

# 10 Reading Revolutions Before E-Books

By Tim Carmody



1. The phrase "reading revolution" was probably coined by German historian Rolf Engelsing. He certainly made it popular. Engelsing was trying to describe something he saw in the 18th century: a shift from "**intensive**" reading and re-reading of very few texts to "**extensive**" reading of many, often only once. Think of reading the Bible vs reading the newspaper. Engelsing called this shift a "Lesenrevolution," *lesen* being the German equivalent of reading. He thought he had found when modern reading emerged, as we'd recognize it today, and that it was this shift that effectively *made* us modern readers.

History, of course, is rarely so neat, and other historians quickly found counterexamples of extensive premodern reading (Cicero and

TECH & LITERACY on THE

his letters) and intensive reading today (the way the Romantics brooded over *The Sorrows of Young Werther*, or our contemporaries over that very different contemporary Werther, *Harry Potter*). The future has always been unevenly distributed. But the framework of a reading revolution had been established. All that remained was trying to determine what the "real" revolution was.

2. Outside of scholarly circles, the top candidate is usually the better-known **Print Revolution**, usually associated with Johannes Gutenberg, who helped introduce movable type to Europe. Now, as Andrew Pettegree's new history *The Book in the Renaissance* shows, the early years of print were much messier than advertised: no one knew quite what to do with this technology, especially how to make money off of it. (And that just goes for those who ever encountered a printed book in their section of Europe and would know how to read it if they had.)

But first, let's apply a clean explanatory schema or three to the print revolution to see how each one fits. In Elizabeth Eisenstein's account in *The Printing Revolution in Early Modern Europe*, print changed readers' expectations of texts, especially their universality and fidelity, since everyone everywhere was (in theory) reading an exact copy of an identical text. This assumption proved particularly instrumental in the subsequent Scientific Revolution. Benedict Anderson thought print helped readers of a common language in a highly fragmented Europe think of themselves as an "imagined community," crucial to forming the modern nation-state. Marshall McLuhan and Walter Ong thought print helped further reorient language from sound to vision, paving the way for our screen-fixated present. This is a reorientation that, as Ong argued extensively, begins with writing itself.

## ATLANTIC

**Tim Carmody:**

**[A Bookfuturist Manifesto](#)**

**C.W. Anderson:**

**[Print Culture: A Primer and Cheat Sheet](#)**

**Alexis Madrigal:**

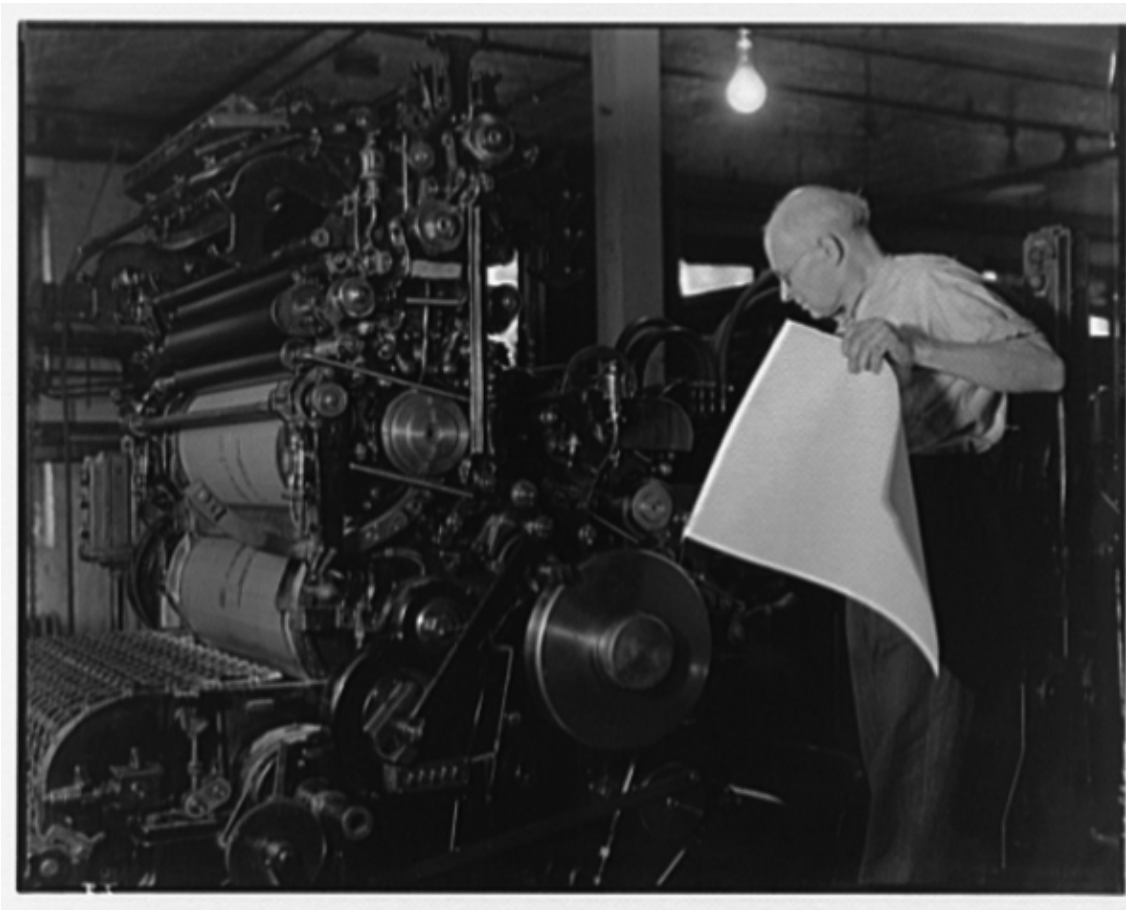
**[Gary Shteyngart's Post-Literate Future](#)**

**Tim Maly:**

**[The Two Minds of Amazon on E-Books](#)**

**Nicholas Carr:**

**[Is Google Making Us Stupid?](#)**



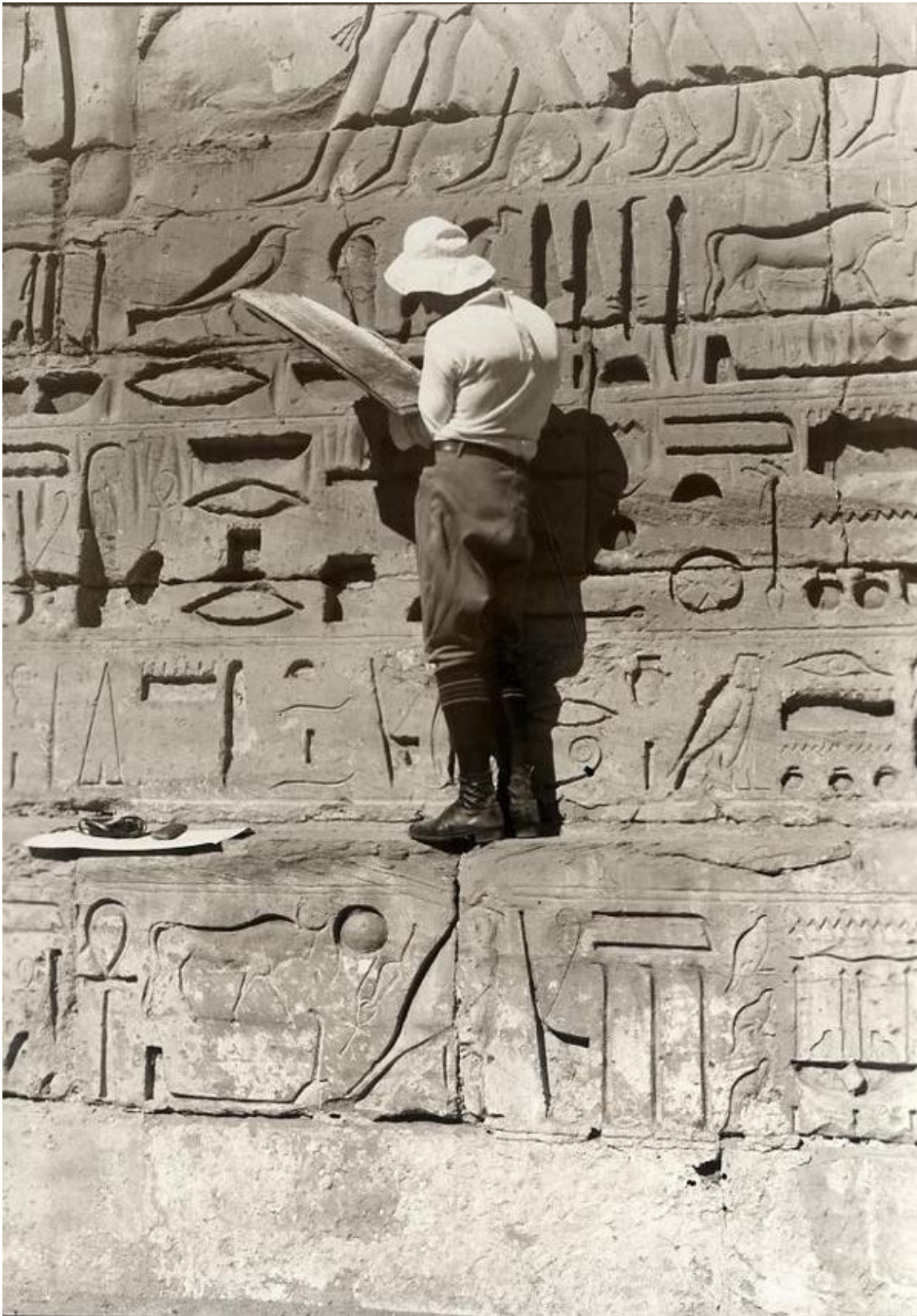
3. There are many crucial developments in the very early history of writing, but for the sake of time/space (writing being the primary technology that allows us to think of these interchangeably), let's cut to the emergence of the **alphabet**. From bureaucratic cuneiform to monumental hieroglyphs, early writing systems were mostly divorced from speech. Scripts where symbols matched consonants or syllables allowed you to exchange symbols for sounds. An abjad, like Phoenician, Hebrew, or Arabic, was a script for merchants, not scribes. This took on an additional order of magnitude with the emergence of the first proper alphabet, Greek. The Greeks took the Phoenician letters and 1) added symbols for vowels; 2) completely abstracted the names and images of the letters from words in the language. (In Phoenician as in Hebrew, "aleph" means ox, and "bet" means house; the Greek "alpha" and "beta" are meaningless.)

This fusion of orality and literacy helps explain the potency of classical Hellenic culture. Songs and dances became literature; disputations became rhetoric and philosophy. The Greeks were able to incorporate the knowledge of the civilized world in their own language, and in turn transmit their own amalgamated culture wherever they went. As Ong notes, unlike writing or agriculture, the alphabet was only invented once - every single alphabet and abjad can trace itself back to the same Semitic roots. It was (and remains) a revolution that happened over and over and over again.

4. Now, the other major pre-Gutenberg "revolution" in the history of the book (and by now you may be getting the hint that not one of these revolutions were total coups that changed everything everywhere in an instant, leaving nothing of the old order behind) was in the shape, size, and design of the book itself. The shift from the **rolled scroll to the folded codex** as the dominant form of the book radically affected readers' conceptions not only of books, but of what kinds of reading were

possible. Many historians have argued that Christianity, in practice and concept, was deeply affected by its embrace of the codex (and Greek) rather than the Hebrew scroll. Codices were cheaper and easier to read and carry than scrolls (clay and stone tablets were even heavier), and it was easy to perform anagogic readings linking the "Old" and "New" Testaments - just hold your finger in one place in the book and flip ahead to the end. Christianity, in turn, helped spread the codex throughout the Roman Empire. The scroll was persistent, though, as anyone familiar with synagogues, movie theaters, or long unpaginated web sites can attest.





5. The shift from scroll to codex was in turn enabled by a shift from **papyrus to parchment and then paper**, but honestly, the continual changes in materials essential to writing and reading alone could constitute a few dozen revolutions, at different places and times all over the world. Let's just say that what the things we read are made out of has always been very, very important.

6. This is especially true for arguably the most important reading revolution -- the **industrial**

**revolution.** Gigantic presses powered by steam (and later, electric power) could crank out books and newspapers and advertisements that strained the always-fickle paper supply. Eventually, papermakers were able to invent a variety of mechanical and chemical techniques engineer decent-quality paper out of pulped wood, a supply that (unlike cloth rags) appeared limitless. Print was off to the races, and dozens of other inventions helped make generating texts cheaper and faster. Having beaten back the scroll, our anthropomorphized codex now jostled against increasingly-important nonbook documents glutting the alphabetic information stream, like newspapers and office memoranda. More people were reading too, thanks to cheap primers and a state-driven educational push towards universal literacy: historian David Hall has called this the "literacy revolution." If print in the Renaissance and early modern periods was a proof-of-concept, a limited beta - the Xerox PARC GUI and first-generation MacIntosh of the new modes of producing and consuming text - the age of industrial print was Windows 95.

7 & 8. If those analogies made sense to you, it's because reading has transformed even further in **the electronic age**. Entire new families of audiovisual media, transmitted wirelessly or on discs, cylinders, reels, and cassettes, became more essential to culture even as text continued to proliferate exponentially. The development and expansion of **computing**, too, introduced a few powerful wrinkles, like the conversion of alphanumeric text to binary languages, text written to be "read" by computers rather than humans, and greatly increasing the amount of reading and writing we perform on screens.



9. There are two other reading revolutions worth mentioning, broad tendencies even less fixed to a particular historical moment. Communications legend Harold Innis suggested that the history of culture itself was characterized by a balance between media that persisted in **time** - think stone inscriptions and heavy parchment books -- and those offering the greatest portability across **space**,

like paper, radio, and television. Not only does this offer a grand scheme to think about media, it also suggested (for Innis at least) that modernity, for good or ill, had tipped the balance toward the ephemeral-but-portable, what Engelsing would call extensive rather than intensive media.

And that's the common thread to all of these revolutions. They each try to explain how we got to where we are today, and to assess the value of the cultural changes that happened along the way.

10. My favorite reading revolution, though, isn't very famous, even though it was conceived by the very famous media theorist [Walter Benjamin](#). It's the shift from vertical to horizontal writing, and then back to vertical again. He lays it out in his 1928 book *One-Way Street*:

If centuries ago [writing] began gradually to lie down, passing from the upright inscription to the manuscript resting on sloping desks before finally taking itself to bed in the printed book, it now begins just as slowly to rise again from the ground. The newspaper is read more in the vertical than in the horizontal plane, while film and advertisements force the printed word entirely into the dictatorial perpendicular.

This is a revolution that encompasses the entire history of the book, from manuscript scrolls on papyrus to industrial paperbacks. It also takes the broadest field of reading possible, from graffiti on the walls of ancient cities to silent movies and children's scrawls on a chalkboard. It sets aside all of the inside baseball about technological achievements and the inherent properties of the medium.

No media is ever encountered in a vacuum, just as no real revolution happens in one date you can point to on the calendar. We can't talk about a revolution of the book without talking about a revolution of the desk. Benjamin's description of reading here abstracts from everything we know about concrete history, only to return it to lived experience and the relationship between written language and the human body.

Once you begin to think about it this way, Benjamin's "reading revolution" turns out to be the only one listed that's a genuine revolution, a 360-degree return, occurring in space as well as time. It brings together text and images onto a single screen and encompasses a broader range of media in continuity with our present. We may take our Kindles to bed like paperback books. We may hold our phones and tablets upright on the train like we would newspapers or magazines.

If Benjamin's reading revolution is real, it's one we continue to participate in.





*Images:*

1. [Reading in the trenches of World War I](#). National Library of Scotland.
2. [A Washington printing press](#). Library of Congress.
3. [Reading hieroglyphs](#). Nationaal Archief.
4. [Reading microfilm](#). LSE Library.
5. [Special glasses designed for reading in bed](#). Nationaal Archief.

This article available online at:

<http://www.theatlantic.com/science/archive/2010/08/10-reading-revolutions-before-e-books/62004/>

Copyright © 2010 by The Atlantic Monthly Group. All Rights Reserved.