
Enough already: It's time to stop giving intelligent assistants female names and voices

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For several years now, I've been railing against the increasing number of intelligent assistants that have female names and voices — Siri, Alexa, Cortana. Even Bank of America has jumped on the bandwagon with their assistant, Erika. Only Google is a welcome counterexample, with their more neutral “Hey Google” prompt to begin a voice interaction. On more than one occasion, I have lamented this state of affairs to a friend: “What ever happened to ordering well-dressed white men with British accents around?” I was referring, of course, to [Ask Jeeves](https://en.wikipedia.org/wiki/Ask.com), [the search engine from the good old early days of the internet](https://en.wikipedia.org/wiki/Ask.com).

Every time, this train of thought takes me back to my days as an infant language researcher, when I used to record, digitally edit, and synthesize speech to make miniature fake languages. I would then use these languages to test what kinds of patterns babies can learn from speech. For very young babies, we almost always used female voices. But, unlike with our current intelligent assistants, this was for a very good reason.

Because the auditory system develops very early, and [infants can hear some parts of the speech signal prenatally in the womb](https://www.washington.edu/news/2013/01/02/while-in-womb-babies-begin-learning-language-from-their-mothers/#:~:text=Babies%20only%20hours%20old%20are,womb%2C%20earlier%20than%20previously%20thought.), (https://www.washington.edu/news/2013/01/02/while-in-womb-babies-begin-learning-language-from-their-mothers/#:~:text=Babies%20only%20hours%20old%20are,womb%2C%20earlier%20than%20previously%20thought.) they are actually born with a [preference for their mother's speech](https://science.sciencemag.org/content/208/4448/1174) (https://science.sciencemag.org/content/208/4448/1174) over that of another female. In contrast, no such preference is found for their father's voice compared to that of another male voice. Additionally, [typical caregiver patterns](https://www.apa.org/pi/about/publications/caregivers/faq/statistics) (https://www.apa.org/pi/about/publications/caregivers/faq/statistics) mean that infants continue to have more exposure to their mother's voice early in their lives relative to other voices. Because infant research requires infants to [be interested in paying attention to stimuli](https://pubmed.ncbi.nlm.nih.gov/6479452/) (https://pubmed.ncbi.nlm.nih.gov/6479452/) to function, this means that it is just easier to study early language comprehension and learning using female voices.

You might argue this is exactly what drives the preference for female intelligent assistants — the pattern of women as typical caregivers is not restricted to the home, and instead extends to the professional workforce. [Secretarial and executive assistant roles tend to be held by women](https://money.cnn.com/2013/01/31/news/economy/secretary-women-jobs/index.html), (https://money.cnn.com/2013/01/31/news/economy/secretary-women-jobs/index.html) who serve as a kind of workplace mom, coordinating meetings, ordering lunches, and procuring coffees. There is likely a sort of comfort experienced in being cared for by women in these roles (and a [discomfort when men serve in them](https://www.nytimes.com/1987/02/22/magazine/about-men-a-male-secretary.html) (https://www.nytimes.com/1987/02/22/magazine/about-men-a-male-secretary.html)) that spills over into [preferences for intelligent assistants with female names and voices](https://unbabel.com/blog/ai-assistants-women/#:~:text=The%20data%20problem,voice%20was%20the%20stronger%20choice.%E2%80%9D). (https://unbabel.com/blog/ai-assistants-women/#:~:text=The%20data%20problem,voice%20was%20the%20stronger%20choice.%E2%80%9D)

Unfortunately, adding the word “executive” or “intelligent” ahead of “assistant” does little to change what these patterns say about structural bias in workplaces or society more broadly. Side note: If [your intelligent system](https://en.wikipedia.org/wiki/Watson_(computer)) (https://en.wikipedia.org/wiki/Watson_(computer)) is used to say, compete against humans on Jeopardy or aid with healthcare decision-making, it might be an exception to the female name rule.

But whether or not the idea of a female assistant is comfortable to us because it evokes a feeling of our mother and being nurtured as a young child, it does not make these choices any less insidious or poisonous. Instead of using this opportunity to challenge and confront these kinds of structural inequities, we are instead choosing to reify and reinforce them. We are choosing to teach these stereotypes to the infants and toddlers whose earliest experiences with technology are teaching them that menial tasks are performed by females, even if those females are inanimate systems. And frankly, this is inexcusable.

As a developmental psychologist, I know too well of the power of early childhood experiences, and how much young children are eager to learn the roles and expectations of their gender. It is with a sharp pang of sadness that I recall a friend telling me about how her 4-year-old daughter announced that “women cannot be presidents.” Unfortunately, this anecdote is not anomalous. Instead, it tracks with research done by my former mentor [Andrei Cimpian](https://as.nyu.edu/faculty/andrei-cimpian.html) (https://as.nyu.edu/faculty/andrei-cimpian.html) and his colleagues that shows these kinds of sad

patterns about gender appear quite young. For example, a study led by [Lin Bian](https://www.human.cornell.edu/people/lb592) (<https://www.human.cornell.edu/people/lb592>) showed that [by age 6, young girls have already begun believing that they are not as brilliant as boys.](https://science.sciencemag.org/content/355/6323/389) (<https://science.sciencemag.org/content/355/6323/389>) and that this has a consequence on the kinds of activities in which they seek to engage.

These early effects can have huge downstream consequences — avoiding certain kinds of behaviors at a young age can directly affect the kinds of skills girls develop, including [skills that constitute the building blocks](https://www.naeyc.org/resources/blog/stem-starts-early) (<https://www.naeyc.org/resources/blog/stem-starts-early>) for successful STEM careers. And, if predictions about the disappearance of jobs with increasing automation are realized, the [jobs that remain may increasingly require strong STEM skills.](https://www.usnews.com/news/articles/2015/12/07/machines-create-more-stem-jobs-than-they-destroy-study-says) (<https://www.usnews.com/news/articles/2015/12/07/machines-create-more-stem-jobs-than-they-destroy-study-says>)

Increasing representation of women in [traditionally male-dominated careers](https://nces.nsf.gov/pubs/nsb20198) (<https://nces.nsf.gov/pubs/nsb20198>) will require interventions at every step of the process, including [creating inclusive, non-hostile environments that retain women](https://www.awis.org/equitable-workplaces/) (<https://www.awis.org/equitable-workplaces/>) in these fields. But a critical piece of effecting change will lie in inspiring girls from a very young age to [be able to imagine themselves in roles of power and roles that require intelligence](https://seejane.org/research-informs-empowers/portray-her/) (<https://seejane.org/research-informs-empowers/portray-her/>), and encouraging them to [adopt a mastery approach](https://theconversation.com/mastery-over-mindset-the-cost-of-rolling-out-a-chinese-way-of-teaching-maths-62508) (<https://theconversation.com/mastery-over-mindset-the-cost-of-rolling-out-a-chinese-way-of-teaching-maths-62508>) to tackling tough challenges with persistence and resilience rather than believing themselves defeated before they even try.

I am encouraged by efforts to develop [genderless voice systems such as Q](https://www.genderlessvoice.com/) (<https://www.genderlessvoice.com/>), and I acknowledge that female-voiced intelligent assistants may have settings allowing toggling to a male voice. But there is a [great power in the default setting.](https://service-design.co/95-of-the-people-stick-to-the-default-option-9e16316a64e1) (<https://service-design.co/95-of-the-people-stick-to-the-default-option-9e16316a64e1>) and if companies developing intelligent assistants do not make conscious choices to change this, they are complicit in contributing to a harmful phenomenon that directly impacts gender equity in the workplace and in the world. We have to do better if we want to imagine a world where gender equity is possible, and [addressing gender bias in intelligent assistants](https://www.theverge.com/2019/5/21/18634322/amazon-alexa-apple-siri-female-voice-assistants-harmful-gender-stereotypes-new-study) (<https://www.theverge.com/2019/5/21/18634322/amazon-alexa-apple-siri-female-voice-assistants-harmful-gender-stereotypes-new-study>) is a small but meaningful step in the right direction.

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