International Journal of Communication 18(2024), Forum 784–792 1932–8036/2024FRM0002

"A Fountain Pen Come to Life": The Anxieties of the Autopen

PEGAH MORADI
KAREN LEVY[1]
Cornell University, USA

The autopen is a technology widely used by celebrities and politicians—often covertly—to automatically sign letters and other media. When the autopen's use comes to light, public indignation often follows; learning that something has been signed robotically, rather than by hand, seems to breach the relational values assumed to inhere in the social ritual of signature. We describe three controversies involving the autopen to probe how sociotechnical change can reveal latent values and challenge assumptions about authenticity. The autopen provides a useful analog to emerging anxieties about AI-mediated communication and synthetic media.

Keywords: autopen, AI-mediated communication, synthetic media, automation, authenticity, labor

If you have ever received a signature from a famous figure, it might have been signed by a robot. The autopen—a device that replicates an individual's signature based on a prewritten template, saving them the labor of having to sign by hand—is widely used by prominent figures to sign memos, books, and baseballs, among other items. Yet it is typically used in secret, and when its use is revealed, drama ensues. In this essay, we investigate three uses of the autopen that garnered public attention. In the moments of discomfort that arise when we encounter robotic replication, the revelation of automation changes the expectations of what an artifact (like a signature) signifies in our relationships with one another. Investigating the autopen reveals much about the social values signified by handwritten signatures, like authenticity, accountability, and care, and how those values are newly contested when automation enters the scene.

Originally marketed as "a fountain pen come to life" ("Autopen Model 50," 2016, para. 5), the autopen takes in a card containing a sample signature and then uses a pen attached to a mechanical arm to sign an item without need for the signer to be physically present (see Figure 1). The resulting signature appears handwritten to an untrained eye. In 1983, an autopen manufacturer estimated that there were about 500 autopens circulating in Washington at the time (Cheney, 1983), and there have been 22 publicly reported federal contracts with autopen companies in the past decade, with the largest contracts coming from the U.S.

[1] This material is based upon work supported by the John D. and Catherine T. MacArthur Foundation and the National Science Foundation (Grant No. CHS 1901151). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

military ("Federal Awards," 2023; Rein, 2014). While the degree to which it is used by celebrities is largely unknown, collectors often spot autopenned autographs and raise alarms about their widespread use.

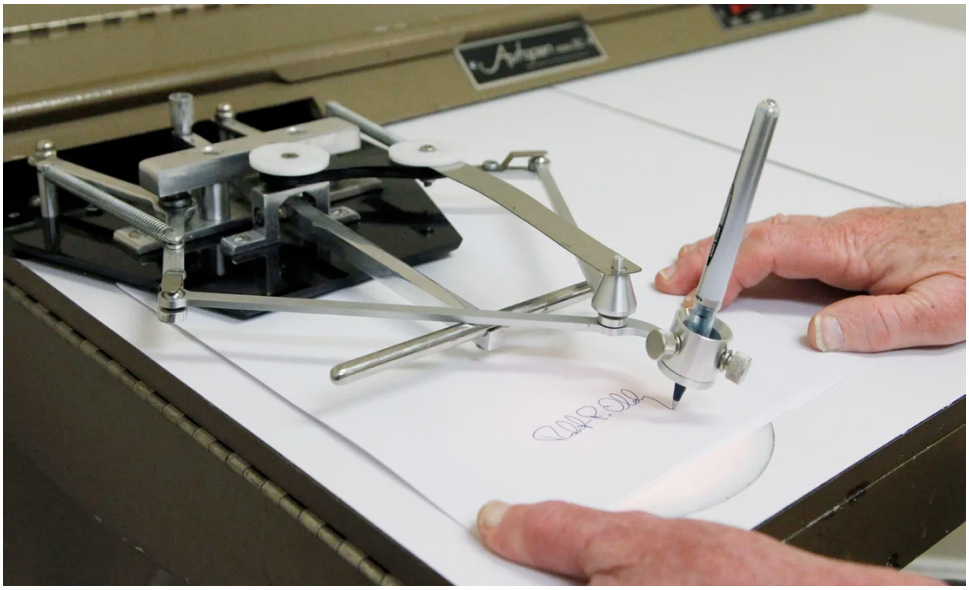

Figure 1. An autopen replicating a signature (Korte, 2015).

But despite being commonplace, the autopen is typically used covertly, as its use tends to draw disdain. Autopenned autographs have lower economic and sentimental value, and autopenned signatures on letters are often viewed as ungenuine and callous. The autopen can even trigger legal debate, as it did when Barack Obama used an autopen to remotely reauthorize the Patriot Act, triggering questions about the signature's constitutionality (James, 2011). Yet signature replication devices have existed for as long as signatures themselves. One device, patented in 1803, allowed the writer to create duplicates of written messages using connected pens moving in tandem with the writer's handheld pen (Stein, 1993). Today, signature stamps, proxy signatures (from authorized agents), and e-signatures are commonplace and tend not to arouse critique.

If signature replication is so common, why does the autopen spur such discomfort when its use comes to light? Digging into the history of the autopen provides us with insight on the emerging anxiety about new forms of robotic replication and synthetic media. What is it that bothers us about deepfakes, generative-AI models, or crypto art? In what follows, we investigate how three controversies involving the autopen can demonstrate how robotic replication changes our assumptions about what artifacts mean and the values they signify.

Signature as Care

In 2004, President George W. Bush and defense secretary Donald Rumsfeld sent condolence letters to the families of over 1,300 American soldiers killed in the Iraq War. Sending such letters is common practice during wartime—but the letters from Rumsfeld had not been signed by him at all, or at least not by his hand.

Reporting in the *Army Times* revealed that Rumsfeld's letters to soldiers' families had been signed by autopen ("Sign of Callousness," 2004), spurring public outcry and criticism of Rumsfeld. As one retired army colonel put it: "How can [officials] feel the emotional impact of that loss if they're not even looking at the letters?" (Glaister, 2004, para. 14). In response to the backlash, Rumsfeld released a statement acknowledging that he had in fact not "individually signed each [letter], in the interest of ensuring expeditious contact with grieving family members" and promising that he would hand-sign letters in the future (Glaister, 2004, para. 4).

The objection to Rumsfeld's autopen use is visceral. The emotional gravity of a military condolence letter and the enormity of the sacrifice that precedes it stand in sharp contrast to a Washington official who cannot be bothered to hand-sign letters. The affront of the autopen in this case evinces a clash of values. Rumsfeld's defense was that the autopen afforded him *efficiency*—constructed here as "expeditious contact" with families. To Rumsfeld's critics, efficiency was antithetical to the meaning of the task at hand: The labor of hand signing the letters was precisely what gave them significance. The act of hand signing a condolence letter is construed as a moment of reflection, a sacrifice of time, and an opportunity to "feel the emotional impact" of the message being conveyed—all lost when that action is outsourced to a labor-saving technology.

The signature, in this case, is not simply a marker of approval, but an artifact that signals values like care, labor, and dignity. A hand-signed letter operates as confirmation to the receiver that a ritual has occurred: The signer has taken time to handle the piece of paper, to conduct the labor of taking pen in hand to write one's name. This process, evidenced by the signature, imbues the message with dignity and gravity. The signature matters not for what it *is* but for what it tells you has happened. Automation circumvents this process, changing what the signature represents. Of course, not all robotic replication strikes us as problematic; we rarely gripe that cars are not handcrafted by artisans. But when the artifact indicates a *relationship* between sender and receiver, a sociotechnical change in how that artifact is created leads to concomitant change in the relational values the artifact signifies.

Signature as Approval

In 2015, celebrity chef Gordon Ramsay got into legal trouble for refusing to pay the rent on his London pub—a bill of over £600,000. Ramsay owned an autopen, which he had used in the past to sign cookbooks and other merchandise. He claimed that his father-in-law had used the machine to forge Ramsay's signature on the pub lease, and that Ramsay therefore was not legally liable for the contract. In the ensuing legal proceedings, a judge found that Ramsay had expressly authorized his father-in-law to enter into contracts on his behalf, and that the father-in-law routinely did so; the case was therefore a relatively standard principal/agent situation (in which one person is authorized to act on another's behalf), and the fact that someone other than Ramsay himself had affixed Ramsay's signature to the lease did not reduce his liability (Ramsay v. Love, 2015).

Ramsay's lease is not the only situation in which the autopen has been used to disclaim responsibility. During her 2000 Senate campaign, Hillary Clinton received criticism for sending a thank-you letter to a Muslim-American group that had later hosted speakers who denounced the United States and Israel. In response to the outcry, Clinton said the letter was autopenned, earning her the nickname "Autopen" in a mock press release from her opponent (Birnbaum, 2000). The mock headline, "Autopen

Casts Deciding Vote to Double Taxes on New York," suggested that Clinton's willingness to blame the autopen in order to renounce responsibility in a public relations dust-up might also reduce her accountability as a lawmaker (Nagourney, 2000). Similarly, in his book *The Robot that Helped to Make a President*, handwriting expert Charles Hamilton (1965) argued that John F. Kennedy's liberal yet clandestine use of the autopen could lead to a political crisis. If a machine could create a perfect replica of JFK's signature, then perhaps "such a robot could sign a document which might plunge the nation into war" (visualized in Figure 2; Hamilton, 1965, p. xi).

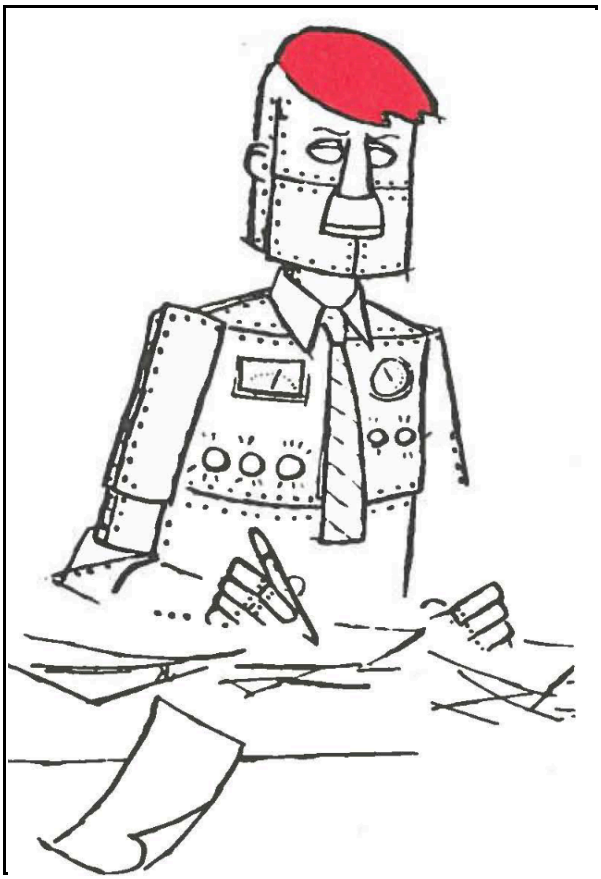

Figure 2. Illustration of John F. Kennedy as a robot (Hamilton, 1965).

Ramsay and Clinton's protestations show how a mechanical process can be used as a scapegoat to absorb blame from people who regret conduct ascribed to them. Traditionally, a handwritten signature on a legal document appears to signify the signator's acceptance of the obligations that follow from the signed document. But the prevalence of the autopen, along with other electronic signature systems, show that it no longer truly matters whether the signator affixes their signature to that document by hand; the meaning of the signature changes, becoming symbolic of a *process* of approval, which can include both human and technical intermediaries.

In fact, in a 2005 memo, the Department of Justice (DOJ) advised that a subordinate could affix the president's signature to a bill via autopen without jeopardizing the signature's legality. In justifying this view, the DOJ drew upon the rationale that a president's signature is merely a symbol of a heavily institutionalized political process of approval—as well as the quite practical consideration that busy people, including presidents, need to delegate some of their obligations (Nelson, 2005).

Signature as Proximity

In 2022, singer-songwriter Bob Dylan published an essay collection entitled *The Philosophy of Modern Song*. For $599, hardcore Dylan fans could purchase limited-edition signed copies of the book, accompanied by a letter from the CEO of the book's publisher, Simon & Schuster: "You hold in your hands something very special, one of just 900 copies available in the U.S.," the letter read. "This letter is confirmation that the copy of the book you hold in your hand has been hand signed by Bob Dylan" (Willman, 2022, para. 5).

As you may have guessed, the books were not hand signed by Dylan but were signed by autopen. Fans compared photos of their books online, finding that some signatures were nearly identical, as seen in Figure 3 (Willman, 2022). After initially insisting upon the signature's authenticity, Simon & Schuster eventually apologized and offered refunds, stating that the "books do contain Bob's original signature, but in a penned replica form" (Simon & Schuster, 2022). Dylan also apologized, explaining that the coronavirus pandemic and chronic vertigo made it difficult to hold signing sessions and meet deadlines. Using an autopen was suggested to him, he wrote, "along with the assurance that this kind of thing is done 'all the time' in the art and literary worlds" (Dylan, 2022, para. 3).

Figure 3. Autographs from copies of* The Philosophy of Modern Song. *Autopen signatures are often based on multiple templates to include realistic variation (Willman, 2020).

While Simon & Schuster's contention that the books contain an "original signature" is likely a face-saving attempt, it holds true in a sense: The autopenned signature *is* Dylan's original signature, even though it was captured at a specific moment in time and replicated later. Why is the replicated signature valued less (both monetarily and emotionally) by fans and collectors? The revelation of Dylan's autopen again demonstrates that a signature is not just a signature but evidence of a visceral parasocial exchange, capturing and suspending a specific interaction in time—the idea that a notable person held this *specific* book in their hands and wrote their name on it imbues the artifact with a degree of uniqueness, authenticity, and scarcity. These qualities give the autograph its value. The shift from hand signature to robotic replication again changes what the artifact represents, reducing its sentimental and monetary worth.

Robotic Replication and Sociotechnical Change

The three stories we have told about the autopen demonstrate how hand-signed artifacts—letters, legal documents, and memorabilia—signify social relationships between people. In each case, the revelation of covert technological mediation is a form of sociotechnical breakdown—a "glitch" (Ananny, 2022) in the taken-for-granted workings of the world, brought into focus by the revealed presence of the technology. The autopen breaches relational assumptions, drawing new attention to the values that had been assumed to inhere in

relationships: dignity and care, in the case of Rumsfeld and military families; responsibility and accountability for Ramsay's lease and Clinton's thank-you note; authenticity and uniqueness for Dylan and his fans.

Controversies about the autopen show how technological mediation can shift the baseline for our expectations around social interaction. When we realize that signatures can be readily automated, we may come to doubt the authenticity of a signature or the meaning behind it—or even alter our conception of what "authenticity" means in the first place, as Simon & Schuster attempted to do in cleaning up after the Dylan controversy. In misinformation studies, scholars describe the analogous phenomenon of the "liar's dividend" created by the proliferation of realistic misinformation and synthetic media. By casting doubt on the authenticity of some artifacts (like deepfakes), even real artifacts can be more readily believed to be fabricated (Citron & Chesney, 2019).

Autopen anxieties provide a historical preview of emergent debates around the use of generative AI in interpersonal communication (Hancock, Naaman, & Levy, 2020). Just as speed and scale prompt the use of the autopen (Rumsfeld has many letters to sign; presidents are busy people; Dylan has vertigo and a looming deadline), people increasingly rely on AI models to reduce the labor of communication tasks. In one evocative example, students at Vanderbilt University received a condolence letter from the college's diversity and inclusion office in the wake of a mass shooting at Michigan State University. At the end of the email, however, was a disclaimer that the message had been paraphrased from ChatGPT ("Reflecting on Gun Violence," 2023). As with Rumsfeld's autopenned letters, many students took offense, expressing frustration that the email lacked empathy, and that it was indicative of a pattern of apathy from the university. Much like the autopen, generative AI can make correspondence more efficient—but by eliding important values in the artifacts it creates, its use can leave parties distrustful of one another (Hohenstein et al., 2023).

The autopen's circumvention of values similarly provides us with lessons that can be applied to understanding other forms of synthetic media. For instance, if the autopen's use reveals that easily replicable goods often lack the scarcity and uniqueness that would otherwise give them value, blockchain technologies like crypto art and nonfungible tokens (NFTs) respond by artificially creating these qualities in the digital sphere. The humble, low-tech autopen thus offers a critical object lesson for the advent of AI-generated media, showing us how the introduction of a technological intermediary to a traditionally human interaction shifts social expectations and surfaces latent values anew.

References

Ananny, M. (2022). Seeing like an algorithmic error: What are algorithmic mistakes, why do they matter, how might they be public problems? *Yale Journal of Law & Technology*, *24*(1), 342–364.

Autopen Model 50. (2016). The Autopen Company. Retrieved from https://damilic.com/info/legacy-autopens/autopen-m50

Birnbaum, G. (2000, November 5). Hillary sent "best wishes" to Muslims second letter hailed anti-U.S. meeting in '98. *New York Post*. Retrieved from https://nypost.com/2000/11/05/hillary-sent-best-wishes-to-muslims-second-letter-hailed-anti-u-s-meeting-in-98/

Cheney, L. (1983, August). The autopen: When you get a letter from somebody important in Washington, there's a good chance it was signed by a very quiet machine. *Washingtonian*, 105.

Citron, D., & Chesney, R. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. *California Law Review*, *107*(6), 1753–1820.

Dylan, B. (2022, November 25). To my fans and followers, I've been made aware that there's some controversy about signatures on some of my recent. . . [Post]. Facebook. Retrieved from https://www.facebook.com/bobdylan/posts/to-my-fans-and-followers-ive-been-made-aware-that-theres-some-controversy-about-/697295788427537/

Federal awards. (2023). United States Federal Government. Retrieved from https://www.usaspending.gov/search/?hash=a19bda6a85822feb4333f0ed81faa23c

Glaister, D. (2004, December 20). Signature row turns up heat on Rumsfeld. *The Guardian*. Retrieved from https://www.theguardian.com/world/2004/dec/20/iraq.usa

Hamilton, C. (1965). *The robot that helped to make a president*. Retrieved from https://www.jeffreythompson.org/downloads/TheRobotThatHelpedToMakeAPresident-AReconnaissanceIntoTheMysteriesOfJohnFKennedysSignature_CharlesHamilton_1965.pdf

Hancock, J. T., Naaman, M., & Levy, K. (2020). AI-mediated communication: Definition, research agenda, and ethical considerations. *Journal of Computer-Mediated Communication*, *25*(1), 89–100. doi:10.1093/jcmc/zmz022

Hohenstein, J., Kizilcec, R. F., DiFranzo, D., Aghajari, Z., Mieczkowski, H., Levy, K., . . . & Jung, M. F. (2023). Artificial intelligence in communication impacts language and social relationships. *Scientific Reports*, *13*(1), Article 1.

James, F. (2011, May 27). Obama's autopen "signing" of Patriot Act raises eyebrows, has unlikely ally. *NPR*. Retrieved from https://www.npr.org/sections/itsallpolitics/2011/05/27/136724009/obamas-autopen-signing-of-patriot-act-raises-eyebrows-has-unlikely-ally

Korte, G. (2015, November 20). White House aides use autopen to sign highway bill while Obama is overseas. *USA TODAY*. Retrieved from https://www.usatoday.com/story/news/politics/2015/11/20/white-house-aides-use-autopen-sign-highway-bill-while-obama-overseas/76098452/

Nagourney, A. (2000, November 5). Political memo; lofty talk discarded, Senate race ends in brawl over narrow turf. *The New York Times*. Retrieved from https://www.nytimes.com/2000/11/05/nyregion/political-memo-lofty-talk-discarded-senate-race-ends-in-brawl-over-narrow-turf.html

Nelson, H. C. (2005). *Whether the president may sign a bill by directing that his signature be affixed to it*. Retrieved from https://www.justice.gov/olc/opinion/whether-president-may-sign-bill-directing-his-signature-be-affixed-it

Ramsay v. Love (2015). EWCH (Ch) 65 (Eng.). Retrieved from https://www.judiciary.uk/wp-content/uploads/2015/01/Ramsay-v-Love.pdf

Reflecting on gun violence and inclusive environments. (2023, February 16). Vanderbilt University Peabody Office of Equity, Diversity, and Inclusion. Retrieved from https://t.e2ma.net/message/ul182h/m74zooz

Rein, L. (2014, April 11). Washington's signature-writing machines rumble into the digital age. *Washington Post*. Retrieved from https://www.washingtonpost.com/politics/washingtons-signature-writing-machines-rumble-into-the-digital-age/2014/04/11/3bb38bc0-afad-11e3-a49e-76adc9210f19_story.html

Sign of callousness. (2004, December 21). *Sarasota Herald-Tribune*. Retrieved from https://www.heraldtribune.com/story/news/2004/12/21/sign-of-callousness/28828291007/

Simon & Schuster. [@simonschuster]. (2022, November 20). *Https://t.co/s1buWZSTs8* [Tweet]. Twitter. Retrieved from https://twitter.com/simonschuster/status/1594437832726040576

Stein, S. (1993). *The worlds of Thomas Jefferson at Monticello*. New York, NY: H. N. Abrams.

Willman, C. (2022, November 20). *Bob Dylan fans who bought $600 "hand-signed" books with replica autographs will receive refunds from publisher.* Retrieved from https://variety.com/2022/music/news/bob-dylan-book-replica-autographs-autopen-philosophy-modern-song-refunds-1235438173/