

THE CHRONICLE OF HIGHER EDUCATION

The Chronicle Review

December 8, 2014

The Great Dictator

A writer seeks her voice, with her voice



Katherine Streeeter for the Chronicle Review

By Ann Kirschner

Hello! Anybody out there? I'm talking to you!

Once upon a time, I would have written this article by hand, dotting my i's and crossing my t's on a yellow legal pad, scratching away with a weak imitation of the formal penmanship I acquired in grade school. Then I switched to typing, first on a manual typewriter, then on my beloved blue IBM Selectric, and, finally, on a computer. I learned to cut and paste and drag and drop.

These days, my manual writing is limited to the occasional shopping list or condolence note, and my penmanship is worse than ever. In fact, I have often thought that my 21st-century writer's brain is hard-wired through my fingers to the keyboard.

This summer, I took my hands off the keyboard.

I wondered if I could learn to write using speech-recognition software. My inspiration came from my own home: my husband, a great neurologist and a terrible typist. For years he had used speech-recognition software for letters of referral to other physicians. If his computer could handle pheochromocytoma and hemochromatosis, I figured that mine could surely muscle through my quotidian vocabulary.

Language lies at the essence of the human condition—handwriting and typing do not. Babies babble instinctively, but the need to lend permanence and clarity through text is strictly for adults. If, as Lily Tomlin said, “man invented language to satisfy his deep need to complain,” then we invented writing to enshrine our whines. And our wisdom.

My previous experience was only with customer-service queries (“say 1 to continue in English”) or silly Siri questions on my iPhone (“call Santa Claus for me please”). I started out using the free software built into most computers, smartphones, and tablets. But if I happened to be somewhere with no Internet connection, I was out of luck. No Wi-Fi, no words. So I purchased the leading speech-recognition software, Dragon. I found the accuracy to be about the same. (No surprise, since Dragon’s parent company, Nuance, provides the engine for many free products.) But now I could work anywhere, on or off the grid, and with any writing program.

If you have no idea what I’m talking about, here’s an easy experiment that works on many browsers and devices. Please go right now to the Google search bar and click on the microphone icon. Click “yes” if it asks you to enable your microphone. Then say aloud, “OK Google.” Now tap the microphone again, and say your own name, confidently.

Magic, right?

The process of transforming speech to text sounds simple: Your voice creates vibrations in the air. Your computer translates those analog waves into digital data, the bits and bytes that it understands, and then converts your spoken words to characters and symbols.

Behind that sequence lies more than a hundred years of innovation, from Alexander Graham Bell (who was trying to help his deaf wife) to Bell Labs and IBM and, of course, the federal government and Darpa, an agency within the Department of Defense that financed research into speech recognition long before it invented the Internet. In the 1970s, a crude commercial version of the software cost about \$10,000, which included a personal trainer. Most of the early adopters were disabled. And. You. Had. To. Speak. Like. This.

It took another decade to solve the problem of continuous speech. More recently, the advent of big data and statistical-modeling systems have significantly improved accuracy.

Speech-recognition software bypasses the Chomskyan problem of how language and meaning are structured and whether there is a universal grammar—and fakes it mathematically. Perhaps you are reminded of the scene in *Raiders of the Lost Ark* when a tired and sweaty Indiana Jones faces off against a virtuoso swordsman: Indy shakes his head at the fancy footwork and whirling blades, pulls out his gun, and shoots his opponent.

I will not fool you and suggest that any of this is intuitive. (And really, isn't the notion of intuitive computers way oversold?) Speaking your punctuation seems particularly ridiculous at first. The need to say "comma" or "period" or "exclamation mark" reminded me of the classic and still irresistible Victor Borge skit on punctuation!

After a little bit of self-training, I got over most of my embarrassment, but homonyms defeated me. I never could train my Dragon to recognize "write" versus "right," even in the most obvious context. Nor could I get it to spell MACAULAY instead of MACAULEY. Perhaps it was my Queens accent?

I experimented with different microphones. Most power users have special headsets, but I am oddly sensitive around the ears. To my surprise, I had almost equal accuracy with the same comfortable earbuds I use for hands-free cellphone calls. I even tried using no headset at all, and found satisfactory results from my computer's built-in microphone. Soon, I could sprawl on a couch while my words marched effortlessly across the screen. If telekinesis scares you, think of it like cruise control on your car.

I found my writing began to change. My emails and texts grew longer—not necessarily an advantage, I agree, but then again, they sounded more like me. I was absurdly happy when I produced my first perfect memo. My language and syntax felt newly scrubbed. I was liberated from the physical tyranny of the keyboard. I could blather on and on, not even looking at the screen, enjoying the sensation of free hands and free association, arms comfortably crossed, enjoying a novel form of relaxed writing/thinking, words appearing on the screen in almost perfect synchronization with thoughts, feeling like a cartoon character with a bubble over my head. Before I knew it, I'd filled up an entire paragraph without saying a whole lot. Like this one.

For speedy, informal writing, that was acceptable. I remembered the quote—variously attributed to Winston Churchill or Benjamin Franklin, but originating with Blaise Pascal (and it sounds even better in French): "If I had more time, I would have written a shorter letter." I'll attest to that. I answer my emails a lot faster with my voice, though I bet my responses are at least 25 percent longer than those that originated on a keyboard.

But could I go beyond email? I did: This article was my maiden voyage. Now, months later, what started as an experiment is firmly established as my writing tool of choice for first drafts. Whether I use pen, keyboard, or voice is like deciding whether I make the morning commute by car, taxi, subway, or foot: a matter of location, timing, and tone. Location is actually the most important factor. We all know how annoying it can be to overhear the cellphone conversation of an indiscreet stranger. We type or handwrite in silence, while saying words aloud makes them public and potentially annoying to those around us. I am getting less scrupulous all the time, however. I even caught myself whispering a text message into my phone as I waited for a light to change. At least I'm looking up while I walk and talk, slightly less collision-prone than when I am looking down at a keyboard.

What should we call this? Am I “drafting” or “writing” or “dictating” or—my preference—”narrating”? Years of experience as an audiobook enthusiast have prepared me for the snobbery of folks who elevate text over speech, and who consider anything analog superior to anything digital. Just today, I ran into someone who was carrying a recent novel that I’d enjoyed as an audiobook. “Oh, I loved that,” I exclaimed, and went on to extol the excellence of the narrator. “Don’t you *read* books anymore?” my friend answered, condescension dripping from her voice.

Feh!

I am a reading agnostic. Turning the pages of a picture book with my grandson is a delight beyond words. So are the touch and scent of my treasured 1876 edition of *Daniel Deronda*, in eight glorious original volumes. But e-books enable me to take a dozen books and magazines on vacation. And with audiobooks, reading is mobile and once again oral, as it was in ancient times. As I navigate the streets and stores and subways and elevators of New York City — I’m reading. Having a manicure — I’m reading. In the dentist’s chair — I’m reading.

And now I know that I am also a writing agnostic. If I want to narrate while walking around, unplugged from the keyboard — I’m writing. If I want to maximize the spontaneity of my language — I’m writing. If I am ever disabled with hand or neck problems, I will bless the software that enables me to continue writing. I have met college students with dyslexia who find speech-to-text and text-to-speech essential tools for college success.

Besides, we have always had Great Dictators among us, at least since God spoke to Moses.

Without an oral tradition and faithful scribes, we would have no Homer or Socrates or Cicero. They orated, they chanted, they sang. John Milton dictated the verses of *Paradise Lost* aloud to his daughter. Dostoevsky employed a scribe to meet a pressing deadline, and then married his attractive amanuensis. Mark Twain spoke his memoir aloud in order to improve the fluency of his writing. Henry James overcame stuttering and arthritis and dictated his novels. Hard as it is to imagine those famously convoluted long sentences originating as speech, they did. The ever-practical Wallace Stevens narrated his poems to the same secretary who handled his correspondence as vice president of the Hartford Accident and Indemnity Company. Proust, Joyce, Stendhal, and Hardy all had assistants who typed and transcribed for them.

Imagine how many more novels Trollope could have written had he emulated the queen of romance writers, Dame Barbara Cartland, who reportedly dictated a new novel every two weeks from the comfort of her chaise longue.

But don’t throw away your keyboard. Editing is where it all falls apart. For this article, I was fine with using speech recognition to get me started, but I found it far too crude to go all the way from draft to print. I needed the hands-on precision of moving around my text and refining my word choice before I felt ready for prime time. So for final versions of anything important, I still come back to word

processing with keyboard and mouse. Even after editing something that started orally, though, I believe that I retain a stronger and more personal voice. I hesitate to bait my readers, but I do find that my writing is also clearer when I start with an oral draft. I should also mention some interesting paradoxes of our modern times as writers and scholars. In contrast to the breezier language encouraged by speech-recognition software are the taut formats of text and Twitter. Most millennials I know prefer that form of quick, silent, and sometimes covert communication, texting through their pockets and evoking a mysterious dialect of abbreviations and emoticons.

Speaking of millennials, there's a related consequence for future scholars: I asked an undergraduate research assistant to transcribe some original letters written in the 1920s—all entirely clear and beautiful to me—and discovered that he could not read cursive handwriting. He's not unusual. All that time I spent in school with my loops and groups ... one generation later, all gone.

Neuroscientists and cognitive psychologists are still figuring out what we are losing when we put down our pencils. There is considerable evidence that writing by hand fires up something important in our brains. Studies with MRIs have shown that sequential finger movements activate different regions of the brain involved with language, memory, and thinking, and aid in motor- skill development.

The Chinese value an elegant hand as proof of a moral person, but perhaps having good penmanship these days is like expertise with a slide rule. Architects, musicians, and graphic designers have seen their creative worlds transformed by computers: Why not writers?

So maybe this is a transitional (and chaotic) McLuhanesque moment when writers of all ages explore how best to match the new media to our message. We are moving from Seamus Heaney's narrator in *Digging*:

Between my finger and my thumb
The squat pen rests.

I'll dig with it.

... to Spike Jonze's *Her*, where people conduct their lives in spoken and unselfconscious partnership with machines.

The future undoubtedly holds more changes. Moore's law, about computer power doubling every two years, will move us inexorably toward artificial intelligence and robotics. Our children will live out our fantasies of talking to R2-D2 and Rosie the Maid. We will travel to foreign lands with universal translators built into our digital assistants. Neural networks will improve our ability to mirror how the brain performs pattern recognition and will transition from the brute force of mathematical models to a deeper understanding of how meaning is produced. We already take for granted cochlear and retinal implants and deep brain stimulation. This year's WSJ.D technology conference picked as the audience favorite an Israeli start-up called Voiceitt, a specialty voice- translation technology for sufferers of ALS, Parkinson's, autism, and cerebral palsy. The new field of neuroprosthetics beckons with the possibility of bypassing speech or handwriting completely.

Are there no limits? A few months back, I was sending a slew of emails by voice. It was the start of a long weekend at the beach, and I was narrating happily until one particular email arrived like an electric shock.

A dear friend had recently lost her husband, and I had already written a note of condolence (a handwritten note, one of my rare ones). She wrote back to share the grief of her husband's last days.

I listened to her poignant words in my head. Ready to speak my response, I hesitated ... and then put my hands back on the keyboard. The wind was rustling through the leaves of the big tree outside my window. In the distance, I could hear the low rumbling of the surf, still churning from the aftereffects of the previous night's storm. Those were the sounds I wanted to hear.

Ann Kirschner is dean of Macaulay Honors College at the City University of New York. Her latest book is Lady at the O.K. Corral: The True Story of Josephine Marcus Earp (Harper, 2013).