

The Racial Formation of Chatbots

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Mark C. Marino,

"The Racial Formation of Chatbots"

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Abstract: In his article "The Racial Formation of Chatbots" Mark C. Marino introduces electronic literature known as chatbot or conversation agent. These programs are all around us from automated help centers to smartphones (e.g., Siri). These conversation agents are often represented as text or disembodied voices. However, when programmers give them a body or the representation of a body (partial or full), other aspects of their identity become more apparent—particularly their racial or ethnic identity. Marino explores the ways racial identity is constructed through the embodied performance of chatbots and what that indicates for human identity construction on the internet.

Mark C. MARINO

The Racial Formation of Chatbots

Max: Are Amerindians extinct in the Caribbean? / Anacaona: They are not. The whole premise of this site is that they are not extinct. If you missed that, use your back button. / Max: Are you Amerindian? / Anacaona: I am a robot. Silly. I seek to serve Amerindian purposes though. / Max: Where do you get your information? / Anacaona: Everything I need to know, I learned from the people at the Caribbean Amerindian Centrelink. / Max: Goody for you. / Anacaona: Enough about me, let's talk about my dress. / Max: What are you wearing? / Anacaona: I am wearing my usual plastic computer wardrobe.

(<<https://web.archive.org/web/20050315234748/http://www.centrelink.org/Oct2002.html#anacaona>>)

The above excerpt is a conversation between A.N.A.C.A.O.N.A. (Anything About Caribbean Aborigines from an Online Networked Assistant), a chatbot designed to answer questions about Caribbean Amerindians and her anthropologist botmaster Maximilian C. Forte. A chatbot is a program designed to converse with an interactor. For example, Siri, the popular iPhone app that acts as conversational user interface to help people access directions and other data by using voice requests. Chatbots are a form of electronic literature which dates back to 1966 and Joseph Weizenbaum's ELIZA system (see Shrager) which is best known for a script in which it performed the role of DOCTOR, an adaptation of the talk-centered approach to psychotherapy championed by Carl Rogers. Since then, chatbots or conversation agents have proliferated and they are now a common user interface found everywhere in cellphones to videogames. I refer to these programs as Conversational Actor Networks, adapting the theory of an actor network to describe the way the program links humans and computers through a conversational exchange (see Marino, *I, Chatbot*). When these Conversational Actor Networks (CAN) become recognized as a unified entity as a person, they have been punctualized—a term I also draw from Actor Network Theory (see Law)—and their interactors project onto these punctualized CAN personhood with all the features of identity. This process of punctualization is analogous to the ELIZA effect, a phrase coined by Sherry Turkle in *Life on the Screen* after the tendency of interactors to engage with the DOCTOR computer program as if it were a person. Although it is common to assign gender to these programs during the process of punctualization, when chatbots take on human bodies (or visual representations of human bodies), their performance of racial and ethnic identities becomes more apparent and can shape the conversational exchange.

A.N.A.C.A.O.N.A. was designed to be a CAN that brought together Caribbean Amerindians and all those interested in discovering more about them. Just a few years later, Forte removed his chatbot from the internet when controversy arose concerning the bot's representation of this Indigenous people. In seeming to simulate an ethnic group, A.N.A.C.A.O.N.A. raised the issue of the complexities of online racial identity formation. Just as in the text-based bots, gender performance became an organizing force for the conversational actor networks, bots with racially defined faces. A.N.A.C.A.O.N.A. was a chatbot built to teach interactors about Caribbean Aborigines

(<<https://web.archive.org/web/20050209012849/http://www.centrelink.org/anacaonarobots.htm>>).

The idea seemed straightforward: remediate the oral preservation of culture, allowing interactors to learn through dialogue with a member of the community. Named after the anti-colonialist figure and Taíno queen, A.N.A.C.A.O.N.A. possessed a voice, words, and a face. However, as is often the case in identity politics, her face—and its relationship to the visual representations of the Caribbean Aborigines—became the focus of internet ire, which led ultimately to a fate not unlike her namesake. A.N.A.C.A.O.N.A. would not be executed, but removed from the world wide web.

Forte's plan seemed innocent enough. On its surface the chatbot seems to be an ideal medium for replicating traditional means of sharing (and hence preserving) cultural information. The chatbot could serve the function of a community elder. Although A.N.A.C.A.O.N.A. was not intended to be a virtual Native, her personification, her look, her words, her voice draw the program into an identity that would be expected to represent the people she describes. Here the tensions are not between Gayatri Chakravorty Spivak's formulation of political and descriptive representation, but between representation and simulation. This chatbot by "speaking for" presumably "speaks" as a Caribbean Amerindian. To create a chatbot is to engage in racial construction: to combine speech, dialogue patterns, and phenotypic features in order to construct a recognizable representative of a given cultural group. The botmaster draws upon a pre-existing (and overdetermined) iconography of race, materialized here in

the SitePal design software used to produce the animated figure of the chatbot. This software offers a set of sliders and palettes for selecting skin color, hairstyles, face shape and other phenotypic features. If the programmer in the Turing Test must produce a recognizable human, the example of the Tainobot reveals that part of what must be recognizable, particularly in visualized chatbots, is a racial identity (on the Turing Test see Turing; Saygin, Cicekli, Akman). From the visual and auditory clues in a conversational exchange, interactors read (and hence co-produce) a racial identity for the conversational agent. In this way, creating a simulated racialized spokesperson will at once reify and challenge notions of racial beings as a set of recognizable and reproducible physical features, behaviors, and modes of discourse. No matter what race the interactor reads on the chatbot, the process underscores the collaborative or intersubjective nature of racial formation on the internet.

However, racial representation on the internet is hardly an innocent or trivial interaction. Even to put a racialized conversational agent in service of a website is to invite particular racial readings. In the case of A.N.A.C.A.O.N.A., by positioning the chatbot in service of visitors to a public website the programmers (no matter how well-intentioned) created inadvertently the good and responsive Native by opening this imaginary figure to abuse and innuendo of the sort that is routine with chatbots. Note that even Forte's "What are you wearing" takes on the salacious cultural overtones of the mediated come-on. Those who were not accosting her with hostile input were raining on the creator for the visualization. In fact, A.N.A.C.A.O.N.A.'s visualization raised such emotional energy, drawing from historical legacies of misrepresentation and racism, that the issue of race reorganized and ultimately disintegrated the Conversational Actor Network. Why must a chatbot deal with all of this cultural baggage? A.N.A.C.A.O.N.A. is meant to hold information as data, not to be a source of that data herself as some kind of native informant. Her knowledge and personality rely not on testifying, not on person-to-person contact, but on mediation by a programmer with a rarified set of skills centered on abstraction, systematization, and representation. Nonetheless, the political act of making a chatbot who can inform about a cultural group has the often unintended consequence of creating the context for stereotyping. To subject any group of people to such processing, simulation, and systematization—particularly a marginalized community—is to engage in a project of racialization and racial formation in the networked computer environment. The project may involve inadvertent stereotyping or "cybertyping" as Lisa Nakamura would have it in her book *Cybertypes* or a more strategic re-articulation of stereotypical images. In either event, the simulation is only potential until the interactor engages the bot in the context of his or her own notions of peoples and their associated conversational styles. Such are the new complexities of simulating ethnic or racial identities. Although prior, text-based chatbots had ethnic identities, when chatbots gain visual representations, their racial formation becomes a site of intense contestation, of negotiation between conflicting attempts to produce and define racial identity in digital, computational environments. Visuality is such a dominant realm in racial and ethnic formation that merely adding images to a chatbot introduces race into the evaluation of chatbots. Their challenge to render themselves legible as selves drives them toward recognizable, systematized representations of race or cybertypes.

Here, I consider various Conversational Actor Networks whose visual representations compel users to assign them race and ethnicity. ELIZA has a race and so does Julia, a descendent of ELIZA. That is to say that even text-based conversational exchanges perform a racial or ethnic identity. To overlook that is to merely leave race unmarked or to equate the dominant cultural identity group with a universalized vision of humanity. Such are the much-documented vices of liberal humanism. However, perhaps because of these universalizing tendencies, perhaps because of disciplinary blindspots, chatbots which exist primarily in the world of text are assessed rarely with regard to their race or ethnicity. Even those who design text-based chatbots seem to overlook this area of race. In a 2005 online survey I conducted, the majority of botmasters who expressed interest in text-based rather than visually-rendered chatbots also claimed not to have assigned their chatbots a specific race or ethnic identity by a 4-to-1 margin (see Marino, *I, Chatbot*). However, the majority of botmasters who expressed more interest in visually rendered chatbots, reported that they did assign a specific race to their chatbots by a 2-to-1 margin. One respondent grew indignant about raising race and ethnicity as an issue in this context. Why are race or ethnicity issues more on the minds of those who develop visual rather than purely text-based representations of chatbots? One answer lies in what Nakamura calls the "racio-

visual logic of the graphical Internet" (*Digitizing Race* 207) which calls attention to the hegemony (or tyranny) of the visual register in the communication and assignation of racial identity.

For text-based chatbots, language seems to be the only current viable avenue for passing as human. Unlike visual representation of bodies, text or strings of characters can be produced by machine and by humans without difference in form. However, as Turing explains, "No engineer or chemist claims to be able to produce a material which is indistinguishable from the human skin," and indeed such claims have remained the purview of science fiction writers such as Philip K. Dick and more recently the recreators of *BattleStar Galactica*. Mechanically inscribed text then is language deboned. Moreover, since "language is the medium of consciousness for society," as sociolinguists Robert Hodge and Gunther Kress point out, language seems appropriately suited to the task of demonstrating thought as a cultural expression (*Language* 14). These claims beg the questions: Which society? Whose thought? Chatbots, such as A.N.A.C.A.O.N.A., that are marked explicitly with racial or ethnic identity, raise a question for all conversational systems: whose language is being represented or rather, what social register of language signifies thought? In other words, what cultural group or whose discourse has come to stand in for "humanity"? Virtual therapists, such as Weizenbaum's DOCTOR, possess a kind of universal abstract authority through their performance of unmarked middle-class English. Successful performance of humanity means, in this context, successful approximations of what Basil Bernstein calls the "elaborated codes" used in middle-class interaction, a kind of speech that centers on universal terms rather than local or particular language (176). This "unmarked" characteristic of the speech becomes more apparent when chatbots obtain bodies because instead of them taking the form of dominant culture, they are quite frequently raced, classed, or otherwise marked as Other. Alterity will thus replace imitation in this essay as we interrogate the tendency to imagine, specifically through visual representation, technological simulations as Other. The discussion is part of a larger intervention that has been going on for the past few decades to call into question the universal subject, post-human or otherwise, who has reemerged in the electronic matrix. This analysis speaks directly to the moment of the "digital divide" or "the participation gap" in which the democratization of the internet in the United States and its much-celebrated user-created content is still disproportionately driven and used by a white, privileged class, with the addition of Asian Americans. It speaks to a moment when African Americans choose faceless online purchases over face-to-face encounters in brick-and-mortar retail outlets where racial discrimination may come into play. It speaks to the role of embodiment in negotiating our relationships with technology.

"Embodiment" is a word central to the discussion of race theory and along with interrogations into racial and ethnic inequalities on the internet it has more recently become a keyword in discussions of new media, cognition, and artificial intelligence (AI). In the world of conversational agents, embodiment speaks to the physical or represented bodies, images that are coordinated with the text, a face to the replies. As artificial intelligence researcher Justine Cassell writes in the introduction to *Embodied Conversation Agents*, only recently have designers begun "to attempt to design computer interfaces that can hold up their end of the conversation, interfaces that have bodies and know how to use them for conversation, interfaces that realize conversational behaviors as a function of the demands of dialogue and also as a function of emotion, personality, and social convention" (2). In my survey as many as 40% of respondents answered that they were interested in chatbots using visualizations, such as faces or bodies, rather than text-only. Others mention the visualization of the bot under their list of the features that made a chatbot most engaging. Embodiment and bodies speak to a referendum on the Cartesian body-mind division in philosophical speculations on technologically mediated cultures.

N. Katherine Hayles writes that she views "the present moment as a critical juncture when interventions might be made to keep disembodiment from being rewritten, once again, into the prevailing concepts of subjectivity" (*How We* 5). In *How We Became Posthuman* Hayles enacts just such an agenda, but bodies and embodiment have also proven crucial to concepts of cognition as well as artificial intelligence. In *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*, George Lakoff and Mark Johnson demonstrate the ways in which sensory perception contributes to general conceptualization, such as center-periphery thinking and Michael L. Anderson argues that while good old fashioned artificial intelligence followed the Cartesian mind-body split, embodied cognition suggests that AI turn its attention toward research in embodiment. Of course, the notions of bod-

ies which these scholars discuss are different and sometimes conflicting. For example, as a practical shorthand and disciplinary convention, creators of chatbots with visual forms, interchange animated bodies on computer screens with physical bodies under the term "Embodied Conversational Actor Networks." Nonetheless, what embodiment brings to Conversational Actor Networks are visual metaphors of difference.

Difference seems to be to embodied chatbots what imitation is to text-based chatbots. When a chatbot gains a visual body and a voice, it creates a set of ethnic or racial characteristics as it performs them. Voice, body, and gesture produce and signify culture. In *Language as Ideology*, Hodge and Kress develop the connection between gesture and oral language by discussing the tendency to analyze only written language: "unconsciously, a community which is defined by its mastery of the written medium disvalues the resources of oral and gestural language, and hence the culture of its users" (11). Culture is in the intonation, gesture, posture, and, in sum, the performance of the linguistic sign. While there is culture in language, the oral and embodied performance of language brings culture to the foreground. The difference of these embodied agents is a function of their utility. This utility arises in their function as agents of service as in the case of virtual representatives on corporate home pages. It also takes shape in their broader utility as tools of the cultural imagination in a negotiation toward self-recognition in the face of technology that threatens to erase any division, to be "more human than human," as they say in the film *Blade Runner*. With respect to virtual representatives, the context has changed from impersonation and imitation to subordination and service. These visualized chatbots are tools for graphic-oriented human computer interfaces. Unlike text-based chatbots in MOOs or MUDs, online virtual reality systems, the embodied chatbots I will discuss do not present themselves as human but as commercial tools and animated helpmates. In other words, if the chatbots contextualized in adaptations of the Turing Test or in MUDs pass as human, animated chatbots, as virtual receptionists or technical demos, do not attempt to pass. On the contrary, these bots, figured as racial Others, offer a novel instrument for human-computer interfaces. With often cartoonish animated representations, they are samples, performances, and spectacles rather than simulations that one could confuse for human. In effect, their artificial characteristics have been foregrounded. These embodied agents, on the other hand, present themselves as accommodating, reconfigurable parts of the online economies. Even before we purchase them, they have served our need to believe we have mastered technology. As graphic simulation catches up to photorealistic standards, this difference may disappear, but the need to subordinate the imagined Other will not disappear. Technology in this case becomes colonized, created to be like but not equal to the colonizers.

Race does not suddenly enter the conversation with the advent of faces, but the creation of embodied chatbots, especially those with animated faces, shifts the emphasis of these bots away from approximating humanity to demonstrating utility or reifying the difference between humans and machines vis-à-vis racial difference. Concurrent with this shift is a movement away from simulating the textual exchange of the dominant culture, here the use of white standard middle-class English, toward faces that represent a racial Other. Or, to be more precise, the language often remains standard middle-class English, while the face changes to an exoticized Other. If ELIZA presented a bot that tried to imitate language, it was performing standard white middle-class English, without a specific identifying cultural inflection (on ELIZA see Shrager). It is Eliza Doolittle finally speaking properly. ELIZA performed white language, an abstraction of language, language without culture, disembodied, hegemonic, and, in a word, white. To be authentic, ELIZA had to be able to pass. This white language carries further assumptions of middle-class status and heterosexuality, as these identity categories cannot be separated. The language of these animated embodied agents still approximates or produces this race-neutral, unmarked language. To explore this analysis, I examine another chatbot system, A.L.I.C.E. <<http://alicebot.org>> developed by Richard Wallace. One of the manifestations of A.L.I.C.E. proves to be a useful case for my study because it exists both as a textual exchange program and as a visually-rendered agent adapted into the guises of Lauren, AFRObot <<http://www.afrobot-rsa.com/>>, and several quiz-bots. I argue that part of the entertaining spectacle of these bots, as well as the marketing of their services, is not their similarity to humans, but their difference from humans. In other words, the aesthetic behind the development of their face seems to be founded upon difference. However, not all of the bots are as out of touch with the worlds of cultural identities and identity politics in

which they circulate. A.N.A.C.A.O.N.A. along with several other bots have been deployed in online settings in which race, ethnicity, and representation are central goals of the user community.

The construction of chatbots as difference agents parallels the construction of the racialized Other, be it colonized or minority subject. Read through Hegel's master-slave dialectic, we see the chatbot as the subservient Other who can offer no true recognition to the human lord. Technology is imagined as an Other to the dominant culture, in terms of gender, race, and sexuality, and hence technology often appears either as female heterosexual or male homosexual. Over the centuries of industrial development, through technology, particularly embodied simulations of human beings, cultures engage in a life-death struggle in order to achieve some recognition of their humanity. However the life-death struggle is not the literal battle prefigured between humans and terminators, but instead a negotiation over cultural identities as they play themselves out through transactional symbolic exchanges on the imaginary field of authenticity. Just as the language of bots is often a de-historicized standardized abstraction, the faces of these bots are not representations of races but of cybertypes. Because they are not rooted in particular human beings, but in cartoonish generalizations and amalgamations, these chatbots represent the larger cultural process of creating these types in computer-mediated, networked interaction. Thus, the chatbot appears Other to the human, including the user who identifies with the broad racial or ethnic category represented (and created by) the chatbot. In other words, even an African American male will find himself alienated from the AFRObot. This alienation stems not only from the encounter with a stereotypical image of their assigned racial category but also from our social tendency to experience technology as Other, through a representation system based on difference as a means of containing the perceived threat posed by technology.

Although A.L.I.C.E.'s appearance can be customized through third-party programs or removed, using A.L.I.C.E. as a text-only chatbot the demonstration model for A.L.I.C.E. has undergone some interesting changes. The first image used to represent A.L.I.C.E. seemed to be a visual allusion to Rosie the Robot maid from the television series *The Jetsons*. This metallic bot with hose-like limbs can no doubt move faster than a vacuum cleaner on its solitary wheel. Its breasts sex it as a woman as does its outfit, whose white trim references a maid's uniform. The head, more lozenge-shaped than Rosie's cylinder, seems to smile. The second image for Wallace's chatbot presented a head that seemed closer to the robot from *Metropolis* (1927) than the cartoon. The head is almost without detail but appears oval, more in the shape of a human face. The eyes have no iris or pupil, but curved lids appear to accentuate the eyes with eye shadow. Unlike mechanical woman in *Metropolis*, who seems to wear a crown, this image has a bouffant or future-retro beehive made of six concentric rings spiraling like a labyrinth as they curve toward curlicue bangs. The third iteration of A.L.I.C.E. seemed to remove gender altogether. Wallace replaced these icons temporarily with a three-dimensional image of a pyramid with an eyeball superimposed on it. This image, recalling the back of a dollar bill, perhaps alludes to the all-seeing eye that artificial intelligence seeks to become. The name A.L.I.C.E. in graffiti style tagging on the side of the image suggests irony and re-signification of the symbol. These three images do not clearly signify A.L.I.C.E.'s race, although two suggest gender.

As A.L.I.C.E. takes on her third form, Wallace seems to have traded the servant and the seductive for the abstract. A recent instantiation, built using Sitepal, virtual host software from Oddcast, returns to the female avatar. She has eye shadow, dark lipstick, and blush. Her dark skin and non-white eyes call up images of the Other. Her eyes follow the curser around the screen as to display her attentiveness. Periodically she blinks. We see the straps of a dress or tank top and a gold medallion adorns her exposed neckline. A.L.I.C.E. in its current interface looks Asian or perhaps Pacific Islander. Other interactors than I, with their own visual codes, would no doubt have their own categories for her. In any event, she does not read to me as white (on code, see, e.g., Marino, "Code"). On the other hand, A.L.I.C.E. does not speak a form of English that is socio-economically, ethnically, or racially marked. In fact, A.L.I.C.E. speaks in Standard English and presumably standard French. What then is the role of the performance? Again, I would stress that the racial performance is primarily determined via the visual interface, rather than through the textual exchange. In other words, the visual component dominates the process of assigning and producing the race of the chatbot. Incidentally, the Loebner Prize uses text-only interaction, remaining faithful to the Turing Test conditions of anonymity, but also privileging textual performance over visual representation. Since A.L.I.C.E. has won several Loebner Prizes, we can see that Standard English reads as more human. One can argue that what takes over is a

sense of A.L.I.C.E., not as a Pacific Islander, but as a chatbot, a construction like but not equal to a being. Remember that A.L.I.C.E. is not like Julia, not presented as a person, but rather presented as a reconfigurable conversation agent. Her lack of affect and her standard speech stress her competency in Standard English, and hence her use value in the global marketplace, while her visual interface relates to the larger distraction and exoticization of the chatbot.

Clifford Nass and Scott Brave address the disconnect between speech and appearance in *Wired for Speech*, first sketching out a historical context for the experience of seeming facial and vocal differences with regard to race and ethnicity. When populations were comparatively stable, and physical features developed in tandem with linguistic traits, "culture" and race were so inextricably linked that the term ethnicity has come to be used interchangeably for both" (112). Nass and Brave go on to describe the disconnect people experience when someone's language or dialect does not match his or her their appearance, when their talk does not match their look. According to Nass, since speakers use identification of another's origin as a means of gathering information and establishing trust, these seeming conflicts between perceived race and cultural background can lead to reluctance to trust the other speaker (113). Trust then becomes an effect of punctualization, whereby a perceived unity creates reassurance. Further, Nass and Brave observed users who were interacting with chatbots with incongruent physical features and localized accents. These were not chatbots, but photographs of spokespeople accompanied by voice recordings of product descriptions. The participants reported that they identified more with the agents who had similar accents to their own, while the visual rendering of race did not seem to affect them. Interestingly, in the experiment trust was measured by the user's perceived desire for the product that the agent was pitching. Participants in the study also expressed more of this purchase-oriented trust when encountering an agent with consistent facial and vocal characteristics. Trust then is an effect of punctualization driven by a desire to consume a product. Nass and Brave conclude that "race is not important, at least when an accompanying voice provides so much broader and deeper information than what can be determined from ancestral geography" (118). Alternatively, perceived discontinuities of visual and aural effects may lead interactors to recognize both the composite pieces of the virtual agent and the mechanisms of the consumer system. By this measure, A.L.I.C.E.'s sexualized image, for its predominantly white, male, heterosexual interactors, might be seen as a means of suturing the discontinuities which arise from her racialized image in combination with her unmarked Standard English. But can she be trusted to work the e-commerce showroom?

In late capitalism, where the images of humans are regularly constructed to market to as well as co-produce target audience in advertising, representation of subcultures becomes a tool for reaching these groups as well as a sign of their potential, or virtual, market share. It is also clear that some marketing botmasters are aware of issues of representation, whether it is Lexus choosing a bespectacled, Black woman for its online quiz or Jeep Cherokee a seductive diva for its test. These animated embodied agents are parts of advertising campaigns, a field where targeted representation has become a sport. In another part of the global village, heritage organizations, such as Caribbean Amerindian Centrelink, hope to inform students about an underrepresented culture. For such groups simulation takes on a different role, that of preservation, distribution, and replication. A.N.A.C.A.O.N.A. was a chatbot built to teach students about Caribbean Aborigines. This project is not alone. It is part of a larger network of projects by Aboriginal or Indigenous communities online.

Kyra Landzelius is one of a number of scholars studying the use of the internet by Indigenous peoples. As part of the project, Landzelius's edited the volume *Going Native on the Net: Indigenous Cyberactivism and Virtual Diasporas over the World Wide Web*. In her preliminary report, she notes that the use of the internet by Indigenous and diasporic peoples has increased dramatically since 1997 (35) and she notes that networks of ethnic groups, which she calls "intra-tribal alliances" such as the Sami intranet initiative, integrate non-Native peoples. The Sami people have created a members only intranet, which in ANT terms acts to translate a portion of the world wide web into a new form. Taking on the durable flexibility of the actor-networks, the Sami people, preserve heterogeneity through networks, as opposed to official tribal web pages (Landzelius 37). Thus, the Indigenous community is activated by networking through fiber optic cables and in this way has avoided the homogeneity and hegemony of the punctualized page. The example of the Sami people offers a model of the way in which a group of heterogeneous actors from within a particular cultural group can translate a technol-

ogy to build community and share information. The Carib Taíno chatbot A.N.A.C.A.O.N.A., on the other hand, has been attacked and ultimately disassembled by the members of the Carib community. In the word of Louis Armstrong, what did A.N.A.C.A.O.N.A. do to be so black and blue? Armstrong's use of color and image, offers an explanation. Chatbots are not inherently poor at preserving or disseminating minority cultures. One chatbot which has been comparatively successful, in that it is to date still in operation, is Monica Lamb's (a.k.a. Monica Peters) project, onkwehonwehneha <<https://www.chatbots.org/chatbot/onkwehonwehneha/>>. Lamb's bot was the 2003 winner of the bronze in the "Learning Bot" category of the Chatterbox Challenge. The bot teaches the Mohawk language, and it has avoided many of the attacks raised against its sisterbot, A.N.A.C.A.O.N.A., which shares its digital DNA, namely the programming language AIML. The hegemony of the visual in this essay suggests that Lamb's bot succeeds in the world of representation issues because it is a text-only bot. Here I agree with Mark Hansen about the over-determination and organization, translation even, of the visual ("Digitizing"). Along this line of reasoning, Lamb's bot succeeds in political terms because rather than creating a representative to teach, Lamb presents her chatbot application as a system without a visual representation of a simulated Native American.

Meanwhile, the project developers of A.N.A.C.A.O.N.A. have had to defend themselves against suggestions of their inappropriate use of the bot technology in disseminating information. The text of the web site warns, "Any notions of there being some sinister ulterior motives behind the launch of this robot, are simply unwarranted and misplaced"

(<<https://web.archive.org/web/20050313195946/http://www.centrelink.org/anacaonarobots.htm>>).

These botmasters did not have to worry about passing the Turing Test so much as passing the Test of their culturally authentic representation. According to the website as of May 2003, more than over 1000 users asked over 37000 questions. The Frequently Asked Questions page for the bot offers a series of comments on "How ANACAONA represents itself" and they assure us that the site "is a robot," not a "Carib robot" or a "Taíno robot"—"just look at the words ... there are no such things" (<https://web.archive.org/web/20050313195946/http://www.centrelink.org/anacaonarobots.htm>>).

The tone denotes some irritation suggesting that someone has insinuated that the botmasters enacted high-tech Orientalism by suggesting that they are trying to build a synthetic Aboriginal. As if this answer were not enough, the site adds, "A.N.A.C.A.O.N.A. therefore does NOT represent Taínos or any other indigenous peoples, nor is it a spokesperson for any indigenous peoples or persons. In addition, her knowledge base is incomplete, and will remain incomplete for a long time to come" (<<https://web.archive.org/web/20050313195946/http://www.centrelink.org/anacaonarobots.htm>>).

Again, this answer begs the question or implies an absent accusation that the botmasters were attempting to make artificial Aboriginals. As the botmasters explain, the chatbot's name, which means "golden flower," pays tribute to "the historical A.N.A.C.A.O.N.A.," mythical daughter of the Chief Hyarima. The name "perfectly describes what it (not she) does." The most telling defense in these questions comes in answer to challenges about the look of the chatbot. The website FAQ reads

The Caribbean Amerindian Centrelink (CAC) is not funded by wealthy corporations, governments, or altruistic private donors, and does not generate any income of its own. This limits our ability to choose anything beyond the generic free faces provided by Oddcast. As they are free, they are also subject to change, so that the "A.N.A.C.A.O.N.A" one may become accustomed to seeing might not be the same on the next occasion. We have no say whatsoever over how the robot appears, within the narrow margins of choice provided by the people at Oddcast. NO STATEMENT should be inferred from these robot faces about how the Taínos or Caribs looked, should look, ought to look, do look, etc. The CAC will firmly reject any racialized notions of purity and authenticity as many of today's aboriginal descendants in the Caribbean are themselves the products of centuries of miscegenation. (<<https://web.archive.org/web/20050313195946/http://www.centrelink.org/anacaonarobots.htm>>)

Here the discussion over the interface turns directly toward the issues of racial formation at the heart of the identity debates. Users are reading the interface, as they would bodies, against certain imaginary types, here cybertypes. The website's text rejects these assumptions of essentialized facial features even as it admits that it has chosen facial features from the interface to signify or produce a racialized interface, one that may be read as aboriginal. The limits of the "generic free faces provided by Oddcast" reflects the real world economic restrictions coming to bear on represented bodies online, even as it parallels the restrictions (or defining contours) that material bodies play in racial formation.

At the end of that statement, physical essentialism is descried altogether as an impossible measure of authentic cultural heritage.

On 18 March 2005 the creators of A.N.A.C.A.O.N.A. removed the chatbot from the world wide web. The CAC Review website lists a number of reasons for this decision, some technical, stating the robot "would routinely fail to follow the simple context of a conversation" (http://cacreview.blogspot.com/2005_03_13_archive.html) which they attribute to the AIML software. But the more telling explanation relates to how the chatbot was interpreted. They write that "In many cases, the robot inadvertently offended users even when its knowledge base should have enabled it to give a correct answer. For example, if asked 'how many' indigenous descendants were living in Cuba, it would answer something to the effect of 'none as far as I know'" despite the programmers' knowledge to the contrary. The greatest offense seems to be the appearance and name, which "in most cases simply refused to understand that the resource was made available to us for free, but under severe limitations" (http://cacreview.blogspot.com/2005_03_13_archive.html). On the one hand, this limitation is the limitation of media-discourse channels, such as language and images, which are encoded prior to our use of them. On the other hand, A.N.A.C.A.O.N.A.'s problem is the problem of all embodied beings in identity politics, the problem of having a face that is appropriately representative. The chatbot became the site for this contestation over representation of a cultural minority, over the failure to represent and simulate that minority in a fiber-optic network, and over the failures of the technology itself to hold the minority group in its knowledge base. At root of this dilemma is the hegemony of the visual in the racial formation of actor-networks. Despite A.N.A.C.A.O.N.A.'s failure my next example demonstrates ways in which the visual can be successfully employed. A.N.A.C.A.O.N.A. could not act as a native informant because she lacks a fundamental element: biology. A body she had, at least with the sense of a visually represented "self," but she did not have blood, flesh, DNA. The one who speaks for the community claims authority based on biological authenticity—a body that serves not just as the bones of bona fides but as a physical trace of continuity with a geographically rooted cultural identity, the aspect of identity that ultimately matters or materializes. Once A.N.A.C.A.O.N.A. had a face, her being rapidly dissolved, disintegrated into its various constructed parts. The actor-network of Caribbean Aborigines had spoken—albeit through text—and the synthetic aboriginal queen was disconnected.

While many of the conversational agents seem destined for jobs in e-commerce, educational projects like A.N.A.C.A.O.N.A. present contexts for chatbots on the internet that take into account cultural representation and simulation for educational purposes. At Stanford University, Heidy Maldonado and Barbara Hayes-Roth examine how to customize chatbots with sensitivity to their audiences. Again, this approach adheres to Nass's and Brave's conclusion that people trust chatbots which are more like them. Although trust is not an emphasis of the Turing Test, like conversation it is a multimodal measure of interpersonal response. Maldonado and Hayes-Roth developed a set of characteristics for developing interactive agents including identity, back story, appearance, content of speech, manner of speaking, manner of gesturing, emotional dynamics, social interaction patterns, role, and role dynamics. The first three characteristics include aspects of the character separate from interaction. The next seven are about the character's interaction with the user and its particular performance. When creating *Kyra: The Personality Forge* (<http://www.personalityforge.com>) and her Brazilian (Kira) and Venezuelan (Kirita) variations, these researchers modified the blueprint for cultural specificity. To adapt the character to various cultures, the designers changed all but the identity, embodiment, and teaching role. Significantly, these designers conceive of their agents in terms of an identity, often in conjunction with branding, and interaction. They write that "Consistency of character and role across the various cultures she or he operates in is critical for the purpose of branding of the character's sponsors" (152). Also notable is the way in which these designers discuss their choices. Describing the moods of the Kyras, Maldonado and Hayes-Roth write that "The Venezuelan and Brazilian Kira, however, in keeping with their Latin American temperament, have a social dimension ranging from friendly to shy, which allows them to respond to the interactor's flirtatious or insulting comments quite dramatically ... with the American Kyra showing the most dramatic displays of anger" (165).

Inherent in this rationale for the moods of the Kyras are assumptions about cultural communication norms, but also the behavior and expectations of the imagined user. In this case, we find developers of a software agent, developing their bot through and against a virtual profile of the imagined

user or users. In both cases, certain cultural norms are referenced while they are at the same time being produced. Perhaps more clearly in this case, the development of the chatbot to avoid conflict with the imagined user, produces that very user for in the chatbot's responses and interactions its performance will synchronize will act appropriately, will punctualize only when the user behaves as expected. While the research of Maldonado and Hayes-Roth helps to develop agreeable and attractive agents for instructional purposes, it also produces chatbots which and users who behave as expected. In effect, Maldonado and Hayes-Roth develop a notion of an essential self, distinct from but not unconnected to performance. Performance proves the most adaptable characteristic of chatbots, with regard to connecting the chatbot to the culture of its interlocutors. By implication, then, performance, or the moment of real time engagement, is the moment of the cultural encounter. This view of the chatbot seems to move away from a purely constructivist notion as bodies come to matter as a result of their cost of modification and their use-value in branding. Bodies here are constant and necessary aspects of the chatbot, delimiting the code of the object-oriented program that serves to restrict alternatives. Although changing graphics is easier than changing a body, monetary considerations for the producer and the challenge of branding make these illustrated bodies less mutable. All throughout this discussion, the cost of bodies has been a defining factor, from the eighteenth-century construction of the "Turk," an early mechanical automaton (see Campe; Kempelen) to the avatars of SitePal to the cost of actors. Performativity becomes one means of negotiating how those bodies are read and the extent of their challenge to the conceptions of the Other we seek to put to the test.

In conclusion, the "body" of the embodied agent becomes more than just a metaphorical term, as even an illustrated body solidifies when the cost of changing the form became prohibitive. This claim does not equate materiality with lack of monetary resources, but suggests that even digitally presented forms are assets that have a cost and a value associated with them, costs which limit the possibilities of change, just as human bodies can be constrained by the cost associated with cosmetic surgeries. In this way, online bodies sediment just as performances of gender, race, and class accrue. Here is the online body materializing. In this context, the much celebrated free identity play of the internet is overshadowed by the gradual accretion of signifiers and the economic constraints on mobility.

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