent God to rely upon. He looks inwardly, not to other people, not to a library of books, and not to the world as he experiences it through his senses. Descartes is the opposite of a humanist. There is little or nothing valuable to be gained in reading or in conversation. His status in the history of philosophy in part depends on the way that he rejects humanism and the conversational

Chapter 3: The Uses of Text
approach to philosophy of people like Machiavelli and substitutes it with his own mathematics-inspired philosophy that not only denies the value of conversation, but also changes the nature of knowledge itself so that conversation is no longer needed and in fact is a waste of what limited time people have to sort out the truth. The formation of human character, especially by social and other material factors, is precisely what Descartes is trying to deny. He is a thinking subject, the I whose existence is taken to be certain, and the core aspect of that subject is its pure thinking.

Much has been written about Descartes’ dualism and the problems posed by his account of how the soul relates to the body. There is a key social and political element to this dualism. Descartes not only denies the material conditions that make him possible as a human being, he also denies the intellectual traditions that make him possible as a thinking being. Neither authors nor texts are mentioned — Descartes’ entire rhetorical strategy here is to neglect to mention where his thoughts, his language, and his intellectual opponents came from. Descartes’ conceit here is the belief that his existence is unmediated by the outside, that all that matters is his self-presence, and everything else, including his own history, is unimportant. Basing an account of human beings on the claim that “I think, therefore I am” makes little room for “I read” or “therefore, I become.” For Descartes, it would be a waste of time if he did not take the opportunity to engage with his own thoughts, not only to escape his situation, but also to escape materiality as such. In fact, he is
probably sitting so close to the fire that books could not survive very long anyway.

Descartes is relevant for a discussion of what happens when people read, and thus of a morality of reading, because he is a good example of a thinker who severely reduces the importance of our physical relationship to text. Descartes rejects the rhetorical tradition, arguing that language is not something that has an independent impact on how people think. Language is something used by a singular and autonomous mind connecting directly to truth and to God, but not to communal relationships. The freedom of thought thus connects to the irrelevance of many of the tools of thought precisely because those tools are material and external to the ideal thinking subject. For Descartes, the only important text is the purified self-reflexive orality of the well-prepared, inwardly-focused mind. All our beliefs, and all our errors, are referred back to this internal, non-textual, non-mediated and non-dialogic dialogue. Unless readers invite them in, neither books nor voices can pass through the pineal gland to the immaterial intellectual world beyond. And if we invite the texts in, if we believe what we read without at the same time generating our own clear and distinct idea, then it is our fault if we come to accept what is being claimed and we turn out to be mistaken. Rhetoric, as the power of the orator over the minds of the audience, is impossible for metaphysical reasons. People can never be possessed by text.
Descartes, then, just like Machiavelli, Hobbes and Milton, is offering an ideal for reading, but he is offering a drastically different account of the metaphysical status of the thinking, reading subject. Descartes and Hobbes are at the extremes: the first combining the transcendence of the thinking subject from the causal world and independence of thought from texts, the second combining a deep connection to the material world with a deep dependence of the thinking subject on texts. With Hobbes, all of our ideas come from the external world, whether from experience or from language, which is the basis of any general idea. With Descartes, none of our ideas, or at least no part of what counts as true, can originate in our experiences or in our readings.

With Milton, the reading subject is separated from the material world and therefore from a causal account of reading. But there is nonetheless a deep dependence on external (spiritualized) objects that contain the equally transcendent ideas of other souls. People need books because books store reason and allow us to connect to other minds. The connection itself, however, remains outside of the causal world.

Descartes, Hobbes, and Milton occupy three distinct places in a table loosely organized in terms of the transcendence of the human subject from the causal world and the dependence of the subject on text. Descartes affirms causal transcendence and independence from text, Hobbes affirms materialism and dependence on text, and Milton affirms causal transcendence and at the same time dependence on text.
Machiavelli does not fit cleanly into this organization in that he affirms the relative materiality of the thinking subject, which allows for a therapeutic connection to books and also for the role of rhetoric in politics. For Machiavelli, the world is not so clearly deterministic, and there is room for a relative transcendence (understood as virtù or the library), where an inner strength can resist and perhaps overcome the material world. And just as Machiavelli is committed to the claim that people are both material and transcendent, he also claims that they have a relative dependence on books. Greatness and happiness could be achieved without books, but books are helpful and sometimes they might be essential. The thinking, reading subject, in other words, moves around the table, depending on such things as historical conditions, allies, personal strengths, desires, and the favour of Fortuna.

The position that is empty in this simple grid is for a thinker who affirms the causal dependence of the thinking subject and at the same time asserts an independence from text. This spot is best taken by Rousseau, who challenges both the transcendence of the human subject and the subject’s dependence on text. Rather, the ideal thinking subject is one that does not read, but instead adopts a deep relationship to the world as a fully experienced, coherent object. In *The Discourse on the Origins of Inequality*, Rousseau argues that:

- Reason is what engenders egocentrism, and reflection strengthens it. Reason is what turns man in upon himself. Reason is what separates him from all that troubles him and afflicts him. Philosophy is what isolates him and what...
moves him to say in secret, at the sight of a suffering man, "Perish if you will; I am safe and sound."  

It is reason, which for Rousseau is closely connected to civilization, to logic, to the universities, and to reading, that separates people from the world and from each other. The conceits of physical — and most importantly of moral — transcendence, in other words, are a product of texts, of reading, and of reasoning. Rousseau, like Descartes, wants to escape from the false opinions held by the people around him. Rousseau differs from Descartes in that the solution is not to escape the world as such, but to become much more closely connected to the world, to be possessed by Nature, as it were. Rousseau’s account of the ideal human being thus combines a deep materiality with an independence from text.

There are some interesting passages that do not fit if Rousseau is given this place in the classification. For instance, there is a point in Émile where Rousseau offers his readers a way to distinguish what is necessary from what is merely superfluous. Rousseau proposes that Emile, the student whose character is being formed throughout the book, should be given a copy of Robinson Crusoe to read. As he writes, this book is “the surest means of raising oneself above prejudices and ordering one’s judgments about the true relations of things.”

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4 Rousseau, Basic Political Writings of Jean-Jacques Rousseau, page 54.
5 Rousseau, Emile, page 185. In Of Grammatology, Derrida has criticized Rousseau for valuing speech (as a point of authenticity) over the written word, and for assuming that the
island, then it is something appropriate for a person trying to lead a simple, natural and morally worthwhile human life. There is an evident tension in this recommendation insofar as the book, the source of the moral image, is not itself something that Crusoe had on his island. Should the student read the book? The awkwardness of this question for Rousseau arises in part because he appeals to reading as an important practice for the moral instruction of Emile while at the same time bases that instruction on an object and practice that he suggests would not belong to a natural, simple life. Just before he appeals to *Robinson Crusoe* as a way to provide Emile with moral guidance, Rousseau asserts the independence from text by emphatically attacking the very existence of books. “I hate books. They only teach one to talk about what one does not know.” Yet this would be equally true of *Robinson Crusoe* and the image of the simple, isolated and tropical life of nature it describes, a world that Rousseau himself could only have read about. Reading (and the printed work) thus provides Rousseau with both a source and a solution to the moral corruptions of modern society.

*Robinson Crusoe* may allow us to imagine the best life as one that does not have books, but only if we forget how the ideal was presented, only if we obscure the medium, the textual technologies that made the ideal available to us in the first place. But we cannot allow ourselves that fantasy, where our ideals come from is at best as important as what those ideals are. If we need to

written word is an imperfect derivation from speech.

Chapter 3: The Uses of Text
think for ourselves, then we have to think about where our thoughts come from, how the presentation of thoughts conditions our understanding of those thoughts, and why some thoughts are more available and convincing than others.

The debates have been going on well before the rise of the printing press. One of the earliest discussions is in some of Plato’s dialogs. In the Republic, for instance, Plato argues that poets or storytellers ought to be expelled because they are “ruinous to the understanding of the hearers.” Plato’s argument is based on the belief that certain kinds of text, specifically those that involve imitation like poetry, have a harmful effect on the intellectual capacities of the people in the community. Plato is not simply arguing that different media have different effects on people (as some have argued that television makes people stupid) but rather that a certain use of speech makes it harder for people to find the truth because they are unable to question people’s reasons for believing what they believe. Plato criticizes the sophists in similar terms. For instance, in the encounter between Socrates and Protagoras, Socrates pleads with Protagoras to keep his speeches short:

Protagoras, I have a wretched memory, and when any one makes a long speech to me I never remember what he is talking about. As then, if I had been deaf, and you were going to converse with me, you would have had to raise your voice; so now, having such a bad memory, I will ask you to cut your answers shorter, if you would take me with you.

Throughout the *Protagoras*, Socrates is critical of Protagoras' unwillingness to let Socrates interrupt the speeches. Socrates is arguing against linearity, but not the linearity of the text so much as the linearity of the speech, which means the obligation to listen to the end of what is being said. For Plato, speeches entail passivity and writing is closely tied to speeches.

In his discussion of Plato's *Phaedrus* in *Things that Make Us Smart*, Donald Norman claims that "Socrates argued that books would destroy thought." Socrates' reason is that the interaction with writing is static. "Socrates worried that reading would be too passive." However, as Norman counters, this worry is challenged by the subsequent history of reading and writing. Norman points out how "Readers in the latter part of the Middle Ages did with books exactly what Socrates had claimed was impossible: They questioned and debated each idea." Even when the author was long dead, there was nonetheless a community of readers who debated amongst themselves in relationship to the texts. Norman's point is well taken. The key issue is not with the medium itself, but with what people were doing with the medium and how the social institutions were supporting certain kinds of interaction. For Norman, Plato's error arose because he did not imagine what could (and eventually would) be done with the new textual technology, and instead limited the criticism to the immediate failures.

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8 Norman, *Things that Make us Smart*, page 44.
9 Norman, *Things that Make us Smart*, page 46.
10 Norman, *Things that Make us Smart*, page 46.
There is another aspect of the *Phaedrus* that Norman does not consider, which is the claim that writing causes people to lose certain skills, and specifically the ability to remember what other people have argued and what has happened. Plato writes:

> through neglect of memory, seeing that, through trust in writing, they recollect from outside with alien markings, not reminding themselves from inside, by themselves. You have therefore found a drug not for memory, but for reminding.\(^\text{11}\)

When everything is written down, it is no longer necessary for people to remember anything, they just have to remember how and where to look it up. Using writing to remind people of things is a problem, Socrates explains, because

> You are supplying the opinion of wisdom to the students, not truth. For you'll see that, having become hearers of much without teaching, they will seem to be sensible judges in much, while being for the most part senseless, and hard to be with, since they've become wise in their own opinion instead of wise.\(^\text{12}\)

Writing and reading, in other words, have the same problem that poetry and sophistry have: they encourage people to believe things without working them out for themselves. Socrates is not concerned with the potential loss of text due to the destruction of written documents. He is concerned with the impact of

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\(^\text{11}\) Plato, *Phaedrus*, page 86.

\(^\text{12}\) Plato, *Phaedrus*, page 86.
writing on people's mental capacity — it is not the content that worries him so much as the ability to engage effectively with whatever content is presented.

The world has changed, the technologies have changed, and the world of text has become much more pervasive and integral to human life. A textual world that was once built largely on orality has become a more complicated mixture of orality, writing, printing, and a host of other practices, technologies and artifacts. There is more that people can do with texts and the texts are doing more things to them. There are also many more reasons to read and many different kinds of text available than there were in the 16th or 17th century. The impact that reading has on the reader ranges from creating skills and beliefs to creating a sense of what is possible to creating an ability to engage with the world of text or with the world itself. The evaluation of digital text will thus focus on the impact of different technologies on the relationship between readers and texts.

• **Information and Skills**

Texts can help readers acquire skills, whether the skills are connected to specific tasks or connected to broader issues. Some of the reader's goals are practical and specific, such as the answer to direct questions. What is the population of Canada? How many times has the United States invaded Nicaragua? and What is the average rainfall in Columbus, Ohio? are all questions that can be answered by using printed texts, and in particular by
using what are called “ready reference” books, such as almanacs and statistical abstracts. This kind of text offers specific facts that answer specific questions. Whether the information is remembered for any length of time or not, it can be used in the moment to respond to a specific question or help achieve some specific end. Here, the contest between digital texts and print texts has been the most heated, and the relative success of digital texts has been most pronounced. Features that are often connected to digital text like keyword searching allow users to access the desired information faster, the information can be updated much more frequently and inexpensively than with printed text, and the amount and the variety of text that can be included in a digital reference work is much greater. In *Hamlet on the Holodeck*, for instance, Murray argues that:

> By giving us greater control over different kinds of information, they
> [computers] invite us to tackle more complex tasks and to ask new kinds of questions. Although the computer is often accused of fragmenting information and overwhelming us, I believe this view is a function of its current undomesticated state. The more we cultivate it as a tool for serious inquiry, the more it will offer itself as both an analytical and synthetic medium.13

Text that contains information can be very useful. With print, Eisenstein has noted, standardized tables of information allowed, among other things, sailors to consult astronomical information that made navigation much more expansive and safe. The impact of spreadsheets is a good example of how

digital text can improve problem-solving by allowing people to compare different scenarios very quickly. So long as the problem can be expressed numerically, and so long as the important choices are between different numerical values or different equations, then spreadsheets turn problems that were once overwhelming into problems that involve little time or energy. Where immediate feedback to clear and closed questions is needed, computers can be very effective.

One way to increase your vocabulary is to create a pile of cards that have words on one side and their definitions on the other. If you want to learn another language, then create a pile of cards with the unknown word on one side and the translation on the other. When you have free time, you can flip through the cards, look at the word, try to remember the definition, and then flip the card over to see if you are correct. This is rote learning, where the task is to work through fairly simple facts over and over again until the information is committed to memory. A printed book is not very good for this kind of learning — separate cards that can fit into a pocket are much more effective. And it is easy to create a similar card system on a computer. In fact, the digital text can be more effective, asking us the questions we have not answered properly more often and only rarely asking us the questions that we tend to answer quickly and correctly. Murray describes how her experience in humanities computing has convinced me that some kinds of knowledge can be better represented in digital formats than they have been.
in print. The knowledge of a foreign language, for instance, can be better conveyed with examples from multiple speakings in authentic environments than with lists of words on a page.¹⁴

Multimedia text will often help the process by including sounds, images, and more personalized or engaging feedback. With virtual reality, readers could even practice speaking the language as if they were in a country where the language was widely spoken, hearing recordings of voices and seeing videos of interactions with native speakers.

Computers thrive on discrete chunks of data. On the other hand, writers such as Roszak argue that there is a mistaken worship of information which has lost (or abandoned) the art of “true thinking.” In the Cult of Information, Roszak points out that information is not the same as understanding, and that if people simply accumulate a bunch of information, they still do not know how it fits together or how it can fit into worthwhile projects. Unless I plan to be on Jeopardy or play one of the many trivia games stored in closets around the world, there is no reason to spend so much time reading about and trying to remember so much irrelevant information. Why should I care what the population of Canada is? How does the information actually matter? This question, which is really a veiled criticism, is relevant whether we speak of Google, the World Almanac, or even our experiences when travelling to other places. As Seneca, a stoic philosopher from the 1st century A.D. warned:

¹⁴ Murray, Hamlet on the Holodeck, page 7.
Travel will give familiarity with other nations: it will reveal to you mountains of strange shape, or unfamiliar tracts of plain, or valleys that are watered by ever-flowing springs, or the characteristics of some river that comes to our attention. We observe how the Nile rises and swells in summer, or how the Tigris disappears .... But this sort of information will not make better or sounder men of us.¹⁵

Seneca’s concern for the value of travel depends on the value of information, which turns the debate away from the technological concern for efficiency, comprehensiveness, speed, or even accuracy, and asks, rather, why it is worth having access to certain information at all. Even if information about the Nile fits into an understanding of how the world works, that information still does not have value as part of a well-lived life. For Seneca, people should always be concerned about why the information matters and whether people are merely wasting time researching and studying things that do not matter. People have become awash in barely-relevant trivia, and whether they get that trivia faster is not a very important problem.

A key issue here is how a technology that gives us greater control over information can allow us to think in better ways, or at least in ways that include more accurate data. Of course, accurate information can be used in petty ways and false information could be used to ennable people. Changes in textual technologies may not make “better or sounder men of us,” but the technology

that allows us to control information certainly has a practical value.

For Roszak, it doesn't matter which computer operating system is current, or how fast ethernet cables can move electrical signals. What matters is the idea of information, and how that idea has, as he argues, drained away a large amount of intellectual activity. Once people think of language in terms of information, and think of information in terms of the relative noise of a signal (as in a modem connection), then the qualitative distinctions between kinds of information, or between information and other parts of thought, fade away, and people, far from being able to think, are merely able to react to whatever stimuli are sent their way. They read, but they do not really read. Rather, understanding reading as access to information becomes a way to reduce human freedom because that account of reading makes it harder for people to think.

Discrete chunks of information and the rote learning that fits well with that kind of text are only one part of education. In addition to storing data, printed books could also be used to acquire more complex skills, from carpentry to needlepoint, car repair to electrical wiring. Diagrams, glossaries, cross-references and well-written descriptions can all help readers learn how to do specific tasks. Compared to manuscripts, the printed manuals are clearly more plentiful, better organized, and generally much more useful. Even the amount of time it would take to produce a useful description of how to construct something would make it unlikely that writers would attempt to use texts to transfer skills in a manuscript culture, except possibly in personal letters. The technology did not make that kind of textual relationship practical.
But while printed books have a clear comparative advantage over manuscripts in teaching standard skills to a large number of people, digital texts have a comparative advantage over printed books insofar as they are able to include text formatted in different ways (including sound and video) and make reading more interactive and responsive. For instance, one of the collateral benefits of military research has been the creation of flight simulators, not the games that people spend so much time playing, but the real simulators that are used to train pilots. Actual planes are expensive, and it is simply not possible to use real planes to simulate most of the extreme situations that pilots might face (such as multiple engine failures or severe weather conditions). Flight simulators allow pilots to practice, to learn techniques, and to analyse what happens when they respond to a situation in different ways. Pilots can thus learn important flying skills without actually flying.

A similar development has occurred with medical training, where simulators now allow medical students to practice procedures and explore the human body in ways that would have been impossible only a few decades ago. Doctors and medical students no longer have to read about how to do certain procedures or practice on human beings. Human bodies, whether cadavers or patients, may no longer be needed because computers can create a compelling representation of the human body, weaving words, sounds and images that people can use to acquire the skills necessary to perform certain medical procedures. The process is helped by the fact that so many medical tools now
are also computerized and put the doctor in front of a monitor rather than flesh and blood.

There are various kinds of communication skills that are important here, ranging from grammar and composition to critical reading. The value of these skills is derived in part from the value of having something to communicate and the value of communicating it well. Virtual reality may make it easier to learn how to do something, but why is that thing worth doing? As with knowing bits of information, moral questions also arise here about whether it is worth knowing how to do these things and thus about how skills are to be valued at all. As of 2000, for instance, at least 50 million copies of Microsoft’s *Flight Simulator* game had been sold. If there were no pirated copies and if each legitimate copy of the game was used for 10 hours, which is a very small estimate, that would mean that, taken together, people have played the game for almost 60,000 years.

• A Sense of Others

Texts also allow readers to connect to an author’s written account of his or her thoughts. The contrasting ideals offered by Machiavelli and Descartes highlight the relative importance of other minds, understood specifically as authors. The meaning of the text does not simply arise either from the text or from the reader’s response to the text but also from a sense of the author. The reader’s idea of the author, itself largely created from reading, creates a third
term, a partially external voice, however imaginary, that conditions the encounter between the reader and the text. What else did the person write? Who or what was the person writing to oppose or support? What were the author’s intentions, social, political and cultural situation, skills, and aesthetic sense. Of course, no one can force a reader to raise, let alone to engage with, questions that bring the author into the understanding of the text. But no one can force a reader to read well either.

One general idea of the author’s relationship to readers is offered by hermeneutic philosophers, and Hans Georg Gadamer in particular. Gadamer focuses on how meaning arises through the reader’s encounter with the text. In *Truth and Method*, and specifically in the chapter entitled “Man and Language”, Gadamer considers the central importance that a person’s life (a combination of personal experiences and cultural traditions) plays in how understanding arises through reading. Reading is an encounter between the reader’s horizon and the challenges to the reader’s horizon that the reader is able and willing to allow from what is being read. Gadamer writes of a “fusion of horizons” that occurs when a reader seriously engages with an author who is offering a profoundly different worldview. The goal, when reading, is not to invent what a novelist like Charles Dickens means, but rather to try to figure out what Dickens was trying to say or what Dickens explicitly wanted readers to realize from the text but, more importantly, to engage with how Dickens understood the world. Dickens’ vision of the world confronts the reader in productive
ways.

Gadamer recognizes that the encounter between the reader and the text is not something that happens privately, as if texts were vials of reason and the process of reading was merely a process of uncorking the vials and drinking what is inside. Gadamer argues, instead, that literature, as a social evaluation, exists prior to the reader and separate from the author.

Literature is not the dead continuance of an estranged being made available to the experience of a later period. Literature is a function of intellectual preservation and tradition, and therefore brings its hidden history into every age.16

However, while the ideal of "literature" is an important instance of the social evaluation and organization of text, there is a surprising silence in Gadamer’s account of reading towards the material conditions. Gadamer makes no mention of the media through which readers and authors are connected, or of any detailed sense of the political and social forces that go into the creation, not only of literature, or of available text, but also of what he obliquely refers to as "intellectual preservation and tradition." Gadamer does not write about censorship, or funding, or the material conditions necessary to read, to write, or to control text. If people never write, then how can they become part of literature? If someone was an author but the production was never preserved or duplicated, then there would be no other horizon to encounter.

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The presence of the author is complicated when considering the authorship of digital texts, although there are familiar issues and values. Currently, the most obvious authors on the internet are the ones that already existed in printed texts. There are web pages and CD-ROMs organized around the writings of Mark Twain or Shakespeare, but there are few digital texts that are organized around authors who have only written digital texts. Readers in a digital system can find at least a minimal author, if only to complete a footnote or a bibliographic entry. So far, at least, the author as an organizational principle has not been very important for digital texts. Anonymity thrives; in fact, it is difficult for the author to be anything but practically anonymous, even when the author's name is pasted everywhere on the text. The author's name can be found, but readers no longer care who the author is. The medium becomes the author, and people now claim that the text comes from the internet where they once claimed that the text came from a human being. One issue with digital text then becomes whether readers will engage with texts with enough depth and focus to create a clash of horizons. If the internet is used as a large ready reference source, if all that people get from reading digital texts are facts, then their reading will never rise to the level of engagement necessary for a serious encounter to occur. If people never look for an author, if they never engage with a different view of the world, then their own view, never challenged, will also never improve or expand.
Can we imagine Machiavelli turning on his computer instead of entering his library, finding texts written by authors of web pages, and asking them to "explain their actions" in the same reflective and expansive way? If the reader believes that the web page has been created dynamically by a web server or has been created quickly by an author who is barely trying to be a good author in the first place, then there would be little motivation to spend time with that text. Machiavelli is willing to spend time in the court of the dead in part because the court of the dead tried so hard to be there in the first place. To put this differently, the belief that texts connect the reader to other minds is an important reason for the reader to approach the text with a greater concern.

But the lack of an author can still mean that people engage with texts. There are other sources of motivation and other ways of evaluating the encounter. In "What is an Author?" Michel Foucault considers how the author is used to ground the truth or authenticity of the text, and by implication how the ideal of the author (which Foucault refers to as the "author-function") comes to organize different texts in relationship to each other and to the knowledge-claims made by specific groups in a society.

One aspect of authorship that Foucault refers to is that whereas in Medieval Europe the identity of the author was important to scientific texts and the author was not important to works of fiction, in the modern period the evaluation flipped and the author became more important for works of fiction and less important for works of science. Foucault, it must be noted, is not
offering an ideal way of imagining the author, but rather an analysis of how different ideals functioned in relationship to text — to the world of text — as both an organizational principle and a way to establish the truth and significance of what was said. The personal trustworthiness of scientific descriptions was replaced with the anonymity connected to the ideals of rational and verifiable observations. The issue here is not how some person created some text, but how the idea of the creator is used to organize and evaluate text. Foucault asks “what does it matter who is speaking?” and then ends up answering the question “how has it mattered who is speaking from one historical period to another?” The idea of the author has been used to organize some kinds of text and readers have appealed to the author as a way to evaluate texts. When reading, there are social norms connected to how important the author is to the reader. The question is not simply whom we believe, but whether we need to know who wrote something in order to determine whether the text is believable or not.

While text can allow readers to imagine reading as a dialog with another person, another use for texts is to instill in readers a sense of what is expected of people in their society. Text is not only a social creation, it is integral to the effective organization of society. In an oral culture, the storyteller, who is a more of a performer than a poet, creates and maintains a sense of social order, of social obligations, and of how conflicts should be carried out and resolved. When a storyteller presents a story like the Iliad, the audience is brought into
the story, identifying with various characters. According to Eric Havelock, the reader is also brought to understand a specific legal and moral arrangement. The members of the audience thus learns — and learns to accept — the skills and expectations necessary to fit into their society.

Relying on oral communication to maintain social sense, however, faced several challenges, including preserving stories over time. Part of the solution was to maintain constant social pressures to remember the stories, where storytellers and prominent people in the society who remembered the stories would correct any variation. Another part of the solution was to make sure that the stories were appropriate for the medium. As Havelock notes:

> The only possible verbal technology available to guarantee the preservation and fixity of transmission was that of the rhythmic word organized cunningly in verbal and metrical patterns which were unique enough to retain their shape. 17

If the political and moral position could be put into a story, and if the story could be put into a rhythm that made the story both fascinating and memorable, then the story could play a key role in the maintenance of the social order. Havelock continues:

> Oral verse was the instrument of a cultural indoctrination, the ultimate purpose of which was the preservation of group identity. It was selected for this role because, in the absence of the written records, its rhythms and formulas provided the sole mechanism of recall and of re-use. 18

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17 Havelock, *Preface to Plato*, page 43.
The poets were vital for creating and maintaining a sense of society, but this sense depended on creating and maintaining specific kinds of text and limiting the presentation to specific contexts where the poet is not engaged by the audience and the story is able to proceed without interruption. The audience was placed in a largely passive relationship to the stories, at least insofar as they were never encouraged to think about, let alone to challenge, the general moral sense of the story. The audience, the readers of the voice, as it were, actively engaged with the story, however, in the sense that they were participants in the storytelling. They had to imagine a great deal of what was going on, and they were encouraged to identify with the characters. The intellectual challenge, which Plato would urge against the entire social practice, is that if you ask poets to explain what they mean, they cannot answer. The society may be maintained, but is it the best society that could be maintained?

With the rise of writing, a sense of society and of social expectations were created in different ways. Writing acquired a social authority, becoming the material basis for laws, treaties, religious texts and histories. Rather than relying on fickle human memory, with writing it became possible to consult a shared material record that could persist, unchanged, through time and space. Laws no longer had to be memorized, which meant that they no longer had to be put into verse or parables. Laws could become more complicated, they could change faster, and they could be debated over. The relationship between

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18 Havelock, *Preface to Plato*, page 100.
ruler and ruled also changed in significant ways.

The broader social impact of writing varied in part by how many copies of a text could be produced and how many people were able to read the texts. In Medieval Europe, for instance, manuscripts were useful for maintaining specific elites, and in particular those that surrounded churches and monarchies, but most people were not readers and there were not enough copies of texts for them to read anyway. Manuscripts did not supplant the storyteller in the production of a social sense, but rather started to organize the social elites and the conduits of power which would in turn organize the storytellers. Rather than the core textual technology, then, the storyteller, now also the town crier, became one part of a larger and more complicated textual system. In England, the profession of town crier dates back to the Normans, although similar social roles date as far back as ancient Greece. In Medieval Europe, the key function of the town crier was to translate text from one medium to another, which allowed people to use one medium to take advantage of some of the properties of another medium (in this case combining the consistency, duplication and extended distribution of writing with the local distribution of collective speech). The town crier handled the last mile of communication.

Mass produced printed books change the way that a sense of society was maintained. Every community has always had a communal history, but now it is created from people reading the same books. Of course, there were shared histories before printed books. Manuscripts recorded events, and storytellers
related the exploits of kings and heroes. One thing that changed with printed histories was that the histories became fixed, standardized, and readily available to a large number of people. Printed text also changed who could participate and how they could participate in every aspect of the process. One recent discussion of the connection between writing and nationality is Richard Helgerson’s *Forms of Nationhood: The Elizabethan Writing of England*. Helgerson points out that many of the key English authors active at the end of the 16th century took England itself as their subject, whether focusing on the land, the people, the laws, the history or a wide range of other elements. While Helgerson pays some attention to the role of the printing press, as, for instance, when he considers Foxe’s use of printing in his campaign against the Papacy, his focus is largely on the content of the texts, on the way that different authors wrote about England, and not so much on how their writings were produced and reproduced by printers for a national audience. ¹⁹ Yet these national authors were writing for a national readership, and so Helgerson’s entire discussion takes for granted the existence of a readership that is reading texts printed for the national market.

Other writers have considered the relationship between national identities and newspapers. Here, Benedict Anderson’s *Imagined Communities* is the seminal work. Anderson describes the largely unintentional creation of a national identity through textual technologies. The printed books and newspapers created a shared readership even without either readers or

¹⁹ The discussion of Foxe occurs in chapter 6, beginning on page 267.
authors intending to do so. The technologies of textual production and the
shared language of the author, the publisher and the reader had a gradual but
profound impact on the creation of a reading public that read what national
authors and publishers produced. First, print, and in particular such products as
newspapers which are tied to specific dates, create a sense of simultaneity,
where a whole set of events happens on the same date.20 Second, these
printed objects extended over an otherwise homogenous linguistic space,
producing national newspapers that in turn supported the idea of a national
readership, all reading the same articles about the same events in the same
newspaper that was written in the same language. As Anderson notes when
talking about the formation of national identities in South America:

what brought together, on the same page, this marriage with that ship,

this price with that bishop, was the very structure of the colonial

administration and market system itself. In this way, the newspaper of

Caracas quite naturally, and even apolitically, created an imagined

community among a specific assemblage of fellow-readers, to whom these

ships, brides, bishops and prices belonged.21

Anderson’s analysis of the nationalization of text through print technologies
exists alongside the claim that printed books expanded the horizons of the
reader by offering a larger sense of the world, its people, and the reader’s place

20 Anderson, Imagined Communities, page 33.
21 Anderson, Imagined Communities, page 62.
in the universe. These two tendencies are compatible insofar as information from around the world, which broadens the reader's world, is at the same time collected by particular institutions that are organized in terms of nationalities and languages. Thus, even if everyone in England is reading about the world, they are reading about the world through the *Times* and its derivatives, which filters, translates and forms the world into ways that are consistent with the worldview of the people who own, produce and read the *Times*. The same is equally true of the competitors of the *Times*, who adopt a similarly English, even if politically different, perspective.

The larger social structures that resulted from these processes are formed with little or no human reflection on the process — the structures are the macro implications of a host of micro activities. Descriptions of the relationship between texts and nationality, whether intended or otherwise, begin as sociological descriptions of what in fact happened in history, or even what is happening now. These descriptions are not moral discussions. However, the descriptions play a central role in moral debates insofar as the descriptions show the importance and tendencies of different textual technologies. Technologies create options that a moral discussion can help evaluate. Newspapers may promote nationalism, but is that a good thing or not? The history and sociology of textual technologies, in other words, at the very least present topics to be included in a moral discussion.

There are many examples of people overtly creating nationalized myths
going back at least as far as Virgil’s *Aeneid*. A more recent example is the place of Christopher Columbus in the popular histories of the United States. Beginning in the early 18th century, Columbus was a hero, a purified point of origin for the United States. Myths connected to his life abound. Washington Irving made up the idea that people before Columbus thought that the world was flat and that his voyages were designed to disprove that belief. Many writers quietly forgot that Columbus was more concerned with finding the Indies or that he never actually set foot on the continent. Other writings neglected to mention the amount of cruelty and greed that permeated Columbus’s voyages and his interactions with the indigenous peoples. But these stories were not simply misunderstandings, they were also designed to have social implications, specifically for the justification of a particular political order. The myth of Columbus, as well as any other published myth, was also powerful because it became one of the key myths that America told to its children. Meigs notes in her classic discussion of children’s literature:

> On the whole children’s literature is literature on good behavior, literature consciously or unconsciously moralistic. English children’s literature displays the sense of adventure; the feeling for Empire.... From American literature emerges a different picture: equalitarianism rather than class consciousness; a stronger family feeling; adventure, but of a different kind — adventure in the American west rather than in distant lands....

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22 For an extended discussion, see James Loewen’s *Lies My Teacher Told Me*, chapter 2.

23 Meigs, *A Critical History of Children’s Literature*, page xiv. See also Kathryn Castle’s *Britannica’s Children*.
We should note, following Meigs, how “good behavior” and fantasies of either global empire or westward expansion can co-exist so easily. In this case, good behavior is judged according to the dominant social expectations of the time, and being good is roughly the same as conforming. Meigs point here is that a crucial aspect of children’s literature is ideological, forming people in such a way that they adopt the primary norms of the governing groups without reflecting on the justifications for those norms. Columbus functions like Achilles did in ancient Greece, but the scale and impact of Columbus was different. Washington Irving’s myth of Columbus could gain broad social currency in part because Irving wrote books that could be printed in great quantities and distributed throughout the nation.

From another perspective, it is often argued that texts are able to corrupt their readers by offering, if not by promoting, less acceptable goals or behaviours. Emily Shackleton, the antarctic explorer Ernest Shackleton’s wife, was reported to have once said that “I think fairy tales are the cause of half of the world’s misery. I never let my children read, and they are married and lived happily ever after.” Whether she said this or not, it is a fascinating argument. Having attacked fairy tales, she describes her children’s lives not only in how they lacked fairy tales, but also in how they lived the ideal fairy tale. Resting her ideal on the domestic life of marriage, and by eliminating

24 See the transcript from Shackleton’s Voyage of Endurance at http://www.pbs.org/wgbh/nova/transcripts/2906_shacklet.html.
alternatives, her children lived happily ever after. However, while their lives were happy, they were not memorable. Almost a hundred years later, many people have heard about Ernest Shackleton, there was even a PBS program recently about his life, but his children are unknown, and they never will be known, except as his children.

Between the extremes of conformity and corruption, other writers have argued that stories are able to transform readers, but not in ways where the reader merely conforms to the character presented in the story. Rather, books can provide encouragement without providing a fixed goal. For instance, in the essay from his First Series entitled “Heroism,” Emerson writes:

The pictures which fill the imagination in reading the actions of Pericles, Xenophon, Columbus, Bayard, Sidney, Hampden, teach us how needlessly mean our life is; that we, by the depth of our living, should deck it with more than regal or national splendor, and act on principles that should interest man and nature in the length of our days.25

For Emerson, human life is a continuum from meanness to heroism, from mediocrity to exceptionality, and reading is one of many ways to encourage people to move towards greatness.

Books are the best of things, well used; abused, among the worst. What is the right use? What is the one end which all means go to effect? They are for nothing but to inspire. I had better never see a book than to be warped by its

attraction clean out of my own orbit, and made a satellite instead of a system.

The one thing in the world, of value, is the active soul.26

Almost everything that Emerson wrote was somehow connected to this basic goal for humanity. Emerson is not arguing for either practical skills or for the understanding and acceptance of a society’s expectations. The goal in life is not to become wealthy or powerful, or to conform to the social norms that dominate at the moment. The goal in life is greatness, understood in spiritual terms. As a result, texts are evaluated in terms of their ability to inspire people, which is the only real reason to write and to read.

Digital textual technologies has changed the social sense that people acquire in many ways because space, time, and the authority to participate in a society are all different. It is easier for individuals and groups with limited resources to set up systems of textual interaction and storage, so anyone can become a publisher, however humble. As Holtzman notes, the conversations on the internet are carried out by “a motley group who otherwise might never get together. The internet enables new forms of community not only free of time and location, but also of traditional social barriers.”27 The technologies of digital text have helped different groups form around specific concepts or goals, such as those people interested in a particular breed of dog, a particular historical period, or a particular policy — readers are no longer limited to this boat, this church and this weather.

26 Emerson, Works, Volume 1, page 90.
27 Holtzman, Digital Mosaics: The Aesthetics of Cyberspace, page 34.

Chapter 3: The Uses of Text
Marshall McLuhan noted that "Electric speeds create centers everywhere. Margins cease to exist on this planet." McLuhan may glorify the shift from print to electronic, but the glory is based on his commitment to a larger social interaction (the image of the global village as a political ideal rather than a material condition). It is difficult to engage McLuhan on the moral aspects of his argument because he does not really offer much of a moral argument. The morality is hidden behind the message. Yet however his ideals might be justified, it is also true that since the 1960s, the image of the global village has been challenged by such developments as the increased corporate control of communication technologies, shifts in global inequality, the rise of the American empire, and anti-globalization movements. In other words, while there may be no more borders, there are still concentrations of power and struggles between villages.

What remains to be seen is whether the digitized global relations will in fact become a single digital community, whether it will become more fragmented, or whether the organization will change in a fundamental way, with some features echoing nationalist sentiments, others recreating tribal commitments, and others encouraging a new cosmopolitanism or humanism. But here is where morality again becomes vital — the choices, while largely created by changes in textual technologies, are not going to be made by those technologies. Instead, people are going to make decisions — however limited,

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Chapter 3: The Uses of Text
ill-advised, or petty — that will to a great extent lead to some kinds of social organization rather than others.

• Narrative

In addition to adding skills and a sense of society, text can also create a sense of narrative, meaning a sense of how facts, events and characters are connected together in a single structure. Skills and a sense of society are themselves often expressed in narrative forms: a society tells stories about how it was created and where it is going. Skills, and especially the evaluation of skills, are connected to life narratives or to narratives of historical development. Narrative, in other words, is a way to fit the fragments of text together which may or may not connect the reader back to a sense of the author. Sometimes, the narrative is the primary focus of the engagement.

Murray and others argue that narratives allow people to understand the world in more complicated ways. For instance, text can include incompatible visions of the world (as in the movie Rashomon, for instance, so long as the idea of text can be generalized to include movies). Of course, offering incompatible visions of the world may be an early step in the advocacy of a single vision — “here are the options, and all but one of them is wrong.” However, the goal of presenting incompatible visions of the world is often so that the reader is faced with a story where it is not possible to finally decide what is happening, and so a decision to do something must occur in a context.
of profound ambiguity. Including incompatible visions is itself a vision of the world. As Murray writes:

The juxtaposition of ... two different experiences of the same winning battle reminds the reader that life itself is simultaneously desolate and splendid.

By varying the texture of their experience in this way, Borges [in "Forking Paths"] makes the doubly winning soldiers seem all the more vulnerable.29

But Murray is not Borges, and the goals that she sets out for a well-organized narrative do not stop with the recognition of different perspectives. Instead, from the varied interaction with a narrative space, the reader acquires a sense of possibilities. The reader now understands a combination of what options are available and what the consequences are if one path is chosen over another.

We can play all the parts, exhaust all the possible outcomes. We can construct a composite view of the narrative world that does not resolve into a single story but instead composes itself into a coherent system of interrelated actions.30

In other words, Murray argues,

electronic closure occurs when a work’s structure, though not its plot, is understood. This closure involves a cognitive activity at one remove from the usual pleasures of hearing a story.31

Insofar as the goal is to read all the possible plots, one thing that has changed is that there is much more for the reader to read and, while any particular

working through the text may allow choices, the overall system of possibilities allows none. The reader, who is now more of a director, can move within the system, but never outside it. However, if we can create a sense of the world that is being offered to us, we can also understand the biases of that account of the world. The structure of a narrative space, whether it is linear or non-linear, is only what one writer thinks is possible. Biases have been noted in computer software even if the software allows for considerable user input. For instance, Murray notes,

*SimCity* has been faulted for, among other things, its bias against mixed-use development and its systematic denial of racial conflict. There are perils of hidden assumptions in simulation in general and in *SimCity* in particular.  

Whether the biases are intentional or the result of naivety on the part of the programmers is an open question. A concern for the bias is important for understanding the potential political and moral impact of narrative. Murray points to a concern for how games could be either useful or dangerous as a way to encourage people to think about the world. We not only read stories, we can also understand and articulate our own lives in terms of stories. If there is a political bias in the game, then that itself should be something that readers think about and worry about.

Murray has also argued that the interactivity in a digital environment can

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encourage a sense of agency in the people who use it — “when the writer expands the story to include multiple possibilities, the reader assumes a more active role.”33 She seems to be claiming that the reader becomes active insofar as the story allows the reader to choose between different possible plots.

The more realized the immersive environment, the more active we want to be within it. When the things we do bring tangible results, we experience the second characteristic delight of electronic environments — the sense of agency.34

While the sense of agency may result in a sense of omnipotence, Murray instead writes of a “moral physics” which occurs when people going through morally-charged simulations, having to make choices, and then seeing the results of those choices.

Stories have to have an equivalent ‘moral physics’, which indicates what consequences attach to actions, who is rewarded, who is punished, how fair the world is. By moral physics I mean not only right and wrong but also what kinds of stories make sense in this world, how bad a loss characters are allowed to suffer, and what weight is attached to those losses.35

Leaving aside how Murray uses moral terms without defining or discussing them — what, for instance, does it mean for the world to be “fair” — one practical flaw in this approach to using narrative as a way to understand and evaluate the world is that it depends on their actually being negative

33 Murray, Hamlet on the Holodeck, page 38.
34 Murray, Hamlet on the Holodeck, page 126.
35 Murray, Hamlet on the Holodeck, page 207.
consequences for doing evil acts which, as has been noted for centuries, is not always the case. Evil people often prosper in the world, and so if a game’s “moral physics” depends on rewarding the good and punishing the evil, then it is likely unable to help people live in the world. At best the digital narrative would offer an escape, allowing the reader to live in a better world, one organized by a moral physics that is more desirable than the real one.

Murray also points to the transformational and cathartic value of narrative. For instance, according to Murray, Charlotte Brontë’s stories were “her way of rehearsing for the emotional hardiness she would need in her adult life.”\(^{36}\) Narratives, and digital narratives in particular, thus offer new tools for psychological and social development.

Just as psychologists are considering scanning images of their patient’s actual family members for VR therapy, there is no reason why people could not scan their boss’s image into a customized version of Doom and blast away. Would this exercise make it more or less likely that they would actually shoot their boss?\(^{37}\)

Murray does not answer her own question, which is unfortunate because it is one of the key questions that have been raised whenever people talk about experiencing violent narratives, whether it be in printed books, on television, or on the computer. Other parts of Murray’s discussion suggest that she could

\(^{36}\) Murray, *Hamlet on the Holodeck*, page 166.

go either way, arguing that digital narrative is cathartic but fictional or that it affirms our commitment to live a particular story. She writes, for instance, of how,

Like the religious ceremonies of passage by which we mark birth, coming to age, marriage, and death, games are ritual actions allowing us to symbolically enact the patterns that give meaning to our lives.\textsuperscript{38}

The important concern with the narratives is not with what people can do in the game, but with what desires, fears, and so on are encouraged and discouraged. Narratives, in other words, are not simply things that we find in texts, they are also things that we attach to our own lives. If a meaningful life involves shooting our boss, perhaps as a way to challenge the inequalities at work, then presumably participating in a narrative where we enact that goal could not only make it more likely that we carry out the act against our real boss, but also that we have a greater conviction that what we are doing is the right thing to do. The question is: what sort of “moral physics” is at play when acting in this way?

Consider Shakespeare’s \textit{Hamlet}. The text is a key element of Murray’s account of why digital text is superior to printed text. It is not simply to create an electronic book or an electronic play, but to recreate the impact that the play has.

In trying to imagine \textit{Hamlet} on the holodeck, then, I am not asking if it is possible to translate a particular Shakespeare play into another format. I am

\textsuperscript{38} Murray, \textit{Hamlet on the Holodeck}, page 143.
asking if we can hope to capture in cyberdrama something as true to the
human condition, and as beautifully expressed, as the life that Shakespeare
captured on the Elizabethan stage. 39

We should wonder what Murray means by the “human condition,” which is a
term that should be reconsidered in a world where virtual reality is becoming
so common. But the important point here is whether Hamlet could be turned
into hypertext in the way that Murray is suggesting. She asks the key question
herself:

Could a digital narrative offer a higher degree of agency while still
preserving the sense of tragic inevitability? Can we have an interactive story
that still retains what Umberto Eco calls its sense of destiny? 40

Unfortunately, Murray does not answer this question. The incompatibility
between choice and plot is evident with Hamlet. Murray turns Hamlet into an
ordered role-playing game, somewhat like a murder mystery. How would the
reader react to the news of Ophelia’s death if the reader knew that if a few
different boxes were checked or some taps on the mouse button were done
differently, then the whole plot would change. If only Hamlet had made better
choices, if only he had not dismissed Ophelia, if only he had not killed Polonius,
if only this and if only that, then the play would have worked out better and
Hamlet would have become king and won the game. On the holodeck, Hamlet

39 Murray, Hamlet on the Holodeck, page 274.
40 Murray, Hamlet on the Holodeck, page 178.
is no longer Hamlet. The problem is that allowing the reader to change the plot destroys the plot. Giving the reader that kind of power over the play destroys the play. As a result, Murray’s focus on participation and transcendent manipulation undercuts the reader’s sense of affinity with the characters. There is no affiliation with the character — we don’t care because there is no character any more, there are just variables and settings that can be changed from one encounter to another. The names and the scenes may survive, and readers may even be forced into some of the events, but the play would not survive being turned into a field of possible plots. *Hamlet* has to have this plot. Change it, or give the reader control (even the perception of control) over the outcome and the tragedy is lost. While the readers could now play, the play itself would no longer exist because there are too many possible structures.

The connection between narrative and a social sense is an important feature of MacIntyre’s account of ethics in *After Virtue*. After criticizing accounts of morality that focus too closely on either how people feel (which he refers to as emotivism) or on abstracted rules that are either irrelevant or difficult to apply to people’s daily lives, MacIntyre offers narrative as an alternative way to understand morality. The meaning and thus the value of actions, then, arises from how the person is situated in narrative, whether that narrative is tied to the goals and organizations of a specific organization or to the mythology of a specific society. As Lewis Mumford has noted along the same lines:

> Now, no matter how rapidly our technical processes change, the need for
expression remains a constant in every culture; without it the drama of life cannot go on, and the plot itself becomes pointless and empty. Life must have meaning, value, and purpose, or we die.  

The discussion of narrative helps describe how people evaluate their world (how values exist as sociological objects), suggesting that a complete ethical system ought to take into account the narratives that people accept about their world, their actions, their purposes, and so on.

What MacIntyre does not offer the readers of *After Virtue* is a sense of how to tell the difference between good and bad narrative or how to provide support for a counter-narrative that currently has little or no institutional support. Part of the problem is that MacIntyre offers no way to oppose a narrative that dictates every alternative. Consider, for instance, Eric Havelock's image of Homeric Greek society, where stories such as those now found in *The Iliad* were the core stories, and thus the core values, of the society. There was conflict within the story, but there was no apparent conflict between the story and other stories. It was all-but impossible for a Greek, at least until the 5th century B.C., to seriously claim that the values in the Homeric epics were wrong. The narrative was not simply relevant, it was triumphant.  

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41 Mumford, *Art and Technics*, page 121.

42 Along these lines, the Lucien Febvre's *The Problem of Unbelief in the Sixteenth Century* discusses the problem of atheism in early modern Europe, and argues that there were no plausible alternatives to a theological account of the universe. He was focusing more on scientific alternatives, connecting the analysis to later developments in Enlightenment Europe, but the more general point also seems correct: that atheism was intellectually impossible in early Modern Europe because there were no narratives that offered accounts of these fundamental questions that did not invoke God.

Chapter 3: The Uses of Text
problem faced by MacIntyre, in other words, is how to resist the dominance of one narrative, given that the power (and thus practical value) of a narrative is based on its connection to institutions. Might does not make right, but might creates institutions which create the narratives which make right.

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Behind the sense of agency, behind the sense of power and choice, there is also a sense of self, of who has the power and who is making the choice. Reading is valuable as a tool for encouraging self-understanding, which is very likely connected to the organization of mental and sentimental aspects of the reader. There are two images of the good reader: the one that skillfully conforms and the other that shows independence. The conforming reader is one who effectively internalizes what is being read. The character of Josef Knecht in Herman Hesse’s *Magister Ludi, or the Glass Bead Game* fits here. With Murray, the goal of reading, itself now understood as a game, is to excel in the process, to move quickly around the text in interesting ways. But why is this kind of life valuable? The sociology of moral narrative dominates the discussion of moral narratives. What the discussions lack are justifications, actual arguments in favour of one set of ideals or even a sense that there are competing and inconsistent ideals. What is lacking in a description of how people relate to texts, in other words, is a move from describing how narratives create values to arguing about the values themselves.
Aristotle claims in the *Politics* that “man is by nature a political animal” and that someone who by nature exists outside of all political community must be either “a bad man or above humanity.” To be human is to engage in specific kinds of discussion that are appropriate to humanity. Although the dominant textual technologies in which members of a society communicate with each other have changed since Aristotle’s time, the basic belief in the connection between modes of communication and the possibilities of an ideal human social life have continued. Here, the concern is not language as such, but the specific textual technologies that are available to a specific group of people. Human beings use their language to communicate, to speak, to listen, to read, to write, to remember, and above all else to engage others. And it is the engagement that establishes or manifests our humanity.

But our engagement with text and with each other depends on textual technologies, it depends on human language and the tools that we use to participate in that language.

In Wittgenstein’s *Philosophical Investigations*, there is a classic discussion of how language relates to the world. He opens the book by criticizing those people who argue that words directly relate to objects or groups of objects in the world, as if learning a language simply meant walking around, pointing to things, and asking a native speaker what the appropriate word is for that kind of thing. For Wittgenstein, learning a language also involves learning the structure of a language, of how different words are used to divide up different

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parts of the world, and how the grammar of a language structures the ways that words are used. "To imagine a language," he writes, "is to imagine a form of life." Language is not simply a tool, it is something that structures our thoughts and actions, it is an explanation, rather than simply an illustration, of how we think and why we think the way we do.

In keeping with much of western philosophy, Wittgenstein shows little concern for the materiality of language, with the world of text or the differences between different textual technologies. His examples involve speaking or writing, but they are examples of direct communication: writing down a command or understanding a description of where something is. The character of different textual technologies and the implications of one kind of technology over another are simply not his concern. And so when he claims, for instance, that imagining a language is imagining a way of life, he is not interested in how the language is mingled with the technologies and skills on which language depends for its material existence. The alternative is to claim that a concern for language must also include a concern for the character of textual technologies, which are the devices and corresponding skills that people need to create, distribute, organize and read text. To fully understand a language as people live within it requires understanding the material conditions, including technologies, that are the basis for language existing in one way rather than another.

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Which arose first, language or thought? For Rousseau, thoughts depend on language, but language also depends on thoughts. As Rousseau writes in the first part of *The Discourse on the Origin of Inequality*: “if men needed speech in order to learn to think, they had a still greater need for knowing how to think in order to discover the art of speaking.”1 In *On the Origin of Languages*, the apparent paradox is solved by dividing “thinking” into a variety of mental processes and technologies, which are then laid out historically and connected to a history of needs that begins with basic physical needs, moves to emotional and social needs, and ends with a perversion of all human needs into a rational, insane and dehumanizing political system.

Rousseau writes:

These developments are neither fortuitous nor arbitrary. They belong to the vicissitudes of things. The languages develop naturally on the basis of men's needs, changing and varying as those needs change. In ancient times, when persuasion played the role of public force, eloquence was necessary. Of what use would it be today, when public force has replaced persuasion. One needs 

neither art nor metaphor to say such is my pleasure. What sort of public

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discourses remain then? Sermons. And why should those who preach them be concerned to persuade the people, since it is not they who dispose of benefices. Our popular tongues have become just as completely useless as eloquence. Societies have assumed their final form: no longer is anything changed except by arms and cash. And since there is nothing to say to people besides give money, it is said with placards on street corners or by soldiers in their homes. It is not necessary to assemble anyone for that. On the contrary, the subjects must be kept apart. That is the first maxim of modern politics.

The "cry of nature" is turned into placards and speeches. In the end, a highly developed and abstract written language, a language that is appropriate for merchants and placards, dominates other aspects of human life, to the detriment of everyone involved. Rousseau argues that people neither intend nor are aware of the changes until the process has been going on for a long time. Rousseau, like Wittgenstein, points to the importance of language, of our relationships to texts, for the character of human existence. Unlike Wittgenstein, Rousseau shows some concern for the impact of different social and technological practices on the nature of the language that exists at any particular time. For Rousseau, it is not simply that imagining a language is imagining a way of life. The process is tied to history, to politics, and to technologies that make different texts and different relationships to text possible. These textual technologies are an essential aspect of human existence,

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and the history of these technologies, as with the history of language and of text, is integral to the capacity that people have to think and act in the world.

Textual technologies becomes morally relevant when they connect to how people exist in the world. It is easy to believe that the medium is the message, but it is also too easy to say that the medium has no impact on the message. Technologies create different fields of possible activities, largely determining how long a task will take, how much it will cost, and what implications are likely to result. If particular texts or particular kinds of text make it easier for people to do certain things or live in certain ways or acquire certain characteristics, then a concern for which texts are available, how they are available, and who can get access to them has a normative edge. The argument is somewhat similar to the argument for tools, whose value is tied to their effectiveness and their relevance for human projects.

Text cannot exist without some material support, but there are a lot of different kinds of material support available. Text may be transferred by electronic pulses through copper wires or on paper glued together and shipped in cardboard boxes, it may be carved forever on stone or displayed momentarily on a wall by an LCD projector. The technologies that produce text for readers have a variety of different material characteristics which can be generalized as speech, writing, printing, television, computers and so on. We can pick a book up, feel its weight on our chest as we lie back on a couch, toss it on the back seat of a car, or smell it while it burns. Some, but not all, of the
tactile aspects of the printed book are carried over to digital books. A laptop can still be propped up on your chest (or at least on your lap) and as the technology is developed, laptops will probably become more sturdy, weigh less, and be more adaptable to different and more hostile environments. But the computer lacks much of the look and feel that a printed book has. The tactile relationships are different, the physical organization and relationships are different. Even if the words and images are the same, the media are different and so how the words and images exist in relationship to readers and other texts changes.

• Persistence

In a world dominated by speaking, singing, statues, stained glass and manuscripts — what is simplistically called a manuscript culture — the development of printed texts combined three different technologies — moveable type, ink and paper — to reorganize how paper-based texts were reproduced. Before the printing press, every book was a manuscript, every individual book had to be copied by hand. Speech could be reproduced easily, but it could not last without continuous human activity, and its consistency over space and time was difficult to maintain or even evaluate.

The arguments in favour of printed texts have been well-rehearsed, at least when affirming the relative superiority of printed text over written and spoken text. There are some practical improvements, specifically concerning
the extension of text over space and time. There are also some qualitative changes to the text itself, especially once a group of people developed who could use the new technology effectively, not only to produce text, but also to read texts in ever-more effective ways. Human power was increased (including the power over other humans) and our sense of the world was expanded. Even if people did not become like gods, as Thomas Paine would have it, books became so integral to the people, the social order, and the future of humanity, that it was impossible for most people to imagine living in a world without them.

In contrast to the fleeting words of speech, written text continues to exist and might exist forever. The oldest printed books are over 500 years old. We can still touch them and read them, at least if we are allowed to. The oldest printed book that I have touched — a Caxton edition of the *Legenda aurea* or the *Golden Legend* that was first compiled by Jacobus de Voragine in the 13th century — was printed almost 500 years ago, in 1527, which is about 30 years after the first books were printed in Europe. The book has a peculiar smell and the ink has faded and bled, but the leaves of the book are still there, the structure of the pages has not changed, and the text printed on the page is still the same text that was there centuries ago. The book has simply aged.

Moveable type allowed an image of a page to be constructed by individual blocks of different characters and then the image to be transferred to paper. Multiple copies with identical text could be produced quickly and
cheaply (as it could have been, though much less efficiently or flexibly, by carving an image of the page on a block of wood). Compared to manuscripts, the type was more legible, and the chance of error was reduced because more time could be spent proofing the type before printing and because no transcription errors would be introduced from one copy to the next.

Paper can be made from a wide range of materials, from animal skins to tree bark, from wax tablets to palm leaves. What is crucial is that the result is a flat, durable, and flexible sheet capable of taking ink and keeping it there. A typical parchment book took up to twenty skins, and while there was generally enough skin available to support a manuscript system, once mass production began, the supply of hides would not have been able to keep up. Cloth paper was subject to damage and destruction from water, bugs, fire and a host of other factors, but the paper could still last for centuries and it was much cheaper and more available than calf and sheep skins.

While cheap and reliable paper was a condition for the development of the printing press, once the print culture developed, the expanded desire for cheap and reliable paper became a consequence of the technology. In 1855, the London Times offered a one-thousand-pound prize for a new paper-making material to solve the problem of limited supplies of cloth paper. Processes were developed that allowed paper to be produced with wood-pulp. Parker.

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3 Leinhard, “Paper From Mummy Wrappings.”
4 For a brief discussion of the history of paper, see Smith, Printing and Writing Materials: Their Evolution, pages 142 to 162, and also Diringer, The Book Before Printing: Ancient, Medieval and Oriental.
paper is much less expensive and is made from materials (typically fibres from softwood trees) that are much more readily available. Without wood-pulp, paperbacks would be impossible and a print run of a typical bestseller (involving tens of thousands of copies) would require royal patronage and months of scrambling to secure enough paper. Pulp paper, however, is often much less durable than cloth paper, especially because the production process often introduces small amounts of acid that gradually make the paper brittle and eventually turn it into dust. Now, millions of books, and all of the copies of thousands of titles, only exist on cheap paper. Thus, a hundred years after the fact, our society is faced with a costly choice: either let a work crumble to dust along with the paper and possibly disappear forever, or spend considerable time and resources preserving and reproducing the text to keep it available in the future. While people have the idea that the book, left undisturbed, will last forever, the chemical reactions in many books suggest otherwise. The choices made by one generation effect the textual world for everyone after.

While a single book can persist with little ongoing intervention, for a computer file to persist, the computer has to be working and, equally importantly, it has to be the correct kind of computer running the correct kind of software. A few years ago, for instance, I acquired a digital book on CD-ROM entitled *Endeavour: Captain Cook’s Journal 1768-71*, which had been produced by the Australian National Library. The CD-ROM included a program that displayed a transcript and a picture of the original text of Cook’s
journal from his first voyage. It is the best digital book that I've seen, and now it doesn't work. I am using a newer computer running a newer operating system, and the software that ran the digital book is probably no longer compatible. Or maybe I have changed something else. In any event, I have no hope that CD-ROM will ever be compatible again. I may as well burn it, although I would worry about the kinds of fumes that would be released.

The persistence of web pages also raises problems that were not faced in a print system. It is important to realize how much work has to be done to keep a page available on the web — there has to be a web server somewhere that is making the page available, which means in turn that there is someone willing and able to keep the server working, to keep sending the files out to the users that are requesting it, and to keep paying for the computer's connection to the internet. The reader is often totally at the mercy of the people producing and maintaining the technology, and if those people lose their funding, their interest, or their computers, the web page can disappear. The digital text and networked computers solve some problems of accessibility, but enhance problems of preservation.

There is thus a danger that digital texts will become more like manuscripts than printed books in the sense that the amount of resources needed to maintain the text over an extended time will be beyond the reach of any but the most powerful. As with manuscripts, digital text is costly and fragile.

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5 One here is reminded of the recent flood at Hamilton library.
Whereas people once worried about preserving the object, now, they also have to worry about preserving compatibility and preserving the magnetic or optical integrity of the object. It is easy to imagine that the costs of maintaining the texts that already exist could overwhelm those connected to the world of text, forcing a choice over which digital texts should be preserved and which ones should be left to dissolve. A noteworthy example is the information that was collected during the manned space flights to the Moon. The information was stored on magnetic tapes, which have now decayed to the point where much of the information cannot be retrieved. The U.S. Census bureau also almost lost most of the data from the 1960 census, which had been stored in a Univac format current in the 1960s but unheard of in the 1980s.6 There is no list of what digital texts have been lost, and there is no comparison of either the rates of loss or the costs of maintenance for either digital or manuscript systems. It is hard enough to realize when digital texts have been lost — there is rarely any direct evidence that the text is lost until someone tries to access it and then it is likely too late.

- **Quantity**

  Individual printed books are not always that persistent — it depends on how the book was made and how it was kept. Paper crumbles, inks fade or bleed, bindings deteriorate, and incidental damages accrue from bugs and

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readers. With the exception of those collected by academic libraries, most books are less than twenty years old. Unless someone is a careful collector of old books, the same can be said for most private libraries. How many paperbacks printed in the 1980s are still useable? Mass market paperbacks, which are the bulk of what is printed these days, are designed to be read once or twice, and to fall apart as quickly as possible after that. On the other hand, those paperbacks typically cost under $10 and as a result can be subjected to physical dangers and used in ways that a manuscript or a higher quality printed book would not be. So what if I leave my copy of John Grisham’s latest novel on the beach? The worst thing that can happen is that I have to buy another copy tomorrow and find the last page that I had read. And if I can afford the first one, then I can probably afford the replacement. The individual paperback is expendable because very little has to be expended to replace it.

Thomas Paine, a key proponent of the connection between the printing press and intellectual progress, has highlighted the importance of persistence in the value of printed text. He is not concerned with the persistence of individual printed books. Rather, persistence arises from the ability to produce many copies. Paine writes:

Statues of marble or brass will perish; and statues made in imitation of them are not the same statues, nor the same workmanship, any more than the copy of a picture is the same picture. But print and reprint a thought a thousand times over, and that with materials of any kind — carve it into wood or
engrave it in stone, the thought is eternally and identically the same
thought in every case. It has a capacity of unimpaired existence, unaffected
by change of matter, and is essentially distinct and of a nature different from
everything else that we know or can conceive.7

For Paine, what is persisting is not the physical book, it is the author’s
thoughts, a mental or spiritual text, as it were. Where Milton wanted to
preserve vials of reason, Paine wants to duplicate thoughts to infinity. The
persistence does not arise because the physical book will last a long time, but
because the book, as an ideal, can be printed and reprinted with very little
energy and with no loss of quality. Paine connects the relationship between
books and thoughts to a larger concern for the dangers and ultimate futility of
censorship. People can burn books, but the thoughts can be reprinted in other
books, or printed in magazines, or memorized and recited. The point, for
Paine, is not to preserve this or that physical book (unless it has historical or
sentimental value); the point is to preserve this or that ideal book, so that it can
be printed, read, and thought about again and again. In a sense, Paine is no
different from the monks in the scriptorium: the key goal is preservation of the
ideal book. However, while the monks could only make the text worse by
copying it, for Paine the practices of the printing press ensure that the ideal text
will not deteriorate and, over time, that texts will improve.

Turning to another value typically connected to the printing press, one of the primary reasons for the increase in the amount of text that could be produced was that the printing press allowed energy to be shifted from copying books to printing them. The combination of paper, ink, and the printing press allowed Gutenberg and his immediate successors to produce text in a way that was new. In the time it took to print a thousand identical copies of a book, a person could make only a few copies of a manuscript. Also, as the printing process became better organized, different people could be given different tasks, allowing a whole group of specially-trained or almost untrained people to work on a single publication.

The initial products of the printing press were fairly close to a plain manuscript book. The immediate change was that the printing press could produce more texts than a scriptorium. The quantity of copies created the possibility for a radical increase in the quantity of distinct titles that could be produced. There were over 400,000 books published in England from the 15th to the end of the 18th century. By the middle of the 16th century, roughly a century after the first books were printed in Europe, it would have been impossible for anyone to read all of the different books that had been printed. The person of letters was no longer a teacher of already-written and hard to acquire books, he (and sometimes she) was no longer Chaucer’s clerk, but instead became a reader who faces the challenge of too many books and too little time. As Edgar Allan Poe wrote in the middle of the 19th century:

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8 Norman, Things that Make us Smart, page 182.
The enormous multiplication of books in every branch of knowledge is one of the greatest evils of this age; since it presents one of the most serious obstacles to the acquisition of correct information, by throwing in the reader's way piles of lumber, in which he must painfully grope for the scraps of useful matter peradventure interspersed.  

While this increased amount of text may be overwhelming, it also had a positive intellectual effect, especially because it increased the amount of text that could be available to a scholar engaged in a serious intellectual project. Activities like searching library catalogs became necessary for research, which changed what skills and resources a person had to have in order to be an effective researcher. Eisenstein notes:

Given freedom from many hours of 'slavish' copying, given an increased output of dictionaries, and other reference guides; given title pages, book lists, and other rudimentary bibliographical aids, Copernicus was able to undertake a search of the literature on a vaster scale than had been possible before.  

There is only so much time and energy that a person has for the world of text, and if books are hard to come by, are inconsistently organized, and must be copied by hand, then there is not much time left to study. With a system based on the printed book, on the other hand, the person could have access to many

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more books with relatively little effort and could also relate to the books in
more effective ways through reference works, indexes, and concordances. A
society that has learned to use the printing press, in other words, was like
someone who has learned to swim, taking the energy that was once required
just to stay afloat and now using it more productively.

One of the practical advantages of the printing press's increased
production over the scriptorium was the ability of publishers to distribute a
large number of almost identical copies anywhere in the world. In the medieval
manuscript system it was difficult even to know whether a text existed in the
first place and, if it did exist, then it was equally difficult to know where the
book was and how to gain access to it. Finding, let alone copying, a text was
sometimes possible, but only if someone had enough time, money and social
connections. At certain times and places in Medieval Europe, such as during the
Carolingian Renaissance, monasteries produced manuscript lists of books that
they had in their library.11 But the whole process was time-consuming and, far
from focusing on a wide distribution, the best that a well-connected reader
could hope for was to acquire the odd work.

Thomas Paine, writing about two hundred years after the development
of the printing press, writes of how the printed book overcomes some of the
limitations of time and space. The changes are not simply technological, they
are also social, political, and moral. The printing press creates new forms of life.

I can sit in my chamber, as I do while writing this, and by the aid of printing can send the thoughts I am writing through the greatest part of Europe, to the East Indies, and over all North America, in a few months. Jesus Christ and his apostles could not do this. They had not the means, and the want of means detects the pretended mission.

There are three modes of communication. Speaking, writing and printing. The first is exceedingly limited. A man's voice can be heard but a few yards of distance; and his person can be but in one place. Writing is much more extensive; but the thing written cannot be multiplied but at great expense, and the multiplication will be slow and incorrect.

Were there no other means of circulating what priests call the Word of God (the Old and New Testament) than by writing copies, those copies could not be purchased at less than forty pounds sterling each; consequently, but few people could purchase them, while the writers could scarcely obtain a livelihood by it.

But the art of printing changes all the cases, and opens a scene as vast as the world. It gives to man a sort of divine attribute. It gives to him mental omnipresence. He can be everywhere and at the same instant; for wherever he is read he is mentally there.12

This passage is at least as hyperbolic as anything written now about digital technologies. There are some familiar tropes: printed books make text cheaper,

more plentiful, and more expansive. Printed books are not only tools of communication that are far superior to speech and writing, they are commodities that allowed writers, including Paine, to acquire status in the world of text. Finally, and fundamentally, printed books added to human power, giving readers an omniscience that turned readers and writers into gods. Paine’s version of democracy depended on it.

While it is tempting to understand Paine as an advocate of the printed book, it is also possible that he would turn his allegiance to digital text. Many of the advantages that Paine connected to printed books are now gone. Spoken words can now be stored and distributed as much as printing. On computers, there is no substantive difference between writing and printing. What mattered for Paine was the thought, not its material manifestation, and if digital text enhances the spatial and temporal presence of the author’s thoughts, then digital text would be superior.

- Quality

The initial value of the printed book was found in the desires of the 15th century European manuscript world which created demands that the printing press could meet. Text on paper already had uses, it was already valuable, and it was valuable in a way that an increase in its quantity, persistence, and distribution would have been desired. As physical objects, the first printed books were little different from the manuscript books that were already
available. The first printed books, in other words, were essentially mass-produced manuscripts. But beyond the quantity that could be produced with the printing press, there were also qualitative changes to text, and to what people did with texts, that could be traced back to what the printing press made possible.

In a manuscript culture, there were only a few copies, and sometimes only one copy, of a work. The shared textual world in the Medieval manuscript system was founded on a deep connection to a small number of written texts surrounded by orality, statues, and stained glass. The reproduction of manuscript texts was a time-consuming, expensive, and ultimately problematic activity. The quality of the text was crucial, but quality was understood in terms of preserving the already existing texts of long-dead authors. As Eisenstein notes:

To make multiple copies would not lead to improvement but to corruption of data; all fresh increments of information when copied were subject to distortion and decay.13

Given the practical issues faced in a manuscript system, the world of texts could generally be expected to only get worse. Relatively few people would try to write new works given the imminent threat to what already existed and the time and resources necessary to write. In a print system, however, a large number of exact copies of a single book could be made, with the exact same

illustrations and the exact same pagination. People could debate more effectively with a standardized text, and, as books became more common and more accessible, people could refer to more than one book and compare what diverse authors were claiming.

The accuracy of a particular edition became more important than the preservation of a single book. Preservation, at the same time, became much easier to secure through duplication.

The drive to tap markets went together with efforts to hold competitors at bay by offering better products or, at least, by printing a prospectus advertising the firm's 'more readable' texts, 'more complete and better arranged' indexes, 'more careful proof reading' and editing. 14

As they became the central means of textual interaction, printed books became part of a larger intellectual process where older editions became less valuable because they contained out of date or incorrect information. Editors could now improve older texts and produce standardized editions, such as the definitive edition that Henri Estienne (also known as Stephanus, the Latinized version of his name) produced of Plato's works, which was published in 1578. In D'Israeli's Curiosities of Literature, we are told of Robert Stephens, who, "To render his editions immaculate, he hung up the proofs in public places, and generously recompensed those who were so fortunate as to detect any errata." 15

15 D'Israeli, Curiosities of Literature, page 74.
Every manuscript that came into the printer's hands, thus, had to be reviewed in a new way — one which encouraged more editing, correcting and collating than had the hand-copied text.  

Any specific edition of a printed book could still have an assortment of errors in it. But those errors were less common in print if only because more effort could be made to correct them before the text was finally printed. Authors, editors, copy editors, and an assortment of other people could all look over drafts and page proofs to ensure that what was finally printed was a superior text.

When it came to distributing hundreds of copies of a work containing long lists of numbers, or diagrams, maps and charts, or even precise detailed verbal reports, hand-copying was vastly inferior to print.

If errors occurred, then the errors occurred in every copy of the edition. Thus, one of the textual practices that arose with printed text was the production of an errata page, which listed, after the word has been committed to paper, changes that should be made in the printed book. These pages were likewise printed, and typically inserted at the beginning or the end of the book. As the idea of errata sheets was stretched over space and time, as the idea that new editions of printed texts could be expanded and improved, what was created was a community of people who participated in the process of textual improvement. Some people were much closer to the process than others, but

there was nonetheless a sense that books (and the world of text idealized as books) was a collective enterprise that gave many different people a wide assortment of tasks to improve the textual world. As Eisenstein notes:

The very act of publishing errata demonstrated a new capacity to locate textual errors with precision and to transmit this information simultaneously to scattered readers.\(^{18}\)

As a result, she notes,

a new kind of collaborative venture in data collection had been set in motion even before laboratory facilities were built or new observational instruments had been invented.\(^{19}\)

The text was not only improved by authors, publishers, and copy editors, the text was also improved by people who read the books and who would add to and correct the collective and ever-expanding body of textualized knowledge.

Books

were sufficiently uniform for scholars in different regions to correspond with each other about the same citation and for the same emendations and errors to be spotted by many eyes.\(^{20}\)

Thus it became possible to imagine wide-ranging generalizations as well as highly detailed distinctions. Again, as Eisenstein notes,

Just as the act of publishing errata sharpened alertness to error within the printer's workshop, so too did the preparation of copy pertaining to architectural motifs, regional boundaries, place names, details of dress and local customs. 21

When this process is connected back to the economic imperatives that were faced by publishers, the drive to more complete and accurate information was tied to the drive to make money. Publishers thus became a key proponent of the improvement of text, not because they had a direct commitment to the progress of intellectual interaction, but because they had a direct desire to appeal to readers (that is, book buyers) who were committed to the progress of intellectual interaction.

To appreciate the power created by the printed text, and the primary justification of printing is in terms of the power that it created, it is not enough to look at a single book and note how the mistakes will remain on the pages forever. One of the reasons why the printed book has been successful as a medium for improving knowledge is the way that it combines a fixed moment in time (when it is printed) with a temporal series (when it is revised, reprinted and replaced). In a world of printed texts, people are also encouraged to improve the texts, to point out errors and correct them in later editions.

Just as people can debate the best information, they can also debate the best edition of a work. Now sometimes called "metadata," a proper

bibliography contains detailed information about printed texts which creates a way to talk about what exists and the qualities of the different editions that are available. D'Israeli explains:

Great writers, unskilled in this science of books, have frequently used defective editions, as Hume did the castrated Whitelocke; or, like Robertson, they are ignorant of even the sources of the knowledge they would give the public; or they compose on a subject which too late they discover had been anticipated. Bibliography will show what has been done, and suggest to our invention what is wanted. Many have often protracted their journey in a road which had already been worn out by the wheels which had traversed it: bibliography unrolls the whole map of the country we purpose travelling over — the post-roads and the by-paths.22

Without a skepticism towards the messy process of book creation, and without a sense of what the best edition of a book would be, readers are much more easily led into error because they unquestionably relate to an author through a faulty text. However, finding the best edition is not something that a typical reader can do. The reader needs help, needs a society to produce editions of works and then scholars to debate the various merits of various editions. The reader, facing text in a book, is not alone. The reader cannot be alone because

22 D'Israeli, *Curiosities of Literature*, page 295. According to the *Dictionary of National Bibliography*, Bulstrode Whitelocke, 1605-1675, was a republican politician during the English Civil War and the author of *Memorials of the English Affairs* and other works. The *Memorials* was first published in 1682 and a second edition, with additions, was published in 1732. Hume references the *Memorials* in chapters 54 and 57 of his *History of England*. 
the act of reading depends on social processes that produce things that can be read, processes that are not simply mechanical or more generally technological, but that are also intellectual, involving debates, corrections and recommendations that are often organized by, if not focused on, the material products of the technologies.

Creating an authoritative edition became an imperative for authors themselves, who faced the prospect of publishers producing books that were less than accurate. One could think, for instance, of how Martin Luther published a complete edition of his Latin works in 1545 in part to correct the errors that had accumulated in earlier copies. In the preface Luther notes a reluctance to add to his society’s glut of books: "I wanted all my books to be buried in perpetual oblivion, that thus there might be room for better books." But what readers wanted were better editions of his works.

The process, as John Stuart Mill would describe several centuries later, was the creation of an ever-more reliable set of opinions that could gradually approximate truth. Mill writes:

> The steady habit of correcting and completing his own opinion by collating it with those of others, so far from causing doubt and hesitation in carrying it into practice, is the only stable foundation for a just reliance on it.24

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23 Gershenfeld, *When Things Start to Think*, page 106. Quote is from the preface to that edition.
Print technologies supported and encouraged an intellectual process that scriptoriums could not because printing could create material objects that were consistent and plentiful enough for a process of shared intellectual activity to work. As Eisenstein has noted:

The advantages of issuing identical images bearing identical labels to scattered observers who could feed back information to publishers enabled astronomers, geographers, botanists and zoologists to expand data pools far beyond all previous limits — even those set by the exceptional resources of the long-lasting Alexandrian Museum.\(^{25}\)

Connected to the idea of the ever-increasing quality of text is the idea that information could be standardized and brought into a single language that could be shared by a larger group of intellectuals.

Diverse names for flora and fauna became less confusing when placed beneath identical pictures. Constellations and landmasses could be located without recourse to uncertain etymologies, once placed on uniform maps and globes. Logarithm tables and slide rules provided common measures for surveyors in different lands.\(^{26}\)

People could start talking in a different way, they could debate, they could share information using a common language and organize the information within a shared classification system. And beyond the immediate interaction, the people could also store and duplicate what they wrote, and also create


comprehensive reference works that could be updated as needed. The printed book, in other words, was a technological condition for the sense of human progress that permeated European thought from the 17th century on. Eisenstein thus argued that the printing press:

changed the very warp and woof of history, for it replaced precarious forms of tradition (oral and manuscript) by one that was stable, secure, and lasting;
it is as if mankind had suddenly obtained a trustworthy memory instead of one that was fickle and deceitful.27

The content of any particular book may not be reliable, but reliability became something that could be debated while at the same time a process could be imagined where both scientific accounts of the world and historical accounts of human activity became more accurate and more comprehensive as time went on.

With printing, the relationship between the thinker and the text changes. Great intellectual work, and scientific work in particular, requires textual engagement. Printing was a necessary condition for the kind of textual practices that allowed Copernicus to come to the conclusions that he came to and also to justify those conclusions. We can now stand on the shoulders of giants because those shoulders have been built by the printing press. A certain kind of intellectual greatness becomes possible — one that dwells triumphantly in a world of printed text and succeeds when some of the most valued parts of

the world are transformed. On the other hand, it is not simply that Copernicus
could read all of these other works, but that he had to if he was to be a serious
scientist.

On the other hand, how people who are readers think about what they
are doing is deeply influenced by a sense of what can be done. Readers
typically do not try to find books that they know cannot be found. The printed
text worked, but readers also started moulding their actions to what would
work with print.

One thing that happened with the increased distribution of printed books
was that writers could assume that their readers not only had read the texts
that were being written about, but that their readers probably owned a copy
and could have it handy. Authors began apologizing for repeating what other
authors had already published. Isaac D'Israeli wrote, for instance, that:

Such are the writers who, enjoying all the pleasures without the pains of
composition, have often apologised for their repeated productions, by
declaring that they write only for their own amusement; but such private
theatricals should not be brought on the public stage.28

Repetition became an embarrassment. If your readers already own copies of a
book, why waste their time repeating extended passages of it in your own
writing? The embarrassment arises from a sense that authors are writing for
people who are readers, and that being readers means living in a world of

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28 D'Israeli, Curiosities of Literature, page 270.
books and owning the books that everyone else is reading. To repeat text that is readily available is to insult the intelligence, the literacy, and the social status of the reader.

With the computer, it is said, the amount of text that is available has increased. Such claim is commonplace now, but it may not be true. In fact, there are two claims being cobbled together here. The first is that there are more distinct works available to readers. The second is that there are more copies of works available. The first is probably not true, although measurement here would be difficult because so much of it is located on personal computers. Certainly, if someone has the right equipment, then accessing what is available on the internet is often much easier than accessing printed books (which will often require readers to visit a library or a bookstore). But if I think of how much printed text I have access to, it is difficult to confidently believe that there is more information available on the internet. The library at my university has over three million books. If the average book has 300 pages — a number that I am making up — then the library has about a billion printed pages. Then, if we translate this to the web, and assume that a web page has the equivalent of two and a half printed pages — which is another number that I am making up — that means that my local university library has the equivalent in print of about 400 million web pages. If I add what I can access on microfilm and through interlibrary loan, the number is considerably greater. Google, currently the dominant indexer of the internet,
claims to give access to over 4 billion web pages. There is no way for anyone to verify this claim, of course, except by the little number that Google puts at the bottom of its main search page. But it would be wrong to simply conclude that Google gives access to ten times as much distinct text as a university library. Even ignoring concerns for quality, especially given that Google’s measurements include so many personal webpages, there is obviously a significant amount of duplication in what Google indexes.

It is difficult to accurately measure the level of redundancy in both the web that Google searches and the books that a library shelves. The library has multiple copies and various editions of the same book. Google’s web, however, has much more redundancy. The number of web sites that are simply copies of the CIA World Fact Book, for instance, would fill a small library. The number of copies of Jowett’s translation of Plato’s Republic, which was first digitized by Project Gutenberg, is much less redundant, numbering about 50 copies, but nonetheless is much more numerous than any print library. As a result, while Google claims to index billions of pages, there are reasons to believe that the number of distinct pages is in fact far fewer.  

29 In fact, there is a simple way of using Google to estimate how many duplicate copies of the CIA World Factbook are available on the web. Take a relatively complex sentence from the CIA’s website and then do a phrase search in Google (with quotation marks at both ends). A recent attempt at this yielded 1190 hits, meaning that there are likely 1190 different web sites indexed by Google that have exactly the same content taken from exactly the same source (the government’s CIA World Factbook). A similar search for passages from Plato’s Republic yielded 54 different web sites. My local academic library, on the other hand, lists 28 copies of the Republic, but most of these are distinct translations.
Web publishers do not apologize for repetition, they thrive on it. The result is that many digital texts set a pompous face upon the superficial information that is little better than what can be found on thousands of other websites. And if there is nothing to apologize for, that may in part be because there is little sense that the readers are paying attention to what they read anyway. If there is no definite sense of what is available, then noticing duplication is unlikely and not so obviously offensive.

• A Sense of the Textual World

The printed book became a new ideal for organizing texts — chapters, page numbers, an index, a title-page — that established coherences, divisions, and relations. The printed book, in other words, changed the quality and the very structure of text itself. Books were integral to thought and to the process of thinking well. To justify the belief in something about the world meant finding it in print, to discover something required making the discovery public by publishing it and submitting it to the critical eye of the reading public. Even experiencing the world became a process of imprinting, as it was for Hobbes in the 17th century, who wrote of “the passion imprinted by the tragedy” at Abdera. Knowledge was intimately tied to the textual world, and the textual world was dominated by the printing press. Manuscripts still existed, they were still produced and probably produced in a much greater quantity than in

Medieval Europe. Speech was also still important. But even while there were more textual technologies and more text, the textual world was dominated by the printed book. Books, and the organization of books on bookshelves and in libraries, were used to imagine the organization of the textual world, knowledge, and the world itself.

The bookshelf is a rather amorphous concept. Almost no shelf contains exactly the same set of books, although many shelves will contain copies of the same books. Shelves are organized in various ways — by subject, by author, by colour, by size — and some are not really organized at all. But what shelves do is bring together a number of books, either randomly or in an order. The shelf is a technology that helps to both organize and preserve. As a result, it increases our ability to engage with the textual world while at the same time guiding our engagement. We can find the books we want faster and we can browse books in ways that allow us to explore in an unguided and yet coherent way.

The bookshelf and the library make the reader’s relationship to texts much more intense and interesting because they help to relate and organize texts into a single system. The books, stacked from floor to ceiling and wall to wall, can be both empowering and humbling. The impossibility of reading even a significant fraction of the books found in a large library forces us to recognize the limits of our knowledge. Almost any book is available to us, but it is precisely through the physical availability of these particular books that the practical inaccessibility of the entire collection is most forcefully pronounced.
One important implication of a shelf of books is that it offers a sense of variety. There are many topics and many ways to approach a topic. Writing of Montaigne, who lived within a century after books were first printed in Europe, Eisenstein points out that he:

- could see more books by spending a few months in his Bordeaux tower-study than earlier scholars had seen after a lifetime of travel. In explaining why Montaigne perceived greater 'conflict and diversity' in the works he consulted than had medieval commentators in an earlier age, something should be said about the increased number of texts he had at hand. 31

Eisenstein's claim here can be understood in a strong or in a weak sense. The strong sense is to claim that the number of books made all of these different opinions available at one time, which caused Montaigne to realize a level of conflict and diversity of thought that he could not otherwise have realized. The books, then, are the primary explanation for the thoughts. The weaker claim, which is the one that Eisenstein accepts is that Montaigne could have realized conflict and diversity anyway, and that the books had an immediate but merely suggestive role. In any event, the books on the shelf were a key element in Montaigne's engagement with both the textual and the material worlds.

• Beyond the Printing Press

The book is not the only textual technology that became important prior to digital technologies. One of the most immediately shocking, if not

significant, technological shifts to occur after the development of the printing press was the telegraph. The first cable didn’t work very well, and, after a month, it didn’t work at all. In 1866, however, a reliable working cable was finally stretched from Ireland to Newfoundland and the signals began to flow. The new technologies and institutions meant that people could communicate relatively quickly and at great distances. News, business data, and military information could travel quickly around the world. It took Europe roughly two years to hear of the death of Captain James Cook and a few hours to hear of the death of Thoreau. Where it once took several days for a fast ship to bring news, letters, and other documents across the Atlantic, a telegraph cable could transmit the same messages in a matter of hours, if not minutes. When the first trans-Atlantic cable was completed in 1857, the accounts were hyperbolic, claiming among other things that the laying of the cable was like the discovery of the New World and that “the Atlantic has dried up.”

For those interested in parallels between different technologies, there are many aspects of the telegraph technologies that are echoed in aspects of computer technologies, especially when considering the social impact and personal adoption of the technology. People were overwhelmed with information, they found new ways to commit and apprehend criminals, and they fell in love. The technology helped governments wage war and consolidate information about their subjects. An article in the 1880s argued that the telegraph would have a positive moral influence on people because it

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32 Standage, *The Victorian Internet*, page 83.
would allow everyone in the world to receive regular updates about what was happening around the world and so weld “human sympathy and [make] possible its manifestation in a common universal, simultaneous heart throb.” 33 The details of these arguments are less important now, but it is important to note that the new textual technologies were capital intensive and were ultimately owned by a few large corporations. There was money at stake. There was return on investment. And there was also power, both grand and microscopic.

But the economic and political value of the telegraph existed alongside deep concerns for how dangerous or superficial the new technology could be. For instance, in Walden, which was written between 1845 and 1847, Thoreau complained:

We are eager to tunnel under the Atlantic and bring the Old World some weeks nearer to the New; but perchance the first news that will leak through into the broad, flapping American ear will be that the Princess Adelaide has the whooping cough.

Thoreau’s musings have often been quoted by opponents or skeptics of digital technologies. If the information is trivial, why do we want to receive it any faster? But the quote has seldom been connected to the rest of Thoreau’s work. Immediately before his concern for the whooping cough, the problem that Thoreau focuses on is not the telegraph and the whooping cough, but any

33 Standage, The Victorian Internet, page 162.
technology that allows people or text to move without a concern for why the text is moving.

Our inventions are wont to be pretty toys, which distract our attention from serious things. They are but improved means to an unimproved end, an end which it was already but too easy to arrive at; as railroads lead to Boston or New York. We are in great haste to construct a magnetic telegraph from Maine to Texas; but Maine and Texas, it may be, have nothing important to communicate.34

Railroads are like telegraph lines, but telegraphs are also like books and polite conversations. Yes, Thoreau was skeptical of the value of the telegraph because it encouraged trivial communications, but he was skeptical of all kinds of communication for the same reason. He complains about polite conversation, he complains about books. The problem with the telegraph is not that it brings text from distant places, but that the text that it brings is no more important than the text that is already available, and in fact dominant, in the local society that Thoreau attacked as superficial.

Thoreau argues in Walden that most people are fixated on their social appearances and ignore who they really are. The ideal person looks down upon the superficial person, noting how the bulk of people are "driftwood in the stream."35 A considerable amount of social energy and waste is produced through the desires attached to symbolic interaction (showing off for others

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34 Thoreau, Works, Volume 2, page 58.
35 Thoreau, Works, Volume 2, page 149.
and owning things for the recognition they lead other people to give us). Thoreau argues that people relate to objects as a substitute for changing themselves. For example, Thoreau writes of how “there is greater anxiety, commonly, to have fashionable, or at least clean and unpatched clothes, than to have a sound conscience.”36 The image becomes all-important. But, as he pointedly writes, “When the soldier is hit by a cannon-ball, rags are as becoming as purple.”37 In effect, most people are living a lie, but it is a lie that is shared and promoted in a dysfunctional but collective way. The social images that people create for themselves and see in others have nothing to do with who they really are.

How we really are is the most important issue. Thoreau writes of how “our whole life is startlingly moral. There is never an instant’s truce between virtue and vice.”38 Reading is no exception. While some people are overly concerned with the speed and scope of texts, Thoreau is much more concerned with the quality and the relevance of texts. All encounters in society tend to be trivial and the telegraph just reaffirms what is a much more pervasive complaint. The struggle over personal identity is fought on the field of experiences, social interactions, texts, and textual technologies. People experience the world in a mystifying way that Thoreau attempts to overcome by suggesting different ways of looking and different objects to look at. He

36 Thoreau, Works, Volume 2, page 24
criticizes dull perceptions and suggests that it is important to experience a wider range of things than people in polite and mediocre society tend to.

Another key development in textual technologies was the telephone, which allows the transmission of sounds over metal wires. Unlike the telegraph, the telephone created the ability for people to hear another person's voice over great distances, eliminating among other things the need for skilled telegraph operators. This was a new technology for orality, although it was not a communal one — now, people could talk to specific people at will. As it was developed and as it gained institutional backing, telephone technologies changed the economics of textual production. Rather than telegraph offices, it now became practical for everyone to have their own telephone and connect through the telephone system. Large companies still controlled the infrastructure, and it was still easier for some people to connect to the system than for others, but there was nonetheless a strong sense of individual access to a global system.

The radio, in turn, allowed sound, whether music or the human voice, to be transmitted without wires to a mass of people. Radio had the practical advantage of increased flexibility with regard to space and movement. Rather than one person being able to communicate to one other person through a wire, the radio allowed one institution (as a single source of text) to communicate with a mass of people. The radio also allowed sound to be mass-reproduced.
The television followed a similar distribution model to the radio and the printing press, but allowed people to see as well as hear the programs that the stations were distributing. The technologies that came together as the television were developed by a variety of people. One notable inventor was Philo Farnsworth, who was the first person to transmit a television image in 1927. Before that, the cathode ray tube had been created in 1897 by Karl Braun and a host of other related developments, including the radio itself, had also been developed. However, while there is a tendency to focus on individual inventors, it is important to also recognize the role that institutions played in developing, directing and using these technological changes. While Farnsworth developed much of early television technology, he lost a series of patent battles with RCA which essentially stripped him of control over his devices. 39

With the radio and the television, as well as with the phonograph, and the printing press, dissemination is built on a one-way, barely interactive form of dissemination. People could choose between different stations, but they could not choose what the stations play, or when they played it. There was no dialog because people only had the capacity to listen, not to speak. The audience was free to participate, but only as consumers, as recipients who either pay for access or who buy the products of the advertisers that pay for the access. The radio station and the television, in other words, acted much like a book publisher, producing massive amounts of text from a central location with

39 See *Television: The Farnsworth Chronicles, 1906-1971* for a discussion of Farnsworth's life and his legal battles with RCA.
specialized and expensive equipment. Over time, the institutions became more complicated, the decision-making became less evident, and the ability of an institution, or the people who controlled the institution, to influence a large number of people was enhanced.

The telegraph, the radio, and the television were also not designed for collectors. While writing and printing had extended text through both time and space, the telegraph created a new way of extending text through space that was instantaneous but that had no persistence. Once sent and received, the signal could not be found again — unless it had been written down, the message had to be resent, treated like an entirely new message. With radio and television, people might remember what they heard or saw, but there were no practical ways to search, to cite, to cross-reference different texts, or to verify what might have been heard before. Radio and television are ephemeral — people typically did not store what they watch or listen to and they seldom ever think to refer back to either of them. Even the telegraph was not a storage device, and anything that was sent through the wires had to be stored (if it was stored at all) on some other medium, which in practice meant relying on paper.

With print media, as with writing, storage was always a key feature, and part of why people started writing things down in the first place. We buy books, we take them home. We can use books as we please, save them, organize them, have control over them, trust them, and throw them away. We own them. We can keep them, and even collect them.
• The World of Text

Text, while connected to readers and the world, also moves along with its own force, or at least with a force that has little to do with reading. Sometimes text is replaced by other text, or some text is given greater status or duplicated more often than other texts. The process, occurring over the last few thousand years and supported by institutions, social practices and technologies, has resulted in a large, amorphous and ever-changing textual world. Havelock writes of the "river of narrative" to suggest the totality of texts that were available to an oral society. But what happens when text is written down, when parts of the stream congeal or are frozen and the water becomes more and more stagnant? We might be tempted to suggest an image of the ocean or something else that captures an expansive accumulation as much as a process. The world of text as an ocean, however, might imply a collection that is not dynamic, confrontational and troubling enough to make the reader suspicious enough to read well. Some text may be like a river, but other text may be more like rocks or fire. Some textual relations are fast, others are slow. Some textual relations occur at a very small scale, others occur across the globe. Some textual products last for a long time, others are used up at the pressing of a key. And so the totality of text, far from a predictable or stable accumulation, is a complex process.

Think of what has happened to libraries over the last century. The library is the antithesis of Havelock's river of narrative. The library of printed books is

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40 Havelock, Preface to Plato, page 296.
based on architectural imagery, on fixed walls, on structured arrangements of parts, and on the idea that the whole hangs together because the parts never move or change. But over the last century the status of the book and the library’s relationship to books has changed. Texts based on different technologies have become part of the collection — now phonographs, now microfilm, now DVDs — and the relationship between the different parts has shifted.

The creation of new technologies, however, does not mean that the textual world is getting better. Nicholson Baker has argued in *Double Fold* that microfilming newspapers and printed books that occurred after 1945, while preserving certain aspects of the text, has also resulted in the loss of substantial aspects of the textual artifacts. In particular, microfilm is limited because it does not have the same quality of reproduction, it does not have colour, and it lacks every aspect of the material object (the paper, the texture, the chemical composition of the ink, the binding, and so on). The words, as visual image, may be the same, but the artifact has changed, and much of what we could understand about the earlier artifact is gone. Baker, however, is not objecting to microfilming. His objection is to the way that traitorous librarians who were in charge of powerful textual institutions like the Library of Congress, destroyed the original paper after the microfilming was done. Microfilming added to the world of text; the problem, as Baker sees it, is that the people running the libraries used microfilming as a reason to either destroy the
printed text or to break up the collections and sell the parts for a pittance. Baker argues that their fascination with technology and their power led to profound and permanent damage to the printed portion of the textual world. This was a policy decision that was poorly made for practical and moral reasons, reducing our ability to engage with text.

Changes in media can also play a positive role in human activities. The printed book, for instance, solved many of the immediate problems faced by a manuscript system (the cost and the frequency of scribal errors being prominent) and also had positive if unintended consequences (such as creating an expansive, disciplined scientific community). Without the printing press, for instance, the broad cooperation between people engaged in a shared scientific project such as Abraham Ortelius's *Theatrum Orbis Terrarum* would have been impossible. In a manuscript system, it would be possible to create hundreds of basically identical copies of a book as well as the kind of textual exchanges necessary for the textual cooperation that lead to the *Theatrum Orbis Terrarum*, but before the printing press was available the task would have been monumental. It was hard enough to produce manuscripts to keep up with the typical losses that resulted from destruction and decay, let alone to produce multiple copies of a single work that initially had little value because no one had heard of it before and few people were expecting to find books to read. There was no viable market for new books. With print technologies, the production of texts became very easy and practical, where once they had not
even been attempted. People started to do things they had never done before, but only because technologies and social institutions changed. The moral debates over reading after the development of the printing press thus faced a different textual world, and one in which some aspects of text (like access and per unit cost) became less of a concern and other aspects (like censorship and authorial independence) became more of a concern. The moral arguments helped shape technological developments, but technological developments also helped shape moral arguments.

The available technology and the available habits of language are therefore both crucial aspects of people’s relationship to text, and they are both important points of moral evaluation. It is easy to notice the moral weight behind the distinction between propaganda and truth. Such absolute distinctions are typically part of ad hominem arguments, where people who advocate an opposing view are attacked for not really holding a view at all. But even if words such as “truth” and “propaganda” are sometimes abused, they are nonetheless important reference points for evaluating the general character of either a particular text or the general character of text as it is available and organized at a specific time and place.

For instance, both Orwell’s "Politics and the English Language" and Quiller-Couch’s discussion of jargon in On the Art of Writing characterize the quality of text, not by its content, but by the way that the text conveys its content. Is the text clear? Is the text vague? Is the text well-written? Is the
author honestly trying to say something? For Quiller-Couch, the “two main vices of Jargon” are that it uses “circumlocution rather than short straight speech” and that “it habitually chooses vague woolly abstract nouns rather than concrete ones.”

Orwell characterizes bad writing in similar terms, drawing additional attention to the political implications of different approaches to writing. Writing something well takes time and effort. However, Orwell notes:

> You can shirk it by simply throwing your mind open and letting the ready-made phrases come crowding in. They will construct your sentences for you - even think your thoughts for you, to a certain extent - and at need they will perform the important service of partially concealing your meaning even from yourself. It is at this point that the special connexion between politics and the debasement of language becomes clear.

Problems with words and arguments become political when they are tied to how people understand and relate to the world. One of the connections that Orwell suggests is that the debasement of language makes political conformity easier to accept (because it allows us to hide unwelcomed facts through euphemisms). Sometimes this is unconscious. Other times, it is a recognized part of a political campaign. Consider, for instance, Orwell’s image of some comfortable English professor defending Russian totalitarianism. He cannot say outright, “I believe in killing off your opponents when you can get

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41 Quiller-Couch, *On the Art of Writing*, page 105.
42 Orwell, “Politics and the English Language”, page 152.

Chapter 4: Print Technology
good results by doing so." Probably, therefore, he will say something like this: "While freely conceding that the Soviet regime exhibits certain features which the humanitarian may be inclined to deplore, we must, I think, agree that a certain curtailment of the right to political opposition is an unavoidable concomitant of transitional periods, and that the rigours which the Russian people have been called upon to undergo have been amply justified in the sphere of concrete achievement."  

For Orwell, the style is politically significant, not because the conclusions are right or wrong, but because the style itself obscures the topic and makes it difficult to sort out what is being said. The writing is political because it depoliticizes the writing.

Basic to the discussions of language offered by Quiller-Couch and Orwell is the claim that there are texts that say something and other texts that say nothing, or that the texts say something so poorly that they do more harm than good to the discussion. To write poorly, to write dishonestly, to write flippantly, means to write in a way that fails to engage the reader in an intellectual process. Bad writing may be entertaining and it may reenforce some set of beliefs or another. Writing may have an intellectual impact, but the writing is bad because it is not written to give the reader something to think about. The reader is encouraged to go through the motions, with confusion never becoming a problem because the texts are not thought about with

43 Orwell, "Politics and the English Language", page 153.
enough attention to make confusion obvious. As Orwell notes in one of the more effective images of his essay, “A mass of Latin words falls upon the facts like soft snow, blurring the outlines and covering up all the details.”\textsuperscript{44} The obscuring snow can make an argument more effective, not because it makes it a better argument, but because it makes the quality of the argument harder to see while at the same time it encourages the reader to look a little less intensely at what is being said. We are encouraged to fall asleep.

Another basic feature of the discussion is that the process is historical, and that changes at one period will affect the next in the same way that one writer will affect another. We are all in this together. Quiller-Couch writes: “the age when men are eager about great work is the age when great work gets itself done.”\textsuperscript{45} Woolf offers a similar but more historical image when writing about what was necessary for Shakespeare to be Shakespeare. Shakespeare could not have written without Marlowe, or Marlowe without Chaucer, or Chaucer without those forgotten poets who paved the ways and tamed the natural savagery of the tongue. For masterpieces are not single and solitary births; they are the outcome of many years of thinking in common, of thinking by the body of the people, so that the experience of the mass is behind the single voice.\textsuperscript{46}

But the “experience of the mass” is not relevant if it is merely experience. To be relevant, the experience of the mass needs to become a textual entity that

\textsuperscript{44} Orwell, “Politics and the English Language”, page 154.
\textsuperscript{45} Quiller-Couch, The Art of Writing, page 49
\textsuperscript{46} Woolf, A Room of One’s Own, page 65.
connects writers to readers who then become writers and that connects texts together into an interactive whole. Shakespeare could never have met Chaucer, but to become Shakespeare he did not have to, he only had to read Chaucer and be inspired by what Chaucer wrote. Thus, whether it is possible to create great texts or not, depends to a great degree on what other people are doing with texts: which texts have already been created, which texts survive, how they survive and what people do with them. Reading Chaucer, in other words, depends on much more than Chaucer writing.

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The morality of reading exists at the intersection of humanity, text, and technology. The development of print technologies was a key factor in changes to the organization of thought, of communication, of society, and of human life. How print technologies were developed, in turn, depended on the thoughts, actions, and social organizations of the people at the time. Why were these books written? Why were these books successful? That books could be produced in the first place makes these questions possible. But why the technologies developed in some ways rather than others is not limited to the character of the technology itself. Technologies create the world, but not in conditions of their own choosing — there are political struggles, social expectations, personal desires and values encircling which technologies exist and what they do.
When considering the challenges posed by new technologies, then, the discussion easily expands to consider every aspect of human existence. The printing press triumphed over the scriptorium (although not over manuscripts), but the technology is simply a shorthand way to refer to a much more complicated social, political, and technological contest. Now, a new set of struggles is in the works.
Conflicts between different textual technologies have been a part of human society at least as far back as the ancient Greeks, where the shift from orality to literacy was one of many profound changes that Greek societies were undergoing. Characterizing the conflict has important implications for how the situation is understood and the choices are evaluated. John Ralston Saul reflects on the choice that authors are faced with between writing and speaking:

> Of course, misinterpretation or inadvertent interpretation is the great fear of writers who have any sense of the real world into which their language flows. Perhaps that is why so many of the key thinkers — let me call them the conscious thinkers — have feared the written word and expressed themselves through oral.1

In *Amusing Ourselves to Death*, Postman has discussed a similar argument made by an 18th century American religious group known as the Dunkers, who resisted writing their beliefs down because, on Postman’s account, they feared that the written word would entrap their beliefs for all time and thus hinder their future thoughts and discussions.2 Just as writing and printing

1 Saul, *Unconscious Civilization*, page 56.
encourages a larger sense of consistency, orality allows people to change their beliefs in a much more fluid way. Both media encourage thought, but in very different and potentially incompatible ways.

Current discussions of textual technologies tend to focus on only two media, turning a very complicated and ambiguous situation into a simplified, binary conflict — typically "the book" versus "the computer." The use of these two historical periods to frame the story of information technology is connected to an almost total failure to engage with variations in media between the 1590s and the 1990s. It is not just that the character of printed books has changed, but also that there have been many other textual technologies that have been developed, have flourished, and quite often have moved off the center stage to obsolescence, obscurity, and irrelevance. Microfilm is one example; telegraphy, magazines and television are three others. And with each of these technologies, many issues were raised that are being raised again. Consider, for instance, Edgar Allan Poe's reflection on printing in America in the middle of the 19th century and on how "the whole tendency of the age is magazineward." In his Marginalia, Poe reflects in some detail on changes to printing during his time. His comments are worth quoting at length, if only because they are couched in terms that are very similar to those that are used now. Poe writes:

The increase, within a few years, of the magazine literature is by no means to be regarded as indicating what some critics would suppose it to indicate, a

3 Poe, Works, Volume IX, page 203.
downward tendency in American taste or in American letters. It is but a sign of
the times, an indication of an era in which men are forced upon the curt, the
condensed, the well-digested, in place of the voluminous, — in a word, upon
journalism in lieu of dissertation. We need now the light artillery rather
than the peacemakers of the intellect. I will not be sure that men at present
think more profoundly than half a century ago, but beyond question they
think with more rapidity, with more skill, with more tact, with more of
method and less of excrescence in the thought. Besides all this they have a
vast increase in the thinking material; they have more facts, more to think
about. For this reason they are disposed to put the greatest amount of thought
in the smallest compass and disperse it with the utmost attainable rapidity.
Hence the journalism of the age; hence, in especial, magazines. Too many we
cannot have, as a general proposition; but we demand that they have
sufficient merit to render them noticeable in the beginning, and that they
continue in existence sufficiently long to permit us a fair estimation of their
value. ⁴

Increasing the speed of distribution, shortening how long each piece of text is,
and spreading the increasingly mediocre texts to a larger — and themselves
increasingly mediocre — audience are all important tendencies in the media of
Poe’s time. If you change “magazine literature” to “the internet” and
“journalism” to “web development,” the passage prefigures a large part of
what has been written about digital media technology in the last few years.

⁴ Poe, Works, Volume IX, page 369.
For Poe, longer narrative forms, such as the novel, will no longer fit with how people read. Everything will become shorter, everything will become faster. If only one medium dominates, and if a medium can only be organized in one way, then once a medium changes, the earlier organization must also cease to exist. Thus the age of orality gave way to the age of the manuscript which then gave way to the age of print. Now, a hundred and fifty years after Poe, people argue that the age of print is giving way to the age of the computer.

While Poe may have been correct in his characterization of the magazine, he was wrong in his claims about the fate of longer pieces of text. The novel did not go away, and the magazine, while important, did not ultimately dominate the textual world. Poe wrote this at the height of the popularity of Charles Dickens and a decade before Herman Melville published *Moby Dick* (in 1851). But Poe’s combination of media epochs and media simplifications lends itself to this mistake. The appeal to such grand historical periods is tied to the belief that once a new epoch has emerged, the technologies of the old epochs can no longer exist (that the manuscript replaces and destroys the orator, the printed book replaces and destroys the manuscript, the magazine destroys and replaces the printed books, and now the computer does the same thing to the printed book). This belief is simply wrong. Although the whole of textuality has changed significantly and the different media are constantly arranged and rearranged, older media technology persist: both orators and manuscripts...
continued to exist during the age of the printing press, and if anything there
are as many manuscripts now than there ever were. But their place in society
has changed as more media technologies and different social formations have
developed.

For some writers, changes in textual technologies are important for
understanding different social organizations and different human activities. In
setting up her discussion of the printing press, for example, Elizabeth Eisenstein
has claimed that:

When ideas are detached from the means used to transmit them, they are
also cut off from the historical circumstances that shape them, and it becomes
difficult to perceive the changing context with which they must be viewed.
This point is not only pertinent to most histories of Western philosophy or
literature; it also applies to most treatments of the history of science and of
historiography. 5

Eisenstein’s point here is that a history of ideas, and in particular an exploration
of how thinkers related to each other, must take into account the textual
technologies available that were available to them. The technology may in fact
be necessary for us to succeed at what we are trying to do. That there can be a
history of ideas at all depends on the existence of technologies.

While some argue that textual technologies are important, others believe
that those technologies have a much more profound impact and that

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technologies are even more important than changes in the text itself. For these authors, such as Marshall McLuhan, the media dominates human thought and human existence. McLuhan writes:

If a technology is introduced either from within or from without a culture, and if it gives new stress or ascendancy to one or another of our senses, the ratio among all of our senses is altered. We no longer feel the same, nor do our eyes and ears and other senses remain the same.6

McLuhan imagines a close connection between human thought and the tools of thinking. It is not simply that we are what we read, but that the conditions of reading permeate every aspect of how we read, what we read, and therefore of what we think and who we are. The specific medium that dominates a society (and McLuhan assumes that there will always be one medium) is the source of that society’s vision of the world, not just its information about the world. For McLuhan, text is not simply a tool for thought, it is not simply something that gives us power, it is something that leads us to think in some ways rather than others.

Distinctions that are made between media are often ambiguous, referring sometimes to the substratum and sometimes to the whole process through which text is reproduced. If “media” means the basic material conditions on which or through which the text is presented to the reader, then the airwaves, the paper, and the computer screen would all count as different media. With

the shift from oral to written text, assuming here that “text” refers to the content that is transferred from one medium to another, there is a change in media which is also a change from sounds to images of words. This is the most straightforward definition, indicating the substance that exists in between the source of the text and the reader. If the move is from manuscript to print, on the other hand, then the medium, which is one sort of paper or another, is largely the same and what changes is the production process and eventually the organization of the text. The printed book and the manuscript put text on paper (which is the tangible substratum), the difference is in how the text is put there. If manuscript and print are different media, then the production of the medium matters at least as much as the actual material substratum.

Just as printed text is printed on paper with ink and printing press, digital text is text that exists as the product of digital technologies. There are many different technologies performing a wide assortment of tasks. The technologies and the tasks are always changing, and often very quickly. The general idea, however, is that text is stored in some digital code where each piece of information is discrete (and typically stored in a binary system). Letters are thus given equivalent numbers (such as the ASCII code for “b” being equivalent to 98 in decimal or 01100010 in binary). The reader might see a “b” on the screen, but for most of the process, the “b” is expressed in very different, and practically unintelligible terms. A sentence like “To be or not to be,” first translated into ASCII and then expressed in digital form would be
For this information to be useful to humans, the digital text requires devices to record, to manipulate, to translate, and to display the text. With printed text, the whole process was handled by presses, paper, ink, and a series of institutions. There were very few stages of the process that made the text unintelligible to human readers. Also, once the book was produced, keeping the text readable required little additional support and no support at all from the publisher. The book was an autonomous object with its own material integrity. The digital text, in contrast, is handled by the personal computer, with its keyboard and its monitor, plus a wide assortment of often obscure programs, cables and institutions. For the text to be readable, the computer, the peripherals, the software, the network, the electricity and much else must be working. With digital technologies, the only stable text is text that has been printed out on paper.

To evaluate digital text as simply a strangely designed and possibly troubling version of a printed book or to approach the web as a dysfunctional library is to misunderstand what is at stake in the new technologies. The computer is a different kind of textual technology that happens to be able to do things that mimic printed text. But the key issue is whether computers can do something different and better with text than printed books could do. For Murray, "We cling to books as if we believe that coherent human thought is
only possible on bound, numbered pages." The challenge for those who promote the shift from print text to digital text and the production of new text that is digital from the very beginning is to show that digital text is somehow superior, not only in terms of features (such as how much text can be stored in a small space or how quickly text can be moved from one place to another) but in terms of the value of text to the quality of human life.

Murray downplays the threat posed by digital texts by claiming that just as print technology incorporated the texts of orality, the digital technologies will incorporate the texts of print. She writes:

The computer is not the enemy of the book. It is the child of print culture, a result of five centuries of organized, collective inquiry and invention that the printing press made possible. 8

There are problems with Murray's parenting imagery. The account of the computer's precursors is simplistic. What makes the printed book the appropriate parent to the computer? Why not the card catalog, or the television, or the filing cabinets that are so important to bureaucracies? Her image is benign, and intentionally so, but it should be recognized that large governments, the military and corporations, more than the humanities scholar and the novelist, have been the driving force behind the development of most computer technologies. But claiming that the computer is the child of a bureaucratic culture suggests neither a positive history nor a hopeful future,

7 Murray, Hamlet on the Holodeck, page 8.
8 Murray, Hamlet on the Holodeck, page 8
and does not fit well with Murray’s overall goal of encouraging readers and writers to embrace the new technology for humanist reasons.

Even if the book is the main precursor of the computer, what follows from that? While the development of the computer may depend on the prior development of the printing press, it does not follow that the computer is an ally of the book, that any or all of the desirable qualities of the book will transfer over to the computer, or that the book should be entirely replaced by the computer. We could also say that the book was a parent of the microfiche, but very few people argued that books should be thrown away and that all reading should be done with microfiche.

According to Murray, the computer will replace the book, just as the storyteller of the oral cultures was replaced by writing. The computer will do so by its own volition. But is that the same as saying that the child will replace the adult? Not only does her image establish a natural (and inevitable) change, it also surrounds that change with connotations of a joyful development that ought to be celebrated. The society should be organized to let children grow up and let adults die away.

Debates over changes in media and the fate of the printed book are often problematic because neither side tends to adequately understand what books and computers are capable of doing. A complex historical sense of media would be more effective. However, to describe either the power or the danger of the computer in terms of the challenges it poses to magazines, radio,
television and microfilm has, for whatever reason, been a less appealing topic or rhetorical strategy. It is the contest between books and computers that has fixed our attention and, in doing so, has hindered our ability to think through the issues in a clear way. Those supporting the book have no sense of what digital technologies can do. On the other hand, the digital promoters have little sense of what might be lost in the move towards the digital. While one side clings to the past, the other side does not understand what it is throwing away, and neither side honestly attempts to understand what is really at stake.

One immediate result of this simplification is that it becomes easier for authors to avoid counter-examples to their arguments. People can always find examples of technologies that support what they want to say: they can find poorly designed computer interfaces, boring television programs, or outdated and difficult to use reference books. But these examples are not the only ones that should matter; it is also possible to find both similarities and differences in a wide range of different textual technologies. For instance, Tom Standage has pointed to many similarities between the internet and the telegraph, including a general sense that people had of being deluged by information, changes in business practices, and the creation of a technological subculture with its own codes and patterns of interaction.\(^9\) Standage is not arguing for a return to the

\(^9\) Standage, *The Victorian Internet*, chapter 7. Standage's discussion, while interesting, seems overly fixated on drawing basic connections between the telegraph and the internet, and fails to delve into both the details of the technology and the political and moral arguments either then or now. He doesn't even mention Thoreau's famous quips in *Walden* that "We are eager to tunnel under the Atlantic and bring the Old World some weeks nearer
telegraph, but rather for the idea that the human reaction to current
technologies is not that different from the reaction to earlier technologies.

Some writers have adopted a simplistic and vitriolic account of computer
technology. In *Future Libraries*, for instance, the physical character of the book
is contrasted to the "fly-by-night" technology of computers.\(^{10}\) But the authors
go on to argue that while the computer is a very good tool for working with a
certain kind of information, it becomes increasingly less important when the
goal becomes understanding or wisdom, where the information is transformed
into meaning and integrated into a worldview. Libraries, they argue, are not
about information, but are rather about "the preservation, dissemination, and
use of recorded knowledge in whatever form it may come."\(^{11}\) But at best this
contrast overstates the role of the library, and misunderstands the distinction,
which they take from Mortimer Adler, between information, knowledge,
understanding and wisdom. Adler had argued that information consists of
discrete chunks of data and wisdom involves an entire worldview. For Adler,
these categories also form a hierarchy of the mind, with knowledge and

\(^{10}\) Crawford and Gorman, *Future Libraries*, page 19.
\(^{11}\) Crawford and Gorman, *Future Libraries*, page 5.
understanding somewhere in between. Crawford and Gorman, however, connect the hierarchy to institutions: the computer exists as a tool of information while the library exists at the level of knowledge. But this claim is nonsense, first because there is no reason to believe that computers and libraries can only present qualitatively distinct kinds of text, and second because Adler is more concerned with what people do with the text that they are presented with rather than with some inherent quality of the text itself. The challenge, which Crawford and Gorman do not address, is to find something that is found in a library that is not, and cannot, be found in a digital version. Of course we can, and ought to, worry about people who are overly fixated on facts (a mental disease that is at least as Victorian as it is digital, as is evident for instance in Dickens's *Hard Times*), but to connect computers to facts and books to meanings is too easy, and ultimately misguided.

At times, the differences between media are simplified by anecdotes and antiquarianism, where the writer recounts the curious and the exceptional in the world of the printed text. We are told what a particular author did, or how physically comfortable a particular reader can be while sitting beside a fireplace with a dog half-asleep nearby. There is a place for the anecdote and the exception, but there is a danger in mistaking the recounting of anecdotes for a systematic analysis or a valid argument. Someone like Sven Birkerts may build his discussion of the value of reading on his own memories — “the slower world that many of us grew up with dwindles in the rear-view mirror”\(^\text{12}\) —

and he may admit that his arguments are partisan, based on his own image of himself, "that dreamy fellow with an open book in his lap,"\textsuperscript{13} but we can always wonder at the accuracy of someone’s memory of a slower world (by which Birkerts apparently means the 1960s). Of course, the appeal to nostalgia cuts both ways. Many of those who argue in favour of digital culture often build that support on a simple rejection of anything that is not new. To the digitizers, a person like Birkert “clings not to his books, but to the past.”\textsuperscript{14} For Murray, Birkert’s rejection is quaint, but not serious and certainly not to be taken seriously. It is enough for Murray to make fun of Birkert’s beliefs, evoke parental slogans against a child-like affection for worn-out toys, and claim that he is merely living in the past, attacking anything that is new, which easily becomes anything that is different and even anything that is commercially successful. Supporting the book then becomes equivalent to rejecting everything else that is possible in the world, and the death of the book becomes the only thing that stands in the way of a digital promised land.

\textbf{• Quality of Digital Text}

One of the critical questions is whether the new digital technology has a positive impact on the quality of text. There is clearly more text available to people, at least with minimal effort, but do the textual relations actually

\begin{flushleft}
\textsuperscript{13} Birkerts, \textit{The Gutenberg Elegies}, page 7.
\textsuperscript{14} Holtzman, \textit{Digital Mosaics}, page 182.
\end{flushleft}
improve the quality of the text? Some information is more up-to-date and accessible, but poorer writing and errors are more frequent.

With the internet, errata sheets are no longer created and, given the dynamics of the text, they are arguably no longer necessary because the text itself can be changed on the fly. But there is another tendency in digital texts which goes in the opposite direction. When something is wrong on the web, why should someone bother correcting it? With the printing press, there were at least economic reasons to make some kinds of text error-free, but these reasons (coupled with the reader’s demand for accuracy) do not seem as pronounced in a digital world. This is a technology where BLOGs and other long-winded, poorly-edited personal narratives thrive as public texts. The easy availability of digital publishing means that more people can become publishers and that they do not have to check their work with anyone else. As Stoll remarks, “By eliminating editors, our networks demonstrate their importance. There are plenty of writers on the Usenet, but few editors. It shows.”15 It would be interesting, if a little depressing, to try to count the number of obvious spelling mistakes on the web — try searching for a misspelled word and see how many pages are listed. A Google phrase search for “Abraham Lincon”, for instance, yielded just over 1000 hits. Compared to the over two million hits for “Abraham Lincoln”, the percentage might be thought to be quite small, but this is only one spelling mistake, and a fairly obvious one at that. At the very least, there are over 1000 web pages that have

15 Stoll, Silicon Snake Oil, page 38.

Chapter 5: The Challenge of Digitization
not been edited (or ever spell-checked) with enough care to catch obvious
mistakes. Measuring grammatical mistakes would be much more difficult; and
beyond that, measuring mistakes of fact, of logic or of clarity would require
too much time, energy, and controversy to even seriously estimate. There are
so many mistakes that the scale of the problem encourages a sense of
indifference and defeat. Also, even if you want to suggest corrections, you
often don’t know whom to contact anyway.

One feature of digital texts on the internet is that the reader’s own
commitments to truth may have become much less pronounced and, because
the web lacks any strong mechanisms or social pressures to improve the
quality of what is available, the errors, more appropriately called lies, can
multiply. At issue here is how we understand where errors come from and
how they are eliminated. If our textual world is unreliable, and if there is no
other way to secure a working knowledge of the real world, then the
possibility that we can act effectively is severely limited. Confusion, however, is
not a very good basis for effective action or thought. The poor quality and
confusion, however, may be a temporary phenomena. As more people read
digital text, and if better feedback systems become the norm, then web pages
should improve. Also, even if digital text does not match the accuracy that
eventually developed with print, there are other qualities (features) that
printed texts do not have.
• Customization

One of the key features of print is that text is fixed on the page. Preservation and persistence are the same thing. Digital technology, on the other hand, can be set up to decide what texts are presented to the reader, and so the text, even if it is stored, is not automatically available to the reader and may never be available to the reader. With a book, the reader can find all the text that is there. This is far from true with digital texts. While this may sound conspiratorial, if there is too much text for a reader to deal with, then having a computer select text may be useful or essential to read effectively. Negroponte offers a vision of this relationship:

your news-editing system lives in the receiver and The New York Times broadcasts a very large number of bits, perhaps five thousand different stories, from which your appliance grabs a select few, depending on your interests, habits, or plans for that day. In this instance, the intelligence is in the receiver, and the dumb transmitter is indiscriminately sending all the bits to everybody.  

Digital technology — what Negroponte labels “appliances” — affects our relationship to text by adapting the text that is presented. Thus readers can ask for different kinds of text, or the computers can be set up automatically (either by the readers or by someone else) to provide different kinds of text. As Negroponte writes:

Imagine a future in which your interface agent can read every newswire and newspaper and catch every TV and radio broadcast on the planet, and then construct a personalized summary. This kind of newspaper is printed in an edition of one.\(^\text{17}\)

While this kind of information service may be appealing, while it may be nice to only get the news that you want to hear, there are social and personal costs to that kind of relationship. In particular, there is a great temptation for the reader to read only the text that confirms things that are already believed, which means that the chances of being challenged, of actually having to think, are reduced while the perception of access (in terms of quantity at least) is increased. The quantity of what we read helps to convince us that we are well read and that we are reading well, even if everything we read is from the same source and adopts the same attitudes towards the world.

With these digital butlers "you have the option to do those things when you wish, because you want to, not because you have to."\(^\text{18}\) In Negroponte's ideal, people will only do the things that they want to. A freedom that is based on knowledge and a sense of agency is rejected in favour of a freedom that is based on the desires of consumers. People hear what they want to hear, people do only the things they want to do, and if they think about the world at all, they have no idea why they think about it in this way and not that. What Negroponte encourages is a world of happiness and reassurance based on

\(^{17}\) Negroponte, *Being Digital*, page 153.

ignorance and false images of the world, at least for the people who can afford it. While computers can make us feel powerful, they can also encourage laziness. He never considers whether this will ultimately make people happier, let alone better. Negroponte's goal entails that people will continue to live in a child-like, dependent state and become less and less capable of doing anything except playing in a virtual world, reacting to imaginary people.

• Multimedia and Virtual Reality

Computers do not simply display electronic words on a video screen instead of on a printed page. Computers change the kinds of text that can be presented to the reader, coupling images, movies, sound and text into a single, integrated and sometimes interactive whole. When I compare a printed newspaper with one on the screen, there are many noticeable differences. When I look at the same story, with the same words, a lot more is happening visually with the computer version. There is often more colour, maybe some sounds, and there are links to related stories and resources. The advertising moves, often in irritating and distracting ways. And even if I am simply looking at a scanned image of a printed page, which takes advantage of almost none of the computer's textual potential, the ability to move around the text changes (not always in positive ways, such as when I have to scroll because the page is too large to fit on my screen). The sense of possibility changes because I can move from one page to another in a much larger textual space. I can open
a new window and find a page that can verify a claim, or even compare different accounts of the same event, from a wide array of sources. The internet may be smaller than a large library, but it is clearly larger than the book collection in my room.

But the availability to combine different formats all at once does not mean that the combination improves the text. How, for instance, does a picture help the reader understand a news article? A picture may be appealing, and the reader might expect to see one, but that does not mean that the content is improved or that the reader gets more out of reading. A picture may be worth a thousand words, but they are not necessarily the best words that could be used. John Ralston Saul claims that “one of the characteristics of propaganda is that wherever possible, music and images replace words.” 19 Saul’s point is that the rise of propaganda is connected to a general decline in the sustained use of words and thus to a decline in the overall capacity or willingness for people to think critically about the world. Music and other sound make it harder to be conscious about something for an extended period of time; ever-changing sounds make it harder for the reader to engage effectively with the text’s meaning and, more often than not, allows the text to be that much more obscure, even if it has a greater impact on what readers believe or how they act. Multimedia, in other words, more easily serves the goals of propaganda, not only because it allows text to be presented in a way that makes it difficult to

think, but also because over time readers would be less skilled at reading text that is presented in any other way. There are, nonetheless, some counter-examples. Saul is likely thinking of fascist governments of the 1940s, or perhaps of America in the 1890s or the 1950s. But writing has also been a key tool of propaganda, such as in 19th century England or the Augustan period in Rome. Even then, images and music were important, but words, even printed words, played a key role in convincing people of the legitimacy of a political system. Then again, words, and printed words in particular, were also very important for European fascism and American imperialism.

With the shift to digital textual technologies, the change is not only from one medium to another but from many media to one, where one kind of technology (the computer, or maybe the microchip) becomes more flexible, mimicking a variety of different media all at once. The computer is not simply an electronic gadget (whose existence parallels the book or the telegraph), it works like a bookshelf, a notebook, a filing system, and, when it is connected to the internet, it also starts working like a bookstore, a library, a printing press, a telegraph office, and a host of other institutions and technologies. The computer, in other words, starts to acquire all of the functions that were once performed by a whole series of distinct and often competing institutions and technologies. Even if there is no evident change, even if the television, the telephone and the book continue to look the same, therefore, the digital technology has changed the basic infrastructure of text so that evidently analog technologies are in fact digital technologies that mimic an analog existence.
Negroponte has claimed since the early 1990s that the television, the telephone, the fax, and the computer will ultimately become one “appliance” and that this will be the primary if not the only way that people will acquire text. There will still be different gadgets, but they will all be peripherals of a single system. The integration of all text into one medium allows text to be transferred within digital technology from what would have been different media and even from what was not “media” at all. Negroponte offers a vision of a digital house, where appliances communicate:

If your refrigerator notices that you are out of milk, it can ‘ask’ your car to remind you to pick some up on your way home. Appliances today have all too little computing. A toaster should not be able to burn toast. It should be able to talk to other appliances. It would really be quite simple to brand your toast in the morning with the closing price of your favorite stock. But first, the toaster needs to be connected to the news.

The vision is compelling, if only because it ignores commercial, political and other nefarious uses of the technology — to a more suspicious person, a digital refrigerator is more likely to send you coupons for competing brands of milk or to tell you about upcoming sales than it is to warn you that you are running out of anything. And if there is anything toasted on your bread, it will likely encourage you to eat out more or watch the latest installment of reality television that starts tonight. The process of increased digital integration at home, in other words, is more likely to fill your house with digital spam rather than actual food.
The issue with digitization, then, is not simply whether books will survive. Every aspect of life will be affected. The stakes are much higher. One of Murray’s targets in *Hamlet on the Holodeck* is Aldous Huxley, whose *Brave New World* described a world where people are immersed in text and where their social, political, and personal existence has shrivelled away.

The horror of the feely theater lies in knowing that your intense responses have been calculated and engineered, in knowing that a technician has set the male voice at “less than 32 vibrations per second” to achieve an automatic erotic effect and has reduced the lips of all the individual audience members to just so many “facial erogenous zones” to be stimulated by galvanic means, like so many light bulbs to be flipped on.20

Huxley is concerned with the nature of the meaningful life. After his first experience of a feely, the savage goes home and reads his copy of Shakespeare’s *Othello*. The savage’s solution, in other words, is to substitute one form of influence for another. The Savage is able to engage in a world of printed text, and as a result he is able to step outside the norms of the immediate society into a world that, while much more sparse, echoes the world Machiavelli created for himself in his library. Everyone else’s life is made up of pornography, games, and sedatives. But, in the end, the outsider loses and the world where the feelies fit so well remains dominant and unchanged.

For Murray, the problem with the feelies is the lack of meaningful engagement with the story. Her response is two-fold. First, the expectations of

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narrative ought to be raised so that instead of the show being vacuous and titillating, it is more like Shakespeare. She writes:

While *Star Trek* writers imagine holodeck versions of *Beowulf* and *Jane Eyre*, a widely read and influential dystopian tradition has depicted such futuristic entertainment forms as intrinsically degrading.²¹

*Star Trek*, however, is a fanciful idea. The account of text and human life in *Star Trek* systematically ignores the economic manipulation of text and offers a vision of human nature where passions are mediocre and future plans are largely consistent with the larger social structure. There is no pornography because no one seems to have any sexual desires. Likewise, if one imagines private corporations dominating the media, it is more likely that Jane Eyre will start wearing Old Navy jeans and that Beowulf will travel to confront Grendel driving a Hummer outfitted with OnStar navigation. An improved virtual narrative which does not become a more pervasive consumerism must take into account the goals and impact of those who own the means of textual production.

The second part of Murray’s solution is to bring the viewer into the action, to change the feelies from a more powerful kind of television into an interactive virtual reality. The goal is for the digital medium to take over every aspect our sense-experience. The narrative may allow us to imagine other lives, but with virtual reality, the reader, now a participant, develops a sense of self that is plastic. As Holtzman notes when describing himself in virtual reality:

I look around and see dinosaurs; I am a dinosaur. There is no reason why, in a
virtual world, I must maintain human form.\textsuperscript{22}

Holtzman offers a very thin account of what is involved in being something. It
is easy to imagine a skeptic responding: you are not a dinosaur, you are a
human being and somehow you have convinced yourself, in a limited field,
that you are a dinosaur. For Holtzman, the change in identity is not simply
physical.

And it's not only cyberspace that has a discontinuous shape. As you travel
from one digital world on the Web to the next, your identity also becomes
discontinuous. One moment, you're a pilot flying through San Francisco; next,
you're a philosopher contemplating heady intellectual discourse; then, with
the click of a mouse, you're a bystander in the middle of a war.\textsuperscript{23}

Holtzman has taken the significance of virtual reality to an absurd conclusion
without realizing that it is absurd. Unless being "in the middle of a war"
actually means that the reader can be killed, and unless "contemplating heady
intellectual discourse" actually means contemplating something or being
intellectually engaged, then Holtman's image is a mere conceit. But it is a
conceit that permeates the literature on virtual reality. Murray likewise notes:

Some worlds might be derivative from novels, films, or other media..., but
they could also be derived from historical material, enticing Civil War buffs

to live through the American 1860s or baby boomers to relive the 1950s to 1980s.\textsuperscript{24}

We become one with the action, as if we were there. But not exactly there. Typical virtual reality applications have created an idealized world, but one with superhuman abilities, no pain, and minimal consequences. But who would seriously want to live through the Cold War or the Civil War? For Murray, the point is not to recreate an historical period, but rather to use some historical sources to organize the narrative, much like \textit{Happy Days} or \textit{Hogan's Heroes}. Users might believe that they are in the middle of a war or that they are thinking deep thoughts, but the function of the digital technology in this case is to create the belief, not to create the actual world. Virtual auto-racing would be much less appealing if the crashes involved broken bones or death by crushing, or if the drivers had to find sponsors to pay for the gasoline. And Murray does not dare talk about the appeal of interactive pornography, which is exactly the challenge that Huxley's vision represents.

No one, to my knowledge, has created a virtual reality that tries to replicate the experience of watching television or taking a shower. Also, and more importantly, only virtual people can live in a virtual reality. If I participate in a simulation of the 1960s, I would still be someone who grew up during the 1970s and I would have a different sense of what is happening if only because I have some sense of what will happen. It is like reading a novel or watching a movie for a second time. A more accurate and comprehensive virtual reality

\textsuperscript{24} Murray, \textit{Hamlet on the Holodeck}, page 270.
would include a simulation of growing up in the 1950s, with all the various reactions to growing up in that decade. But even then, a simulation of growing up creates a level of abstraction from the events: I have already grown up and am now watching a simulated me growing up in a simulated world. While it may be experiencing a virtual world of the highest quality, it is not an authentic world in the sense that it is not and can never be the reader’s world. No matter what I experience or which buttons I press, I can never become a dinosaur.

For thinkers such as Negroponte, the best kind of interface is the one that we are not aware of, because it is only then that “the content of your communication dominates.” As with much of Negroponte’s discussion, there is a sense in which this is true, that the media tends to obstruct the message and that people are frustrated and hindered by the clunkiness of the interface. Murray likewise appeals to the ideal of transparency:

Eventually all successful story-telling technologies become “transparent”: we lose consciousness of the medium and see neither print nor film but only the power of the story itself. If digital art reaches the same level of expressiveness as these older media, we will no longer concern ourselves with how we are receiving the information.

25 There is a considerable literature on the problem of the authentic music performances that shares some elements with the problem of virtual reality.
26 Negroponte, Being Digital, page 93.
The ideal computer interactions are the ones where the computer is transparent, when people do not even realize that there is an interface and do not think about where the information is coming from. People should never look at the man behind the green curtain. There is a key distinction here between what the user has access to and what the creator of the digital text has access to. Murray recommends that the software background should not be made accessible to the reader. “Giving the audience access to the raw material of creation runs the risk of undermining the narrative experience.” The goal, then, is not to read text well, but to experience the story appropriately. It is as if we should go out of our way to create the kind of possession that Hobbes relates occurring in Abdera because that is the ideal human situation.

But to take transparency, or a forgetting of interface, as a goal for the design of text is open to challenge because it undermines a political understanding of texts. Roszak points out that the transparency of the interface is connected to the transparency of the political and meaning-creating relationships that occur. If readers do not think about the interface, if the primary goal is immersion, then an important aspect of reading is no longer supported. We do not care where text comes from. The ideal of immersion thus means not being critical of the way that text is being presented. Of course, the interface does not go away, it is just no longer thought about. The alternative, which resists immersion, is to keep thinking about what it is to read whether the text encourages that activity or not. Biases, exclusions,

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falsifications, and a host of other distortions exist and it is the task of the critical reader to be aware, not only of what is being presented, but how it is being presented, and how it could have been presented differently.

Multimedia can still be superior to printed books, but if the superiority depends on reducing how much people think about the textual process or about the assumptions that the author made, then we must wonder what kind of superiority is being advocated.

• Hypertext

Text in a digital world not only integrates a variety of different already-existing media into one gadget. The connections between different texts also change. The key term here is “hypertext,” which is contrasted to the linear text one would find in a printed book. Non-linearity, as a style of reading and of thinking, was a key feature of Vannevar Bush’s Memex system, which, as he writes:

affords an immediate step, however, to associative indexing, the basic idea

of which is a provision whereby any item may be caused at will to select

immediately and automatically another.29

Bush’s article, first published in July, 1945, never uses “hypertext”, a term that was coined in the 1960s, but the article is often credited with offering an early vision of an expansive hypertextual system. The basic idea is that textual

29 Bush, “As We May Think.” Online.
technology can be used to mark different paths through texts, so that readers can easily move from one text to another, and from one textual path to another. Bush's system was not digital, it was based on microfilm technology. It is for imagining the structure of the text and the reader's interaction with it that Bush has become a key visionary of the hypertext world. Writers such as Murray have reiterated his ideal. She writes:

This earliest vision of hypertext reflects the classic American quest—a charting of the wilderness, an imposition of order over chaos, and the mastery of vast resources for concrete, practical purposes. In Bush's view, the infinite web of human knowledge is a solvable maze, open to rational organization. 30

One definition of hypertext found on the internet is that it is "any text that contains links to other documents - words or phrases in the document that can be chosen by a reader and which cause another document to be retrieved and displayed." 31 A definition of hypertext found in a printed dictionary is similar: "a program that provides multiple pathways through text, enabling the user to follow existing hyperlinks, to link related items of text together, or retrieve linked cross-references, in a non-linear and 'random-access' manner." 32

Interestingly, whereas the first definition focuses on the organization of the text, the second focuses on the technology designed to implement that textual organization.

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30 Murray, Hamlet on the Holodeck, page 91.
organization — it is this combination of technologies and organization that is
the most important.

With hypertext, the expectations of organization change. Lanham claims that “the Aristotelian categories of beginning, middle, and end ... are based on
fixed texts”33 which are no longer necessary with hypertext. “Instead,”
Holtzman claims, “we will expect the freedom to jump in a discontinuous
fashion, from idea to idea, independent of the constraints of space and
time.”34 What these changes in the movement within text mean is that the
process of reading itself changes. The reader no longer expects that a work
either can or should be read from cover to cover. Readers will only read what
is important, meaning perhaps only what is obviously and immediately
important. In fact, with some hypertext, there is nothing that corresponds to
covers and so there is a different sense of beginning and ending, if there is any
sense at all.

But the dissolution of linearity is not limited to the organization of text, it
is also offered as a new way of thinking. As Holtzman notes, “The traditional
linearity, sustained narrative, and cohesive argument is coming to an end.”35

But what other arguments are there? What other kinds of coherence?
Holtzman nowhere engages with the response that his attack on linear
arguments is an attack on arguments as such.

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33 Lanham, The Electronic Word, page 125.
The change here is not only in how people read — after all, people can read a linear text in a non-linear way by flipping from one page to another, or moving back and forth from one passage to another or even by thinking about one passage while reading another. The important change is that technology makes the text itself non-linear, that the recommended move from one passage to another which would have been fixed in printed text, now involves a choice on the part of the reader and a corresponding sense that the textual world is an open field of possibilities where linearity, if it exists at all, is a product of the reader and not of the author or the text. Murray writes:

new explorers of the World Wide Web find themselves entranced with the ability to leap around the world, following links from one home page or Web site to the next mostly for the pleasure of the repeated arrivals. The navigational pleasures are richly exploited by the many forms of labyrinths, from Zork-like dungeons to informational webs, that fill cyberspace. All of them allow us to experience pleasures specific to intentional navigation: orienting ourselves by landmarks, mapping a space mentally to match our experience, and admiring the justapositions and changes in perspective that derive from moving through an intricate environment.36

Hypertext links, as tags in the text that are used by both readers and computers, indicate (however obliquely) that there is a significant connection at that point in the text. Any other connections are hidden and, given our increased ability to move around the text, they are likely unlooked for. For this


Chapter 5: The Challenge of Digitization
reason, navigation in hypertext may not give people better access to the text, because the obvious connections blind readers to other possibilities, to other readings.

The argument against the book and in favour of a non-linear presentation of text is based on the book's inherent linearity. Holtzman argues:

When you open a book, you may glance over the contents page and see how the book is broken into parts or chapters. You look at the title of each chapter to get a sense of the book. You flip through the pages from beginning to end.

You expect that the ideas presented in the book will follow a straight line. The story or argument takes the form of a seemingly necessary structure, with a definite start and a definite end. It progresses on the basis of clear notions of logic and sequential succession. Earlier chapters and events point to what follows. It's linear. 37

But this is true only if you read the book once, and only if the narrative is linear and if the passages do not foreshadow or refer the reader to other passages. The pages of a book may have to be bound one page after another, but that does not mean that the structure of the text has to be linear or that the reader cannot read printed text non-linearly, even if the text is printed in a linear way.

However, the non-linear organization of text is not an invention of digital technologies. Laurence Stern's *Tristram Shandy* is one important example of a

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non-linear narrative style, where digressions dominate the story. Of course, the reader is supposed to read *Tristram Shandy* linearly, meaning from cover to cover, but the *experience* of reading the book is far from linear. Sterne wrote, as a digression in the book itself, about the value of digressions:

> Digressions, incontestably, are the sunshine; — they are the life, the soul of reading! — take them out of this book, for instance, — you might as well take the book along with them; — one cold eternal winter would reign in every page of it; restore them to the writer; — he steps forth like a bridegroom, — bids All-hail; brings in variety, and forbids the appetite to fail. 38

Even if the readers are encouraged to read in linear ways, from one page to the next, it does not follow that they are encouraged to think in linear terms. Flashbacks, foreshadowing and parallel stories all encourage something more than mere linearity. Along the same lines, Murray makes a considerable amount out of the "encyclopedic" character of hypertext fiction, but she does not reflect on the fact that the encyclopedia has been a form of the printed book since its inception and that many important works from both fiction and non-fiction have an encyclopedic character (such as Boccacio's *Decameron*). In other words, her rejection of the printed book depends on the limits that she places on that form, while at the same time she appeals to a book format to illustrate what is wrong with books. Hypertext may make non-linearity easier to accomplish, at least for the lazy reader, but arguing that printed texts are linear and that non-linearity is a product of digital texts is incorrect.


Chapter 5: The Challenge of Digitization
While some writers claim that books are trapped by a linear structure, it may be that those writers are not using their books properly. What appeals to proponents of digital text is the ability to link one piece of text to another, allowing readers to move from one passage to another passage even though the normal movement would be in a different direction. In the world of print, such technologies as footnotes, embedded references, bibliographies, indexes, and concordances would create this hypertext structure, leading people to other texts or other parts of the same text. With a physical book, reading aids such as an index can indicate what is important in the text, which leads the reader to particular passages or sections. The index, then, allows for people to travel non-linearly through the text. The process of retrieval and display tends to be a bit slower, but the structure is not much different. Texts contain links to other texts, and it is these links that Vannevar Bush is attempting to make easier and more expansive. He is still working in his library, but his ability to access that library has changed.

One example of a specialized and comprehensive index is a concordance. The first concordance of the Vulgate was produced under the guidance of the Dominican Hugo de Saint-Cher and was completed in 1230. Before that, in the 10th century, the Masoretes had made word lists at the end of Hebrew Scriptures to help the readers. The concordance allowed for a particular kind of textual research, one where people no longer read books from cover to cover. Instead, they searched for particular half-remembered passages or tried to
locate all of the instances of a particular word. Computers can search more effectively. While there is no editorial evaluation, there are also no arbitrary exceptions connected to the biases and expectations of the person producing the concordance. But searching is normally not the example that is used to imagine hypertext. The author, or some other human content provider, should construct the links, offering the readers a variety of interesting or meaningful directions. Hypertext is about readers moving through and interpreting text, not about finding with search engines.

One interesting connection between the print index and hypertext is that similar arguments have been made against both of them for how they fragment texts that should be approached in a much more organized way. There are those who complained about book indexes in the same way that people now complain about hypertext. As Thomas Fuller noted in the 17th century:

> An INDEX is a necessary implement, and no impediment of a book, except in the same sense wherein the carriages of an army are termed Impedimenta. Without this, a large author is but a labyrinth without a clue to direct the reader therein. I confess there is a lazy kind of learning which is only Indical; when scholars (like adders which only bite the horse's heels) nibble but at the tables, which are *calces librorum*, neglecting the body of the book. But though the idle deserve no crutches (let not a staff be used by them, but on them), pity it is the weary should be denied the benefit thereof, and
industrious scholars prohibited the accommodation of an index, most used by those who most pretend to contemn it.\textsuperscript{39}

For some, the index has a profoundly negative impact on scholarship, allowing a superficial, fragmented interaction with a text what was not written to be approached in a superficial or fragmentary way. The reader acquires a kind of power over the text, but that power is not used well.

It may be objected that the index, if it has anything to do with hypertext, is merely a precursor that has very little to do with the practical possibilities created when digital text becomes hypertext. There is an element of truth here, but more in the practical rather than the theoretical implementation of the index. Indexes, tables of content, concordances, footnotes, and so on all point the reader to other texts. But there are practical limitations to how much can be indexed and also to how much time and resources are necessary for the reader to actually take advantage of the system. Creating a concordance is a massive undertaking that produces a massive book that has almost no commercial value. And where one is available, it still only allows the researcher to look up one word at a time, without the ability to put words together or perform any kind of proximate searching. But while the index may be a weak keyword search tool, its existence still means that some of the features of digital text already existed in a print system and that the ideal, while impractical, was still desired because people could see the value of engaging with a book in a non-linear way.

\textsuperscript{39} D'Israeli, \textit{Curiosities of Literature}, page 68.
Although the printed book is typically the main opponent of those who use hypertext to attack linearity, television is a much more appropriate enemy. Television is aggressively linear and more than any other medium it encourages the reader to be passive. Lanham criticizes television because, at a critical period in a person’s life, when they should be “talking and listening” (his terms), they are watching T.V. “Such narcotic displacement would be comparable to brain damage caused by chemical narcotics.”

But those who argue in favour of the book make the same claim. Neil Postman, for instance, argues that the problem with television is not with the linearity of the presentation, but with the quickness of the presentation and the way that the television controls the pace and time of reading. The problem is not that television presents text in a linear way, but that it all but forces readers to approach the text in a linear way.

The criticism that many people now make of television parallels the criticism that Plato made of the sophists. Linearity, however, can be understood in various ways. Text can be linear or non-linear depending on how closely connected the story is tied to a particular narrative timeline. A presentation of text, on the other hand, can be linear in the sense that it provides the reader no opportunity to jump around. Thus, a television program could be non-linear in the sense that it is organized without a clear beginning, middle, and end, but at the same time could be strictly linear in the sense that the reader’s time is dictated by the progression of the presentation.

A key part of reading well for a thinker such as Postman is to *not* read in a linear way. Even if we read in a linear way, we ought to *think* and engage with the text in a non-linear way, because it is only then that we can adequately engage with the whole. The good reader is someone who skips around the text, making sure that the entire argument hangs together and that the claims made at one point are consistent with the claims made elsewhere. We ought to read Socratically, interrupting the speaker any time that we have a question. Television, on the other hand, makes it difficult to be an active reader. With television, the reader cannot adequately control the conditions of reading: the television carries on at its own pace in its own path, even if the reader wants to answer back or move to a different point.

* A Sense of the Whole

Digital text once again raises the problem of time (and specifically of the impermanence of text through time) while at the same time undermining key elements of the static and dependable printed text (specifically by dissolving the organizing power once exerted by the publisher, the bookstore and the library). With the world of text, the library solved the problem of the practical access to text with librarians, catalogs, and call numbers, but also by using print technology to make texts more predictable, so that once books were put on the shelves, they would never change and there were very few reasons for them to move, unless they were being borrowed by a patron. There are no libraries
or bookshelves in world of digital text. Of course, libraries and shelves can be used to *imagine* the organization of digital texts in the same way that personal computers have "desktops." But these images are fleeting. The sense of the whole that is created with digital texts is created primarily through the idea of the web, where, in principle, all texts could be accessible to everyone.

Since every form of representation is migrating to electronic form and all the world's computers are potentially accessible to one another, we can now conceive of a single comprehensive global library of paintings, films, books, newspapers, television programs, and databases, a library that would be accessible from any point on the globe. It is as if the modern version of the great library of Alexandria, which contained all the knowledge of the ancient world, is about to rematerialize in the infinite expanses of cyberspace.41

But the idea that we find our way around the world of digital text is misleading — it assumes that there is a fixed goal rather than a much more vague sense of getting enough text to make us happy.

The internet has little of the permanence of the medium that the library relied upon, and it creates a challenge similar to, but on a much greater scale than, the challenge posed by the Mississippi River. Here is Mark Twain's image of the untamed river as an ever-changing information space:

One cannot easily realize what a tremendous thing it is to know every trivial detail of twelve hundred miles of river and know it with absolute exactness.

41 Murray, *Hamlet on the Holodeck*, page 84.
If you will take the longest street in New York, and travel up and down it, conning its features patiently until you know every house and window and lamp-post and big and little sign by heart, and know them so accurately that you can instantly name the one you are abreast of when you are set down at random in that street in the middle of an inky black night, you will then have a tolerable notion of the amount and the exactness of a pilot's knowledge who carries the Mississippi River in his head. And then, if you will go on until you know every street-crossing, the character, size, and position of the crossing-stones, and the varying depth of mud in each of these numberless places, you will have some idea of what the pilot must know in order to keep a Mississippi steamer out of trouble. Next, if you will take half of the signs in that long street, and change their places once a month, and still manage to know their new positions accurately on dark nights, and keep up with these repeated changes without making any mistakes, you will understand what is required of a pilot's peerless memory by the fickle Mississippi.  

A key practical problem that is faced by these ever-changing expanses of digital text is that people still have to find their way around. But most people do not have enough time, skill or patience needed to find their way around such a complex and ever-changing world. Most people do not want to be pilots, they want to be passengers. But with the internet people are forced to become

[42 Twain, *Life on the Mississippi*, page 108]
pilots, pilots that never see the actual river. Rather than the bookshelf and the library, the sense of the whole is created through search engines and directories, which provide users with a response to their queries. Readers never see the digital equivalent of the card catalog, we never see where the search takes place or what we are searching, we only see the results and are told that they answer our questions. The implication of this new relationship to the textual world is that while we are always at the edge of being lost, but usually able to find enough text to get by, at least for now and so long as we do not try to do too much.

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Digitization changes the conditions in which text is imagined, created, preserved, duplicated, and read. Digital technology is not a new kind of paper (although it could be described in those terms). Digital technologies will likely recreate the entire textual system, not only indirectly, but also directly, as digital technologies replace mechanical and analog technologies that had dominated before. However, while the changes have been and will continue to be profound, neither the technologies nor the texts can be understood in isolation from the social or more generally the material conditions in which specific readers have the option of accessing specific texts in specific ways. Texts are created. Technologies are developed, produced, and controlled. To understand the morality of reading, therefore, it is also essential to consider the role that institutions play in the whole process.
Chapter 6

Institutional Organizations of Text

If I study the books on the shelves near my desk, I can easily form some sense of where they came from. I remember where I bought many of them, and almost all of them had to be bought from somewhere. Printed books are commodities, after all. There is also evidence, even on the spine, of who printed them — many are from commercial publishers such as Penguin and HarperCollins and many others are from university publishers such as Cambridge and Harvard. While I was the one who ultimately decided which books would be on my bookshelves, it is also the case that my collection has come to exist at the end of a long series of events that tie together authors, publishers, booksellers, university classes, and whatever and whoever else made it possible for me to exchange money for the pieces of paper that fill my shelves. In my more suspicious moments, I worry about how my bookshelves have been influenced by decisions made by people like Rupert Murdoch, his cronies, or some other fanatics who, more concerned with ideological conformity than discussion, have used their economic power over textual production to support rather narrow and self-serving political goals. And even when I am not consumed by suspicions, even when I resist labelling people
"cronies" or "fanatics" because it might be going too far, it is still worth thinking about where the texts that are available to me have come from. These are the books that I read, the books that I quote from, the books that help me think, and the books that I live with. Who created my textual world is at least as important a moral concern as who created my physical, social and spiritual world.

Texts do not come into existence randomly or by their own volition, and the conditions of reading them are always subject to forces beyond the reader’s immediate control or even awareness. It is not enough to choose well. To engage the textual world effectively, it is also necessary to understand why some options exist and why other options never did. Texts and reading exist alongside social institutions (including such things as businesses, schools, legal structures, and governments) that encourage, hinder or destroy both the content of text and practices of reading. If text is never created, then it can never be read, and if it is never reproduced, then it can only be read by a small number of people. Any moral evaluation of reading must thus consider how texts are created, how they circulate, and how people are able to find the time, the desire, and the skill to read what is available. Institutions can profoundly affect how text and technologies are used, whether by funding the creation of text and technologies, by using technologies to influence the process of reading, or by any other concerted effort to create, change, or limit what texts exist and how they exist.
The world of text connects authors and readers. This is true even if the author is unknown or has been dead for thousands of years, which is one reason why institutions are so important. Thus, unless people are horribly mistaken about the history, there must be an uninterrupted series of objects, events, and situations that connects Seneca writing a letter somewhere in the middle of the Roman Empire in the 1st century to my reading that letter a few weeks ago at a coffee shop somewhere in the middle of the Pacific Ocean. Focusing on the process, on what is in between, however, makes the discussion much more complicated because it is then not enough to talk about the book (or even the printing press). My reading Seneca’s *Letters From a Stoic* involved bookstores, logging companies, container cargo ships, the post-World War Two changes in textual production which created Penguin paperbacks, Wadham College at Oxford where the translator studied Latin, Achilles Beltrami, the man who edited the printed version of Seneca’s Latin work which was definitive at the time, and the Quirinian Library in Brescia, where one of the best surviving manuscripts of Seneca’s *Letters From a Stoic* has been protected from the ravages of time.

Reading a book, a web page, or a newspaper article is the final stage of a very complicated institutional process. Of course, the most obvious kinds of institutions connected to the printing press are the publisher, the bookstore and the library. Every member of each of these institutions have their own character, status and purpose. Some publishers are general commercial
ventures while others are created as tools for political and intellectual movements, such as the missionary presses in the 19th century or the university presses of the 20th century. Different libraries also have different goals: some are nationalistic, some are connected to specific social groups, and others are intended to serve broad and amorphous communities. There are also many other institutions that are not part of the direct linear connection between author and reader, such as the National Academy of Science, private foundations, museums, universities, and special-interest associations that all effect what one writer termed “the ecology of knowledge,”¹ but which should be expanded to the entire world of text.

Not only do different people and institutions have different relationships to the world of text, and not only can those different relationships be extremely unequal, there is also an important political debate over who controls or influences those institutions. One example is the concern for who controls the daily press, which offers the most timely account of what is happening in the world. As the ownership of newspapers, television stations and publishing houses becomes more and more consolidated, fears have arisen over the lack of diversity in what texts are available and specifically over how many different perspectives are present in the mainstream press. Another key political issue is who should control collection development in public libraries (with the main contenders being librarians, legislators, and parents). The ideal of the public

library as a broad social institution, and of the librarian as an independent professional, have thus been challenged as others attempt to extend their control over that particular textual institution.

Textual technologies are connected to institutions and it is often as advocates or guardians of those technologies that the institutions find a purpose and justification in a society. The telegraph has the telegraph office, printing has the publisher, the bookstore and the library. Digital text has its own institutions and, while one current contest is between digital and analog technologies, another is between different institutions who are trying to mould and control digital technologies. Microsoft is the obvious front-runner in many aspects of the digital world. The traditional book publishers, who maintain an upper hand because they control the copyright to so many different books, are on both sides of the contest: on the one hand wanting to maintain the importance of the book (which is their primary business model) but then at the same time wanting to maintain or expand their control over the world of text by establishing themselves in the digital portion of that world. While the conflicts between and over institutions are political and economic, the debates are important for moral reasons: it matters who controls the means of textual production because what is created — the newest addition to the world of text — is so important for living well.
• A Room of One's Own

In *A Room of One's Own*, Virginia Woolf describes the relationship in her society between social and economic power on the one hand and the possibilities of engaging with and producing text on the other. When Woolf approaches one of the libraries at an English college trying to look at Milton's manuscript of *Lycidas*, she writes on reaching the door:

I must have opened it, for instantly there issued, like a guardian angel barring the way with a flutter of black gown instead of white wings, a deprecating, silvery, kindly gentleman, who regretted in a low voice as he waved me back that ladies are only admitted to the library if accompanied by a Fellow of the College or furnished with a letter of introduction.2

Woolf is not simply concerned with architecture and with which strangely-dressed people get to control which rooms in a building. Woolf is concerned with the patterns of social power, and with offering a sense of how institutions are important to the whole process of reading and writing. Woolf has a deep concern for the intense relationship between language and power, understood both in material and personal ways. The point of having a room of one's own is to enable women to secure the separation and time necessary to create a voice, or voices, which would not be totally overwhelmed by already-established demands. Without a separate room, understood both literally and metaphorically, it is impossible to read or write effectively and without perverting the text with petty fear, anger or resentment.

If she could gain access to the library, Woolf thinks that she could amuse herself “with guessing which word it could have been that Milton had altered, and why.” The library was preserving Milton’s manuscript, and so this amusement was only possible at this particular library. For Charles Lamb, Woolf notes, it was even shocking to “think it possible that any word in Lycidas could have been different from what it is.”

For Lamb, to imagine the text as a written production, worked over, edited, and finally sent to a publisher, undercuts the transcendent brilliance of the work and changes the work from a timeless idea into an artistic production fraught with practical limitations, compromises and even mistakes. Lamb, it should be noted, was likely closer to Milton’s own ideal than Woolf was, stressing as he did the purified spiritual ideal over the materiality of textual existence.

As a whole, the library at Oxbridge that Woolf is unable to enter is also an institution that supports a sense of textual transcendence, using opulent and antiquarian material conditions to create the illusion that material conditions do not matter. The institution creates a sense that texts are not only timeless, but that they are also created in a way that somehow evades the messiness of human creation. The building stores manuscripts in ways that erase their being manuscripts — the texts are worshipped, not studied for what they reveal of the writing process. The text is spiritualized, given an aura, to the point where its materiality offers no threats to its intellectual purity. These material

3 Woolf, A Room of One’s Own, page 7.
conditions are in part why Milton's manuscript, as a manuscript, is such an outrage for Lamb, who evidently saw behind the façade of the building and its surroundings.

For Woolf, our relationship to text is conditioned in fundamental ways by how we exist as physical beings in the physical world, what resources, time, and energy we have available. The great writer does not write in abstraction. To be great, to add something great to the textual world, the writer needs specific personal, material, social and textual conditions. It is these conditions that Woolf spends much of A Room of One's Own exploring, whether it is access to the great libraries of England, or to the books that help the writer write well, or to the societies that are willing to let certain kinds of people travel without hindrance or threat. Woolf is not Cartesian; her goal is not to escape society and materiality but rather to find a way to thrive in it. She writes:

The human frame being what it is, heart, body and brain all mixed together, and not contained in separate compartments as they will be no doubt in another million years, a good dinner is of great importance to good talk. One cannot think well, love well, sleep well, if one has not dined well. The lamp in the spine does not light on beef and prunes.\(^4\)

For Woolf, the ideal author is someone who is free from petty, worldly concerns and who is then able to write without resentment or fear — it is not an activity for the downtrodden, the excluded, or the harried. Without support,

\(^4\) Woolf, A Room of One's Own, page 18.
what the author has available to write cannot be written. The proper organization of material resources is thus essential for a great author to exist. The author must be someone who does not have to do anything in particular or react to any person in particular, and so can write simply out of a desire to write, to be an artist, to express something that is great.

The proper organization of resources, in turn, is connected to the institutions who control those resources. For Woolf, social power is traced back to men who, “with the exception of the fog ... seemed to control everything.” However, her argument is really directed towards wealthy men who are well-connected to centers of power. Thus, while Woolf focuses on the situation faced by women in England, similar concerns have been voiced for other groups. The institutions that connect to texts are all tied to political commitments and struggles. Men in the working class are in a similar position as women, standing outside the library trying to get in. As William Morris noted in his *Hopes and Fears for Art*, what the artist needs is:

Money enough to keep him from fear of want or degradation for him and his;

leisure enough from bread-earning work (even though it be pleasant to him)

to give him time to read and think, and connect his own life with the life of the great world.

The problem, for Morris, is that capitalism organizes society so that workers have little time and no energy left to do anything beyond work except to

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5 Woolf, *A Room of One's Own*, page 34.
recover from work. Post-colonial writers likewise have been deeply concerned with what Homi Babha has referred to as "the struggle for the historical and ethical right to signify,"7 for the ability and the recognition to use texts effectively in their political engagements in the world. Edward Said sums up the general political awareness well:

reading and writing texts are never neutral activities: there are interests, powers, passions, pleasures entailed no matter how aesthetic or entertaining the work. Media, political economy, mass institutions — in fine, the tracings of secular power and the influence of the state — are part of what we call literature.8

With Said, the inequalities and the power structures are more complicated than they are with Woolf, even if he ends up with a similar group as the ones dominating the key institutions. What is shared is the idea that a particular group, defined in this case by its gender, race, and wealth, can dominate the world of text because they can dominate the institutions that produce, store, and distribute text in ways that allow little if any alternatives.

The claim that a single group can dominate such a complex process and use that domination to affect people so profoundly may not sit well with some readers. The argument here is not complicated. If the reader is affected by how text exists, then who or what makes the text available is obviously important. The greater relevance that the availability of text has to the reader, the greater

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7 Quoted in Willinsky, *Learning to Divide*, page 197.
relevance the textual *institutions* will also have. At any given point, we read what we can find and what we are looking for, but what we can find and what we are looking for depend to a large degree on what text has been made available to us and to those who are helping us decide what to look for. Over the course of our lives, the institutions have some influence on decisions that we make concerning what we are, what we want to read, and what we are capable of reading. Over time, the impact of institutions is pervasive, gradually creating readers and giving them texts to read. Thus, those who control the textual institutions control the texts, and by controlling the texts, they control us.

At this point, readers might wonder, if not be troubled by, what is meant by "institutions." Some readers have probably accepted without question the existence, and even the personification, of institutions — libraries do this, publishers do that — but others are probably less persuaded, suspicious of the personification or even of the existence of institutions, believing instead that talk of institutions is at best a shorthand way to talk about human beings acting together. The division here, however, may be more semantic than substantive. The point is to avoid the errors of giving either individuals or institutions a mythically separate existence. An institution is a collective, structured human activity with its own rituals, expectations, material resources and goals, that is given a separate, if fictional, existence. A library, for instance, could be understood as the librarians, the circulation staff, the custodians, and a host of
other individuals, but enumerating the individuals does not describe the institution, in the same way that describing the materials that are used to create a house is not the same as describing a house. At the very least, when people face an institution, they face other people with specific resources (buildings and budgets) who are acting in a concerted way and believe that they are acting together as functional parts of a single system. So when an institution acts, it is individuals who are the primary agents, but those agents are acting in the name of the institution, using the resources and wrapping themselves within the authority of the institution. Thus the black-gowned librarian at Oxbridge is not simply an individual who stops Woolf from entering the library, the librarian is someone who is connected, in complex and expansive ways, to the rituals and authority structures of the entire society. In other words, the librarian does not stop Woolf for merely physical or personal reasons (otherwise she could ask a passer-by for help in overpowering him), but rather for institutional reasons that are supported by the society as a whole.

Different technologies are tied to the social and political systems and struggles that helped create, and more importantly that helped implement, those different technologies. Different textual technologies create different, and often unequal, capacities to participate in the textual world. In other words, the institutions and the technologies organize power relations in the society. The existence and actions of these institutions are thus an important moral topic. With Hobbes and Milton, the key political question was the nature and
legitimacy of the sovereign. Legitimacy is still a concern, but now the focus is less on the subject's relationship to the king or to parliament and more on the best organization of power, regulations, and policies of a wide range of different institutions. How is the existence of different textual institutions justified or criticised? How might they be changed to improve human existence?

- **Institutions of Analog Text**

  The conditions of textuality in the medieval manuscript system were closely tied to the resources and goals of monasteries. Conditions of scarcity and strict hierarchical control were pervasive. Deciding which texts survived and which ones were erased and written over, decisions that were largely demanded by the scarcity of parchment, resided with those who controlled the monasteries, and who therefore controlled the activities of the priests in those monasteries. The conditions of textuality in the medieval manuscript system help to explain the diametrically opposed evaluations that have recently been given of that system. On the one hand, the monasteries were destroyers of text, often choosing to erase classical Greek and Roman texts so that they could write down what are now considered to be at best mediocre Christian works. On the other hand, the monasteries preserved many of the Greek and Roman texts that survived at all.

  With the printing press, new institutions were created. Some, like the publisher and the library, replaced the monastery as the main producer and
preserver of text. Others, like the bookstore, performed functions that did not exist in a scriptorium system, although they likely existed during the Roman Empire when there were enough books to support a market. New moral issues arose, such as the freedom of the press copyright. The details of these arguments and political struggles, while interesting, are best found elsewhere. The general point here is that the technology created new institutions and textual possibilities, which in turn created political struggles over who would control those institutions and possibilities. In Woolf's time, those struggles had largely ended, at least for the time being, and one faction of society had gained control over the textual world. For Woolf, the result was a defeat. For others, the result was a triumph.

In On Liberty, first published in 1859, Mill puts to one side questions of the freedom of the press, believing that the argument no longer needs to be made because it has been "so often and so triumphantly enforced by preceding writings that it needs not be specially insisted on in this place." Mill, writing two centuries after Milton's Areopagitica was first published, could take the value of a free press (that is, privately-owned businesses free from government interference) for granted. As a result, Mill also offers his readers little help in thinking through economic and social challenges to the freedom of the press, either in terms offered by Woolf or where, more recently, large

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9 This is an immense literature. Some suggestions are Annabel Patterson's Censorship and Interpretation, Joad Raymon's News, Newspapers, and Society in Early Modern Britain, and anything by Robert Darnton.

corporations, which have little commitment to a high quality political discourse, control the printing presses and therefore undermine the optimism that Mill had towards the process. John Raulston Saul has noted that:

> when the printing press was introduced, the result was not an economic revolution, but a humanist revolution, driven by language, beliefs and a desire to understand .... High tech communications have been quite different from their beginnings. Government and industry have been at the centre of development, constantly striving for control.\(^\text{11}\)

For Saul, one of the key differences between print and digital technologies is that the development of digital technology has been implicated in political power from the very beginning, whereas print technology's relationship to political power was much less intense and sometimes much more adversarial. On Saul's account, print institutions opposed the established power whereas digital institutions have always been controlled by the ruling group.

Saul, however, is misrepresenting the history of the printing press, taking a later but arguably more profound implication of printing as the initial impetus for developing the technology. In the first decades, there was nothing that could be called a revolution, and short-term economic goals were the dominant motives for developing and using the technology. The printing press could produce more books and produce them more cheaply than the manuscript system could. From the very beginning, printed books were

\(^{11}\) Saul, *The Unconscious Civilization*, page 144.
produced to be sold. Printed books have always been part of a capitalist system, becoming commodities that had to be exchanged for money, even if they were also part of humanist or revolutionary projects. In fact, writers such as Lucien Febvre and Henri-Jean Martin have argued that the printing press was the first example of a capitalist enterprise.\textsuperscript{12} Even in a patronage system, books were ultimately commodities — what patronage affected was who was able to become an author and often what and how an author wrote.

The bookstore is another key institution built on the social commodification of printed text. How books have been sold varies from place to place and time to time. In 18th century England, booksellers with horse-drawn carts would work their way through the countryside. Book publishers would sell their books directly to readers through subscriptions or from the printing establishment. With the advent of the postal system in the middle of the 19th century, books were also sold through the mail.\textsuperscript{13} There were bookstores, and then chains of bookstores, and now millions of books are also sold online every year.

Once a concern for institutions is brought into the discussion, the value of the book is understood in conflicting ways: as a humanist object of reverence and an institutional object that has an economic or instrumental value. Readers

\textsuperscript{12} See, for instance, their discussion in \textit{The Coming of the Book: The Impact of Printing 1450-1800}, chapters 4 and 5 in particular.

\textsuperscript{13} One interesting history of the early book trade in the Unites States is William Charvat’s \textit{Literary Publishing in America: 1790-1850}, which among other things discusses the importance of Emerson’s popularity in the creation of a national book industry, which in turn influenced the creation of national authors.
are often shocked by what publishers, bookstores and libraries do to printed
texts, thinking that the institutions that distribute printed texts will share the
same reverence for text that readers often have. But the reality is somewhat
different. To a bookstore, economic efficiency is at least as important as
anything else. To a bookstore, the book is a physical object and a commodity
that has to be ordered, looked up, unpacked, organized, restocked, returned
and disposed of. A book needs to be transported (with associated costs) from
the publisher to the retailer, from the back room to the shelves, and from the
shelves through the cash register and out the door. After the book is sold, its
fate is much less predictable, although there are several typical paths, which
involve musty book shelves and used bookstores, basements, or attics. If
books do not sell, meaning that they become a liability to the bookstore and
the publisher, then they still have to be dealt with, either by being returned to
the publisher, discounted, or, if they are paperbacks, stripped. Stripping,
incidentally, is a process that involves ripping the front cover off the
paperback, destroying the rest of the book, and returning the cover to the
publisher for credit. The economic rationale for this process is that a paperback
costs pennies for the publisher to produce, and it costs more for the bookstore
and the publisher to return an unsold paperback (in terms of labour, shipping
and storage costs) than it does to produce the paperback in the first place. It is
more efficient to destroy the books than to keep them or give them away.
Destroying what were once vials of reason has become the norm, even for

Chapter 6: Institutional Organizations of Text

#224
those who are part of the book business, because the technology and the economics of book production have made books too numerous.

In addition to institutions that create and distribute books, the print system also expanded the role of the institutions that preserved books. Left on its own, a book printed on cloth or pulp paper would be lucky to last a year. What was needed, and what has flourished at various points in history is the library. Libraries existed prior to the printing press, dating back to rooms and buildings that were used to store clay tablets that recorded religious and political texts.\(^\text{14}\) As may be expected, the goals and organizations of the libraries vary from one situation to another. Libraries typically served the interests of those who built and maintained them. But the privileges and limitations connected to libraries are not all the same. For instance, while Woolf cannot gain admittance to an Oxbridge college library, libraries like the British Museum are open to anyone with the time and inclination to go in. Woolf’s criticism there, however, is not focused on access, but on the quality of the books that are there to be accessed. The books in the library are biased. For Woolf, the bias is tied back to the biases of the society, to those who created the authors and controlled the printing presses.

With the textual world moulded by the printing press, a split developed between libraries and archives. The archive collects what people might want access to one day — society’s equivalent to the boxes of old financial statements.

\(^{14}\) Harris, History of Libraries in the Western World, page 7.
and photographs tucked away at the bottom of a closet. The justification for the archive is tied to the desires of the researcher, not only now, but in the future. With an archive, there is storage, but little dissemination. An archive is a collection of potential memories, of possible research projects. It is composed of the singular and the no longer public. As a result, the archive is a better place to find the traces of the defeated, the marginalized, and the silenced, but it is also a place where text is harder to access.

The library always existed in relation to the texts, but it began to exist increasingly for the reader, and the public reader at that. The mass-production and commodification of texts through the printed book changed the way that libraries were organized and evaluated. Modern lending libraries enhance the possibilities of reading for various reasons, and in particular because the library makes texts available to readers who may not be able to gain access to the texts in another way. Whether the library is public or restricted, the core rationale for a lending library is to buy one copy of a book and allow many people to read it. The rationale is economic. Storage, the preservation of text, only happens when the text has not been checked out to be read. Access is the key goal of public libraries.

Access, however, is not the final goal. The public library has a political and moral purpose for encouraging the dissemination of text. There is a connection between public libraries and democratic values and specifically the citizen’s need for the right information to make informed political decisions. One of the
fundamental values of the public library derives from the value of maintaining a politically engaged public, where people are able to access the texts that they need without concern for who they are or how much they are able to pay. As Roszak notes in his general attack on digital text: "the library and its contents ... offer the most compelling reminder of, and the freest access to, the whole fabric of memory and knowledge."15 As a result, shared resources become available to people who could not otherwise afford to pay for access. The library is thus a place where the goals of the marketplace come into conflict with the goals of a democratic society. A successful public lending library means that publishers lose money because they do not sell as many books as they might otherwise if everyone had to buy their own copies.

When all of the institutions of print technology are taken together, various social institutions became possible. One, and perhaps the most significant, was the reading public. The reading public, as it is imagined, was an informal and amorphous group of people who read, wrote, and debated the intellectual and political issues of the day. Part of its relevance was that the reading public, based on a relatively independent press, was able to exist apart from, and at times in opposition to, the state. It was more difficult for political power to be arbitrary or capricious, even if it was formally absolute, because the subjects could know the truth and thus strip political force of its pretensions.

• Institutions of Digital Text

When we turn to consider the institutions connected to digital text, many of the same technological and social issues are at play. Different technologies create different opportunities and limitations for individuals and institutions to influence what kinds of text are available and how readers can read. Access always leads to a concern for who is able to access what. If I know where to look, and if I have the proper credentials and passwords, finding information in a library is usually easy. And if I am in a public library, being allowed access to the text is rarely an issue. If the book is on the shelf, then I can get it myself and use it when and where I want to. But there are limits to what a library can give people access to. Libraries do not have every book and they do not lend them to anybody for an indefinite length of time. The patron is not in control of what is available or how long a text can be used.

The institutions that create the internet rework the organization of access (and costs) of text. Whether as web pages downloaded temporarily from the internet or as files stored on a personal computer, digital textual technologies allow readers access to a significant amount of text almost at will. The process of searching and evaluating the internet leaves many of the decisions up to the user. However, while this may be appealing because it seems to give more power to the reader, in practice the opposite is generally the case. People spend more time sorting through web pages on their own, and everyone has to sort
through the same web pages with little help. It might be better to be told what is worth looking at by someone who is able to evaluate what could be looked at. A physical library, or a textual collection managed by librarians, does not acquire the trash that the internet does, in part because libraries typically have collection development criteria and have a greater imperative to be more selective when including text. Libraries also weed the collection to remove outdated material. But, it could be argued, everyone has different interests, and so they should be allowed to find their own way. While this may be desirable in abstraction, it is often misguided in practice because everyone “finding their own way” generally does not mean that people actually find what they are looking for. People will always find something, search engines like Google will make sure of that, but the quality or relevance of what they find and the time it takes to find something that is sufficiently relevant remain important concerns.

One advantage of digital technology is that people can carry more text around with them than they could if the text were printed on paper. A typical laptop computer has enough hard drive space to store images of pages that would make up a medium-sized library — at least several thousand books. But these are mere numbers which obscure the institutions and desires that help and hinder how people relate to text. Even if people can celebrate the fact that a hard drive can store a small library, a profound concern still remains over which text is available to be added to that library in the first place. As with
print, readers of digital text typically do not create the texts that they read; they choose between what texts are made available. The consolidation of textual technologies into a single technological system is also connected with the consolidation of institutions into ever-larger groups. There is both vertical and horizontal expansion. Publishers, bookstores, movie theatres, newspapers, television stations, magazines, and almost every other kind of medium has been consolidated into single, expansive corporations. But the new digital institutions are not just more powerful than print institutions. The nature of digital text also changes what it is possible for institutions to do with text.

Concerns have also been raised about the effectiveness of search engines. For instance, a study from 2000 estimated that Google indexed about 6%, or roughly one sixteenth, of what was available on the web. Everything else, which is sometimes called the “deep web,” is generally not indexed by internet search engines and is not archived in any way that is accessible to people who do not know to look there or who do not have the correct passwords. While much of this text (or “content”) might not be worth finding or saving, some of it might be, and the fact that it is so difficult or expensive to locate this text severely undermines the image of accessibility that is used so persistently to promote digital textual technology.

The limits, however, are difficult to evaluate. If you do not know that something exists, then you are not missing it when you cannot find it. Unless

there is a different search engine, or even several search engines, that allow people to find what Google obscures, our confidence in finding what is out there is based on a trust that is likely misplaced. The main reason people trust Google is because it almost always returns something. The consumers are satisfied. However, it is difficult, if not impossible, to look beyond the search results, and so users are left to either accept what is offered to them or to give up.

One important question is a practical one: who has control over the decision about what is available and what is not? With the book, the reader could have a considerable say in whether a book continues to exist or not. Because the reader is purchasing a physical object, the publisher has very little say over what happens to it after the fact. Of course, a book could be out of print or too expensive to replace, but the owner of the book has much more control with the fate of the book. With computer files, on the other hand, the decision is much less with the reader and more with the publisher. Over the long run, text never really leaves the publisher’s control because every edition of the text has such a short shelf-life. The most extreme example would be with web pages that are not stored on the reader’s computer, which creates a dependance on whomever controls the webserver. But even files that are located on the reader’s computer (or on a CD-ROM) are not totally controlled by the reader. The software that presents the files to the reader can stop working because it becomes incompatible with something else on the
computer or it can be written in such a way that it will not work if certain conditions are not met (such as entering serial numbers or being able to send usage information through a network to the publisher). The on-going control of the text, in other words, has shifted from the reader to the publisher (which now means the computer and software manufacturers), who can exert continuous control over the text, even after it has been purchased.

Of course, the ability to change the text that is accessible on the web has nefarious uses as well. People who control the means of textual reproduction can influence how people think about the world and what options people realize they have. One of the key techniques of power in Orwell's 1984 was the government's power to change text, to manipulate what people could access so that facts and arguments could not undermine the regime. As the party slogan claims, "Who controls the past controls the future: who controls the present controls the past." In addition to the past, however, the other important kind of text to control is text that represents what is happening now. As Montag complains in Bradbury's Fahrenheit 451:

We've started and won two atomic wars since 1990! Is it because we're having so much fun at home that we've forgotten the world? Is it because we're so rich and the rest of the world's so poor and we just don't care if they are? I've heard rumors; the world is starving, but we're well fed.17

17 Bradbury, Fahrenheit 451, page 73.
If people cannot access reliable text beyond what the dominant groups decide to make available, if all that people have are rumours and the statements from people in authority, then the capacity to engage in the politics of the day is severely diminished. In other words, the world of text becomes increasingly detached from the world and readers care less and less about establishing the connection because text is no longer created to represent the world. The ability to manipulate what appears on the web is in some ways more dangerous than traditional censorship because it both limits what the reader can access and at the same time creates a sense that everything is actually available. We think that we have access to what we need, but only because we do not realize what we might want to read. As a result, the quality of the text and our ability to think about the quality of the text are both reduced, possibly to the point where the text becomes more of a hindrance than a help as we try to live our lives.

In *Fahrenheit 451*, claims are supported, and in practice are verified, by those who control the key political institutions. Montag, for instance, wonders about the origins of the firemen. The official account is that the firemen had always burned books and that the first fireman, Benjamin Franklin, established firehouses to burn “English-influenced books in the Colonies.” The official account in this case is actually from one of the few books that were still available in the society, which was a rule book for the firemen. The intellectual problem that Montag faces here is also a practical one: there is no way of

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18 Bradbury, *Fahrenheit 451*, page 34.
verifying the truth of these assertions because there are no texts that he can refer to beyond those that have been created by the groups that control the textual world. There are current accounts of the historical period, but there are no historical accounts, there is no documentation, there is no evidence, and so there is no way to resist the account that is given by those in power. Montag may not love Big Brother, but he has no way to talk back to him. The different material conditions of textual media, then, are crucial for understanding why people believe something in part because those conditions affect whether people have access to information, debates, and narratives beyond what those in power are willing to allow.

• Censorship and Copyright

One of the most visible ways that institutions affect the world of text is through censorship, where an institution limits the text that is added to what text is available or limits access to that text for some people. Governments, for instance, try to stop people from writing, producing or selling text by using pressure or overt legal prohibitions. Corporations do the same thing, using their economic or political clout to limit the texts that readers can access.

On the other hand, attempts to censor lead to opposition from both individuals and other institutions. For instance, when the English government attempted to censor books in the 17th century, people had the books printed in Holland and then smuggled into England. The fact that books were tangible
things was an important part of the entire political struggle: they could be
produced outside the nation, and once inside they could be hidden in people’s
houses, but the books had to be physically transported across the channel on
boats, sometimes at great peril. Lately, one only needs to read the year’s “most
censored” stories to note how some texts are either not created or not
publicized while others overwhelm the readers like a plague. The relationship
of the whistle-blower to the textual world is also interesting. The capacity to
either publicize or suppress the reports of whistle-blowers is a sporadic but
important conflict within the textual world. Of course, these are political
struggles, but they are justified by moral arguments.

The moral arguments concerning censorship have a very long and
complicated history. The term comes from ancient Rome, and referred at that
time to a pair of magistrates who, among other things, were charged with
supervising public morals. Of course, the idea and the function existed before
this particular institution. As with the guardians in Plato’s idealized city, the
censors in Rome were concerned primarily with plays and other public
performances. However, as different textual technologies were developed and
as reading became more common, the scope of the censor expanded. By the
17th century, the time of Milton and Hobbes, debates over censorship had
expanded to include printed books. There was relatively little concern for
manuscripts, and there were no other ways of distributing manuscripts in
politically troubling ways except through printing. Paine, writing a century and

Chapter 6: Institutional Organizations of Text

#235
a half after Milton, echoed many of Milton's values concerning the free press.

He writes, for instance:

> It is a dangerous attempt in any government to say to a nation, "thou shalt not read." This is now done in Spain, and was formerly done under the old government of France; but it served to procure the downfall of the latter, and is subverting that of the former; and it will have the same tendency in all countries; because thought by some means or other, is got abroad in the world, and cannot be restrained, though reading may.19

If everyone is rational, a point on which Paine is completely optimistic, then the freedom to read poses no threat to a well-organized, legitimate political system. He writes:

> A nation under a well regulated government should permit none to remain uninstructed. It is monarchial and aristocratical governments, only, that require ignorance for their support.20

People are ready for good government and the religious conflicts that so worried Hobbes and Milton in the 17th century are not important. Paine, like Milton, builds his account of reading on his trust of readers. The institutions are the problem. Those who worry about the danger of textual production, on the other hand, depend on the perceived danger of reading, which in turn depends on the relative frailty of human nature and the relative strength of the

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challenges created by texts. The religious right in the United States has much in common with Hobbes and much to criticize in Paine.

While some people are motivated by the desire for political control, the desire for money is another key explanation for why institutions try to extend their control over texts. With the increase in the profitability and practicality of printing, various laws and institutions were developed. In England, the Stationer's Guild was created in 1557, during the reign of Queen Mary, and attempted to control who was able to publish books by limiting the printing of books to publishers who were members of the Guild, and then limiting membership in the Guild to publishers who were acceptable to the crown. By the second decade of the 18th century, and in particular with the Statute of Anne, publishers secured legal control over the right to copy. The right was theoretically connected to the author, but, as Mark Rose points out in his history of this period, because the author typically sold the right to the publisher, it was the publisher who owned and protected the right. From that time, there have been several significant changes to the copyright law: the initial grant of 14 years has been extended several times, other media, such as photographs, were also protected, and the jurisdiction, which was initially national, has been globalized through international agreements.

In the olden days, before electronic media, the material conditions of the book, and in particular the time and money needed to produce new copies, 21 See Mark Rose's discussion of this period in Authors and Owners: The Invention of Copyright.
created a practical limit to the possibilities of unauthorized duplication. Even
with photocopiers, the copies were often more expensive and more of a bother
to produce than just purchasing another copy of the book. In practice, if people
could get access to a book, they could copy it without the publisher or the
library knowing or really caring about what they were doing. The main use of
copyright law was to stop other publishers from using their own equipment to
produce editions of a work, to compete with the publisher as a publisher. The
ability to reproduce and distribute text with digital technology, however, has
taken away much of the physical limits to reproduction inherent in the printed
book. Anyone could take a digital file, make it accessible to anyone on the web,
and thus allow for an unlimited number of copies to be made with almost no
cost or effort.

While some have celebrated the technological changes towards
digitization, those who control the text have often reacted differently,
worrying about how it is possible to stay profitable when the conditions of
reproduction have changed so profoundly to the detriment of the publisher.
Now, a publisher may only expect to sell a few copies, and then the text
escapes into the ether and will be dispersed without the publisher’s
authorization or compensation. The response to the problem of digital
duplication has been twofold. Publishers have created copy protection
schemes, which often make it more difficult for any users, whether legitimate
or not, to use the text. Publishers and their government supporters have also
clarified and expanded the copyright law. In 1998, Sonny Bono sponsored legislation that extended copyright for most texts from the life of the author plus fifty years to the life of the author plus seventy-five years. The enforcement of the new laws was also enhanced.

To a skeptic, one immediate problem that the new law resolved was that under the then current copyright law, the idea of Mickey Mouse would have fallen out of copyright protection in a few years and as a result Disney would no longer control the image. But with the extension of copyright, Mickey can be controlled for another 20 years. However, while the new copyright laws have guaranteed that the government would protect Disney’s profits, the current law has also hurt the textual world. Many books have become practically inaccessible because they are no longer popular enough for publishers to keep them in print, but they are still protected by the law. Mickey Mouse makes money, but there are tens of thousands of books and other texts which are out of print but are still protected by copyright. Copyright law thus results in obscurity for most texts even if it ensures more profits from a select few.

Much of the current debate over copyright has centered around the implications of the new technology and new laws on public debate and the public domain. The public domain refers to a shared, open textual space where texts can be copied, quoted, and used in any way that people want to.

22 For a discussion of the political aspects of copyright law, see Halbert, Intellectual Property in the Information Age: the Politics of Expanding Ownership Rights.
use them. People have no rights over texts that are in the public domain. What is not in the public domain, on the other hand, is in the private domain, where specific people or institutions have rights over the text and can control access and use in any way that they want. Text in the private domain can cost money to access and can only be used in ways that the copyright owner allows.

Consider, for instance, the legal agreement connected to Adobe’s edition of *Alice in Wonderland*. The text itself, first written in 1865, is well out of copyright, and Adobe likely took the text from the free online version produced by Project Gutenberg. Adobe’s copyright claim is on its edition of the work, which is essentially identical to the original except that the text is now in a file that the company has created. What is curious is the amount of control that Adobe attempts to exert over what can be done with the text. In a world of printed books, other publishers could not reprint the book, but what the reader chose to do with it was largely left up to the reader. Adobe, on the other hand, limits the use of the text in various ways: no text selections can be copied from the book to the clipboard, the book cannot be printed, it cannot be lent or given to anyone, and it cannot be read aloud. It is worth reading these limitations several times to fully appreciate how restrictive the licensing is for the digital book. Even if the text was in copyright, even if the text had just been written at great expense, the control that the company is asserting over the text is far greater than anything that was possible with printed texts.\textsuperscript{23}

\textsuperscript{23} For a picture of the Adobe licensing agreement, go to http://www.pigdogs.org/art/adobe.html.
One reason why digital copyright is important is because it is useful for authors to be able to assume that readers had access to the same text that the author does. Vannavar Bush never wrote about copyright or about securing permission to include text in his Memex system. But it is important for a writer to take for granted that readers have access to specific texts. When people write, they write about other texts. Problems arise, however, when readers cannot gain access to the other texts, whether because the text is private, rare, or the access is limited. Copyright, in this case, makes it more difficult for the larger social debates to be carried on because the law makes it more difficult for readers to gain access to the texts that are being referred to. Publishers produce technologies that make copying difficult, but the laws turn copying into piracy. If I do not have the same passwords or belong to the same institutions that the author does, then I cannot gain access to the same texts that the author does.

With links in a printed book, the other books that are referred to are not necessarily available, either immediately or even with great effort. A bibliography or a footnote in the print world does not imply access. With hypertext, on the other hand, references are not simply citations, they also lead the reader to the actual text. While this creates a sense of unrestricted access, it is also important to realize that hypertext will typically only link to texts that are themselves available on the internet, which means that relevance becomes relatively less important than access when deciding what links to create. This is
an issue with profound implications. With printed text, the author is unconcerned with whether the reader has direct access to the text that is being referenced, although there is an implied belief that it is possible for the reader to check the reference because public libraries exist where the text is available. With digital text, on the other hand, if the reader cannot immediately follow the link, then there is a tendency for the author not to include the link in the first place. In other words, while it becomes very easy for the reader to quickly and almost effortlessly to move from one digital work to another, assuming at least that the hyperlinks have not been broken, the possible paths avoid any text that is difficult to access, even if those texts are actually the most important ones for the discussion at hand. What is accessible becomes more important than what is worthwhile. Readers are thus able to move with greater ease in a smaller box.

Richard Stallman has argued that current copyright law has undone much of the positive results of printing, and that, no longer part of the solution, the law has become part of the problem. More than anything, what has changed in the last decades is a shift in who acquires legal control over the text. The reader, and those that use text for such things as education, are at an increased disadvantage. Stallman writes:

Copyright developed in the age of the printing press, and was designed to fit well with the system of centralized copying imposed by the printing press.

But the copyright system does not fit well with computer networks, and only
Draconian punishments can enforce it. Today the global corporations that profit from copyright are attempting to increase their copyright powers, while suppressing public access to technology so that they can retain control. But if we seriously hope to serve the purpose for which copyright was established in the U.S. — to promote progress, for the benefit of the public — what needs to be done is either to reduce copyright powers or effectively eliminate them, depending on the kind of work. Governments must now protect the public's right to copy.24

The right to copy, for Stallman, is not justified in terms of who makes money from the text. The right to copy is based on value of engaging in the textual world, which in turn depends on the ability to effectively use what texts already exist. The good of the community is in tension with the goals of the legal structure. For people like Stallman, the goals of the economic and legal institutions are incompatible with the goals of democracy, and so if these institutions gain control over the textual world, then the textual world will no longer support the democratic system. If democratic and economic goals come into conflict because they depend on different ways of organizing text, then how should one goal be preferred over the other? The institutions have created the conflict, but the conflict, while political, is also moral. The question is: what is the morally best way of evaluating and organizing the textual world and textual technologies?

24 Stallman, "Copyright and Globalization in the Age of Computer Networks."
Institutions are an important topic for a moral evaluation of reading because they represent and encourage patterns of activity that condition whether people read, what they read, and how they read. The institutions are collective habits, but they are also organizations of power — an institution is not only patterns of activity, it is also patterns of social control that give certain people the power to encourage or enforce some patterns of activity in favour of others. Consumers can choose what to read or what to listen to on their own, but the power that institutions like HarperCollins or Clear Channel have over that choice is considerable. As a result, a greater understanding of the conditions of textuality increases their ability to avoid or resist the imperatives and influences that are created by those who are in a dominate position. The textual world, in other words, should become a field of struggle where readers, technologies and institutions are all at play.

Understanding what is happening to text and the kinds of opportunities and limits different textual technologies create are crucial for reading well, for thinking well, and for living well. No institution completely dominates the world of text, and even if some institutions have considerable power, they must still deal with technologies and readers. Institutions can develop technologies and influence readers, but neither technologies nor readers are completely pliable. Textual institutions may create the world of text, but not under conditions of their own choosing.
Chapter 7

Freedom, Character and Morality

To approach reading in general and digitizing in particular as a moral concern entails considering whether reading will enhance social control (of producing good behaviour and appropriate thoughts) and whether reading will create the capacity to resist social control (to challenge power and think for yourself). When most people write about the morality of reading, there is a tendency to connect morality with conformity, and to use reading as a way to create the right kind of people who think the right kinds of thoughts and act in the right kinds of ways. Morality, then, is not about choice, it is about conformity, it is about accepting the values of the storyteller or loving Big Brother. In these terms, there is no moral significance to the difference between reading, taking drugs, being seduced by a sermon, or being pestered into submission. What is important is the results of actions, not the origins.

If reading is connected to freedom, then a moral approach to reading will be a combination of suspicions and encouragements — of suspicion towards what is read and of encouragement to read more and read better. There are choices to be made — some of them are ours — and morality can help us, both in clarifying what is at stake in what we choose and in helping to expand the field of choices that we realize we can make.
Benjamin describes his *Arcades Project* as an attempt to awaken his world from the sleep of commodified capitalism, a sleep caused by an unthinking and only slightly conscious attachment to trivial but fascinating things.¹ We can imagine Benjamin living in Paris, surrounded by ever-changing symbols and interactions. Paris, like Twain’s Mississippi, is different from one day to another, from one place to another, and from one time of the day to another. But behind the constant change there are technologies, and behind the technologies there are people with money and power. Benjamin has no map. But as he walks he tries to make sense of the city. There is hope of finding generalized patterns. The wandering is biographical, but it is also an epistemological, a political, and a moral activity. And the wandering is less about Paris than it is about how people relate to texts, in his case the texts of modernity, a topic that is addressed in one way or another in much of what Benjamin wrote, and in most of what he is known for. The goal is not to determine, in a heap of detail, what happened in which streets on different days. The goal is not simply to accumulate more facts. Rather, Benjamin is trying to determine the possibilities, the methods and the constraints that his specific world of textual objects offers to those who live among them.

Freedom, here, implies awareness. People, like rocks, can be free from external impediments. But people can also be free because of what they know about the world and what they think about when they try to act. People can be

¹ Buck-Morss, *Dialectics of Seeing*, page 279.
free as thinking agents — not as abstracted minds, but as readers in a
textualized world only if text exists that supports them. We need text to live
well, although we do not necessarily need printed text.

• Freedom and the World

Our relationship to the world of texts is couched in a larger relationship to
the world. Freedom is connected to the origins and character of human agency
in relationship to larger historical and material processes. In the debates over
the relative value of print and digital technologies, the cosmological aspects of
freedom play an important role in framing the debate, in particular by
characterizing the conditions in which people act and through which people
have come to exist.

The relationship between human freedom and textual technology is a
pervasive issue for those discussing the printing press. Eisenstein, after writing
so forcefully about the impact that printing had on knowledge, society and
history, steps back from giving print technology an overwhelming influence
over human thought. At the end of her book she claims that:

The powers which shape men's lives may be expressed in books and type, but by
and of itself printing is only a tool, an instrument, and the multiplication of
tools and instruments does not of itself affect intellectual and spiritual life.2

The primary consequence of the printing press was what human beings were
able to do with it, but on her account, what really counted for human beings


Chapter 7: Freedom, Character and Morality
(their intellectual and spiritual life) was prior to and separate from what the printing press did. However, the bulk of her discussion could equally support the claim that the printing press had a much more profound impact and that human beings, who were clearly acting in one way or another throughout the whole history, were profoundly changed by what the printing press did.

The same tensions have been important for those writing about the impact of digital technology on freedom. At the beginning of *Digital Mosaics*, for instance, Holtzman invokes a common refrain: technology will increase human freedom. When considering virtual reality he writes:

> We can free ourselves of the constraints of the world we live in to discover the essence of the virtual. We can exploit the unique qualities of digital worlds to unleash their full potential.³

And later:

> To me, what’s most interesting is not how well a computer can emulate our familiar world, but rather the entirely new territory that computers open up for human expression — worlds of expression inconceivable prior to the invention of the computer.⁴

Holtzman’s focus here is on what human beings will be able to do with computers, with human agency at the center of the account and the computer as a more powerful and adaptable tool. But there is another theme in Holtzman’s discussion that does not focus on how technology will set us free,

⁴ Holtzman, *Digital Mosaics*, page 130.
but rather on how technology has acquired an independent and perhaps comprehensive power over us. He writes such things as:

Digital worlds are reshaping how we communicate and express ourselves;
ultimately, they will reshape us and even the logic with which we think.\(^5\)

Here, he is focusing on the impact that texts have on the creation of human beings, which connects to the power of technology. The easy shift from increasing human potential to increasing computer influence over humanity is a widespread tension in the literature: a tension that affirms human freedom and then describes how technology will affect who people are and what they do to such an extent that freedom makes no sense. We do not express ourselves, we express what technology has prepared us to express. At its core, the problem with this account is a simple contradiction — we are free and we are not free. However, if we step back from the logical failure and consider why that failure occurs (and why it is so widespread in the literature) we may be able to say something significant about the intellectual and social conditions that make that contradiction so appealing. Much of the literature is trying to convince readers to accept some or all of the shift to digital technologies. The key justifications revolve around appeals to power, happiness and fatalism — you will be able to do more, you will be happier, and you will not be able to do anything about it anyway. The first appeal tends to pander to the reader's sense of self-importance, the second offers an image of the good life that

\(^5\) Holtzman, *Digital Mosaics*, page 18.
promotes a very narrow idea of happiness, and the third removes any possibility that the reader can do anything about the chance. In fact, all three of the justifications entail that the reader should not do anything about the technological shift but live in the world as it is presented.

Fatalism is not the only way to characterize the relationship to technological changes. Murray, for instance, claims that hypertext technologies are in an infant stage where their failures can be excused and their futures can only be guessed at. As a medium, it is one that we must wait for the visionaries (the Joyce's of the 21st century) to develop it before it can be evaluated. Murray asks:

Can we imagine the future of electronic narrative any more easily than Gutenberg's contemporaries could have imagined War and Peace or than the Parisian novelty seekers of 1895 could have imagined High Noon?\(^6\)

Holtzman likewise claims that one day we will "experience an instantaneous transformation of a proportion we can't now conceive."\(^7\) The arguments here appeal to ignorance as well as an unjustified optimism. However, just because we do not know what will happen with a textual technology, it does not follow that what will happen will be good, or, even more importantly, that we should abandon what we are doing now with the belief that what is new will also be better. Perhaps Gutenberg's contemporaries could not have imagined War and Peace, but they also could not have imagined Harlequin

\(^6\) Murray, Hamlet on the Holodeck, page 67.
\(^7\) Holtzman, Digital Mosaics: The Aesthetics of Cyberspace, page 36, from an on-line chat.
romances, John Grisham novels, or mass produced pornography. Murray has taken the best of what print and film can offer as a way to support what could happen with digital technologies, suggesting that if the emerging digital authors are encouraged, they will also produce greatness. But while we cannot know what that greatness will be, she argues, we should nonetheless support it, even to the detriment of what we have now.

The debate over reading and technology is also permeated with strong claims of inevitability. Negroponte simply writes: “The change from atoms to bits is irrevocable and unstoppable.” While there may be some truth in this, especially for specific commodities like recorded music, what Negroponte denies (and obscures as a possible issue) is the role of human action, of executive decisions and funded research projects, to make this shift appear unstoppable. This is a typical aspect of the argument — the greater the supposed inevitability, the more passive human beings become and the fewer activities they have to do. The gist of Negroponte’s argument is that people should sit back and enjoy the new world, because there is nothing that people can do about it anyway.

Murray likewise appeals to the inevitability of the shift to a digital world. Partly, this determinism is expressed as a generational split between children and adults, which also becomes a way to mark the shift from one historical period to the next. She writes:

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8 Negroponte, Being Digital, page 4.
Those of us who have spent our lives with books may always approach the computer with something of my grandmother’s terror before the crystal radio, but our children are already at home with the joystick, mouse and keyboard.\(^9\)

Counter-examples are easy to find, both of children who are not at home with computers and adults who are not at home with books. However, the important issues are obscured by Murray’s appeal to the generational divide. One important issue is whether that divide means that children are better off, that some good will actually result from making them at home with computers (and, possibly, alienating them from printed books). Murray’s argument rests on the inevitability and naturalness of the change, and she simply asserts that the change is good and that human beings have little input anyway.

Not only does Murray’s appeal to historical inevitability reduce human beings to passive actors, it also reduces historical changes to changes in technology. She writes:

Some Web stories are already using such techniques, and no doubt all of them will in time. Their adoption is part of the inevitable process of moving away from the formats of older media and toward new conventions in order to satisfy the desires aroused by the digital environment.\(^10\)

The causal series that Murray presents here is a common theme in the literature: changes in the digital environment create new desires or arouse latent ones, which in turn create new narrative forms which then result in

\(^10\) Murray, *Hamlet on the Holodeck*, page 68.
improved consumer products. Hypertext creates new desires in people to express themselves, which in turn create hypertext novels. But what are these new desires and how are they different from the desires that we have had for so long? Murray not only fails to consider what the new desires are, she also fails to consider what other factors, whether political, social, or psychological, that may help explain their creation.

The inevitability of the change, connected with a gee-whiz attitude towards technological developments, is an important way that writers such as Negroponte, Murray, and Holtzman evade political, legal, moral, and economic aspects of digitization. As with the Luddites, anyone opposing the rising digital technology will lose. They cannot win. And this, of course, is part of the strategy for establishing the inevitability of success: technology is given an independent, almost divine status and anyone who opposes it is dismissed through name-calling and ridicule. The best life is thus the life of conformity, of joyous resignation and a soon-to-be-fulfilled longing for the feelies. The attitude thus undercuts any form of human influence.

One clear implication of the inevitability argument is that a concern for what is better and what is worse is subsumed by a belief in technological fatalism, which becomes palatable because of the unrelenting optimism. “In the end,” Holtzman notes, invoking an earlier struggle over technologies, “for better or for worse, the efforts of the Luddites were futile when it came to stopping the industrial revolution.” Holtzman never considers what “for
better or for worse” means here or what could count as “worse” in the current change to digital technologies. Holtzman’s dismissal of the Luddites is both vague and inaccurate. The Luddites were never opposing the “Industrial Revolution” but rather specific technological changes and how those changes were being implemented in their society. To turn the Luddites into a group that opposed every new technological development is to misrepresent and trivialize their position. Likewise, while the Luddites may have lost the specific battles they engaged in, it does not follow that they were irrelevant or that they had no impact on later developments in technology, politics or society. Even if people lose a political struggle, their engagement could still have an impact on the future.

An interesting paper could be written on how “Luddite” has been used and abused in contemporary debates. The broad outlines are fairly clear. “Luddite” comes into use in the early 18th century to refer to a group of rioters who were smashing manufacturing machinery in England. The possibly mythical leader of the group is known as General Ludd. But the expansion of the term to refer to anyone who opposes new technology is much more recent. Now, as then, the label is used by those who are closely allied to the powerful and who try to find a label to discredit anyone resisting change. The term is used not simply to indicate that the position will lose, but that those in the group are not even worth taking seriously as opponents. They are Luddites, and so they have already lost.

Holtzman, *Digital Mosaics*, page 186.

Chapter 7: Freedom, Character and Morality
• Human Freedom

We can take Descartes and Hobbes as examples for two opposite accounts of human freedom: the first arguing that human freedom is guaranteed, the second arguing that human freedom is impossible. Neither of these positions make reading very interesting: the first evaluating reading as a distraction, the second evaluating reading as little different from behavioural drugs.

The morality of reading becomes interesting, and textual technologies become relevant, when the debates over freedom do not rely on the metaphysical status of the will, and instead consider the emergent character of relative freedom. A concern for technologies of reading, and specifically for whether books or computers are the best way to gain access to texts, eventually leads back to a concern for human freedom. At issue is not simply whether human beings are free or not, but rather how different relationships to text create different capacities for freedom. One worthwhile example of this approach is Kant’s account of enlightenment, where human beings work their way out of slavishness together. Kant writes:

Laziness and cowardice are the reasons why so great a portion of mankind,

after nature has long since discharged them from external direction

(naturaliter maiorennnes), nevertheless remains under lifelong tutelage, and

why it is so easy for others to set themselves up as their guardians. It is so
easy not to be of age. If I have a book which understands for me, a pastor who
has a conscience for me, a physician who decides my diet, and so forth, I need
not trouble myself. I need not think, if I can only pay — others will readily
undertake the irksome work for me.12

Whereas Benjamin writes of humans as sleeping and of awakening people to
their situation, Kant writes of laziness and of challenging people to take control
over their lives. Both are narrated as quests; the general point is the same: that
human beings are less conscious or less capable of thinking, and that they
ought to become more conscious and more capable of thinking for themselves.

How people, texts, and society are related with these different images,
however, is noticeably different. An account based on laziness tends to put all
the responsibility on the people and offer little space to introduce a concern for
the character of institutions or technologies. An account of enlightenment
based on sleeping, on the other hand, creates a greater space to consider why
people are asleep. People choose to be lazy, but sleep has a variety of
explanations, many of which do not connect to what people want.

There is much to worry about in Kant’s discussion of enlightenment, such
as how he accepts a paternalistic relationship between Europe and the rest of
the world, and how the freedom of the enlightenment is so closely connected
to the military discipline of the Prussian king. What is most valuable in “What is
Enlightenment?” is the idea that human freedom is something that increases,
and possibly decreases, depending on human motivations, social relations, and

12 Kant, “What is Enlightenment?”, page 85.
historical or material conditions. Freedom is something that is neither automatic nor impossible, and it is something that is closely tied to human intellectual and political activity.

Another notable thinker who develops a concept of relative freedom is John Stuart Mill. He states at the beginning of his *On Liberty* that he is not going to write about “the so-called ‘liberty of the will’, so unfortunately opposed to the misnamed doctrine of philosophical necessity; but civil, or social liberty.”\(^\text{13}\) When he discusses liberty, then, he means the individual’s liberty from the domineering power of government and society. And while there is some discussion of the impact of government on liberty, Mill’s focus is on the broader and more invasive influence that society has on the individual. Mill writes:

> The despotism of custom is everywhere the standing hindrance to human advancement, being in unceasing antagonism to that disposition to aim at something better than customary, which is called, according to circumstances, the spirit of liberty, or that of progress or improvement.\(^\text{14}\)

The close connection that Mill affirms between liberty and progress should be resisted. To assume that human freedom will lead to human advancement would only make sense if you also assume that people who are free would act in a better way, at a cosmic level, than those who did not have freedom. Of course, this may be true, but to assume it merely avoids the awkward political


consequences of freedom being used poorly by both individuals and large social movements. The optimism would automatically conced the point that new technologies are better technologies.

Nonetheless, the relationship between conformity and freedom that Mill makes central to his discussion ought to remain an important concern. Mill argues that political and social intolerance stifles human potential in ways that harm everyone, including those who are intolerant.

The modern regime of public opinion is, in an unorganized form, what the Chinese educational and political systems are in an organized; and unless individuality shall be able successfully to assert itself against this yoke, Europe, notwithstanding its noble antecedents and its professed Christianity, will tend to become another China. ¹⁵

Becoming “another China,” in Mill’s world, would be to become a society where conformity is paramount and where individuality is all but impossible. Part of Mill’s response to the negative implications of a conformist society is to advocate that people should maintain a significant distance from the demands of society and that society ought not to demand too much from individuals. The physical separation of the tower and the library were no longer enough. Mill also advocates two useful human characters — the genius and the eccentric — that should be tolerated and even cultivated by everyone because they are the ones who will offer people alternatives to the mediocre and conforming models that would otherwise dominate the society.

One important aspect of Mill’s discussion in *On Liberty* is his focus on an idealized interaction between rational adults or, expressed negatively, between everyone “unless he is a child, or delirious, or in some state of excitement or absorption incompatible with the full use of the reflecting faculty.” As does Milton’s, Mill’s discussion of liberty depends on a rigid division between those who do and those who do not participate in the community of liberty. People in the other condition, variously labelled as children, savages, brutes or those in some lesser mental state, are not only not free, but they are in a condition where those who are free (meaning, essentially, those who deserve civil liberty) can justifiably rule over them. Some writers have noted the importance of Britain’s despotic control of India in Mill’s life and writings. It is also interesting to note how a work on liberty spends so much time disqualifying people from participating, forcing a sharp division between adults and non-adults rather than offering a relative or more complex system of capacities and permissions. As with Milton, there is a sharp division between those who belong to the world of the free and those who do not. In fact, while Milton and Mill may differ in some details, the divisions are very similar.

While asserting a world of adults with unquestioned free will, however, Mill also invokes a naturalistic account of human capacities — people are like trees that are either encouraged or stifled by the society. Here, the image of

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17 See, for example Zastoupil’s *John Stuart Mill and India*.
18 See, for example, the discussion on page 126 of *On Liberty*, where oppressed individuals
the genius and the eccentric are important because they are the trees that have not yet been stifled. But where do they come from? If Mill’s argument had remained with the givenness of the free will, he would not need the genius and the eccentric: there would be an automatic tendency for people to wander away from the social norms and so conformity would not be the threat, but rather be the thing that is always threatened. That is not Mill’s account of social interaction. Instead, the world of human freedom is overlayed by a much more deterministic model where social conformity is opposed by the non-conformist and where the tendency of human society towards conformity must always be opposed. Mill thus exchanges the opposition of free will and determinism with the question of conformity and non-conformity.

To focus on the conflict between conformity and non-conformity as the foundational social conflict limits the relevance that reading has to the presentation of alternative thoughts and lifestyles. Mill does not consider impact of society or text or anything else on human character. Questions of impact would undermine the almost spiritual origin of the genius and the eccentric. Thus, at the end of On Liberty, where Mill considers whether Mormon women are free when they choose an obviously detrimental situation and agree to a polygamous relationship, he writes:

> it must be remembered that this relation is as much voluntary on the part of the women concerned in it, and who may be deemed the sufferers by it, as is are described as “cramped” and “dwarfed”.

Chapter 7: Freedom, Character and Morality
the case with any other form of the marriage institution; and however
surprising this fact may appear, it has its explanation in the common ideas
and customs of the world, which teaching women to think marriage the one
thing needful, make it intelligible that many a woman should prefer being
one of several wives, to not being a wife at all. 19

While Mill elsewhere focuses on the dangers of custom, at this point he justifies
limiting human existence by appealing to social norms, rhetoric or material
conditions to explain why people think the way they think or want the things
they want. The Mormon women who choose polygamy over their self-interest
are free because, as adult decision-makers, they believe that any kind of
marriage is better than no marriage at all. The problem here is that Mill
supports freedom as an awareness of options and as the ability to choose
between those options, but then refuses to condemn the Mormons, who limit
options and limit the knowledge of options. Not only is there little room for
rhetoric (for the study of what makes people believe one thing rather than
another, regardless of the truth), there is also little room for the impact of
different media on how people think. In other words, while Mill offers an
account of freedom in most of On Liberty that encourages an active
engagement with an expansive idea of human possibilities, in the final pages he
reverts to an account that simply connects freedom to the absence of a
contrary power.

One way to approach Mill’s shift in emphasis in *On Liberty* is by considering Isaiah Berlin’s distinction between positive and negative liberty. Negative liberty is the absence of external impediments. People are free so long as nothing gets in their way. Politics, and law in particular, are then understood metaphorically as walls that stop us from moving where we want to move. The stronger and more numerous the walls, the less liberty that people have. Hobbes’s account of liberty is an account of negative liberty, as is Mill’s discussion of the relationship between the eccentric and the overbearing society.

Positive liberty, on the other hand, focuses on what people are able to do rather than what they are stopped from doing. If people do not have the ability or the desire to do something, then they will never reach the wall that stops them from doing it. If people never think about doing something, then their negative liberty would never be limited. If people do not try to move, then it does not matter whether the wall exists or not — there does not even have to be a wall if the people never try to move. Mormon women are free in terms of negative liberty, because they do not try to live in any other way than the way offered by the common ideas of the society. It is as if, because they do not realize alternatives, their freedom cannot be limited. But the inability to recognize choices, to have a limited variety of narratives available, is the absence of positive freedom.

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20 See Berlin’s “Two Concepts of Liberty” in *Four Essays on Liberty.*

Chapter 7: Freedom, Character and Morality
The relationship between negative and positive liberty has obvious implications for the morality of reading. If the focus of a moral and political position is on whether external impediments exist that thwart the human will, then books tend to be simply the objects of desire, and power takes the form of an external censorship. Liberty is about getting access to the books that you want to read. But if liberty is considered in terms of the formation of human character, then reading becomes much more important because it can create a sense of possibilities, or of what actions and objects ought to be desired. Reading can also influence what is desired, at the very least by providing reasons why one thing should be desired rather than another. Anecdotes abound of people who think about the world through stories, of people who acquire a sense of agency and possibility by reading accounts of what other people have done, why they did it, and what happened as a result of their actions. The stories guide people in their lives and in their relationship to others in society.

The social organization of texts determines to a great extent who can participate and how they can participate in the social discussions. Woolf criticizes a specific set of restrictions in *A Room of One's Own*. Advocates of public education and public libraries propose institutions that limit some restrictions by educating the disenfranchised and giving them access, at no personal cost, to the textual resources essential to engage in the debate.
To be done well, reading and writing require enough time and the right kinds of space. Most people can easily scan bits of text at any place and time. They can fill out crossword puzzles, read headlines, and browse the odd news story. One problem is having enough time so that reading also involves thinking, deliberating, and any number of other of the more intense mental activities, so that people can become connected to and thrive within the world of text. If only some groups of people have the resources necessary to read and write well, then how the textual world exists and is used is skewed. The interaction becomes increasingly elitist or exclusionary.

While the social context — the condition of positive liberty — can be crippling, the social context can also be empowering. Social forces can create opportunities in life, encourage personal development, and give people the knowledge and skill to do something that they would not otherwise be able to do. We can be concerned with the relative permanence of those tendencies or habits and with how conscious people are of the habits that they have. Having a habit not only means having a tendency to do something rather than something else, it also means doing something with little or no thought. An action that is done habitually is done because it is so much a part of our character that it requires little or no deliberation. These tendencies are an integral part of a person's character, and they are often a large part of how people are judged. The society creates skills, trains people in different habits, educates people about the options available to them, and creates a sense of
moral value. But habits are also characteristics that we can give ourselves. How
I respond at any point in time is based on who I am, but who I am can become
a concern as well. I can think about who I am, what I do, what my motivations
are, and what narratives I live with or against. A concern for language,
narratives, technologies and society all support the idea that people are
fashioned, but the possibility remains that the fashioning can also be done by
the self.

At issue here is the character and extent of someone’s interaction with
larger human communities. Sometimes, these interactions are restricted by
those — including government, corporations, and members of the group —
working to create or preserve some ideal community (one without dissent,
criticism, ethnic diversity, or any number of other criteria). Marx had once
claimed that the ruling ideas are the ideas of the ruling class. While this way of
expressing the relationship is simplistic, the general connection between power
and textuality is nonetheless an important issue. Marx is not alone in
recognizing this connection. For Morris, as for Woolf, part of the problem is
that economic power creates a social organization that perverts the textual
community. Morris writes:

To put the matter quite plainly, as things go now we are, as a community,
contented to be publicly poor so long as some of us are privately rich;
therefore, though the income of the country is enormous in figures, no man of us
can go a few yards from his own door without seeing the tokens of quite
desperate public poverty.21

21 Morris, Collected Works, Volume 22, page 422

Chapter 7: Freedom, Character and Morality
For Morris, one important social text is architecture. During the 19th century, many old buildings in England were demolished and replaced with new, typically iron and glass, buildings that were designed with utilitarian and not aesthetic ends in mind. What matters for Morris, however, is not the buildings themselves, but what the buildings have done to the people who live with them. People, Morris writes:

> have been so long living in the shabby hell of the great commercial centre of the world that it has entered into their life and they are now “used to it,” that is, degraded to its miserable standard.22

The problem, according to Morris, is that the new buildings, while making a particular way of life more efficient, at the same time take away much of the meaning or purpose of life, which for Morris is connected much more closely to an aesthetic life — beauty is more important that efficiency. However, the powerful people in the society are more concerned with efficiency, and so the textual world, whether we mean books or buildings, becomes nothing but an instrumental tool for a life of utilitarian tasks.

It is easy to hear echoes of Morris’s complaints in Roszak’s reaction to the emerging status of computers in the classroom. In *The Cult of Information*, for instance, Roszak writes:

> An increasing number of schools are spending large parts of their budgets on computers and computer programs. Once in possession of enough equipment

they can line up a classroom full of students behind machines where they can be educated in isolation by something less intelligent than a human. This sacrifices one of the primary purposes of education, particularly in a democracy — to show individuals how they can function together in society.23

To be free, to think for yourself, in part means to have the ability to enter into debates. What matters is the relative freedom (created by a sense of options) that we have to choose between different kinds of reading and the relative freedom that we acquire when we read and when we are encouraged to attempt what is difficult. It is by reading several books that we can free ourselves from being convinced by any particular one, and the more diverse our reading, the more we can realize what can be thought about. It is not just about having opinions, but being suspicious about why we have those opinions and knowing why those opinions are the right ones to have.

• Freedom and Reading

The independent reader is the one who is able to read against the grain of the text, as Roland Barthes once described it. Here, the goal is not to dwell, however spectacularly, within the text, but rather to think beyond and against the text. Whether it is Shakespeare's representations of the primitive Caliban in The Tempest or Austen's off-hand references to Britain's Caribbean colonies in

23 Saul, Unconscious Civilization, page 142.
Jane Eyre or domestic ideals in Pride and Prejudice, there has been an intense analysis of the specific, contested ways that texts imagined the world.

If communication has increasingly become the fabric of production, and if linguistic cooperation has increasingly become the structure of productive corporeality, then the control over linguistic sense and meaning and the networks of communication becomes an ever more central issue for political struggle. 24

What we are concerned with here is where the text comes from and also where our practices of reading come from. We must wonder about the struggle over what texts are created and who gets to create them is tied to the concern over how texts create a sense of the world. We should also be suspicious. When talking about National Geographic, Willinksy notes that:

We have to watch ourselves. We have to attend to our own responses, to the fascination, wonder, desire, and pathos that arise from the magazine's framing of the world. 25

This is also a practical skill — one that helps you avoid being stupid or being caught by the assumptions and political ideals of someone else. To read well, the reader must be concerned with more than what is obvious about the text. As Said urges his readers:

to analyze the verbal symptoms of power rather than its brute exercise, its processes and tactics rather than its sources, its intellectual methods and

24 Hardt and Negri, Empire, page 402.
25 Willinsky, Learning to Divide, page 151.
enunciative techniques rather than its morality — to deconstruct rather than
to destroy.... The question is a matter of knowing how to read. 26

To read well, it is not enough to be able to answer questions about the plot, or
the characters or the imagery of a work. It is equally important to consider the
social conditions and the political controversies that surrounded that text when
it was created, when it was reproduced, and when it was read.

For in an age of the mass media and what I have called the manufacture of
consent, it is Panglossian to imagine that the careful reading of a few works of
art considered humanistically, professionally, or aesthetically significant is
anything but a private activity with only slender public consequences. 27

What this amounts to is a rejection of the image of reading as a private activity
and of the reader as a solitary intellectual. Said continues his attack on the
simplistic image of the reader by attacking an equally simplistic image of what
should be read.

Much of the passionate controversy about ‘cultural literacy’ in the United
States and Europe was about what should be read — the twenty or thirty
essential books — not about how they should be read. 28

Rather, Said continues:

We must expand the horizons against which the questions of how and what
to read and write are both posed and answered. To paraphrase a remark

made by Erich Auerbach in one of his last essays, our philological home is the world, and not the nation or even the individual writer. 29

Said's recommendations are moral in a crucial way. In *Culture and Imperialism*, one of Said's goals is to show how an English novel that focuses on the domestic marriage is interwoven with England's global political power. *Jane Eyre* is not about the empire, but Austen could take the empire for granted because institutions exist that made the connection plausible, if not common sense.

One aspect of reading against the structure is to read against ourselves. There is a profound difference between the self we are, the self we think we are, and the self we should be. Our self-understanding can be delusional, and how we relate to text can enhance that delusion. As Saul writes, "the acceptance of psychic discomfort is the acceptance of consciousness." 30 In other words, we should worry about how important we make our desire for comfort and reassurance. Aristotle had judged people by what motivated them. Those who acted out of desire to avoid pain and experience pleasure were no better than animals, and to later political theorists they were easiest to control. Give them bread and circuses, and the masses would be happy, even if they lived like slaves. 31

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31 A phrase that goes back at least as far as Juvenal, who used it to describe what rulers had to provide to stay in power, at least once the public had degenerated into apathy and a general disregard for civic virtues.
But reading well is not about being happy. Heroin is about being happy.

Disneyland is about being happy. The goal when reading well is to accept being bothered, or being challenged, and even of recognizing that we are wrong.

There is a key scene in *Fahrenheit 451* where Montag, the central character, challenges his wife's fixation on the pleasure of watching the trivial but entertaining shows on their wall-sized television:

- we need not to be let alone. We need to be really bothered once in a while.

- How long is it since you were really bothered? About something important, about something real?\(^{32}\)

Faber, a retired and defeated English professor who befriends Montag, notes that:

The books are to remind us what asses and fools we are. They’re Caesar’s praetorian guard, whispering as the parade roars down the avenue,

‘Remember, Caesar, thou art mortal.’ ... Don’t ask for guarantees. And don’t look to be saved in any one thing, person, machine, or library. Do you own bit of saving, and if you drown, at least die knowing you were headed for shore.\(^{33}\)

The goal, in other words, is not to simulate who we are, to become a dinosaur or a philosopher, to acquire these skills or these bits of information, but rather to make us question who we are. And the experience is not pleasant. The effective reader, then, is not someone who is able to dominate the world of text

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\(^{32}\) Bradbury, *Fahrenheit 451*, page 52.

\(^{33}\) Bradbury, *Fahrenheit 451*, page 86.
(in the way that an effective wrestler may be able to dominate all opponents). The effective reader is in fact someone who realizes to a greater degree how potentially overwhelming the world of text is and how long the world of text has been there to create a sense of effectiveness when we are really doing what people, narratives, institutions, or technologies are encouraging us to do. In this way, the belief in effectiveness is like the belief in certainty: the truth matters less than our desires to be true.

Freedom and reading, then, connect to the feeling of effectiveness, but they also connect to effectiveness, to how well readers can engage with texts. Printed books wait for readers in ways that radio and television programs do not. But the printed book is not the same as the newspaper or the magazine; different print formats also encourage different speeds of reading. The time it takes to read printed books is measured in hours or even days. Some formats allow ideas to unfold in a leisurely pace (like an essay or a book). Other formats are tight, compact, and focus on brevity (like a poem). Shorter and simpler sentences will generally be found in magazines; longer and complicated sentences will generally be found in printed books. As Postman claims in *Amusing Ourselves to Death*:

> under the governance of the printing press, discourse in America was different from what it is now — generally coherent, serious and rational; [while] under the governance of television, it has become shriveled and absurd.\textsuperscript{34}

\textsuperscript{34} Postman, *Amusing Ourselves to Death*, page 16.
For Postman, people once read more and now they are reading less; they also once read longer pieces of writing, and now they are reading shorter ones. The details of Postman’s historical image are questionable — one need only read newspapers or accounts of political rallies from the 19th century to suspect that Postman’s image of politics in the age of print is unrealistic.

With reading, speed is something that the reader is responsible for. We can consider the words per minute that a typical eye can read, but when people worry about the speed of reading, they are more concerned with the time spent rereading, thinking, reading closely, cross-checking, and so on. Few people really care about how long it takes for the eye to move from the beginning of a word to the end; or at least those kinds of concerns are secondary to the issue of the speed of reading as an intellectual activity. What matters is not the time that we take, or how much we look at, but the attention that we pay.

The printed page creates time to think. A web page can be read closely in the same way that a book can — there may be nothing stopping you, even if you generally do not do it anyway. As when touring a country, the faster the reader moves, the less of the text is taken in, thought about, and remembered, although this will also vary depending on how much attention the person is paying to what is being read. Digital text may give access to much more information, but readers may also retain relatively less of what they are looking at. There are also aspects of hypertext that make the reader more
anxious. The video flicker, the pop-up menus, the advertisements, the other programs that are running and the physical conditions that typically surround computers make it more difficult for people to take their time when they are reading. While printed books will wait, a web page is impatient, and a television program is oblivious to the reader’s temporal concerns.

But while the printed text waits, the computer gives readers control over the text in ways that the printing press did not. Computers return text to play and so the reader can, as Lanham notes, “doodle with impudence.”35 By encouraging artistic manipulation and expression, the digital texts can enhance human freedom. The plasticity of electronic words encourages the students to manipulate information to their own ends, which enhances the ability for them to express themselves by reworking the texts of previous authors — Dickens will mean what the readers want him to mean because they are the ones who have control over the text. Lanham writes about a group of people producing a book over time, from one class to another. Here, there is no single author, and “the book” as an electronic and volatile entity, is never permanent. The student is put in control of learning and so, according to Lanham, the computer encourages “self-teaching to a depth and with a power never available before.”36

Lanham argues that the forms that digital texts can take are closely connected to human freedom — “The digitization of the arts radically

democratizes them. 37 Lanham basis his arguments for hypertext on negative freedom, in which books, by forcing text into a linear form, limit the freedom of the reader. While the typical book has a single, linear structure in which the text progresses from beginning to end, the computer allows an author or reader to create non-linear structures.

A volatile and interactive electronic text leads directly ... to our current debate about authoritative and canonical Great Books. To volatilize text is to abolish the fixed "edition" of the great work and so the authority of the great work itself. Such volatility questions the whole conception of textual authority built up since the Renaissance ...38

The linearity of the book, therefore, is tied to the control of the author over the meaning of the text. By undermining linearity, hypertext helps to undermine the singular, authoritative reading of the work, which opens up the freedom of the reader to interpret. Murray notes:

As the literary theorists known as the 'reader response' school have long argued, the act of reading is far from passive: we construct alternate narratives as we go along, we cast actors or people we know into the roles of the characters, we perform the voices of the characters in our heads, we adjust the emphasis of the story to suit our interests, and we assemble the story into the cognitive schemata that make up our own systems of knowledge and belief.39

38 Lanham, The Electronic Word, page xi.
39 Murray, Hamlet on the Holodeck, page 110.
With hypertext, the reader's response to the text is not the only thing that is important. Now, the reader's choices are also important. Unlike the book, digital text is malleable and reader-controlled, and thus creates a responsive reader in ways that printed text could not. A book may give me a footnote that is a link to another book that I can grab off of the shelf or borrow from a library, but the digital link, if it is working properly, provides the new text right away and creates a much greater sense of immediate access to any text that is being looked for. As Holtzman summarizes the interaction:

hypermedia is characterized by jumps. Lots of them. This may seem like a mass of confusion to a generation unaccustomed to today's new discontinuous media but is the norm for a generation growing up immersed in it.

Computers excel in the speed with which readers can jump from one text to another. Someone reads part of a web page and clicks on a link that leads to another page that has other links, and thus other textual possibilities. Moving between texts becomes at least as important as actually reading any of the texts that are presented.

With the book, all the text was visible, it was always stuck to the paper and the paper was always something that the readers could control. The public libraries likewise stopped political power from getting access to what people were reading — a brown wrapper that tried to encourage free access to text.

The power that institutions now have over texts is significantly different from

the powers available to a world of printed text. Books do not keep track of who reads them. Books are private, not only because other people are not around when we read, but also because people do not gain access to information about what we read.

With digital text, however, the ability to watch what the reader is reading is greatly increased. The metadata becomes much more complex and politically troublesome. Metadata is typically not visible, it is not stable, and it does not stay with the data. Metadata is not simply data about the text, like a card in a cataloging system, it may also have data about who is using the text and it may report that information. With cookies and networked reading, a textual panopticon is created that makes it harder to read calmly. Surveillance and fear permeate the activity.

There is, of course, considerable emotional appeal for such an account of reading, especially insofar as the reader controls and becomes responsible for everything that happens while reading. If this is true, then it really does not matter whether texts are printed or digitized, or whether they exist at all. However, while there is something in the idea that meaning arises in part from how the reader approaches the text, when taken to this extreme, there is so much that must be forgotten and so much that must be denied, that the sovereignty of the reader is far too fanciful (and politically dangerous) to take seriously.
Some authors celebrate the anti-authoritarian aspects of digital text. Students can now access any texts that they want to, rather than relying on the dictates of cultural and educational authorities. Everyone can put text on the web. For Lanham, we ought to be self-conscious about styles in part because people ought to acquire considerable power over text (be it words, pictures or anything else that can become part of their own communication). Rhetoric thus adds to human power and it makes people better human beings. For Lanham, "Humanism, construed in this rhetorical way, is above all an education in politics and management." Lanham focuses on the new powers of expression, of what happens after we have thought, but does not spend much time considering how we think or what we think about. Doodling may have value for teaching and living, but doodling comes nowhere near to encompassing human thought or to considering the role of text and media in the entire process.

But a good thief is still a thief, and someone who has power over text may or may not be a good person. Expressing this question in its classical form: does rhetorical training make people better? Lanham begins to discuss this question by referring to Quintilian, who raised the question in his *Institutio Oratoria* (Book 12).

If we make the Platonic or Ramist assumptions, then to the ‘Q’ question the obvious, indeed the tautological, answer must be ‘No!’ If, on the other hand,

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we make the rhetorical assumptions, the assumptions built on a dramatistic theory of human reality and a metaphorical theory of language, then the answer, equally obviously, indeed tautologically, must be, as Quintilian has it, 'Yes!'\footnote{Lanham, \textit{The Electronic Word}, page 166.}

For Lanham, following Quintilian, a training in rhetoric creates civic virtue and ultimately ought to be understood as a world-view.\footnote{Lanham, \textit{The Electronic Word}, page 63.} According to Lanham, a thinker like Plato is primarily concerned with offering clear moral pronouncements that make no room for debate or the cultivation of character. The key, for Lanham, is how important the power to engage with people using texts is for the cultivation of a good person.

Lanham avoids the question of who decides how a self-teaching module is set up. Institutions create self-teaching modules just as they create the world of text. At least with a teacher you have an evident line of conflict, a human source for ideas that can be tested. "Self-teaching" suggests autonomy, but also might entail the inability to challenge the system as students are encouraged to work within it that much more completely.

Lanham also avoids the question of unequal access to digital text that affects what people can do with computers. The issue here is not simply who owns the information or who has access to it, but also what can they do with it. While "the rest of us" play games and balance our checkbooks, Roszak claims that

\begin{thebibliography}{9}
\bibitem{Lanham1} Lanham, \textit{The Electronic Word}, page 166.
\bibitem{Lanham2} Lanham, \textit{The Electronic Word}, page 63.
\end{thebibliography}
the data-surfers at the IRS and the FBI and the TRW are gliding through
every secret I ever thought I had, and that the hot young quants at Morgan
Stanley are using their rather more powerful machines to vandalize the
banking systems of six nations. While the rest of us cling to the margins, the
power and profit of the new technology gravitate elsewhere. The solution is
once again becoming the problem.45

The issue here is not simply who has the more powerful computer, but also
who is best connected to the texts (and specifically the personal data) that are
typically proprietary and personal. The text here would include medical
records, personal e-mails, telephone numbers, consumer habits and a whole
host of other bits of information that databases keep track of and that people
with access to those databases can mine the data to find useful information
about a particular person or a particular group.

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The morality of reading, then, is closely connected the relationship
between human freedom and the textual world. Without language, we are
infants or idiots and without appropriate intellectual skills, we are slaves. A
cconcern for the quality of the textual world, and thus of the impact that
different textual technologies have on that world, is therefore a key moral
concern because if the textual world is improved, then human freedom is
enhanced. We have more options, more powers, and more space between us
and the immediate demands of the society. But the separation from the world


Chapter 7: Freedom, Character and Morality
of text is not Cartesian, we cannot escape, but only retreat, and so a concern for human freedom must also include a deep scepticism towards human character. The textual world was affecting us long before we were aware of what was going on, and it affects us now in ways that we may never realize. To be free, or at least freer, then, also depends on being self-reflective, which does not mean knowing what you want, but rather wondering why you want this rather than something else.

The ideals of the independent reader are tempered by the stickiness of text and the pervasiveness of institutions. Lewis Mumford's solution in *Art and Technics* is to imagine the ideal human stance towards technology in terms of health and strength, understood in terms such as stability, expressiveness and engagement. The danger posed by the machine, for instance, is identified in terms of a collective pathology:

> we know that our almost compulsive preoccupation with the rigid order of the machine is itself a symptom of weakness: of emotional insecurity, of repressed feelings, or of a general withdrawal from the demands of life.\(^{46}\)

But to medicalize the account of the problem creates its own set of issues. The first is that Mumford nowhere actually justifies that these particular characteristics are best described in pathological terms. But even if we admit that particular people, or even entire societies, have a compulsive preoccupation with machines, or anything else, for that matter, it does not

\[^{46}\text{Mumford, Art and Technics, page 124.}\]
follow that the those preoccupations are morally wrong. While Mumford uses value-laden terms, he is not actually providing an argument. And so while Mumford is able to oppose one master narrative (imagined as machines) with another one (imagined as a healthy, organic human life), he really offers little reason to say that the first should count as unhealthy (and therefore undesirable) or that the second should count as healthy (and therefore desirable).

If it is possible to become a good reader and to become a better person through reading, profound limitations and suspicions nonetheless exist to make the serious reader uncomfortable. Anyone can read text, but to care about what is being read, and to care about reading well, depends on more than reading. It depends on understanding the limits and powers of different media and different textual technologies. The reader should worry if good text is hard to access, or if text is presented in a way that makes it more difficult to read. If nothing else, the reader should understand that the skills necessary to read well, to engage with text effectively, depends on understanding how text works and how it exists in the first place.
For moral reasons, are texts better in print or digital forms? Can good reasons be given to prefer one arrangement of textual technologies over any others? Behind these direct questions is a complex discussion concerning the nature of morality and the character of our relationship with text. Of course, support for digital text does not entail a rejection of printed text any more than support for radio entails a rejection of music CDs. But both print and digital text cost money and resources, and so the choice, while not demanded for logical reasons, is nonetheless created by practical limitations.

Computers are not that bad, and books are not that good; or perhaps it is the other way around. There are plenty of reasons to support one side or another. The long-term implications of supporting one rather than another are impossible to specify in any detail if only because the future depends on what people do, what conflicts occur and how those conflicts end. But even if unpredictable, the long-term implications are nonetheless profound. As Neil Postman has noted, our society:

has embarked on a great uncontrolled experiment which involves submitting

all of our institutions to the sovereignty of these new media [, and these
media are] winning the competition with typography for the time, attention, and cognitive dispositions [of people].¹

While Postman is correct to emphasize the importance of the contest between print and digital text, the conflict itself is not simply an experiment and it is also controlled in various ways by various people and institutions. And while Postman focuses on the cognitive differences between media, there are also moral issues that are at stake. We are faced with choices, immediate choices about how to live our lives and long-term choices about whether our lives will have an overall structure and what we hope that structure will be.

The morality of reading must always double back to consider the reader reading. There is little point in debating the relative value of computers, books and all of the other textual technologies that may be encountered without also connecting the technologies to the reader. Reading is not like taking drugs or eating a healthy diet — reading depends on the reader being aware of the process. The evaluation of what should be read and how it should be read is thus going to be caught up in larger discussions that consider what we are trying to do. Evoking William Morris, the goal is not "the ceaseless multiplication of causeless and miserable lives,"² the goal is not to read for the sake of reading. We should also be concerned with why we should read and

² Morris, Collected Works, Volume 22, page 203.
how we should read, concerns that are connected back to what we are trying to do, and what we ought to be trying to do, when we read and after we have read.

We need a world of text that works, that gives us the information that we need, that teaches us the skills that are worth having, and that connects us to the social world of intellectual engagement. If we imagine a language is to imagine a form of life, then to imagine two languages is to be faced with a moral choice between forms of life. Different textual technologies create a choice between different forms of life, different political systems, social systems, and intellectual systems.

Understanding how text works depends on understanding how different technologies create, present, organize and make accessible different kinds of text. In *The Nature of the Book*, Adrian Johns has noted that, “while in some respects a book’s usage is up to you, in others it appears to be quite closely constrained.” While this is a common theme, it suggests several key areas of exploration, including actually tracing out the realms of freedom and necessity when we use a text and also explaining why certain things are left up to the reader and why other things are beyond the reader’s control. Describing what is happening to readers is complex and any account has to cope with considerable obscurity. The meaning that arises while reading is important, but meaning is not the only thing that happens when people read. It is too easy to

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Chapter 8: Conclusion
focus on the conscious activity of the reader, on the meaning that is found by
the reader in the text. Text also has an impact which the reader may or may not
be aware of. Our commitments to a particular medium are not just because we
are used to them, although our sense of value is often affected by memories
only tangentially connected to reading — the smell of a new book, the touch of
the paper, the feel of the book in the hands.

Not only do changes in the technologies of reproduction affect the
character of the text, specific desired characteristics of the text affects the
technologies of reproduction. The printing press was developed in part because
manuscript reproduction was unable to keep up with the demand that already
existed for already-existing texts. Engraving technology was developed in part
because of the desire to reproduce information that was much more
appropriate for drawings (such as biological illustrations, maps, and eventually
scenes of human activity and landscape). In merely instrumental terms, the
ability to read, to write, and to think about the process of reading and writing
allows people to be more than subjects of the text. But more than the
mechanical capacity to create and analyse text, reading well also created the
possibility for becoming something different, and perhaps something better.
The relationship between texts and readers exists over time, with some
awareness on the part of the reader and on those who create the text. People
have some control over what they become — they can turn themselves into
readers and, being readers, they can read in ways that change themselves in one way rather than another. The effective reader thus combines elements of Machiavelli’s engagement with Descartes’ self-assurance, avoiding both solace and smugness, defeat and triumph. The engagement may get better or worse, and different people may win or lose, but it will never end. It is important to understand the field of engagement, the technologies and the institutions, and also to realize that the field of engagement includes ourselves.

The important questions about textual technologies are not questions about the technologies themselves, but are rather questions about politics and morality, about freedom and value. A morality of reading will encourage us to pay attention to what we do, the habits we form, the institutions that hinder or help us, and the future that we image.

What is at stake in a morality of reading in a digitizing world are key questions about how we live our lives: what we try to accomplish, how we treat people, and how we spend our time in this world. We are creatures of language and the important questions always come back to questions of communication. Anyone can look something up, but the goal is to be able to explain why it is important and what can be made of it. We are animals whose very existence is interwoven with texts, but those texts are created and distributed through technologies controlled by institutions that we do not control, or are even aware of. But we ought to be aware of the conditions that make it possible to read and that make it possible for us to be readers, because

Chapter 8: Conclusion
only then can we effectively engage with the world of text and use our engagement with text to engage with the world.

We live in the world and in the world of text, we live with technology, with choices, and with each other. We must get on with our lives, and text must run through it.
Bibliography


Drake, Stillman. 'Early Science and the Printed Book: The Spread of Science Beyond the University,' Renaissance and Reformation (University of Toronto) 6 (1970)


Bibliography


Landow, George P. Images of Crisis: Literary Iconology, 1750 to the Present. Routledge & Kegan Paul: Boston, 1982


Bibliography


Williams, Patrick *The American Public Library and the Problem of Purpose.*


