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WRITE LIKE EINSTEIN? OR

Write like Einstein!

by Elizabeth Waterhouse

Is thinking related to movement, such as the movement of your pen as you write? As a dancer I know many artists for whom the relation between the human body and creative thinking is treasured. I am also aware that there is no rule, nor logic, that defines the relation of intelligence and fine motor control. Anyone who has ever received a doctor's note knows that not all "smart" people have graceful, let alone legible, penmanship.¹ Albert Einstein is one exception: a thinker with both beautiful ideas and graceful penmanship. On the centennial of Einstein's General Theory of Relativity, two artists in Frankfurt/Bern (designer Harald Geisler and myself) have created a handwriting font that allows everyone to write, or type, like Einstein. While providing the market with something new and meaningful as a tribute to a beloved thinker, this invention also opens space for discussion about the aesthetics of typography in the changing economy of writing thoughts down. Below is an account of our process creating the prototype of the Albert Einstein font as well as some things that I personally learned about typography over the course of the collaboration. I also outline my motivation and concerns, many of which are shared by Harald.

Without being foreboding, the achievement of human handwriting is facing change, even extinction, in the digital world. As human preference for typing and reading digital type elevates, handwriting shifts to the realm of the private and unschooled. How to proceed in this revolution is internationally critical, as handwriting education in North America and Europe begins pedagogical reform and legislation to omit cursive from the writing curriculum². This project aims to raise awareness of these changes and to support the value of penmanship—as a fundamental quality of human intelligence and culture worthy of continued instruction. The issue with this position is how to delicately protect a tradition, without stalling genesis of how to write—meaning pure preservation or conservation of penmanship is also not the aim. This project takes the position that artists should also consider merging with digital craft and finding new hybrids of digital-analogue, or ways to animate writing typography in the body-thought-technology interface.³ The technology of hand-to-pen-to-paper might renew, given this impulse.

The Albert Einstein font is thus a simple product in a new direction. The idea of genius handwriting, that everyone can use, is deliberately wonderful and ironic: virtuosity for everyone, recognizing both the value of being intellectually exceptional and the twist of making the exception, exceptionally accessible, to inspire all. With this product, our hopes are tri-fold: to suggest new possibilities of integrating mechanical and handmade type, to raise awareness of the relation of movement and thought, and to remind readers that reading handwriting is a pleasure worth preserving, better evolving.⁴ In writing this editorial, I hope to stir the age-old debate about the relation of aesthetics, thought and the body.

Project History

From start to finish, the project has evolved slowly over the course of over five years. Friends Harald Geisler and Elizabeth Waterhouse had the idea to produce a font based on the handwriting of Albert Einstein while they were sitting together in a cafe in Frankfurt am Main, Germany. Waterhouse, a dancer educated in physics, was interested in movement notation and inspired by her discussions about thinking and embodiment with philosopher Alva Noë. Geisler had recently graduated from the School of Design in Offenbach, where he had studied typography and worked closely with Karl Gerstner on a re-publication of the text *Designing Programs*. After his studies, Geisler produced a diverse array of playful fonts, and also art prints, calendars, and even plates with handwritten decoration.

While the initial idea of producing life-like digital handwriting seemed simple enough, the trials to produce the font were numerous. A continuous challenge is explaining the project to others, reflecting that the concepts of typography and fonts are not widely understood. Typography, the art of refining the appearance of text, has progressed from techniques of manufacturing material letters for the printing press in the 15th century, to the art of digital lettering. A font is a software that renders digital type. The assortment of fonts available on most computers includes a variety of styles, including Times New Roman, Arial, and Helvetica. Even more are available for purchase on websites such as myfonts, fonts.com or Linotype, where Harald Geisler sells many of his wildly titled fonts (including Zegramatic, Ciseaux Matisse, Capital Love, Sevigny, and Whimsical Musical). Yet despite font usage being ubiquitous, non-designers typically work with fonts provided by computer software, rather than purchasing and installing their own. Thus many people have trouble understanding how a designer can invent a font that they can easily install on their computer. To remedy this, tutorials are found online, including on Geisler's personal website.

There is currently an assortment of handwriting fonts available for purchase, and even a number of fonts that, like the Albert Einstein font, are tributes to famous individuals. A handwriting font is typically produced by copying a single set of letters from a sample of an author's penmanship. The effect, which Waterhouse noticed in looking at her coffee napkin back in 2009, is one of homogenous likeness, not organic variation. As a metaphor, the difference between actual handwriting and a carelessly designed handwriting font and can be compared to the spectrum of chocolate chip cookies: fresh cookies baked by your friend would never be confused with store-bought, pre-packaged, homogenized alternatives. Meaning, if you look closely at many handwriting fonts, the scripted letters are repeated without variation—nothing like the actual art of writing with a pen or pencil, which varies depending on mood, speed, and materials used. The question of how to improve upon this, however, is not trivial, given current technology for making and displaying fonts. Waterhouse, using the American adage said, "if it was easy, everyone would do it."

Trained as a programmer during her undergraduate studies in Physics at Harvard, Waterhouse was interested to think about the issue of quantifying variation to create digital handwriting that appears "life-like." This shoptalk was uncommon in the font industry but welcomed by Geisler. After the coffee meeting with Geisler, Waterhouse went online and found the Albert Einstein archive, featuring a number of letters. Einstein's penmanship had a very round and clear rhythm in time, making it both attractive and pragmatic for the challenges of software automation. She encouraged Geisler to go forth with the design. Six months later, Geisler surprised Waterhouse with a working prototype of what is now the Albert Einstein font. Working with a digital pen to follow the movement of Einstein's penmanship, Geisler produced a font that had a strong resemblance to Einstein's handwriting and was beautiful in its own right.

Excited to share their invention, the artists began the legal process of acquiring official licensing and support for the Albert Einstein font. Geisler also decided to start work on another handwriting font, from a figure already in the public domain. The resulting Sigmund Freud

typeface was supported by the Sigmund Freud Museum Vienna und Freud Museum London. Using the crowd-funding platform Kickstarter, in 2013 Harald led a successful campaign that raised over \$25,000 for production of the font. In completing the design, Geisler also borrowed a concept from encryption, to introduce further letter variation into the font. International press helped bring new users to Kickstarter and spread the word about the new creation. The first font chronicled in the *Wall Street Journal*, it was introduced: “For those who regret what keyboards and touch screens have done to their penmanship, typographer Harald Geisler has an answer: Sigmund Freud.”⁵

Since this milestone in 2013, Geisler has learned a great deal about reaching out to a public to communicate the process of producing typography. Last year he expanded his documentation of creating the Sigmund Freud typeface into an online article for *Smashing Magazine*.⁶ While a font design is a copyrighted process, Geisler shrugged in response to the need to protect his procedures. Waterhouse commented that it is Geisler’s personal ability to render the handwriting from studying its appearance and rhythm that really makes his fonts so compelling—more than a simple process of reproduction or an inventive procedure. It’s also a sheer matter of investing months in the letter working.

The “success” of a font today reflects an international market of use—necessitating that a font not only “look good” in one language, such as German, but in all languages. Geisler first encountered this design challenge while working on lettering for his friend and office mate Joscha Sauer, designing a digital font of Sauer’s handwriting for the international translation and publication of his comic series “NichtLustig!” Since each language favors different combinations of letters, a font based upon handwriting analysis tends to reflect a mother tongue, almost like a spoken “accent” lingers, so-to-say, when you learn a foreign language. In the case of the Freud and the Einstein fonts, Geisler’s designs were developed from studying primary sources written in German. As a result, the font looks a bit different when used to write in English. With the Albert Einstein font, Geisler took small measures to improve translation potential, but decided primarily to honor the archival research and let differences remain. This means that the font, like handwriting, escapes the ideal.

In 2014 the Einstein Estate accepted the proposal for the Einstein Handwriting font, coinciding ideally with a release during the 2015 centennial year of the General Theory of Relativity. Now with the rights in place, Geisler and Waterhouse are starting a Kickstarter campaign to finish production of the font. While the prototype is excellent, months of work are needed to provide the life-like variability that Geisler and Waterhouse envision. Geisler is an experienced Kickstarter user, which he has used to upfront production costs of his annual calendars, as well as fonts such as the Sigmund Freud Typeface. The platform provides security for sales and visibility to a diverse audience. The campaign will begin on Tuesday April 14, 2015 and will run through Saturday June 13, 2015. In return for their support, contributors will not only receive pre-sale of the font at a reduced price, but they will also become an integral part of the creative process.

¹The Institute of Medicine (IOM) reported in 2006 that illegible prescriptions cause over 7,000 deaths a year. See Caplan, J. (2007). Cause of Death: Sloppy Doctors. *Time Magazine*, January 15, 2007.

Retrieved from <http://www.time.com/time/health/article/0,8599,1578074,00.html>.

²English references:

Blazer, C. Ed. (2010). Should cursive still be taught in the schools? Report by the Miami-Dade County Public Schools. March 2010. Vol. 916. Retrieved at <http://drs.dadeschools.net/InformationCapsules/IC0916.pdf>.

Zeizima, K. (2011). The Case for Cursive. *The New York Times*, April 27, 2011. Retrieved at <http://nyti.ms/1Dn0W6q>.

Shapiro, R. (2013) Survey shows cursive, on the decline, is taught in many classrooms nationwide. The Washington Post, May 7, 2013. Retrieved at http://www.washingtonpost.com/local/education/survey-shows-cursive-on-the-decline-is-taught-in-many-classrooms-nationwide/2013/05/07/443eb4a8-b725-11e2-aa9e-a02b765ff0ea_story.html. Last access April 10, 2015.

German references:

<http://www.spiegel.de/schulspiegel/aus-fuer-die-schreibschrift-schnoerkel-luxus-oder-kulturgut-a-771875.html>

<http://www.sueddeutsche.de/karriere/grundschulen-in-hamburg-schreiben-wie-gedruckt-1.1114068>

<http://www.faz.net/aktuell/politik/inland/druckschrift-statt-schreibschrift-politische-handschriften-11111911.html>

³ In so doing, this opinion is reflects philosopher Erin Manning’s description of “technogenesis,” which calls for creative recombinations of technology, movement and sense. See page 65 in Manning, E. (2012). *Relationescapes: Movement, Art, Philosophy*. Cambridge: The MIT Press.

⁴ Perhaps akin to the grain of the voice, as defined by Roland Barthes in his essay of the same title. Barthes writes, “the singing voice is not the breath but indeed that materiality of the body emerging from the throat” (255). See Barthes, R. (1972). *The Responsibility of Forms*. Berkeley: University of California Press.

⁵ Further press on the Sigmund Freud Font is available here:

<http://blogs.wsj.com/speakeasy/2013/11/25/typographer-turns-freud-into-a-font/>

<http://www.fastcodesign.com/1672504/kickstarting-sigmund-freud-s-handwriting-as-a-scrawling-typeface>.

⁶ Please see:

<http://www.smashingmagazine.com/2014/06/02/hands-on-sigmund-freud-typeface-making-fonts/>

The article was subsequently translated into German and later printed in PAGE.