

Technology

By Joy List Rankin

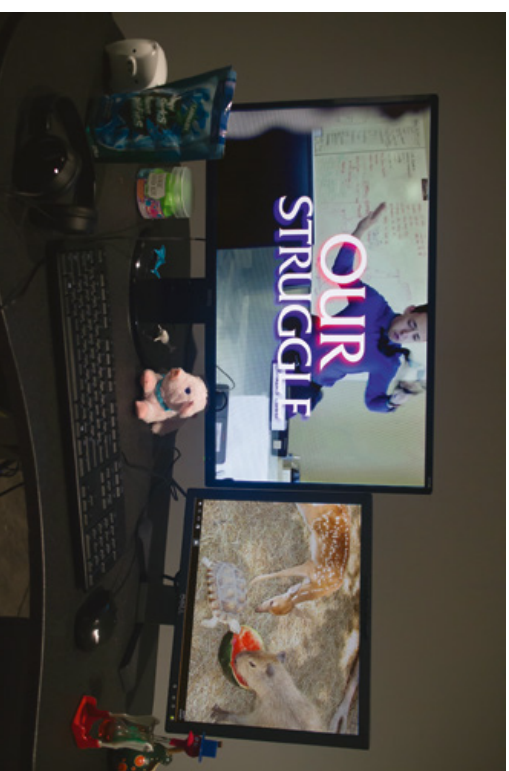
Works by Jennifer Chan

The Motherboard

The tech industry needs to stop perpetuating the mythology that coding bootcamps or expensive certifications will provide entrée into its elite ranks. Their whitewashing of the industry's past is part of the problem. This is not a case of amnesia, but rather a purposeful erasure of this history of racism and sexism in the computing world.

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Agency: 2017, Digital video, 20 min.
Installation view "The Blue Pill", Art Gallery of Southwestern Manitoba, 2017

Forbes magazine recently released its annual compilation of the world's wealthiest people. Of the top nine on the list, six have amassed their riches from computing: Jeff Bezos with Amazon, Bill Gates with Microsoft, Mark Zuckerberg with Facebook, Larry Ellison with Oracle, and Larry Page and Sergey Brin with Google. The combined wealth of these six White men is roughly 670 billion dollars. This is an unprecedented concentration of wealth – and, more significantly – an unprecedented concentration of power. juxtapose that with power and wealth taken away, in particular Google's firing of two brilliant, respected Black women: artificial intelligence researcher Timnit Gebru and recruiter April Christina Curley. Google attempted to erase the widespread industry and

academic favore over its treatment of Gebru and Curley by announcing that it was committing to training 100,000 Black women in digital skills. Google's announcement epitomises the tech industry's approach to what they call the "pipeline problem" or just the "pipeline": Among the tech behemoths based in the US, the pipeline has become a one-word shorthand for its lack of all kinds of diversity.

One of the earliest pipeline reports was published by Ellen Speratus in 1991. Then a graduate student in MIT's Department of Electrical Engineering and Computer Science, Speratus titled her report: "Why are there so few women computer scientists?" However, it's now widely and well established among historians that computing was originally a

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feminised field. Computers used to be people, and those people were often women. For example, during the 1930s the women-computers of the Mathematical Tables Project, many of whom were people with disabilities, performed computations essential to scientific and military research. Their leader, Gertrude Blanch, developed methods of breaking down complex calculations into their component parts – in other words, developing algorithms – that were essential to the coming era of digital computers. Recent work has called attention to the racial diversity of early computing, too. In *Hidden Figures* (2016), the journalist Margot Lee Shetterly documents how she “can put names to almost fifty black women who worked as computers, mathematicians, engineers, or scientists at the Langley Memorial Aeronautical Laboratory from 1943 through 1980.” Likewise, in his 2017 article on “Race and Computing,” archivist Arvid Nelson identifies at least fifty-seven Black Americans working in computing between 1959 and 1996 – just from the “Speaking of People” column in *Ebony* magazine. An awareness of this history turns the pipeline problem on its head. The question is emphatically *not* how do we get more women or people of colour or people with disabilities *into* tech. Rather, the question is how did computing, especially AI, become a field that is now overwhelmingly White, male, and generally hostile to those who are neither? Computers as machines were new in the 40s, there were no fixed ideas about how they would be used in science, math, engineering, business, politics, or culture. This also meant there were not fixed ideas about what made someone “good with computers.” Since no one really knew what made a good programmer, or even exactly what good programming was, several proxies for computing skills were implemented: aptitude tests and personality profiles, college degrees, and computer science majors. Those proxies for programming skill were also forms of credentialing and gatekeeping that ultimately created a hierarchy in which White men were elevated to the top and everyone else was pushed down. In short, proxies for programming elevated Whiteness and perpetuated anti-Black racism by reflecting the education, experience, and identities of those already employed in the upper echelons of corporate and academic pyramids: namely, White men. The earliest American universities to acquire

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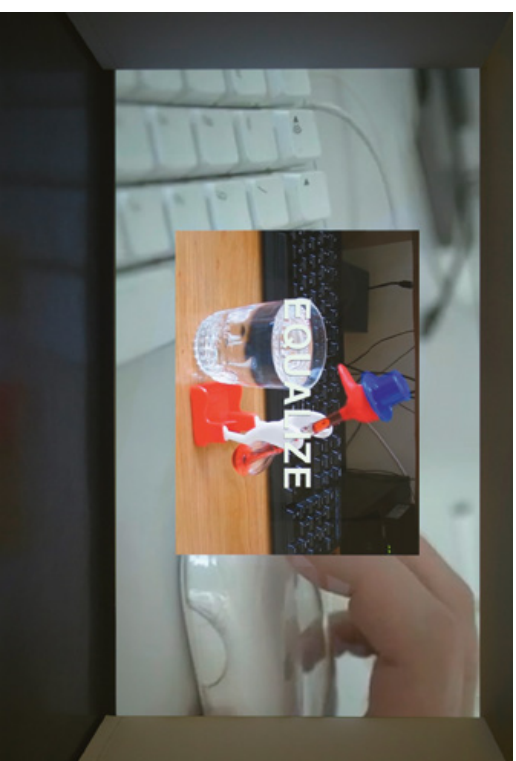
computers, including MIT, Harvard, University of Pennsylvania, and Dartmouth, were historically White. During the 60s, they were still almost exclusively White. Yet the ways in which computer science is *now* taught at those schools is held up as a model for “proper” preparation to work in tech. This brings me back to the data collected in Spretus’s report, “Why are there so few female computer scientists?” As evidence that there were indeed “so few,” Spretus cited percentages of college and graduate degree-earners in computer science and pre-enters of computer science faculties. In so doing, she effectively erased the rich histories and multiple categories of labour, expertise, and experience related broadly to computing – thereby perpetuating the persistent and pernicious idea that women and people of colour were not, and had not been, crucial contributions to tech.

Reading the past enables us to see the makings of a tech fraternity. A tech fraternity is composed of tech bros, or as an industry insider recently described, a “temple of bros.” A Fraternity reminds us of Fraternities – those exclusive, secretive, university social structures that have a long history of racism and misogyny. Fraternities were built to be exclusive. The tech fraternity has been built, and continues to adapt and rebuild, to be exclusive. The concentration of wealth and power among the *Forbes* billionaires epitomises the fraternity. The framing of a so-called “pipeline problem” focuses on the present and the future, but ignores the past, and how it has been summarily erased. Yet the past is where we see the patterns, practices, politics, and institutional and systemic failure and harms that have led to the current situation. It’s not a pipeline problem; it’s a fraternity problem.

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Equality, 2016, Video, 14:51 min.



Rubber Not Work, 2017, Vinyl adhesive on acrylic, 84 x 61 cm

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