

Has Writing Hardware Changed the Role of Research? (Research Behaviors of Theological Educators and Students Panel)

by

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Hardware and the Research Trajectory

March 1, 1873 is an important day in the history of writing, reading, and research, not because a famous author was born or died or discovered they had consumption, not because a classic was first published for the masses to read or for generations of school-children to be dumbfounded by its literary allusions, and not because the United States Congress was considering to enact the Comstock Act, which made it illegal for anyone to send any material deemed “obscene, lewd, and/or lascivious” through the mail, including birth control devices. March 1, 1873 is an important day, because on that day, E. Remington and Sons started production of the first commercial typewriter, the Sholes and Glidden Type-Writer, in Ilion, New York. What makes this invention so important, especially to the topics at hand—chiefly writing and research—is that it effectively doubled, tripled, and quadrupled (and in its greatest moments, quintupled) the writing speed of human beings. From a record accelerated speed of 30 hand-written words per minute in the 1850s, to an exponential 120 words-per-minute half a century later, the ability to put thoughts into written words changed the cerebral dynamics of humankind, and set it on a kinesthetic path of self expression, which has not in the least stopped today, but has in fact continued in new ways.

Now, none of us have attained prestidigital euphoria of the likes of Mrs. Barbara Blackburn of Salem, Oregon, who can type 150 words-per-minute for up to an hour, and has been noted to type between 170 and 212 words-per-minute. That is simply a beautiful madness in its purest typographical form. But this new mechanization, this retooling of writing utensils has an effect upon our ability to concretize thoughts, if not more quickly, at least differently.

A basic chronology categorizes our individual *writing autobiographies*, that is, how we have through out lives learned to use writing implements, which are available to us in our societies and cultures. From crayons, Etch-A-Sketches, and fingers for finger-painting, to pencils, mechanical pens, typewriters, word-processors, and computers, we develop our abilities to use these technologies with hoped for proficiency. What and how we write are also important. These technologies have changed and developed to accommodate speediness, flexibility, sustainability, and our own changing environments. The old-school typewriters developed throughout the early to mid-twentieth century, from strictly mechanical devices to ones powered by electric, which gave them an office-wide edginess that when used, sounded like a daily enactment of electric-shock therapy on fine woven stock paper; but there was a speediness to these new typewriters, which echoed the continuity of a speed-up culture, somewhere between Alvin Toffler and Reaganomics, racing toward the heydays of 1980s capitalism. Perhaps one of the great new changes in writing hardware came nearly 100 years after Remington’s production of the Sholes and Glidden Type-Writer, and this was the development of the all-in-one desktop computer. The HP 9830, introduced in 1972, was just that. And it was a crossover in writing technology, because not only could it be a utility for faster writing, but its corrective abilities would come to be seen as revolutionary—no more corrective tape. The “Word Processor,”

which was at first an electric typewriter, often equipped with a small computer screen to play with text, was later developed into the word processing now found on all computers—such as Word. The changes that have taken place over the past 135 years have been primarily changes according to speed—the ability to write faster. But in more recent years, especially since the advent of the internet, and all of the developments therein (email, blogs, YouTube, online shopping, IMing), the writing transitions that have become most prominent are that of accommodation, access, and availability. This means that we desire the ability to write quickly, but also wherever we want. And nowhere is this more evident than in the act of text-messaging on cell phones or similar devices. The most outrageously befitting example of this is found in a trend now the rage in Japan. I am talking about young women writing what are called *Cell-Phone Novels*, which they produce in their spare time by text-messaging short passages of their illustrious narratives and emailing them to themselves. Japan's greatest celebrity is a teen-age woman named Rin, who has managed to write a best-selling novel all on her cell-phone, while riding to and from work, all within six months! The novel, titled "Moshimo Kimiga" (If you . . .), was published in January 2007 as a 142-page hardback book. And "her story about a high-school romance and the couple's fight against the girl's illness sold 400,000 copies" by September of that same year (*Japan Times*, Sept. 23, 2007).

Now that we have addressed the issue of the technology of writing, how, you might ask, does this affect research in seminaries and theological education? Many of you might be thinking, "how does hardware affect the way I write and, thus, do research?" How does it? As for myself, I recall my own *writing autobiography* well—as something which spanned writing with crayons, pens, pencils, and brushes to mechanical typewriters, electric typewriters, word processors, and finally computers. And each one of them delectably became an instrument of increased speed, even when I continued to have my own sentimental attachments to that old IBM Electric-Ball, that I pounding away papers on Steinbeck or Tolstoy in high school. I still keep a hand-written journal, which wouldn't be the same if it were typed, word processed, or even text-messed. But the important issue for us today is *how the research takes place in relation to the hardware itself*. And this came up during several interviews I had done over the past couple years, especially those most recently for my MLS thesis.

A total of 24 interviews were conducted, from which I have culled this information on research and writing. Participants ranged in age from mid-30s to late-60s, and all were seminary faculty, teaching in topics such as Bible, Theology, Ministry, and Ethics. The questions which prompted the responses about hardware were: a) how has technology influenced research—both for you and in general? and b) how has research changed in your lifetime? Before asking these questions, I offered participants the opportunity to define research in their own terms, which afforded a very broad understanding of the word and its associations. But overwhelmingly, without exception, faculty members believe that technology has had both a positive effect on research and has changed the way they go about research.

How so? When it comes to doing research, many people found the ability to find materials to be much easier—technologies such as search engines and the software enabling OPACS have made research quicker, less labor intensive, and more expansive. One participant noted that technology has globalized research, making it more widely available, (Irizarry Interview, April 25, 2007). When it comes to the issue of hardware changes and how these evolutions have affected writing and research, the responses are interestingly wedded to the idea of "getting

your thoughts on paper quickly.” And the best assessments of an historical change have come from those whose writing and research has changed most dramatically over decades of hardware advancements. One participant, who has been writing and doing research for well over two-decades commented that hardware changes have allowed her to gather information more easily and provided her a greater sense of control and manipulation of texts (Lee Interview, April 25, 2007). Another faculty member told me that while in the middle of writing his doctoral dissertation, he was given access to the newest PC on the market, which had been purchased by a friend in the mid-1980s. He said that “writing by typing . . . my hand got less fatigued on the PC keyboard than either by typewriter or hand, and the plasticity of the text was also far greater,” (Cathey Interview). And perhaps the most surprising of these confessions came from a now retired professor of New Testament, who has written several books. He said that when he began doing research in the late 1950s, he began his research by writing in pencil on yellow note pads, skipping lines and being neat in his penmanship. He organized his thoughts in orderly fashion, on note cards or other pieces of paper and ordered them in such a way that would create his research narrative. He bought his first computer in 1985, and enjoyed the word processing and typing capabilities. What he found different also was the idea of a defined versus limitless text: he notes that his writing style and research were formed (or re-formed, even recalibrated) by word processing programs. He told me “when using yellow paper, I saw the parameters of what I wrote, now when I write in Word documents, it is harder to see what I’ve written on the screen,” yet he prefers the newer method, because of the seamlessness of the writing hardware and his ability to produce his thoughts into typed words more quickly than by hand or typewriter. Most surprisingly, this scholar recognized that hardware completely changed his method of researching, turning the process on its head. He claimed that “before, I used index cards to do research, now I just start research by writing in a Word document—before, research dictated writing; now, writing dictates research,” (Brawley Interview).

The semiotics scholar Walter Ong noted nearly thirty years ago, that “writing introduces division and alienation, but a higher unity as well. It intensifies the sense of self and fosters more conscious interactions between persons. Writing is consciousness-raising,” (Ong, 178-179). When we write and do research, we must recognize this kinesthetic shift, this mental-physical relationship that is writing, which is enabled through instrumentation. We must think about what these hardware changes have meant for us, and what influence they are having upon us and around us. But we must also consider what this means for the future of research: what research is, how it is performed, and if newer hardware technologies will guide us through another age of writing.

Resources

Robert Brawley Interview, (September 2008).

Robert Cathey Interview, (September 2008).

Jose Irizarry Interview, (April 2007).

Jae Won Lee Interview, (April 2007).

Ong, Walter J. *Orality and Literacy: The Technologizing of the Word*. London and New York: Methuen, 1982.

Japan Times (Sept. 23, 2007).

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