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Digitizing the 'Ideal' Latina Information Worker

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Abstract

Recent examples of virtual assistant technologies designed as Latina information service workers are noteworthy objects of study for their potential to bridge analyses of Latinas' labor history and information technology. Latinas in the United States have traditionally worked in blue collar information technology sectors characterized by repetitive labor and low-wages, such as electronics manufacturing and customer service. Latinas information service workers, though fundamental to technoscience, have been largely *invisible* in histories of computing. Latina virtual assistants mark a shift in this labor history by relying on the strategic *visibility* of Latina identity in/as the technology interface. Our research explores Latina virtual assistants designed by Airus Media, and installed as airport workers in airports along the southwestern border of the United States. We situate the technocultural narratives present in the design and marketing of these technologies within the broader histories of invisible Latina information labor in the United States. We find continuities between the ways Latinas have historically been positioned as "ideal" information workers, and the use of Latina identity in the design of virtual assistants. We argue that the strategic visibility of Latina virtual assistants is linked to the oppressive structures of invisibility that have traditionally organized Latina information service workers.

Introduction

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"No background check required!" boasts Airus Media's brochure featuring a picture of a smiling virtual Latina information service worker, which the company refers to as an "Advanced Virtual Assistant (AVA)." These AVAs are life-sized holographic airport workers installed as wayfinding and informational kiosks that stand poised and at the ready to provide information to travelers passing by (figure 1). Airus Media, formerly AirportOne, is a multimedia marketing firm based in Plant City, Florida that specializes in developing AVAs and film projects for the airline industry.[1] Currently Airus Media reports having completed airport AVA installations at San Antonio International, Destin-Fort Walton, JFK, LaGuardia, and Newark Liberty International Airports. While most of Airus Media's AVAs are represented as white or white-passing women of European descent, the AVAs for the Long Beach and San Antonio airports—cities with significant Latinx populations and geographic proximity to the U.S./Mexico border—are culturally coded through phenotypic and linguistic signifiers to represent Latina identity. This suggests that Latina identity is being employed as a strategic design element in these border region airports, opening up questions about how Latina identity functions rhetorically in these AVAs and to what end.

Figure 1. Latina AVA installed at Long Beach airport, pictured in Airus Media's brochure

The current information labor environment in the United States, heightened by the amped up xenophobia of the former Trump Administration, is characterized by cultural anxieties surrounding technology, immigration, and nationalism. These tensions are magnified in the U.S./Mexico border region. We argue that Latina AVAs can be placed at the center of these tensions where they provide a useful lens through which to explore connections between Latina information labor, past and present, via the design of a digitized workforce. Latina information service workers, though fundamental to technoscience, have been largely *invisible* in histories of computing. Digging into the past of information and technology history reveals that Latinas have always been part of and parcel of information work, though their labor has been largely rendered invisible through dominant computing histories. Latinas have often been relegated to the precarious and migrant work of the information labor sector, sectors that often depend on such invisibilities for viability. We define Latina information service workers as Latinas who work

primarily in fields which include Telecommunications, customer service, blue collar fields of Science, Technology, Engineering and Math (STEM). A turn in labor came with the 'information age' when, in the 1960s and 1970s, "Knowledge was supplanting capital and labor as the decisive factor of production."[2] Latina information service workers can span across industries depending on their labor. Traditional forms of Latina labor are valued and represented in fields as migrant workers, domestic work, and retail industries. However with the commodification of information, Latinas are found in various sectors doing 'Information work,' working with various information technologies and often in the role of information service, such as telephone operators or customer service, and also limited in upward career mobility by their race, ethnicity, gender, and class.[3]

Latina virtual assistants mark an interesting shift in this labor history by relying on the strategic *visibility* of Latina identity in/as the technology interface and virtual service worker. This essay explores *why and how* these virtual assistants are designed as visible Latina information service workers, and *what purposes* these formations of visibility serve; particularly given the historic invisibility that has often cloaked Latinas' labor in the global circuits of information labor. Donna Haraway famously argued that women of color's bodies become part of the digital platform through their labor.[4] Indeed, Latina virtual assistants prefigure the Latina body as the literal digital platform, raising questions about the interrelatedness of dominant cultural beliefs about the potentials of the Latina body as a technocultural labor resource.

To address these questions, we introduce the design rhetorics of virtual assistants as virtual workers, considering particularly how identity markers, such as race and gender, have served to amplify cultural ideas about technology, service work, and workers. Next, we explore Airus Media's use of Latina identity in designing their AVAs by applying close reading

techniques to their marketing materials and to the design of the AVAs themselves. Weaving this analysis together with threads of Latina information labor history, we find many continuities between the marketing of the Latina AVAs and the dominant cultural narratives about gender and race that have historically shaped Latinas as workers in information industries. Finally, we consider the question of visibility, and why Latina identity is foregrounded in the AVA technologies when Latina information service workers have historically been purposely obscured. We argue that Latina identity in the AVAs does political work as a cultural amplifier that recalls the archetype of Latinas as an ideal information worker. Wrapped in familiar discourses of Western capitalism and technoscience, the strategically visible digitized Latina information service worker functions as a socially acceptable avatar of the immigrant labor that continues to be foundational to the United States global economic position.

Designing Virtual Assistants as Virtual Workers

Virtual assistants are software technologies that assist people with computer-related tasks using sociality as a key feature of the interface.[5] These technologies can range in sophistication from chatbots (e.g. Microsoft's Clippy) that use basic dialog systems, to artificially intelligent "smart" systems that incorporate speech recognition, voice user interfaces, and natural language processing (e.g. Amazon's Alexa) into machine learning processes.[6] Smart virtual assistants like Alexa are becoming popular as interfaces to personal and home technologies, connecting through the "Internet of Things" (IoT) to create seamless networks of service applications. Outside of personal domestic use, there is a growing market for virtual assistants of all kinds in customer service applications, where they often are employed as a first-line approach to handling customer queries and as a supplement to, or replacement for, human customer service representatives.[7]

Airus Media's AVAs fall into this customer service category and are implemented as public-facing information kiosks that can be placed throughout airports wherever "wayfinding, public guidance, and advertising" applications are needed.[8] The AVAs are designed as life-sized holographic avatars that "create the illusion of a real person" by simulating an airline service worker or TSA security officer (figure 2). The holograms are constructed from scripted video recordings of real actors delivering responses such as, "You can speed up the inspection process by removing all items in your pockets and placing them in your carry-on baggage."[9] The holographic videos simulate the experience of receiving information from a human worker, though the interactivity of the technology is limited (at this time) to a mostly one-way encounter. The current AVA models in service are not "smart" technologies, meaning they do not currently use machine learning, have voice recognition, or fully interactive capabilities. The absence of these features is noted by Airus Media as a limitation of budget, not desire, that may be bridged in future versions as it becomes economically viable for the company to upgrade the technology.[10] Nonetheless, Airus Media describes the AVAs as "effective in capturing attention" and passengers as "amazed by the technology."

Figure 2. Examples of a Latina AVA installed at the San Antonio airport

All of the airport AVA products featured on Airus Media's website are represented as women, which is consistent with the design norms for virtual assistants performing customer service roles.[11] The problematic gendering of virtual assistants has a long history and has been well-documented by scholars in interdisciplinary domains. Stereotypes about women's 'natural' abilities for service work have long been encoded into the programming and design of computer interfaces, marking continuation from the feminized labor of human computers to the design of conversational agent technologies.[12] Representations of virtual women as computer assistants have only become more normalized and culturally embedded with the overwhelming popularity of smart voice assistants like Amazon's Alexa and Apple's Siri. The logics that guide virtual

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assistant design in human-computer interaction continually recycle consumer market models that find that people prefer interacting with feminized virtual assistants for service-related and domestic tasks.[13] These models are circulated non-critically in ways that tend to harness and repurpose prevalent gender stereotypes, creating a cycle of virtual assistant gendering that appears natural over time. Miriam Sweeney describes how these logics become embedded "as a kind of cultural "common sense" design practice, obscuring their linkages to historically specific and socially produced systems of oppression."[14] However, the mainstreaming of virtual assistant technologies has prompted more public reflection on the cultural ideologies that shape gendered design, along with their real-world consequences for women. Notably the United Nations Education, Scientific and Cultural Organization (UNESCO) published an influential report outlining the ways gendered representation of virtual assistants has the potential for further normalizing gendered abuse and harassment for women, globally.[15]

Virtual assistants are specifically gendered and racialized in anticipation of their use, functions, and of the audiences they are targeting. For instance virtual assistants fulfilling customer service, domestic assistance, or care-giving roles are overwhelmingly designed either explicitly or implicitly as women.[16] These industries are heavily feminized, meaning they are overrepresented by women workers and are often low-paid, precarious, low-status positions that are heavily surveilled with little or no worker autonomy. The digital labor force is imagined as having many of these same qualities, and identity functions rhetorically to amplify, obscure, or cohere various social scripts around gender, race, and labor as "a key part of user experience (UX)".[17] For example, Microsoft's Ms. Dewey search engine made use of a racially ambiguous virtual assistant that enabled a range of sexist and racist fantasies to be encoded in the interface and enjoyed by white, heterosexual male searchers.[18] Meanwhile, Thao Phan observes that

Amazon's virtual assistant, "Alexa", is designed according to white middle-class aesthetics, which imagine an idealized domestic service model that offers an aspirational pathway to white-middle class membership.[19] Phan argues that Alexa's cultural representation does important political work in eliding the historical realities of Black women and other women of color in domestic service roles, obscuring important questions about the interlocking systems of whiteness, gender, labor, class, and surveillance in the process.[20] Through these examples, virtual assistant design and representation emerge as a site of politics where ideologies about labor and identity are encoded and mobilized in specific and strategic ways.

Virtual assistant identity is integral, not incidental, to understanding the global labor environment that is shaped through legacies of racialized capitalism and legacies of colonialism. Winifred Poster argues in her research on virtual receptionists that employers make conscious decisions about the aspects of identity and "humanness" that they want customers to interact with, and that this selective visibility of the worker lies "at the heart of reconfiguring the labor processes of these services."[21] Jennifer Rhee identifies these dynamics as a key part of "the robotic imaginary", which she describes as the twinned processes of anthropomorphization of robots and the dehumanization of labor.[22] Rhee deftly argues that the robotic imaginary inscribes humanness through normative, "familiar" frameworks that reflect existing racial and gendered hierarchies. Using these frameworks she demonstrates the processes through which marginalized people are dehumanized as "unfamiliar" and "nonnormative," an erasure that is fundamental for enabling labor alienation and exploitation. Rhee identifies virtual assistants, specifically, as critical technologies where these ideologies play out and processes of dehumanization take place. Similarly, Jessa Lingel and Kate Crawford argue that the fashioning of virtual assistants as

feminized digital secretaries is integral for achieving their dehumanization, an outcome that is viewed as an asset by designers to ensure users entrust these programs with their private data.[23]

Scholarly research that focuses specifically on Latina identity and virtual assistants is still nascent. However, recent research suggests that Latina identity is being strategically deployed in applications, markets, and geographic regions that target Latinx audiences.[24] For instance, research on "Emma", the United States Citizenship and Immigration Services' (USCIS) Latina virtual assistant, finds that Latina identity in this interface is specifically constructed in accordance with colonial-capitalist ideologies to make normative claims about what identity markers and consumer models constitute the "ideal" Latina/o citizen.[25] Similarly, we are interested in exploring the normative claims that Latina AVAs may make about the interconnected issues of labor, immigration, and national identity. In the next sections, we situate the design and marketing of Airus Media's Latina virtual assistants in the historical context of Latinas' information service work and immigrant labor. Weaving this together reveals the deep ideological continuities between the historical and digital constructions of the Latina information service worker.

Latinas as labor problem and solution

The future is here! Meet AVA - your Advanced Virtual Assistant. She works 24 hours a day, seven days a week and does not charge for overtime. She never gets sick and does not require a background check.[26]

Airus Media's promotional material positions AVAs as offering a number of affordances for employers, setting up a kind of dichotomy between the (ideal) virtual worker and the (problematic) human employee. In doing so, the brochure says as much about how the company perceives the 'problems' of human employees and the current labor landscape as it does about the customer service interfaces that it is selling (figure 3). AVAs are presented as a technological solution that promises to maximize profits for the employer-company, while reducing the social and economic frictions that are associated with managing a human workforce. If the "paperless office" was about embracing the utopian potential of information and communication technologies for unencumbered work processes, the rhetoric of AVAs posits a utopian labor landscape—a "peopleless office"—where U.S. employers are able to harness Latinx labor without the economic and legal obligations of paying workers fair wages, overtime, or offering health care and leave benefits, and perhaps, most importantly, without the always present question about the citizenship status of those employees.

Figure 3. Screenshot of Airus Media's promotional brochure outlining the "Features and Benefits" of AVAs.

Cost-effectiveness is heavily emphasized in the brochure for AVA as well as in other promotional material across Airus Media's website. The AVA FAQ section of the website specifically addresses this in a discussion about the outright costs of AVA noting that "the Sky is the limit when it comes to features and costs."[27] The "basic" AVA model is priced at $20,000 USD for a single unit, with no upper cost quoted for the "advanced" models that include voice recognition technology integration and integration with flight systems. Maintenance costs are described in the same section as "practically non-existent." Though these statements are

describing the upkeep of the AVA as an information and communication technology, they hint at the many cost dimensions (economic and social) of maintaining a human workforce. This is echoed in one of the video promotions that features one of the white AVAs smiling at the camera while saying, "I am very cost effective. I will save you time and money."[28] This sentiment is problematic enough when applied to the AVA shown in the promotional video, but it takes on a more nuanced meaning when applied to the Latina AVAs placed in the San Antonio and Long Beach airports.

There is a historic precedent in the United States that simultaneously values Latinas' labor as desirable and threatening.[29] Large wage disparities reflect the overlapping systems of gender, race, and citizenship that shape a highly segmented workforce, constructing the economic value of people as workers according to their social identities and position. Latinas' labor in the United States is currently some of the most underpaid and undervalued, with Latinas making .54 cents on the dollar of what their average white, male counterparts earned in 2019.[30] This gender pay gap plays out amongst undocumented workers as well, with undocumented women earning less than their male counterparts, who are also severely disadvantaged in the workforce.[31] In the background of these disparities are long standing white American cultural narratives about Mexican immigrants (and Latinx people more generally) "taking American jobs." These fears are undergirded by a sense of white entitlement to economic opportunities a la Harris's concept of whiteness as property.[32] Through this lens Latinx people are positioned as racially contingent outsiders poised to "steal" labor opportunities that operate as legally protected resources for white Anglo Americans. These fears are intensified when applied to undocumented Latinx people who are blamed for both devaluing blue collar labor (by "accepting" low wages for these positions) and burdening social infrastructures (taxes, schools, health sectors, and social

services). The irony here is being that many undocumented workers are, in fact, paying into systems like Social Security that they themselves are not eligible to then draw on, bringing new valence to the discourse of the "cost-effective" employee.

The cost-effectiveness discourse is particularly mobilized around undocumented Latinas, who are often relegated to domestic and agricultural labor because of the labor segregation mentioned above. In many ways the AVA, as a stand-in for "affordable" Latina immigrant labor, harkens back to Las Solas, a time when Mexican women were migrating alone across the border to provide financial autonomy and support to their families in Mexico. Along the Texas-Mexico border in the early 1900s immigration officials viewed *solas*, single mothers and women travelling alone, as a potential burden to the U.S economy and scrutinized their passport application.[33] Meanwhile their male counterparts who travelled for migrant farm workers would be alerted to the "competing pitches of labor contractors."[34] Still, Mexican women sought work across the border for lower waged jobs since the early 1900s.[35] In the 1930s the most common employment for Mexican immigrant women was in the service sector, blue-collar employment, and in agriculture.[36] This history reveals that, in spite of Latinas' own agency, the U.S. has discursively positioned Latina immigrants as political ammunition when necessary to fuel xenophobic immigrant policy while still relying on them as a labor resource that undergirds the national economy.

Elements of the cultural fear of Latinx immigrants "taking American jobs" remains present in AVA's marketing, this time refashioned through the twinned fear of technology replacing human workers. The response to the FAQ "Do staff feel like they are being replaced?" reads:

That has been a concern; however, staff have generally learned quickly that the

avatar is meant to supplement their efforts and free them up for more complicated

tasks, or tasks that require human interaction.[37]

The very presence of this question in the FAQ suggests labor tensions, or the anticipation of

unrest, as these technologies directly compete with human workers for information service jobs.

The company's response echoes the oft repeated "promises" of technology to improve working

conditions by automating jobs that are seen as undesirable-- a promise that has not come to

fruition in the modern workplace. Neda Atanasoski and Kalindi Vora write that these fantasies

are about,

the emancipation from manual, repetitive, and unimaginative labor by making the

'the worker invisible... extend the history of the autonomous subject whose

freedom is only possible because of the invisible labor of servants, slaves, wives,

and, later, industrial service workers who perform this racialized and gendered

labor.[38]

Latina AVAs act in this scenario as what Atanasoski and Vora describe as "surrogate humans",

replacing human labor. As they point out, this replacement is contextualized by global capitalist

frameworks that uphold gendered and racialized hierarchies. In this sense Latina information

service workers function as human avatars that embody opportunities for labor extraction and

exploitation.

These labor "solutions" are deeply tied to political issues of national identity,

immigration and citizenship status. As far back in the past as the transition from Mexican

territory to the United States, and as recent as the 2016 election of Donald Trump, invoking

xenophobia around Latinx immigrants as "aliens," "illegal," and ineligible for citizenship, is a

long standing trope that fuels politics and policy surrounding immigrant status. Airus Media's emphasis on "no background checks" carries particular political valence when applied to the Latina virtual assistant as the ideal information service worker. Whereas background checks may refer to employer verification of a variety of parameters that define worker eligibility (including past work history, criminal records, credit history, drug testing, or references), the image of the Latina information service workers re-codes worker eligibility primarily as a function of immigration and citizenship status. In this context, the workplace is identifiable as a site of immigration policing that makes use of technologies like the Department of Homeland Security's (DHS) E-verify website to screen and regulate the employment of undocumented people.[39] The E-verify program tracks worker eligibility by comparing information "from an employee's Form I-9, Employment Eligibility Verification, to data from U.S. Department of Homeland Security and Social Security Administration records to confirm employment eligibility."[40] With this technology, "immigration enforcement more effectively than ever before deputizes private sector employers as immigration police, while it generates fear among the undocumented."[41] With Latina virtual assistants, Airus Media is offering employers an "out" to this bureaucratic assemblage: the benefits of the Latina information service worker without the hassles of immigration policing.

These histories point to the complex tensions surrounding the status of Latinx workers in the United States. Namely, the products of Latinx labor and consumer activities are valued insomuch as they bolster the American economy, while they are otherwise actively devalued and heavily surveilled as inherent criminals and threats to national security. As Alex Rivera's prescient 2008 film Sleep Dealer argues, the American government is perpetually trying to solve the problem of maximizing the cheap labor potentials of Mexican workers, while maintaining a

xenophobic, nationalist agenda that seeks to close borders, fuel immigration anxieties, and actively surveil Latinx populations in the borderlands.[42] While the film explores this concept through a story of Mexican workers who export their labor transnationally to the U.S. through remote cyborg technologies, Latina AVAs offer an alternative extraction of labor that leverages superficial markers of cultural identity without extending labor opportunities to actual Latina information service workers within U.S. borders. The "cost-effective" Latina AVA provides a convenient labor "solution" compatible with the aims of colonial techno-capitalist patriarchy that circumvents the "problem" of actual Latina workers.

Gender-coding controllable workers

Airus Media's promotional video portrays a smiling white woman AVA saying, "I look pretty good, don't I?" then later coyly claiming, "I am so versatile- I can be used for just about everything." This video oozes with sexual innuendo, including the AVA winking and claiming that purchasers can "dress" the virtual assistant in any way that they like. The sexual undertones here aren't accidental, indeed they are central to configuring the ideal worker whose labor and value as a worker is framed through racialized gender stereotyping and sexual objectification. Gendered identity markers such as submissiveness, controllability, and "complete customization" over the interface's style and appearance are repeatedly advertised as desirable features for AVA. When applied specifically to the Latina AVA kiosks situated in borderlands regions, this fantasy recalls colonial formations of white, male sexual dominance over Mexican and indigenous bodies.

United States media, popular culture, and historical discourse have traditionally represented Latinas as exotic, hypersexual and over-reproductive. These stereotypes are rooted in

the binary "virgin/whore" gender roles imposed by Spanish colonization on Mexican women.[43]

This binary can be seen in other related colonial constructions of sexuality and gender that

positioned Latinas as either the over-sexualized "Malinche/traitor/whore," or the

Guadalupe/Virgin/submissive woman.[44] These stereotypes functioned as modes of control over

women, organizing Latina identity in ways that served patriarchs and colonizers, alike. These

stereotypes persist in modern U.S. media representations of Latinas, whose bodies occupy the

"center stage in the often vitriolic public debate over the causes and meanings of demographic

change."[45] The preoccupation with controlling Latinas' bodies, sexuality, and reproduction

operates as a form of biopolitics that are embedded in xenophobic immigration policy and the

maintenance of a white-supremacist nation-state. Chávez observes that the U.S. societies'

discourse around Latinas' bodies, as an axis of cultural fear around Latinx reproduction, have

been ongoing for over forty years around the time Latinas began advocating for their labor rights

through activism and union forming. The labor environment reflects the greater political

struggles of the nation-state and ideologies about race, gender, sexuality are activated to frame

both work and Latinas as workers.

The focus on having complete control over the Latina AVAs interface/body as a feature

of the "ideal" information service worker is reminiscent of the maquiladora practices for

monitoring real Latina's bodies, appearance, and sexual activities. Young Latina workers were

explicitly seen as desirable maquila employees because of their location within intersecting

patriarchal and colonial cultural systems. Part of this desirability is linked to pernicious

stereotypes that Latinas are innately suited for repetitive and tedious work, a narrative that

pervades the history of women in computing and technology industries.[46] This was true for

women working in assembly lines along the U.S. / Mexico border who were described by plant

managers as having "fine and delicate fingers" a justification for recruiting young women into repetitive and tedious technological work at the factory.[47] Racist narratives work in tandem with gender stereotyping to cast women of color and indigenous women, particularly, as highly productive and easily controllable workers.[48] Cowie cites a 1971 maquiladora guidebook that clearly states these values outright as a rubric for hiring practices aimed at recruiting young, Latina women:

> women are more easily disciplined and directed, and can develop a spirit of
> loyalty towards their colleagues and the companies analogous to that which they
> show towards their families… [They] are susceptible to flattery and praise… they
> show respect and obedience to persons in authority, especially men. [Equally
> important, they] less demanding of convenience than their counterparts in the
> United States.[49]

The practice of maquilas holding annual beauty contests recalls another form of gendered social control.[50] Peña's interviews with women maquila workers reference these events, recalling similar themes of the links between sexual objectification and the construction of the idea worker:

> But the whole thing about the pageants that troubles me the most is that the men,
> who usually do the judging, do think of us as bodies, sex objects. And the
> audience is awful, jeering and cheering like crazy. Even worse than all this is that
> the plant managers think they own the workers, our beauty is theirs for the
> claiming. They take credit and then expect you to be the ideal, pretty worker. But
> beauty is not much help back inside the factory, unless you are willing to accept
> the sexual advances to protect your own job security.[51]

Controllability, ownership, and entitlement to Latinas' bodies is interwoven through the very

nature of work in the maquilas. Other forms of gendered control documented in maquilas include

compulsory birth control mandates, interviews about sexual history, and pregnancy tests for

maquila workers.[52] These programs all focus on Latinas' bodies as sites of control, enforcing

sexual agendas at the behest of the factory. Through these practices the "good worker" is defined

as the "good Latina" who is attractive and submissive, and remains firmly embedded in the

patriarchal relations that continue to shape the corporate environment.

Taken together, these practices communicate that Latina workers are valued for their

sexual attractiveness and availability, insofar as they uphold the dominant gender power relations

that shape factory/company structures. Compulsory fulfillment of gender expectations asserts

itself as a main criteria for Latina information service work across information labor sectors, not

just in the maquila setting.[53] The design of the Latina AVA as an ideal worker draws on these

histories through enacting coded gender and sexual cultural scripts of always smiling, passively

waiting to be approached before "speaking to" customers, and remaining attractive and ready to

serve. Airus Media's advertising that emphasizes the complete control and customization a

purchaser can have with these virtual employees reads as an updated version of the maquila

hiring guidebook. The Latina AVA retains the gender and sexual scripts that are integral for

framing her as an ideal worker, without the hassle of having to manage and control her actual

body and reproduction in accordance with keeping her worker status active. In the modern U.S.

context this has the additional benefit of tamping the white cultural fear of demographic changes

associated with the stereotypes of hypersexuality and reproduction. As Villa-Nicholas and

Sweeney previously noted about Emma, the Latina virtual assistant for USCIS, the design of the

Latina virtual worker "renders the body passive enough to separate Latinas from the national

stereotypes and productively engages the Latina body to perform another action," in this case continued labor extraction.[54]

Designing the 'right kind' of Latina

Latinx people in the United States occupy a complicated racial status. Latina racial formations "derive simultaneously from domestic racial projects- where 'domestic' refers to both the homeland and the host land- and the racialized geopolitics of US-Latin America relations."[55] Mexicans in particular had been conscripted in the 'white' category of race post-Mexican-American War, however were still subject to racialized forms of inequity through school segregation, employment and housing discrimination, and violence.[56] While light-skinned and white-passing Latinxs have been valued for their potential to assimilate into American citizenship, nonwhite Latinxs have been hailed by the state as noncitizens and outsider threats to national identity. It is important to note that all Latinxs may be targets of xenophobia based on phenotype, culture, and English as a second language or speaking Spanish in U.S. public spaces.

In her study of commercial and media marketing to Latinxs in the U.S., Arlene Dávila names 'the Latin look' as the commonly cast Latinx in commercials and movies. She describes this "acceptable" Latina as having olive skin or otherwise having light-toned skin, with straight hair, and a light accent that indicates she can speak Spanish, but does not have a heavy accent when speaking English.[57] This specific Latina identity formation gains its acceptability by serving as a model of assimilation (and citizenship) predicated on proximity to whiteness. This archetype does rhetorical work to 'hail' the Latinx consumer as well as non-Latinx U.S. citizens.

We see this Latin look echoed in both the Latina AVAs as well as throughout histories of Latina information work. In the manufacturing realm, maquila job advertisements "featured

Anglo women, typically with flowing blonde hair, in high fashion poses to suggest the glamour, beauty and potential liberation of industrial labor at a transnational corporation."[58] In many ways this advertising recalls Mar Hicks's research on the glamorous "girl operators" portrayed as smiling blond women in mini-dresses, that the British company Systemation employed in their 1970s computer advertisements.[59] Whereas the Systemation advertisements were meant to sell computers to businesses, the maquila job advertisements aimed at young women leveraged colonial constructions of whiteness and European beauty standards as a promise for status mobility and lucrative employment potentials in industrial border factories. Though these advertisements were directed at different audiences, both convey the ways that racialized gender expectations are fundamentally woven into formations of information labor.

Racialized expectations and ideologies are also communicated in the Latina AVAs by way of the programmed language options. Among the customizations listed for AVA, "multilingual options" are highlighted, and elsewhere in the promotional material on Airus Media's website, the Latina AVAs in San Antonio and Long Beach are described as bilingual, speaking English and Spanish. English is the default language programmed into all of the AVAs, with Spanish language (and the potential for others) positioned as an ethnic add-on, to an otherwise assimilated (white) interface. Halcyon Lawrence has noted how imperialism shapes voice technology design by "naturalizing" the Anglo American or European English accent, "These devices are based on 'natural language processing'...they're expecting that you're going to speak 'naturally.'"[60] Technology design naturalizes the hegemony of language through the presentation of what is available. For AVAs it is English first, Spanish second, reinforcing these ideologies through code. AVAs default programming suggests that Spanish is seen as

valuable only as a secondary skill, and perhaps also only in regions demarcated by their proximity to the geographic borderlands.

Beyond the interface, language plays an important role in shaping what kinds of information work Latinas could be considered for. For instance, Latinas have historically been strategically barred from upward mobility in technology based fields, often relegated to the monotonous and physically straining work of telephone operators, manual data entry, information customer service, and other blue collar information labor.[61] Telecommunications positioned Latina information service workers for their potential for whiteness by using the telephone as a mediator for socially unaccepted forms of Latinidad- phenotype could be masked through the telephone. Those Latinas without accents could be positioned in the frontlines of customer service, while those with accents could work data entry and more manual labor jobs. This mirrors Jan Padios's concept of "Filipino/American relatability" which describes the relational demands of Filipino call center workers to "identify and communicate with U.S.-based customers and therefore America as a material location and imaginary space."[62] Padios's research describes how affective notions of relatability, which are defined through the legacy of colonial architectures, become transformed into a kind of social and cultural capital within the call center industry.[63] Similarly, Latina information service workers were operating within colonial architectures of race and gender that defined "relatability" through whiteness. Telephony utilized Latinidad's racial spectrum and the flexibility of whiteness to maintain a segmented workforce that would strategically employ Latinas while preventing them from being fully incorporated (or promoted) into the higher tiers of the information technology industry.[64]

While Spanish-speaking Latina AVAs might be useful in other multicultural markets with Spanish speaking populations, the strategic deployment of these virtual assistants in the

U.S./Mexico border regions speak to the continued "Latinx threat" present in the borderland state.[65] This design choice demonstrates how Spanish, often viewed as a national threat to citizenship identity and assimilation in the United States, can be co-opted as a programming function that tampers that threat into acceptable geographical contexts.

Consumable Latinidad

Latina AVAs can be imagined as a 'trusted ethnic friend' that draw on politics of diversity and representation in hiring and design practices, ostensibly ameliorating the xenophobia shaping corporate hiring practices. The trusted ethnic friend trope draws on a variety of American discourses that construct "acceptable Latinidad." Assimilated Latinxs have been positioned as a politically and economically valuable demographic and are often discussed as the 'next' big wave of voters to sway a presidential election.[66] Through this discourse Latinxs are contingently valued for their potential to bolster conservative political and social agendas, appealing to issues such as strong family values, conservative beliefs around abortion, strong affiliation with Catholicism, and the ability to assimilate out of speaking Spanish as a first language.[67]

Film scholar Frances Negrón-Munatener names Latinidad as a *technology* that runs two directions− to inflame xenophobia and to appeal to the consumer markets of capitalism:

> "…a specifically American national currency for economic and political deal making: a technology to demand and deliver emotions, votes, markets, and resources on the same level as other racialized minorities."[68]

Dávila argues that acceptable Latinidad functions as a marketing discourse that politically functions to delineate Latinx communities who are seen as "contributors" and those who are

"threats" to an American national identity and economy. She points out that though this discourse sidesteps direct engagement with race with its focus on market power, it is fundamentally tied to broader racial projects that shape the simultaneous "processes of whitening and racialization" that Latinxs are subject to "reducing the fate of the totality of the Latino population to one or another process."[69] This discourse connects to the design of the "right kind of Latina" discussed previously, but carries an additional dimension of interpellating Latinx audiences as consumer-citizens.

Latinxs have long been marketed to through mainstream commercials as an up and coming population with increasing earnings, consumer potential, and upward class mobility.[70] Deborah Paradez describes the "Latin Explosion" and "Latin Boom" of the 1990s that focused on Latinxs as a new marketing demographic with disposable income and consumer appeal.[71] She notes that at the same time the 1990s also saw new forms of "nativism" arise in response to Latinx immigration into the United States. Anti-immigrant policies in the 1990s denied access to public health care and schools to undocumented people (Proposition 187); banned bilingual education in public schools (Proposition 227); cut welfare to legal immigrants through the Work Opportunity Act that; and further militarized Border Patrol further with increased funding and surveillance technologies through the Immigration Reform Act.[72] Acceptable Latinidad, then, is a contingent promise of national inclusion via economic participation that depends on simultaneous anti-immigration sentiment to gain political traction and ideological coherence.

The AVA as a trusted ethnic friend appeals to the *technology* of Latinidad that relies on this more conservative archetype of the potential for a Latinx consumer market while also appealing to the conservative agenda of the Airus Media client base. The largest client base for the AVAs is in airport customer assistance and security screening. In December of 2016, Airus

Media installed a Latina AVA at the Colorado Springs airport, the first to be used by the

Department of Homeland Security's (DHS) Transportation Security Administration (TSA)

(figure 4). A press release describes this installation as "part of a pilot program to automate

selected security screening functions."[73] The movement from Latina AVAs as information and

wayfinding aids in the airport towards becoming more explicitly utilized by border patrol

agencies such as DHS, suggests that the Latina identity is being used strategically to smooth the

collapsing spheres of private enterprise and the state, and hail users to accept that increased

surveillance that TSA invites in the name of border security. In this regard, the virtual Latina

TSA agent leverages the "trusted ethnic friend" market appeal to appear as a "friendly face" to

Latinx travelers, masking the targeted surveillance of exactly these populations.[74]

Figure 4. Screenshot of Airus Media introducing their first TSA virtual assistant on their website.

Further, the use of the Latina AVA for airport TSA services suggests that intensified surveillance and cooperation with Homeland Security (and related agencies) is also a precondition for national inclusion, normalizing the hyper-surveillance of Latinx communities. In an interview with Fox News, Patrick Bienvenu, creator of the AVAs, mentioned to the newscaster that he is "also talking to police stations about using them [AVAs] at some stations to help people fill out accident reports and other routine paperwork," indicating further linkages between these technologies and law enforcement agencies.[75] The structure of the information economy relies on information and data, which are constant elements in immigrant surveillance, policing, politics, debate, and control. This suggests, as Villa-Nicholas has previously argued, that the Latinx citizen-consumer has new demographic value for their data-generating potentials via surveillance.[76] Latina virtual assistants reinforce the increased reliance on data and information as markers of inclusion in the information economy by embodying and hailing the data-consumable Latinx citizen.

Digital Formations of In/visible Latina Information Labor

Through these histories a suite of 'ideal' characteristics for the Latina information service worker emerges: she is fungible, available, attractive, submissive, low-cost for the employer, and situated within a legacy of intersecting colonial and patriarchal disciplinary structures. These characteristics consolidate a number of intersecting ideologies of race and gender that work to reinforce the archetype of the ideal Latina information service worker. As it turns out, Airus Media's virtual assistants draw on these same hegemonic cultural narratives to imagine digitized Latina information service workers as ideal customer service interfaces. Given the threads of history that we have woven together in this essay, the strategic visibility of Latina

virtual assistants should be understood as both a counterpart and continuity to the long history of invisible labor by Latina workers in information technology industries. The "ideal" characteristics of Latina information service workers that have historically been used to maintain gendered and raced divisions of information labor are not only re-deployed through Latina virtual assistants, but are doubly emphasized as the desirable attributes of information technologies themselves.

With the economic boom around digital technology and the reorganization of the global economy around information technologies, Latina information service workers are now ostensibly appearing for a very specific role in information technology: as visible and front facing information laborers in highly surveilled spaces. In short, Latina information service workers have been coded to mirror the legion of invisible Latina information service workers whose labor props up the global circuit of ICT production and services. The Latina AVA embodies this duality as the ideal information service worker, while retaining the necessary cultural identity markers to simultaneously signal ethnic insiders (to Latinx communities) and assimilated Latina (to white, Anglo communities). Technological determinism fuels the development of these virtual workers, relying on rhetorics of efficiency and cost-effectiveness to obscure the racist/nationalist hierarchies that continue to shape and protect labor status in the United States.

Latina virtual assistants reveal a clear paradox within the broader information labor market: the demand for cheap labor solutions without the conflict around immigration, citizenship, and wages. Yet, the information services industries can't *not* have the Latina body associated with this type of labor. Not historically, as we have documented, and not now under late-stage capitalism. The visible Latina information service worker solves this problem by

allowing technology companies to superficially respond to representational politics without actually hiring Latinas into white collar information jobs. In this way, the invisible Latina information service worker remains intact and fundamental to the global information economy. Meanwhile, the allusion to the undocumented Latina laborer is always tacitly present in these digital labor formations. Latina virtual assistants are designed to be the undocumented Latina's avatar; the visible-- sanctioned-- formation of the ideal Latina information service worker. These labor formations, visible and invisible, remain co-present and inextricably linked in Latina AVAs.

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