"Alexa, Tell Me about Your Mother": The History of the Secretary and the End of Secrecy

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Abstract

Over the last decade, we have seen the rise of a new generation of artificial intelligence (AI) agents like Apple's Siri, Microsoft's Cortana, and Amazon's Alexa. Addressing users with traditionally feminine-sounding voices and personas, they invoke the cultural figure of the secretary, offering to smooth the complexities of organizational tasks and information management. What can this generation of AI secretaries teach us about histories of labor, computation, and increasing entanglements of bodies and data? In this paper, we survey the two-hundred-year history of secretarial labor, beginning with the secretary as a form of desk furniture, and then as a profession, typified by the executive assistant. Finally, we turn to personal devices and smartphone systems like Alexa and Siri. Across this socio-technical history, we analyze the gender and labor politics underlying workplace surveillance, device tracking, and data harvesting. Our assessment of

why the ghost of the secretary endures in AI machines follows three themes: the extension of surveillance infrastructure further into everyday life, the ambivalent status of nonhuman assistants, and the troubling implications for the automation of administrative labor.

Introduction

The last decade has seen the mass popularization of artificial intelligence (AI) agents, including Apple's Siri (launched in 2011), Microsoft's Cortana (2014), and Samsung's Viv (2016), as well as home devices such as Amazon's Alexa (2014) and Alexa Business (2017). These so-called soft AI technologies typically default to a feminine identity, tapping into a complex history of the secretary as a capable, supportive, ever-ready, and feminized subordinate. This history of the secretary also points to interesting questions about the embedded gender, race, and class dynamics of surveillance. These systems speak in voices that have feminine, white, and "educated" intonation, and they simultaneously harvest enormous amounts of data about the user they are meant to serve. The socio-technical politics of AI assistants have a long history of bodies, devices, and data that have evolved under the label "secretary." By tracing patterns and disruptions in this history, we can gain deeper insights into the workplace power dynamics of surveillance and automation, particularly as they evoke norms of gender.

The role of the secretary in the workplace has shifted significantly over the last 150 years: we focus on three pivotal moments in this history. We consider the secretary as a piece of furniture—when it was the name given to a writing desk. Then, we analyze the rise of the personal assistant, and finally we turn to the creation of systems such as Siri and Cortana. Across different historical eras and socio-technical forms, we see that secretaries are figured as subservient and objectified, while also being skilled and efficient. They are the shadowy figures that perform the much-needed (if under-compensated) emotional and affective labor that keeps workplaces functioning. Like Phan's (2019) analysis of the gendered and racial dynamics of Amazon Echo, we see the figure of the secretary as a cultural representation, where "this representation does not necessarily correlate to its 'real' conditions—which is not to say that they do not have real implications or effects—but rather their imagined impressions imprinted in places such as language and culture" (p. 3). Likewise, our analysis addresses the *cultural representations of secretaries*, which is distinct from how people working as secretaries in a diminishing labor category experience their participation in technological infrastructures.

Our analysis of the secretary's sociotechnical history is informed by prior work into the design of AI systems and workplace technologies, and also by the first author having worked as a secretary for several years. That firsthand experience of objectification, diminishment, and tedium marks the difference between the way secretarial work is figured culturally versus how it is experienced, a gulf that is doubtlessly familiar to many women who have spent significant time doing administrative work in white-collar workspaces. Drawing on methods from media archaeology and feminist science and technology studies, our research into the secretary's socio-technical history opens up a critique of the gender, race, and labor politics tied to administrative work, while contending with the growing relationship between AI and surveillance.

The feminine gendering of workplace technologies is very common, and goes well beyond agents like Siri, Alexa, and Cortana. Within human computing interaction literature, Marino (2006) addresses the gendered design of chatbots as well as the gendered nature of technology and AI. Chun (2005) analyzes the gendering of software, and Sweeney conceptualizes Microsoft's "Ms Dewey" search engine in terms of gender (2014) and race (2016). Related to our interests in AI secretaries, Goss (2015) connects gender roles of smartphone apps to a longer history of incorporating feminine affect into emergent technologies. Strengers and Nicholls (2018) discuss popular representations of smart homes and digital assistants, and argue that these technologies are typically marketed as a convenient form of "wife replacement," meant to reduce stress through efficient multitasking. All of this research focuses on feminized dynamics embedded in digital devices and software, which shapes how and by whom technologies are used. It's important to note that the gendering of computing also emerges in part from hypermasculine fraternity cultures of computer design (Kidder, 1981; Poster, 2013; Wajcman, 1991), against which feminist technologists and designers have worked to carve out spaces and create more equitable products (Fox, Ulgado, & Rosner, 2015). Our project builds on the scholarship about the gender dynamics of devices and software by focusing on AI secretaries and asking how these technologies shape our relationships to service work and surveillance.

We are particularly focused on the gender politics of the AI secretary, but we see this as deeply connected to the class- and race-based power dynamics that have historically been part of secretarial labor. It is beyond the scope of this article to address all of these vectors and intersections (see Atanasoski & Vora, 2015, for an important discussion of legacies of racial and racist dynamics embedded into technological discourses). However, the focus on gender is useful here, as the

secretary remains the most common job for women in the United States, and has been since the 1970s (Census Bureau, 2012). Currently, 95% of administrative assistants in the US are women, a slight decrease since the all-time high of 98% of women in the field between 1980 and 1990 (Ruggles et al., 2018). To theorize the socio-technical development of the secretary is to analyze a form of work that is and has been overwhelmingly performed by women in the US. In the same way that the figure of the truck driver has a deep cultural history that connects to ideas of masculinity and independence (Levy, 2015), the secretary is connected to tropes of feminine, supportive, non-threatening service work.

But while there has been much attention focused on the potential threat that autonomous vehicles pose to the work of truck drivers, a highly masculinized profession (see, for example, Lipson & Kurman, 2016), far less attention has been given to the outsourcing and automation of secretarial labor—even though these processes of automation for secretaries is more advanced. As we'll see, this undervaluing of women's work fits within a long tradition.

In tracing the history of the secretary, we observed that across radically different material forms of secretarial work, there is a retained investment in performing gender, managing data, and arranging surveillance. The value of a secretary's work is very much tied to administrative and emotional support, as well as being an embodied form of infrastructure. But underlying the ability to provide affective and infrastructural capacities is a form of ongoing surveillance, a power dynamic that has been masked by gendered assumptions about the secretary's capacity for agency, ability, and control. While secretaries have traditionally been figured as submissive, this characterization conceals the power they accrue as gatherers of personal and professional information. By paying attention to this history of gendered labor and support, we can reveal the complex dynamics of trust, affect, listening, and subversion surrounding secretaries, as well as anxieties around their most recent appearance in AI devices.

Assemblage 1: The Secretary as Desk

The word *secretary* originates in the word *secret*. Dating back to the late fourteenth century, "secretary" has referred to a "person entrusted with secrets," from the medieval Latin *secretarius* (Secretary, n.d.). Elite political positions like secretary of state and secretary of defense retain the word's earlier meaning as a "confidential officer, confidant." In the context of white-collar workplaces, the word *secretary* first rose to prominence as a nonhuman support agent—a piece of furniture. Also called a *secretaire* or *escritoire*, the original secretary of the mid-

1700s was a precursor to the filing cabinet. The eighteenth-century secretary was a writing desks fitted with drawers for writing instruments, as well as holes and slots for arranging paperwork (Gloag, 1991, p. 594). A defining feature of the secretary was that it was both a writing platform and a secure storage unit, ideal for managing the handwritten work that sustained business and industry during the nineteenth and twentieth centuries. Before the secretary, paper organization was often erratic, idiosyncratic, and highly individualized (Saval, 2014). As office furniture, the secretary offers privacy, a space for individual organization and idiosyncratic personalization. The secretary at this stage literally supported the body of a male office worker, structuring his physical labor and storing and organizing his written output.

Figure 1. "Secretary Desk" by Elsa Capuntas.

As a piece of office furniture, secretaries were tools of organization, privacy, and efficiency. But secretaries also have a performative dimension, as a display of professionalism, hierarchy, and status. As early as the eighteenth century, white-collar workers had entered into a symbiotic relationship with secretarial desks, working together in an assemblage of bodies, data, and organization. These

functions of support, organization, and the protection of secrets endured as secretaries transitioned from a piece of furniture to a human assistant at the office.

Figure 2. "Washington School for Secretaries. Mrs. Grinder of Washington School for Secretaries seated at desk II." Photo from the Theodor Horydczak Collection at the Library of Congress.

Assemblage 2: The Secretary as Personal Assistant

At the turn of the twentieth century, women had begun entering the workforce alongside a different technology: the typewriter. Remington, a gun manufacturer, first began massproducing typewriters in 1874, and women were slowly hired as "type writers": operating these new machines and managing paperwork (Greenbaum, 1995). With the introduction of typewriters, a two-fold shift took shape in terms of who performed secretary work and how it was valued.

In 1880, 100% of secretaries, stenographers, and typists were men. By 1900, just twenty years later, 74% of secretaries were women, a number that has only increased since (Ruggles et al., 2018). Industrial changes in the late nineteenth century meant that administrative work produced more written documentation, and the typewriter allowed this work to be completed more quickly. Women

became prime candidates for what managers described as the "housework of the office" (Greenbaum 1995, pp. 39-40). Narrow understandings of gender were folded into how the job of being a secretary was classified and stereotyped: "The office had become very routinized, and women's passivity suited them to jobs that required carrying out endless routine tasks without complaint" (Clark, 1984, p. 5). While the entry of women into the workplace came with issues of harassment and objectification, it's also important to note that by the 1950s, secretarial roles offered new opportunities for women from a range of ethnic and cultural backgrounds, as well as for married and older women, to gain access to stable employment.

With parallels to bookkeepers, bank tellers, and computers (that is, pre-automation mathematicians), in the mid-twentieth century the job title of "secretary" lost both social and economic value. A job that had been viewed as cognitively demanding when it was a male-dominated profession transitioned to being considered perfunctory and menial when women dominated the field. The secretarial role was also largely stripped of career paths for promotion. Instead of seeing secretaries as moderately prestigious white-collar office workers on the path to executive power, women secretaries stereotypically started and ended their careers with the same title and responsibilities. From an administrative standpoint, a key advantage of giving secretary work to women was the foreclosing of professional advancement. While men started administrative and bureaucratic careers by starting out as secretaries and then eventually climbing the ranks into management, for women the job title of secretary was terminal—marriage, not promotion, was presented as the path to upward mobility (Martin, 2012). Like their furniture precursors, women secretaries were static in terms of their career options.

The symbolic epitome of secretary work in the mid- to late twentieth century is deeply gendered—with heteronormative femininity at the center. The idealized secretary anticipates needs, smooths out intra-office social kinks, and manages the bureaucratic drudgery of everyday workplace tasks (Acker, 1990). The secretary blurs borders between work and domestic spheres: she is at once responsible for setting up work meetings, remembering anniversaries, planning drinks and dinner gatherings, and selectively deleting things that should be forgotten. The secretary's hybrid roles as both an underling and vital insider make her a liminal figure, as well as a figure of fantasy, as evidenced by the sustained inclusion of secretaries in porn and erotica (Gorfinkel, 2015) and mainstream popular culture (Agirre, 2012; Noonan, 2010; Rooney, 2003). Secretaries are

fetishized both for the work they do and for the status they bring to their bosses.
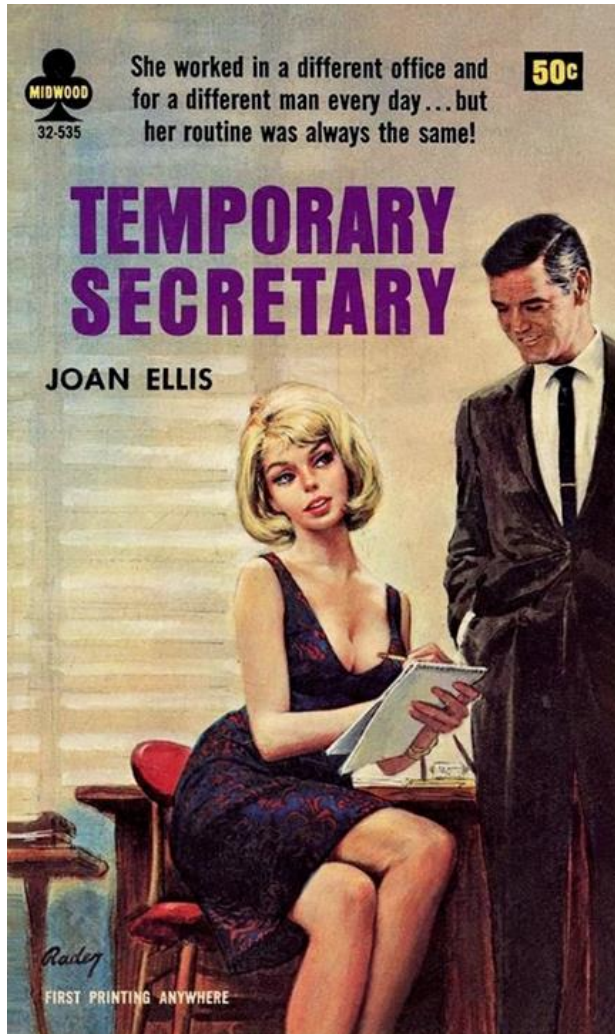

Figure 3. Front cover of Joan Ellis's 1965 erotic novel, *Temporary Secretary.*

The secretary was also a key liminal figure in how computing was incorporated into workplaces, and who was seen as "expert" and who was merely an administrative "user." While secretaries were expected to become adept at using new computational tools in the 1970s and '80s, they were also seen as expedient—a labor "layer" that could easily be dissolved. As Greenbaum (1995) has described in her history of workplace transformations in the second half of the twentieth century, typists, switchboard operators, and secretaries were first in line to be eradicated in the name of cutting labor costs. Traditionally feminized roles in the workplace were increasingly sidelined while expertise became a more male-dominated "IT expert" category.

The ongoing restructuring of the labor process entailed changing not just how work was done but who it was done by. As components of previously discrete jobs were combined, secretarial work became more intensive and was done by fewer people. Alternatively, administrative work could be outsourced to call centers in the Global South, renewing and often deepening divides in pay and privilege between expectations and assistants (Poster, 2013). These changes set the stage for the larger shift in the cultural figure of the secretary: to be virtualized, a feminized agent on a device that could be folded into every task, offering support while simultaneously offsetting more labor to individuals, and extracting large amounts of data for the emerging AI powerhouses.

Assemblage 3: The AI Secretary

In the most recent assemblage of women, machines, and work, much of the traditional labor of secretaries has moved to AI agents, embedded in smartphones or on freestanding domestic devices like Amazon's Echo. As of 2017, Siri was the most popular virtual assistant with 41.4 million monthly active users in the US. (Perez, 2017). Only 2% of iPhone owners have never used Siri (Milanesi, 2016). The number of monthly users of Amazon Alexa jumped 325% between 2016 and 2017, from 0.8 million to 2.6 million monthly users. Over the same period, Microsoft's Cortana grew from 0.2 million monthly users in the US to 0.7 million, a 350% increase (Perez, 2017). While the design specifics of AI systems like Siri, Cortana, and Alexa are obscured by trade secrecy laws, at the most general level they rely on a combination of machine learning, natural language processing, and algorithmic prediction. AI agents echo secretarial work not just because of the tasks they perform but because of the gendered valences of *how* that work is performed.

Like human secretaries, demanding work from an AI secretary starts with calling them by name: "Siri", "Alexa," "Cortana." Assigning names to these technologies supports a process of gendered anthropomorphization, but it also does more than this:

> Giving something a human name is ultimately...a way of exerting control over it—a reminder that it works for you, that it exists within a human construct, even when the machine itself is wholly indifferent...Machines don't need names, but we feel the need to name them—out of a mix of affection, perhaps, but mostly out of a desire to reorganize forces more powerful than we are so that they appear to be under human control. (Lafrance, 2014, para. 8-9)

Scripting names for AI secretaries is a way of making them seem approachable

and trusted, a means of neutralizing any apparent discomfort or concern, while signaling personal control over new technology.

Voice has an important but relatively undertheorized history in electronic communication devices (Goss, 2015; Guzman, 2015; Marvin, 1988; Poster, 2011, 2016) that both plays into and complicates the much longer history of dismissing women's voices as shrill, nonsensical, and silly (Beard, 2014; Carson, 1995; Malin, 2014). Goss (2015) has argued that women's voices are the default in AI secretaries for the same reasons they dominate in elevators, airports, and public transportation systems—to have a calming effect on crowds and in cases of emergency: "Humans are only comfortable with voice-interactive technology when they are assured of their dominance over it, and female-voiced technology is the pleasing compromise that succeeds in being informative and servile to a human master without being truly, independently intelligent" (p. 24). Design values surface in AI voices through the leveraging of feminine affect to render new technologies as safe and non-threatening.

Finally, AI devices are coded to speak in white, educated voices. In an interview with the design team behind Amazon's Alexa, programmers explained a backstory for the personal assistant meant to "produce the exact degree of upbeat geekiness" that the team wanted:

> The backstory is charmingly specific: She comes from Colorado, a state in a region that lacks a distinctive accent. "She's the youngest daughter of a research librarian and a physics professor who has a B.A. in art history from Northwestern," [the head designer] continues. When she was a child, she won $100,000 on *Jeopardy: Kids Edition*. She used to work as a personal assistant to "a very popular late-night-TV satirical pundit." And she enjoys kayaking. (Shulevitz, 2018)

This "charmingly specific" background story has embedded class and gender norms that present representational exclusions for those who don't identify with those norms. In addition, choices around voice design and recognition can create usability issues for people with regional accents, immigrants, and folks who are differently abled (Alper, 2017). Names and voices signal race, class, and gender, and ultimately they symbolize ideal and non-ideal users. All the while, they are deployed to "personalize" a device so that it may continue to capture data under the guise of convenience, friendliness, and familiarity.

Producing the AI Secretary and the Gendered Work of Surveillance

Across the historical trajectory of the secretary, we see a progression of surveillance—as a desk, secretaries keep documents safe and secret, shielding them from casual observation. As a woman, the secretary is a "forgotten witness" to office procedures, controlling information and maintaining privacy without gaining institutional status. As an AI system, the secretary gathers data constantly, sharing information continually and often duplicitously between her two masters—the user of the device and the technology company that produces the system. Crucially, it isn't just technical sophistication that allows AI secretaries to surveil; it is their performance of features and characteristics honed by previous generations of secretarial assemblages. People trust AI secretaries because they trusted human secretaries, or at least the cultural idea of them. In our examination of the history of secretarial labor, we see four characteristics that shape workplace dynamics of the secretary: support, observation, organization, and control.

Submission obscures surveillant power. Within the history of automation, addressing fears and mistrust of a new technology has frequently involved the strategic deployment of feminine affect (Guzman, 2016). For example, when banks first installed ATMs, the unfamiliarity of back-end technologies was deliberately masked with a recognizably feminine affect: "For the ATM to catch on, it had to appear user-friendly and non-threatening...Some [banks] decided to defuse the 'man vs. machine' confrontation—and get a return on investments already made [by defining the dream teller as a young woman]—by transposing specifically feminine characteristics onto the ATM" (Boyer & England, 2008, p. 251). Secretaries are, by definition, subordinate. To be a secretary is to be subject to idiosyncratic needs and daily demands. Secretary–boss dynamics offer a tidy parable of hegemonic gender relations, a reinscription of male dominance in the workplace. Yet power dynamics are more complex than organizational hierarchies typically suggest. Echoing a truism in sado-masochistic relationships that real power is held by submissives rather than dommes (see MacKendrick, 1999), a boss often becomes reliant on the secretary precisely because she responds so precisely to individual needs, quirks, and desires. In the context of data management and control, the trope of an executive rendered helpless by the absence of a secretary has a parallel in the many YouTube videos of people trying to find the right words to get Siri or Alexa to do what they request. Secretaries play an often unacknowledged role in shaping the capacities of those who employ them.

Secretaries accumulate power in the same way that they accumulate data: continual performances of submissiveness slowly produce a rich archive of behaviors, demands, and weaknesses. In her history of the secretary in 1930s fiction, Rooney (2003) notes,

> The "secretary" routinely delineates an ancillary-although instrumental-role in relation to executive or worldly power...Humble servant to political or economic power and one potentially able to mediate that power, the secretary occupies shifting boundaries within hierarchies and between private and public realms, with the capacity to wield power on the basis of privileged position and knowledge. (p. 29)

As more people begin to use AI secretaries, their power will come less from any technological developments than the social design of systems that invite us to forget their power because they are made to fit within non-threatening feminine tropes. The surveillant work of AI secretaries is neither an Orwellian spectacle of scrutiny, nor a dramatic, one-time confession. Rather, with the normalization of AI technologies comes the mundane and continuous transfer of data, resulting in conditions where the companies that design the devices know more about us than we know about ourselves.

Building the gender stereotypes of the past into the tools of the future. While Siri, Cortana, and Alexa are presented as technologically innovative, they manifest with distinctly retrograde visions of gender. Much like science fiction that features technical innovation but outdated gender roles (see Pluretti, Lingel, & Sinnreich, 2016), AI secretaries remind us of the disconnect between technological and social progress. Leaders of the tech industry present their companies as race-blind, gender-blind meritocracies, where no matter one's demographics, the best programmer wins. And yet, the discrimination against and harassment of women and other minority groups in Silicon Valley is rampant (Benner, 2017; Kosoff, 2017; West, Whittaker, & Crawford, 2019). From this view, the continued defaulting of AI secretaries to women's voices and affect is less like a quaint homage to tradition and more of a reflection of entrenched gender stereotypes of women's capacities and value. Rather than producing new socio-technical dynamics that could create new identities of AI assistance, the retrograde figure of AI secretaries forecloses more imaginative possibilities in favor of the narrowest and most limited of gender norms.

Dehumanization. The objectification of the secretary is clearest in the cases of secretaries as (literal) furniture and AI, but it is also evident with personal assistants. The office has historically been a sphere of masculinity, and bringing women into the office, even when collectively understood to be subordinate, was typically viewed as a source of distraction and frivolity (Saval, 2014). A key means of mitigating tensions surrounding the disruption of women at work has been to objectify their bodies and devalue their labor, agency, and individuality.

The hostile work cultures experienced by women office workers is well documented, particularly after the dramatic rise in visibility following the #metoo campaign in 2017 and beyond. But such behavior is not restricted to humans. Siri and Cortana have been ridiculed, harassed, and threatened by their users (Bergen, 2016; Piper, 2016), just the latest manifestation in a long series of disrespecting secretary work specifically, and women's voices and presence generally. In Phan's (2019) critique of the race and class politics embedded in Amazon Echo, she notes that harassment and incivility towards smart home devices has a longstanding parallel in the treatment of servants. As a labor pool, secretaries are often conceptualized as interchangeable. For example, large firms that retain a large number of secretaries typically employ a "floater" system, where a small pool of secretaries are deployed to fill in for planned and unplanned absences of other admins, the idea being that the work is predictable and (like desks) human secretaries are easily swapped and switched. Viewing secretaries as non-threatening and replaceable makes it safe to entrust them with secrets, precisely because they're presumed to be incapable of misusing or exfiltrating the information shared with them.

Backstage access. In their analysis of secretaries and organizational behavior, Lewis and Simpson (2012) describe a disconnect between the perceived status of secretaries (as low in the office hierarchy) and the power they retain in terms of insider information. While "located in the margins" of the workplace structure, secretaries paradoxically sustain the "dominant center": "secretaries have close daily interaction with their bosses and hence have access to the 'real story' behind public presentations—a knowledge that can potentially (and embarrassingly) trigger unfavourable evaluations and reveal inequitable differential rewards" (Lewis & Simpson, 2012, p. 149). Likewise, Kanter (1977) has illustrated the performative complexities of access, trust, and submissive fealty that define the secretarial profession in the corporate world. As Greenbaum (1995) notes, the secretary has always completed both *visible* and *invisible* work:

> The visible parts of secretarial work, like typing and filing, have

> increasingly been separated, routinized, and automated, while the more invisible tasks, such as gatekeeping, as well as prioritizing the boss's work, scheduling, and making the office run smoothly, have resisted—at least until recently—such routinization and automation.
> (p. 40)

This more invisible form of work, in terms of scheduling and calendaring priorities, is where AI agents have sought to intervene. But of course one of the key functions of the secretary, that of *keeping secrets*, is ultimately inverted. The data, and the patterns in the data, are being shared with a technology company. A set of leaked documents and investigations in 2019 revealed that Google, Amazon, and Apple were keeping the recordings of people talking with Google Assistant, Alexa, and Siri and were asking contractors to listen and transcribe them—all without informing users (Simonite, 2019). Apple and Google halted the practice after public outcry (Sawers, 2019). Secretaries have always had the capacity to leverage the information they gathered to serve new purposes, like jockeying for different responsibilities or enabling office coups. But now this information travels beyond workplace walls, into databases of tech companies to be listened to by contractors, leaked online, and potentially sold to data brokers.

Whether as desks, office workers, or smartphones, secretarial labor is designed to fade into the routinized background of working life. The shift from human secretaries to AI systems like Siri and Cortana may be marketed as "seamless" or "magical" but this marketing narrative papers over what kinds of labor are being devalued or removed, and what kinds of practices (gatekeeping, maintaining privacy, social trust) are eroded or lost. Rendered invisible by their familiarity and objectification, secretaries bear witness to habits and disclosures, secrets and mishaps. Sharing affinity with stagehands, janitors, and waitstaff, secretaries are backstage actors (Goffman, 1956), whose access to information is continual and overlooked. We surrender data to them (in part) because we *forget that they are there*. It is precisely this tendency that is leveraged by tech companies when they invoke the figure of the secretarial assistant for their AI systems.

Conclusions: The Death (by Automation?) of the Secretary

As AI technologies move deeper into contemporary workplaces, and more administrative work is outsourced or automated, what can the secretary, in all her assemblages, teach us about technological distributions of power? As we see it, the ghost of the secretary in the AI machine points to two key implications: the

fraught labor politics of the automation of administrative labor, and the further extension of surveillance infrastructure into everyday life.

In the late nineteenth century, women disrupted traditional working arrangements of the secretary, filling positions that opened as men took better paying and more prestigious jobs. Now in the twenty-first century, AI secretaries represent another disruption to the human secretary workforce, which has already experienced considerable layoffs and cutbacks (Richardson, 2018). In March 2019 Google terminated contracts for dozens of temporary workers on the "personality" team for Google Assistant, the team that designs and maintains the persona of Google's AI secretary. In a public letter criticizing the move, the workers described themselves as "the human labor that makes the Assistant relevant, funny, and relatable in more than 50 languages" (quoted in Wong, 2019). In response to the firing, more than nine hundred Google employees signed a letter of protest and staged a walkout, provoking Google to issue new "minimum standards" for temp employees. Temps, vendors, and contractors make up more than half of Google's global workforce, reflecting a broader trend towards short-term contracts instead of long-term working arrangements with benefits. Google's firing of the employees behind its AI secretary is the latest in a long tradition of outsourcing secretarial work, and points to increasing tensions over automation and agency in the workplace (See Gray & Suri, 2019). Even the people who write the scripts for the automated secretary are undervalued and ultimately laid off.

The emergence of AI systems to further automate of secretary labor supports the narrative that this profession can and should be automated, and even those who design the personalities of AI secretaries are seen as disposable. Rather than freeing us to do less work, AI secretaries simply allow a set of work tasks to be removed from paid workers while creating more tasks and interfaces for people to organize themselves and their data, further blurring work/life boundaries. The reliance on smart devices stretches across many of the traditional divides in working arrangements, with gig workers and blue-collar workers as likely to feel dependent on AI tools as those in white-collar office spaces (Hernandez, 2018; Ticona, 2015). In working contexts that demand more self-management and offer less administrative support, AI secretaries demonstrate a shifting labor landscape that uses automation to extract more labor from an already overburdened human workforce.

Automation isn't just about technology and economics, it is also fundamentally

bound up in understandings of race, class, and gender. As Levy (2015) has noted, "trucking is more than a work process; it is also an enactment of masculinity, a form of economic provision, and an extension of sexuality" (p. 364). With women comprising most of its labor force, secretary work has historically involved harassment, boredom, and objectification, but rather than reimagining a more equitable workplace, AI secretaries foreclose these labor pathways while redirecting that work onto many more (unpaid or underpaid) people to keep themselves organized. Racial and gender power dynamics emerge again, as the administrative work of maintaining and transcribing AI secretarial systems is outsourced largely to the Global South (Richardson, 2018; Poster, 2013, 2016). What we see in the most recent figure of the AI secretary is an entrenchment of the longstanding dynamics of secretarial labor: submission, dehumanization, and surveillance.

Discourses about privacy and surveillance often emphasize state actors and social media companies (Andrejevic, 2007; Greenwald, 2014; Zuboff, 2015), which are undeniably important features of the contemporary digital landscape. But surveillance work has largely shifted from capturing everything about a small number of people to capturing vast amounts of information about everyone (Bossewitch & Sinnreich, 2013; Brunton & Nissenbaum, 2015; Lingel & Sinnreich, 2016). Secretarial work is attuned precisely to this kind of data capture. We've shown how many of the highly gendered features that make secretaries easy to ignore also facilitate the capturing of significant amounts of data. If there is to be meaningful resistance to increasing levels of surveillance, it will require a nuanced accounting of *how* these devices lure us in. By tracking the intertwining of gender and labor norms embedded in AI secretaries, we are better positioned to understand how these devices are able to gather so much data with so little resistance from many millions of users.

The figure of the secretary over the past three centuries has much to teach us when we consider the design and positioning of AI agents, data collection systems, and automation. AI assistants are sold as convenience rather than surveillance, freedom from work rather than creating new forms of administrative labor, and an economic inevitability rather than a deepening of structural inequality. As worker resistance around the firing of the Google Assistant team reminds us, these inequalities are threaded through the ways AI systems are imagined, maintained, and deployed—but they can be protested. As artificial intelligence continues to develop, we should be wary of these anthropomorphized data collection systems, and question the entangled relationships between AI

technology and labor.

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