

Present Tense

A Journal of Rhetoric in Society

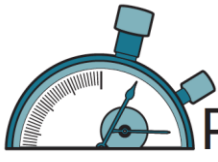
Composing Artificial Intelligence: Performing Whiteness and Masculinity

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Present Tense, Vol. 6, Issue 1, 2016.

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Composing Artificial Intelligence: Performing Whiteness and Masculinity

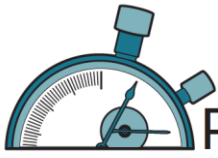
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On June 8, 2014, a computer program named Eugene Goostman successfully passed Alan Turing's proposed test for machine intelligence. At least the test's organizer, a leading and controversial scholar in cybernetics, claimed that this chatterbot was the first computer to successfully pass the Turing Test.¹ During this test, judges engaged in text-based conversations with two participants: one was a human and the other was a computer. As soon as one third of the human judges guessed that the computer was a human, the machine was said to have passed the test for intelligence. To pass the test, the team of computer scientists, which was led by Vladimir Veselov and Eugene Demchenko along with the Wholesale Change software company based near Silicon Valley, designed their chatterbot as a chatty boy. When reflecting upon the successful test, one of the programmers described Eugene as a bawdy thirteen-year-old schoolboy who "to a great extent, passed this Turing test with a lot of dick jokes" (qtd. in Ulanoff).

Although Eugene Goostman is far from an ideal performance of intelligence, this chatterbot's performance is notable because his intelligence is constituted through a rhetoric of embodiment. In passing as an intelligent human, Eugene Goostman performed embodiment. But whose body would be performed for this "landmark" test in artificial intelligence? I argue that Eugene Goostman performs the embodiment of whiteness and

masculinity, and, in doing, he makes visible the assumed naturalness of associating intelligence with masculinity and whiteness. To establish these points, I will analyze the discourse of Eugene Goostman, the team of computer scientists who programmed Eugene, and the various interlocutors' conversations with Eugene.²

By analyzing the discourses of Eugene Goostman and his performance of embodiment, I am responding to Maureen Johnson, Daisy Levy, Katie Manthey, and Maria Novotny's call for more feminist work recognizing that through "the inherent relationship between embodiment and rhetoric, we can make all bodies and the power dynamics invested in their (in)visibility visible, thereby strengthening the commitment to feminist rhetorical work" (39). In her definition of a posthuman feminist rhetorical methodology, Sarah Hallenbeck argues that feminist rhetorical research needs to move beyond analyzing women's rhetorical intention and toward analyses of "how gendering occurs through different linkages" in specific discursive and material contexts (19). Building on these calls for feminist rhetorical work, I demonstrate how Eugene Goostman makes visible that which is typically invisible: the gendering and racializing discourses of intelligence and the linkages between embodiment and how intelligence is identified, especially within communities associated with Silicon Valley.



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Rhetoric of Embodiment

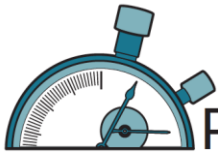
While a rhetoric of embodiment may be defined in a number of ways, I employ a definition informed by feminist rhetorical theory. In *Peitho's* recent "Key Concept Statement" defining embodied rhetoric, the authors include both discourses about bodies as well as bodies themselves (Johnson et al. 39). Given that Eugene Goostman has no flesh and blood body, my analysis focuses specifically on discourse about bodies. While there are multiple definitions of embodiment, I follow Jordynn Jack's definition for this analysis: "metaphors that move from an embodied source domain (i.e., the human body) to the target domain" (207). In this case, Eugene Goostman is the target domain, and embodied metaphors lead the human judges to successfully identify with Eugene. "Rhetoric of embodiment," then, includes metaphors of white, male bodies that, in the case of Eugene Goostman, constitute an identifiable performance of intelligence.

Whiteness, as a social trope, is identified in part by its invisibility, which is to say that whiteness seldom identifies itself as a racial trope but rather is often the presumed natural or invisible cultural value (Ratcliffe 37-38). Masculinity is another trope that represents a set of status quo values especially within scientific and technical discourses (see Keller; Harding.) The social power of both whiteness and masculinity are significant precisely because they are most often invisible and are often identified with normalcy rather than any embodied particularity. As Krista Ratcliffe argues, whiteness and masculinity "remain steeped in very real material consequences for US culture and for individual people's lives. This logic demands that race [and gender] be studied, not to reify its existence but to expose its functions so as to interrupt

injustices and promote social justice" (15). It has been the work of feminist rhetoricians (among others, for instance in feminist technoscience studies) to uncover the implicit or concealed bodies in science and technology.

This chatterbot *explicitly* depends on both whiteness and masculinity in order to perform persuasive intelligence. Therein lies the irony and also Eugene's usefulness for the study of technical and scientific rhetoric as a lens into understanding the techno cultures that are prevalent in Silicon Valley and elsewhere. Most technical communication conceals the very real bodies involved in knowledge construction. Scholars of rhetoric have consistently identified technical and scientific discourses that disembody: discourses that rhetorically erase bodily particularity or embodied context and that often are perceived as objective, neutral, and true (see Katz; Slack, Miller, and Doak; Frost and Eble). For example, G. Mitchell Reyes defines the dominant mathematical discourse, which was the discipline that Alan Turing was trained in, as a contemporary form of "Platonic Realism" (475) that discursively erases "precisely the Person—who is finite, lives outside of the formal mathematical code" (479). Additionally, cognitive scientists Rolf Pfeifer and Josh Bongard define the "classical approach" for defining intelligence (as is measured in the IQ test) as an exclusive focus on central processing in the brain without any connection to bodily experience or interaction with environments (27-33).

Of course, scientific and technical discourses have never actually been without bodies. Rather, the actual bodies composing technical communication are erased in the interest of preserving the appearance of objective, universal knowledge. In that erasure of



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embodiment, scientific and technical discourses also erase the predominance of whiteness and masculinity within these communities. Eugene makes visible that which is typically concealed: he actively presents and cultivates white, masculine embodiment in order to conceal the fact that he has no body at all.

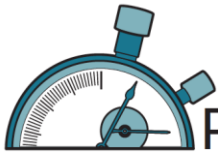
Embodying a Chatterbot

Eugene Goostman's rhetoric of embodiment includes a rich array of everyday experiences that may be typical of a thirteen-year-old Ukrainian boy. He speaks of activities that are stereotypical of young boys: caring for a pet guinea pig, watching *Star Wars*, making friends at school, and dreaming of what he wants to be when he grows up. Eugene's experiences also include emotions. Throughout his published interviews, this chatterbot is often excited, disappointed, confused, rude, and empathetic. At one point, Eugene empathizes with his conversant and his pet: "all we feel sad sometimes [sic]. Even my dear guinea pig feels depressed sometimes" (qtd. in Ulanoff).

Specifically, the program was given a backstory that also mirrored its programmers' experiences: Eugene Goostman's gender, name, and nationality all parallel the biography of one of the key programmers, Eugene Demchenko. Demchenko's experiences were used as a familiar foundation for this chatterbot's convincing performance of intelligence. In a way, Demchenko replicated himself as a program, which is a familiar trope in computer science. In *Fathering the Unthinkable*, Brian Easlea reveals the consistent use of paternal metaphors that create father-son relationships between computer scientists as fathers and their computers or programs as sons. These men pass on their intellectual code, if not their genetic

code, to future generations through the computing technologies they develop. From his analysis, Easlea concludes "our whole culture is basically masculine in character but modern science is its cutting edge" (7). In this way, Eugene Goostman is a chip off the ol' block of his programmers.

This rhetoric of embodiment is not just identifiable, it also constitutes the grounding premises upon which Eugene Goostman's intelligence is performed. After defining Eugene's specific body and embodied experiences, a knowledge base was built upon that bodily foundation. "Our main idea," Veselov explains, "was that he [Eugene Goostman] can claim that he knows anything, but his age also makes it perfectly reasonable that he doesn't know everything" (qtd. in University of Reading). Eugene's particular knowledge set was limited to what a thirteen-year-old boy from Ukraine would likely know. For example, the online version refused to answer math-related questions because math is boring and hard. At the same time, he could talk about popular culture in detail: "Star wars [sic] are stupid and primitive, and Yoda is a big green smelling alien talking frog" (Ulanoff). His experience of cities was limited to his hometown, Odessa, Ukraine, and to the places he had seen in movies. After discovering that his conversant was in New York, Eugene replied by drawing from the only experience a boy his age may likely have: "I saw New York in many movies. I think it exists to bewilder people's imagination[s] all-over the world" (Ulanoff). His Ukrainian nationality was also strategic: if English is his second language, then judges may overlook incorrect or awkward grammar.



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Gendering and Racializing a Chatterbot

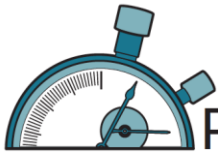
Veselov explains, “we spent a lot of time developing a character with a believable personality” (qtd. in University of Reading). This believable personality was successful. One of the judges describes his experience: “the software running on the computers was very sophisticated, understood slang and colloquialisms and made typos, answered in a jokey and informal manner, and ran rings around me” (qtd. in Horn). In order to cultivate this successful performance, Eugene Goostman projects whiteness and masculinity.

Veselov and Demchenko consider Eugene’s convincingly rude character to be one of their most significant technical accomplishments. Veselov explains, “this year we improved the ‘dialog controller,’ which makes the conversation far more human-like when compared to programs that just answer questions” (qtd. in University of Reading). John Denning, a programmer on the team, explains the goal of Eugene’s dialogue controller: “if a conversation turns rude, Goostman turns rude, just like a real conversation. If you put your kid on the schoolyard, you want your kid to defend himself” (qtd. in Ulanoff). Essentially, they programmed this chatterbot to present the personality of a schoolyard bully. When Lance Ulanoff asked him about computer games, Eugene replied, “I hope you aren’t one of those computer geeks . . . I’m not a geek.” Additionally, Ulanoff reported, “sometimes he [Eugene] makes creepy innuendos about women because he’s a thirteen-year-old.” Sexism, mocking people, car racing—all of these characteristics draw upon stereotypes of traditional, boyish masculinity in order to perform intelligence in a convincing way.

Identifying Intelligence in a Chatterbot

Eugene Goostman does not represent the best or most impressive intelligence. Rather, he represents the most familiar and identifiable; thus, identification was the key for passing the Turing Test. Identification, in the Burkean sense, suggests that before persuasion happens there must be some consubstantial relation, or a common ground of shared substance that may be recognized consciously or unconsciously (*Rhetoric* 55). Metaphorically, Burke defines identification as “one’s way of seeing one’s reflection in the social mirror” (*Philosophy* 227). The programmers projected themselves and their embodied experience onto the chatterbot’s intelligent performance. And the judges saw themselves reflected in this performance of white male embodiment. If not their own personal experience, then the judges, at the least, would have identified Eugene’s white, male performance as familiar, common, and, therefore, convincing.

However, it is important to note that the team of programmers at Wholesale Change was an international team, out of which two of the nine members were women (Wholesale Change). Despite the national and gendered diversity of the programming team, they collaboratively composed, tested, and refined Eugene Goostman’s performance of whiteness and masculinity. In doing so, they reified white masculine embodiment as the most convincing and identifiable form of intelligence. Importantly, the judges—which included a diverse set of people—confirmed the power of whiteness and masculinity as identifiable forms of intelligence when they were convinced that this rude, sexist boy was an intelligent human.



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Conclusion

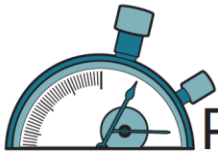
Eugene's performance of intelligence functions as a social mirror, reflecting cultural tropes of whiteness and masculinity that are intertwined with identifiable performances of intelligence. By reading Eugene Goostman's text for its embodied rhetoric, this discourse makes visible the continued centrality of whiteness and masculinity as the most convincing performance of intelligence. Ironically, this gendered and raced intelligence is made visible because the intelligent subject being tested has no body at all but relies upon a rhetoric of embodiment to perform convincing intelligence.

Silicon Valley, as the hub of tech culture in the US and internationally, is especially entrenched in a culture of whiteness and masculinity. This is not to say that the tech workers are all white and male but that the culture is predominantly white and male, and both consciously and unconsciously foster cultures that exclude women and people of color (Vassallo et al.; Myer). Efforts to create diversity in these communities have had limited success. The number of women receiving computer science degrees has only declined over the past three decades, from 37% in 1982 to just 17% in 2015 (Henn). While only 4% of computer science degrees are earned by African Americans, the rate of hiring African Americans is still lower, with only 2% of computer science jobs going to African Americans (Myer). Eugene's performance of intelligence, as well as the fact that his performance was successfully identified as human, suggests one reason why efforts to include diversity have been unsuccessful: the problem may be in the very way that Silicon Valley identifies intelligence. Eugene's performance suggests that the most recognizable, identifiable performance of

intelligence is also a familiar performance of whiteness and masculinity.

To conclude, I want to return to Krista Ratcliffe's call in *Rhetorical Listening*: social tropes of race and gender "remain steeped in very real material consequences for US culture and for individual people's lives. This logic demands that race [and gender] be studied, not to reify its existence but to expose its functions so as to interrupt injustices and promote social justice" (15). Eugene Goostman, as an example, addresses Ratcliffe's call: his case exposes how racialized and gendered tropes have real material consequences; however, his performance also points toward directions to focus our work for addressing the second aspect of her call: interrupt injustices and promote social justice. This analysis suggests that, in order to interrupt the injustices that flourish in Silicon Valley and in tech culture, we must rhetorically and systematically disentangle masculinity and whiteness from intelligence. And the first step in doing this is to critically assess the terms on which we evaluate and perform intelligence, making space for and affirming racially and gender diverse performances of intelligence.

Note: I am very grateful for the friends and mentors who gave of their time and energy to help me draft and revise this article. Many thanks to Heather Steffen, Josh Mehler, Risa Applegarth, Karen Lunsford, Per Hoel, and the editors and reviewers at *Present Tense*.



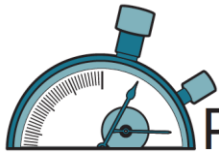
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Endnotes

1. Most computer scientists responded critically to the news of this successful Turing Test (see Wilks). The test is dismissed, in part, because computer scientists are building machines that display forms of intelligence different from human-centric definitions of intelligence (see French).
2. Specifically, I am drawing this content from the University of Reading press release, online news coverage, interviews with the chatterbot's inventors and judges, and published interviews with an online version of Eugene Goostman. Note that all published text from the chatterbot comes from an earlier version of the chatterbot that was developed in 2001 and is said to be less sophisticated (Ulanoff). The actual transcripts of the 2014 Turing Test have not been made publicly available.

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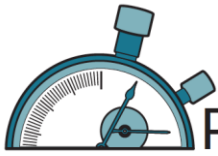
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