

## Is the writing on the wall for handwriting?



[Image: Is handwriting already a lost art? \(Library of Congress/ The Commons\)](#)

*Handwriting is an anachronism, according to some. Finland and many American states have now dropped it from the curriculum. But many psychologists believe cursive writing still has an important role to play in cognitive development. So what's the truth? **Antony Funnell** investigates.*

We value the written word. Civilised societies do. It's one of the defining features of human advancement. And yet the concept of the written word has increasingly become detached from the original mechanics of writing—as the quill gave way to the pen, so the pen acquiesced to the keyboard, and the keyboard in turn to the touch screen.

Many of us—probably most of us—no longer scrawl our way through life with the end of an ink-filled plastic stick. Instead, we finger and thumb our thoughts, greetings and other forms of communication.

There will be a loss. There's a certain fine motor skill and kinetic memory that will get lost as people hand write less, and that is something to mourn. But there are advantages that will come in its place.

**Anne Trubek, author**

As a consequence, we've now begun to reassess what it means to 'write'—in the literal sense. And, importantly, whether there's still virtue or necessity in the teaching of handwriting.

According to its detractors, writing by hand is an anachronism. Finland recently dropped it from its national curriculum. And so many American states have now removed handwriting from the list of educational requirements that the teaching of cursive script only seems to make the news these days when state officials opt to keep it.

For psychologist Angela Webb the demise of handwriting poses a very real threat to the basis of education. Dr Webb, the chair of the National Handwriting Association of the UK, says writing by hand stimulates cognitive processes. And even if people no longer use a pen or pencil for much of their daily communication, she says the teaching of handwriting remains essential for effective learning.

'It helps us retain information. It helps us develop other skills such as reading, it's been found to support retention of concepts in mathematics,' argues Dr Webb.

'There is a very high correlation between creative writing which has been conducted by hand compared with that which was conducted on a keyboard. So these are interesting pointers to show that handwriting actually confers a very specific benefit in terms of cognitive processing.'

And there's some neurological research to support that argument.

'There seems to be pretty solid evidence that handwriting in preschool changes the brain in a way that mimics what a literate individual looks like,' says Karin James, an associate professor with the Department of Psychological and Brain Sciences at Indiana University.

James has been conducting experiments with young children using neural imaging and she believes the link between the physical act of writing and early reading proficiency can't be overstated.

'If you are finding something that facilitates reading, then it seems really important to take that seriously,' she argues.

'There is no evidence out there that the tablets and the computers and introducing those in preschool is having a facilitatory effect on reading. There is no evidence of that. In fact, it seems to be the contrary, that we do need this production by hand of the letters to be able to help children understand the letters and then the words.'

However, James concedes that the human brain is malleable and that it may begin to adapt to the computer environment over time, eventually leading to a situation where texting or typing has the same impact on reading acquisition as writing by hand. But that adaptation, she says, will be a long time coming.

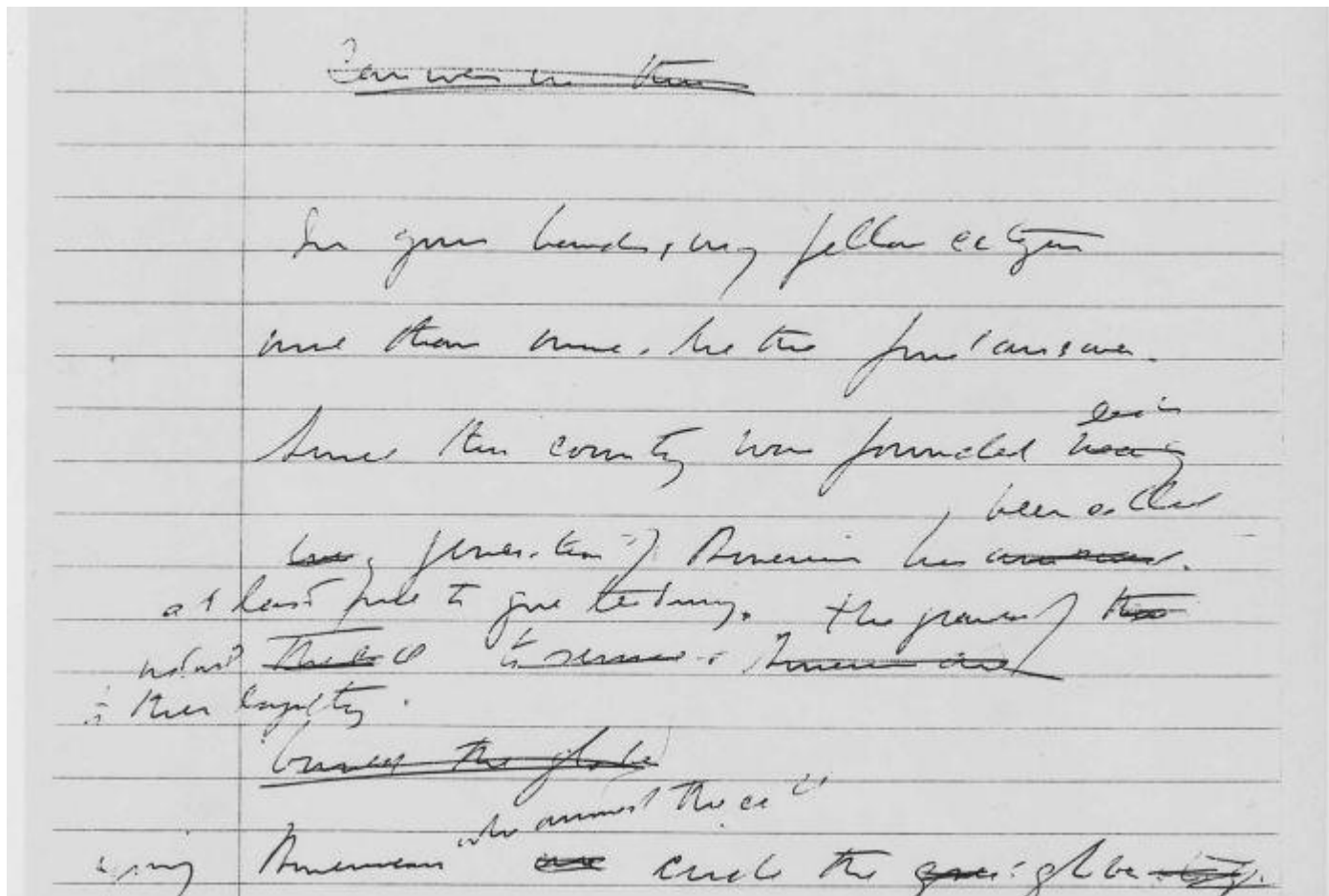
Professor Anne Trubek, author of the forthcoming book *The History and Uncertain Future of Handwriting*, offers a very different perspective. Like it or not, argues Trubek, handwriting has already lost its position as our primary means of communication and it's time to move on.

'There will be a loss. There's a certain fine motor skill and kinetic memory that will get lost as people hand write less, and that is something to mourn. But there are advantages that will come in its place. There certainly are many things that we have lost in the history of writing that are also worth mourning. For instance, carving on stone is something that used to be done much more than it is now, or even the kinds of memories that people have who live in oral cultures, which are much more capacious and you lose that when you enter a literate culture.'

'Writing and technology have gone through many revolutions or changes in the 6,000 years since humans have been writing. So it is huge. But it is just part of a transition ... and we've seen people have the same anxieties and fears with each change.'

She also casts doubt on the veracity of the research supporting the retention of handwriting in schools.

'The studies that I have looked at are not as conclusively convincing as the headlines make them out to be,' she says. 'When you actually go and read the studies, the sample sizes are quite small and the conclusions that they come to aren't really giving some stunning "oh my goodness we are going to become dumber" types of responses. The research that I have done does not really conclude that it gives us something that we won't have otherwise.'



[Image: President John F. Kennedy's handwritten draft of his inaugural address.](#)

[Click to see the full page. \(The US National Archives/ The Commons\)](#)

Trubek also points out that that writing by hand has not always been an intrinsic social good. The disabled and others, she argues, were often punished in the past because of their lack of 'penmanship'.

'There are studies that are pretty conclusive that [suggest] teachers and professors will grade students lower if they have poor handwriting, even if the content is identical to someone with good handwriting. So if you have a poorly written handwritten essay, and a nicely written handwritten essay, they are going to receive different grades. But if you have two typewritten ones, they are going to receive the same grade. So it seems to me a great democratising force to level the playing field.'

Ewan Clayton also warns against sentimentality. Clayton, a professor of design at the University of Sunderland is the author of *The Golden Thread: A History of Writing*.

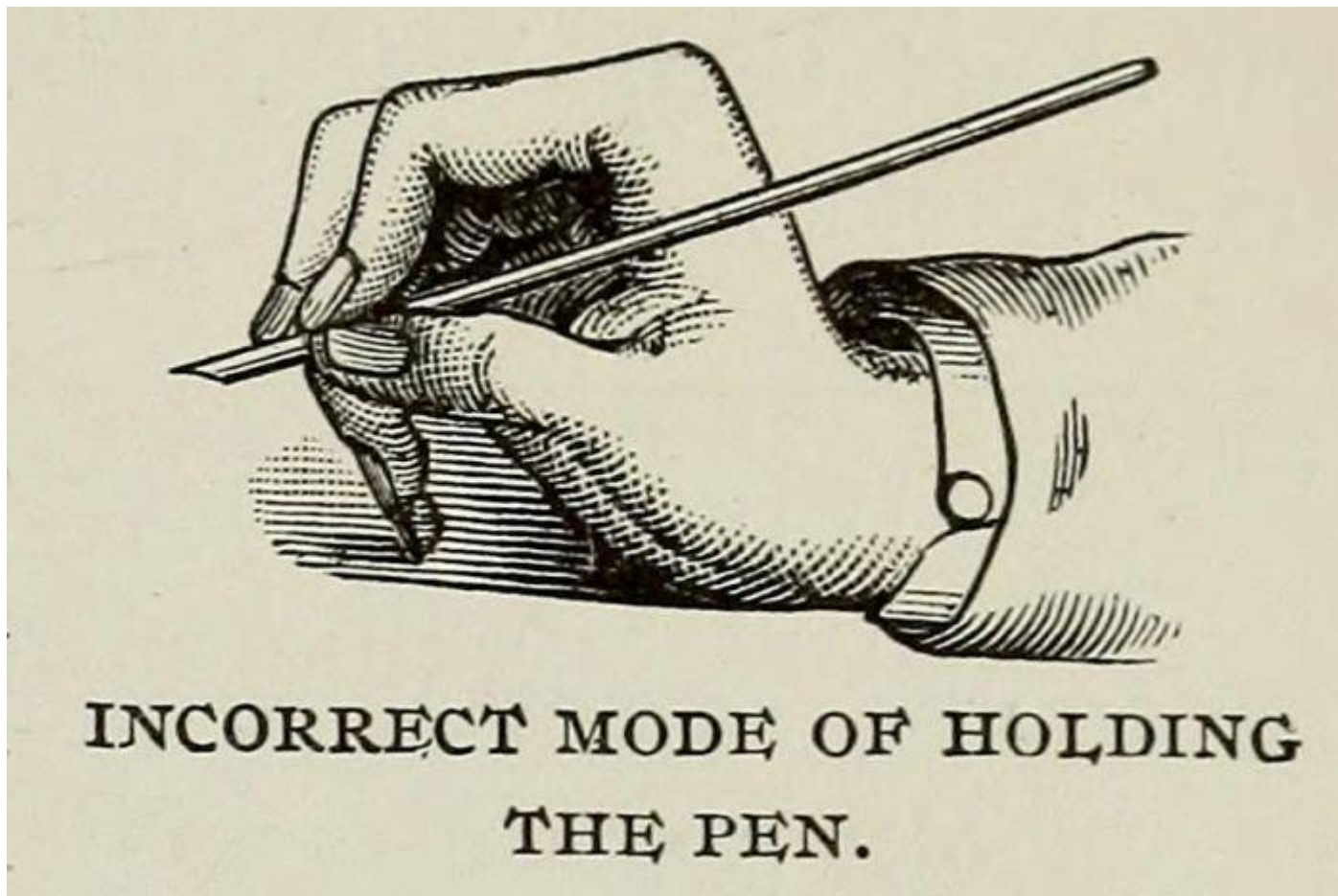
'We're dealing with massive change at the moment in terms of technology,' he says. 'We know that changes in writing practices are changing the way we use and think about the library, about newspapers, about books. And we have emotional attachments to these institutions and objects. So naturally there's anxiety around those changes because we are having to handle big adjustments, both personally and in a wider social context.'

And Clayton echoes Karin James' thoughts about equality, reminding us that handwriting has sometimes been used more as a political or ideological weapon than as a tool of enlightenment.

'We discover, for instance, that at the time of the Industrial Revolution there's a decrease in literacy because it's thought to be a dangerous thing to teach the working classes how to write. There are actually records in Britain of people funding schools and saying, "I'll fund the school as long as you teach those students to read, but not teach them to write."

'Also we have to remember that there were real gender differences in writing. Young boys were more likely to be taught to write than young girls. Furthermore,

if you were a girl and you'd been taught writing, you were taught a particular kind of writing, a much narrower form of letter. This is true in the European context. So you were marked ... right from the way somebody looked at a piece of paper, they could tell whether you are a man or a woman and that kind of stuff.'



[Image: Late 18th century handwriting instructions. \(Library of Congress/ The Commons\)](#)

Based on our previous experience with technological change, Clayton believes the future of handwriting is likely to remain a contentious issue for many years to come. But the debate may, in fact, become an irrelevance if US author and journalist Clive Thompson is correct.

Thompson, a contributing writer for the *New York Times Magazine* and *Wired*, is already looking beyond type and text to the next stage of communication—a phase he terms 'voice writing'.

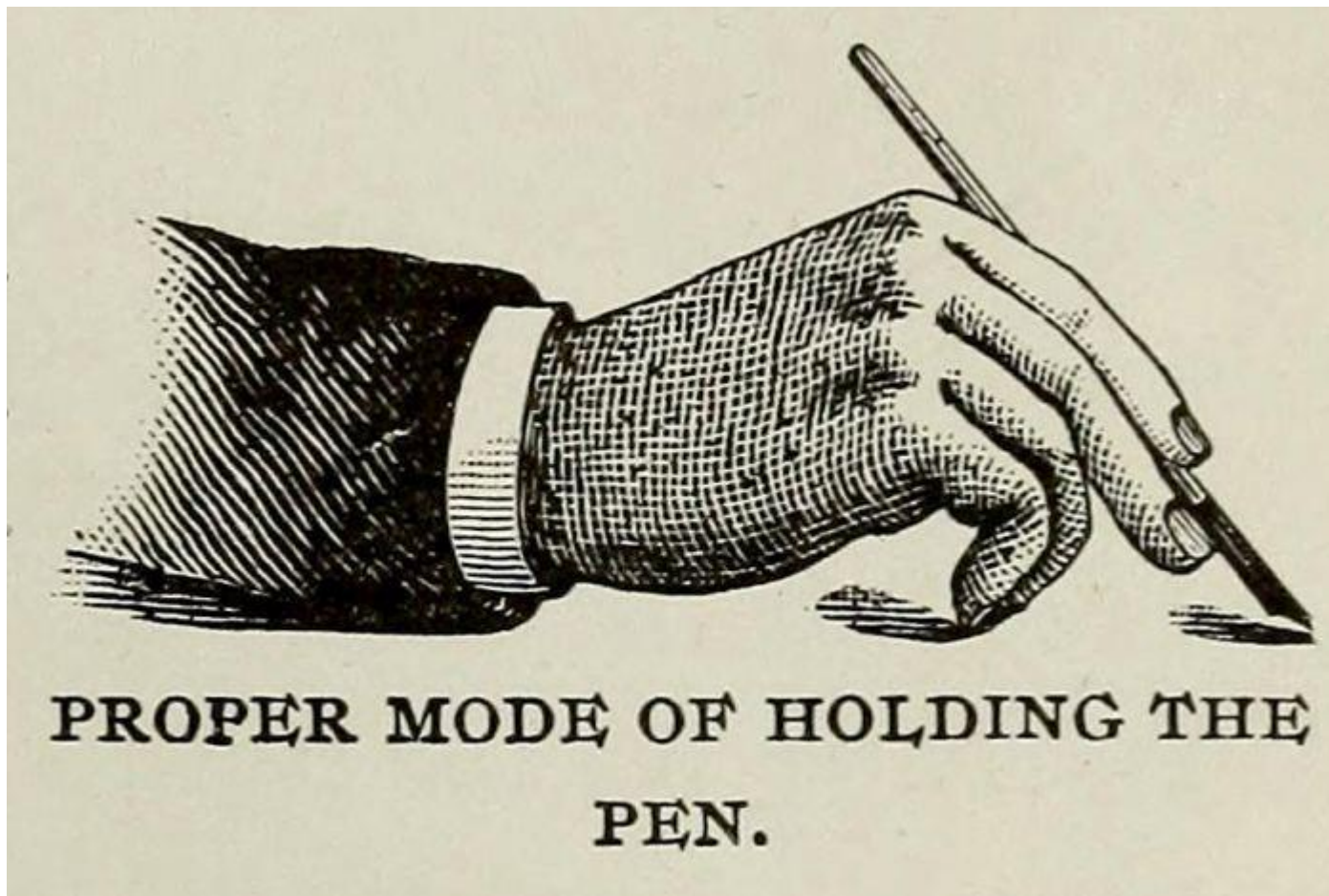
'What we are starting to see is the rise of a new mass compositional practice. We had handwriting and that reigned for centuries as the only way to get your thoughts down. Then beginning about 150 years ago we got the typewriter and that became the next new mass way to get your ideas down. The next big shift is arriving and that is voice dictation, writing text by speaking it.'

Thompson estimates that up to three quarters of the emails he now sends via his smart phone are written using a voice transcription service like Siri.

'It's sort of a pain in the butt to type on a phone,' he says. 'Even if you're good at it it's a little slow and clumsy. So what I discovered is that if you speak in a fairly clear voice you can actually generate an email, a text message, a note to yourself much, much more quickly on a mobile device.'

'If you get a text message from me, if you get an email from me, the odds are very high that I wrote the whole thing using my voice.'





[Image: Pen instruction from \*Twentieth century culture and deportment, or, The lady and gentleman at home and abroad: rules of etiquette for all occasions\* \(Library of Congress/ The Commons\)](#)

According to Thompson, voice transcription has changed the way he expresses himself in interesting and unexpected ways.

'It makes me a little bit more casual in some respects because there is a slightly more oral cadence to the writing. On the other hand, you could say it's almost more formal because I find that I don't use contractions quite so much.'

And the way in which he formulates sentences has also changed. The difficulty of correcting errors while using voice transcription software means that Thompson now has to think first about what he wants to say before actually saying it. And that mental process, he observes, is more in tune with the way people wrote prior to the arrival of the computer and its cut, paste and undo functions.



'I think in some respects I may be closer to someone writing back in the days of Wordsworth, because if you've ever tried to write with a quill pen, dipping it in ink, it is an unforgiving process. You go very slowly and you go very inefficiently and it's hard to fix errors. What little we know of the mental practices of people back in the old days of ink quill writing is that they also composed their sentences in their heads before they started writing.'

If more and more people follow Thompson's example, the implications for teaching—particularly in the early years of schooling—could be just as profound as those that followed the introduction of laptops and computer tablets into the classroom.

'It raises a very interesting question,' says Thompson. 'If people are going to be doing composition with their voice, could we teach and train them to do it well, to avoid poor habits, in the same way that when we teach people to handwrite and teach them to type?

'We could now start to think of when are the situations when writing with your voice might be the best cognitive tool. We certainly don't know that yet. There has been really no work at all that I have seen that has tried to suss out what the cognitive upsides and downsides in an educational setting there are for voice. But I'm sure that work will emerge.'

Design and writing expert Ewan Clayton also sees the future potential for writing by voice, but he says it's important not to indulge in an either/or scenario when it comes to communication technology and human habits.

'I think one of the things that we forget is that we've always had multiple channels of communication in terms of writing. If you look back at the Roman world, they carved in stone, they wrote on papyrus and scrolls, they wrote with styluses and wax tablets. They had a variety of technologies for writing because writing is used in lots of different situations. And that has been true through history and it's true now.'

'I think it's somewhat naive to think that handwriting is just going to disappear, because I think there will always be niche uses for pencils, for ballpoints, for ink on paper. The whole situation is fluid and is likely to remain fluid.'



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