

## **Stand-in**

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A stand-in is a substitute for something important: dummy text on a page stands in for content, and a mannequin in a crash test stands in for a human. A calculated average in statistics is used to stand in for all people, and a limited data set, such as a biometric template, stands in for the individual, promising the certainty of identification. A version of a stand-in—a proxy—is central to understanding the world in terms of data.

Stand-ins range from throwaway things, empty of meaning, to sentimental artifacts with cult status. They can be manufactured using statistical conventions that benefit one group of people at the expense of another. Such stand-ins lay a claim to universality and neutrality while being part of the history of domination and oppression. Stand-ins can be objects or operations, where a part stands in for the whole in biometric identification; or a foundation of the systematic, structuring capacities of big data. In uncertain archives, stand-ins augment and acquire new standing, shifting the balance of factual and fictional in data analytics.

This chapter is a journey through different kinds of stand-in, their poetics, politics, and operational prominence. It starts with text and content stand-ins in the practices of printworkers and programmers, and examines some of the roles stand-ins might play in the craft (Sennett 2009) of printing and coding. It then briefly considers stand-ins as stupid errors, before moving to an examination of stand-ins' claims to universality, with some of its deadly consequences described

in the section on the average man. The roles of stand-ins in data correlation and attribution are further presented in the section on biometrics. The chapter concludes with a discussion of a number of artworks that capture the changing character of stand-ins today.

### **From *Lorem Ipsum* to Hello, World: Content Stand-ins and Craftspeople**

*Lorem ipsum*—the beginning two words of a passage in Latin—is the default model text used in the printing industry, it is claimed, since the 1500s. This text dummy has successfully migrated from the printing press to desktop publishing software. The reason for using *lorem ipsum* is to test a usual distribution of letters without distracting the designer with the meaning of the words, and yet it carries meaning. It is quite difficult to produce random or absurd content. *Lorem ipsum* is a scrambled excerpt from Cicero, with variations produced over time, many for fun. Another placeholder text, *Li European lingues*, is written in the international auxiliary language Occidental, with a bit of Esperanto and variations on the name of the person that introduced it into wide use in 1998. “The quick brown fox jumps over the lazy dog” is yet another fill-in text, used to test typefaces because it contains all the letters of the English alphabet. All these examples are text artifacts that form part of the cultures and practices of printing, laying out, and designing text. As part of the craft of text, they have folkloristic value. Their use is a confirmation and continuation of a shared cultural practice that is easily mythologized. As shared culture, these folklore artifacts are used for learning and practicing skills, and for affirming a certain version of practice—and with it, reality—by rooting it in a tradition through repetition and occasional innovation.

Using stand-ins steeped in the tradition of a practice signals belonging to a community of practitioners: such a stand-in is a claim to knowledge of a certain craft. Stand-ins as initiation mechanisms are very pronounced in the rich practices of programming. “Hello, world” is one such example: it is the first test program,

run to output “hello, world,” when someone learns a programming language or tests a new system. Apparently, the tradition of making a program execute “hello, world” as a test message goes back to the example program in the seminal manual *The C Programming Language*. It made its way there from a 1974 Bell Labs internal publication, *Programming in C: A Tutorial*, written by Brian Kernighan, who also had included it in his 1972 *Tutorial Introduction to the Language B*. For many, the first lesson in html was `<html> <body> Hello, world! </body> </html>`. The discourse, folklore, traditions, and humor of programmers have dedicated publications (such as Jargon File n.d.), researchers, and fans. Here, to name a fictional character Shrdlu (from “etaoin shrdlu,” the equivalent of qwerty on type-casting machine keyboards) nods to a shared history, signals belonging, and calls upon a practice. The repetitive nature of such seemingly unchanging stand-ins, something that at first may seem banal, hides a poetics of practice.

The almost ritualistic use of dummy content in all of the above-listed examples is poetic in the primary sense of the word: it enchants the world, giving an aesthetic dimension to the drudgery of testing, the repetitiveness of tasks, or the difficulty of working. Where stand-ins are used as naming conventions for certain problems, they act as condensed pieces of knowledge in a particular practice. The functional character of a stand-in is augmented to accommodate poetics: that is, investment in the creation and maintenance of a practice and the renewal of self as a craftsman, a coder, a geek (Fuller 2017). To play with a doll as a stand-in for a baby is one of the first acts of imagination. Such is the character of the stand-in: not simply a replacement of the actual thing with something empty, but a poetic act, whose poesis is like a spell cast to create something new through repetition of the same.

## **Update**

But let's not get too excited. Stand-ins can also be boring. Sometimes stand-ins are *only* placeholders, and erroneous at that. The National Westminster Bank recently sent a printed booklet to its customers' home addresses with "??0.0%" printed in red instead of the current interest rate. Stand-ins make their way into the final form of many contemporary information products. University handbooks may contain "insert here" or "update" in the final published versions. Important documents bear traces of editing, question marks, and tracked changes—stand-ins for professional secretarial support.

In a data-intensive culture, the high volume of data entry and the constant need to update mean that stand-ins become a "normal," although often erroneous and annoying, type of content. These stand-ins signal disorganization, bad management, and data workers'—that is, nearly everyone's—exhaustion. Data entry imposes stupefaction on knowledge workers that are supposed to be creative, able to take initiative and work independently. Instead, they have to act as plug-ins into ludicrous content management systems, and various control and optimization systems that manufacture them in their own image (Fuller and Goffey 2012).

### **Universality of Stand-ins**

Stand-ins, however, are not only either meaningful or erroneous or both; they can also be politically charged, and they shape reality. Stand-ins are often meant to be universal. This is the universalism of the European project of Reason. It is quite easy to see how the dummy texts of printing carry on the history of the Enlightenment, and thus a European legacy: the use of Latin as the language of science, the development of the printing press, secularization, and the scientific revolution. The universalism of stand-ins is an undertone of assumed universality in the notions of man, ownership, cultivation, and a myriad others, part of the project of Reason, carried around the world, and applied with various forms of

colonial power. Feminist, critical race, disability, and critical post-humanities studies problematize such universality as a project of exclusion and domination. “The jargon file” centers firmly on the United States, with the East Coast and Silicon Valley versions of capitalism set to dominate the world today. Stand-ins thus carry and normalize colonial ambition and military domination under the guise of global capitalism. They may denigrate women, reinforce gender stereotypes, and reproduce racism. The examples of these are multiple and prolific, and with no end in sight. Photographs of white, conventionally pretty women have been used as standard test images—stand-ins for *all* images—for photo-printing, scan calibration, and image-processing since the 1940s. Kodak’s “Shirley cards,” featuring first a porcelain-skinned brunette called Shirley who had once worked for Kodak and then a variety of nameless white women, were used around the world to test photo-printing quality. If Shirley looked good, *everyone* would (Roth 2009; see also Menkman 2017). “Lena” is the standard test image in image-processing software used since 1973. It is a cropped photograph of a Swedish model posing for *Playboy*. This stand-in not only exhibits race bias but, standing in for all women, posits them as sexualized objects above all. Chemistry for film stocks was historically favorable to lighter skin, making the rendering of darker skin problematic. In 2013, an exhibition on race in early color photography explored the tailoring of the filmic apparatus toward skin with higher reflectivity; here, a range of stand-in photographs and film-testing images are leftover evidence of race bias in the history of imaging technology (Broomberg and Chanarin 2013).

Today, the stand-in changes its constitution: it is no longer a piece of text or a standard image; instead, conceptual stand-ins are formed through, for instance, the process of training neural networks on specifically constructed data sets. Such stand-ins are more akin to generalized abstracted positions that *everyone* can be slotted into, although they are still modeled on white faces, and

male voices and hands. Such stand-ins are harder to put a finger on, and their generation requires more explanation, but the results of their work can be as clearly observed as before. In 2009, an HP face-tracking webcam could not follow a Black person (CNN 2009). In 2010, Microsoft’s Kinect motion-sensing camera did not work so well with dark-skinned users (PCWorld 2010). In 2015, Google Photos classified Black men as gorillas (a “feature” Google fixed by removing “gorilla” from its set of image labels) (Simonite 2018). Joy Buolamwini, a Black researcher, had to wear a white mask to test her own software (Buolamwini 2016).

These stand-ins for humanity are diffused, abstract. They are newly generated norms, resulting first from the application of specifically constructed computational models that might, for instance, weigh facial features in a way that excludes certain faces; second, from training data sets that are not diverse; and third, from the general reuse of code and annotated data that is racially biased.<sup>1</sup>

### **Reference Man**

Stand-ins manufactured through mathematical procedures did not only appear with the rise of data analytics; they are core to modern mathematics. Variables themselves could be seen as stand-ins. The variable, a core component of modern calculus, allows sufficient abstraction from the known. Variables denote relationships between known objects so that the relationships themselves may become objects at the next, higher level of analysis. The use of variables indicates a departure from the direct correspondence between mathematics and the physical world. Here, a stand-in can be something that allows abstraction of different kinds. One such abstraction is both process and result: the average man—reference man—of statistics.

Stand-ins constructed through the operations of statistics, predecessors of the models of data analytics, are still active today, in manufacturing, the automobile industry, pharmaceuticals, and even astronautics. The recent book

*Invisible Women: Exposing Data Bias in a World Designed for Men* by Caroline Criado Perez (2019) methodically documents how objects standing in for all humans, without fail, represent only a proportion of the population. It turns out that stab vests that female police officers get to wear are not suited to female bodies; other protective equipment does not fit women either (TUC 2017). Dummies for crash tests are manufactured to represent a Caucasian male, twenty-five to thirty years old, on average 177 centimeters tall and seventy-six kilos in weight. It turns out that the average woman is shorter, lighter, and sits further forward in the driver's seat. Back seats also throw women forward faster than men. The safety features of cars modeled on the reference man work less efficiently for women drivers. Women drivers are forty-seven percent more at risk of serious injury, and seventy-one percent more at risk of moderate injury (Bose, Gomez, and Crandall 2011). Perez (2019) piles example upon example. The standard office temperature was calculated around the metabolism of an average resting male, overestimating the female metabolic rate by thirty-five percent and making offices five degrees too cold for women (Kingma and van Marken Lichtenbelt 2015). Radiation exposure in adulthood has a different effect on women compared with men: women are fifty percent more likely to die of radiation-related cancer. It is even more dramatic in cases of childhood exposure: girls are ten times more likely to develop cancer later in life (see Olson 2017). In all these examples, the stand-in is no longer an object, but a statistical average arrived at through a set of mathematical procedures, and it is not neutral.

### **Biometric Data Tropes**

The stand-in as a calculation of the reference model expression is further augmented for the operations of data analytics. The premise of some of the core

operations of identification, of data attribution, and indeed of some of the key functionality of data analytics in general, is that a part can stand in for the whole. Generally, a metonym—a poetic trope—is a language device where a part represents the whole or an element stands in for the systematic quality: for instance, “lend me your ears.” Biometric identification is one example where the vein structure of the hand, or a gait pattern, or the blood vessel structure of the retina—a part of the body—stands in for the whole person, identified on the basis of the body principle, that is, of being pinned to one unchangeable, readable body that guarantees the truth of identification (Magnet 2011). Whereas biometric identification is often successful in that people are successfully constructed in terms of demographic attributes—such as having a name, citizenship, no right to cross a certain border—it is still a somewhat poetic, metonymic operation, and in this, it is fictional, despite appearing to be wholly factual. An element—the geometry of the face—is captured in a sample or a number of samples, from which a template is generated. Future samples are then compared with this template. A sample is also compared with samples of other people (so-called attacker data) and the comparison weighed according to the probable distribution of certain characteristics in the given section of the population. Both comparisons need to pass a match rate (not one hundred percent). Here, first, a part stands in for the whole body; second, it stands in for the person as a complexity of lived experience; third, the operation of standing in, itself subject to adjustment and fine tuning, is tested in relation to all bodies, all people. Such is the poetics of biometrics: metonymic, correlative, probabilistic (Goriunova 2019).

### **Stand-in Infrastructures in Art**

Finally, digital art is fascinated by stand-ins as objects, operations, and logics of the data age. The speculative digital art exhibition *All I Know Is What's on the Internet*, curated by Katrina Sluis at the Photographers' Gallery in London in



2018, exhibited a number of artworks that could be seen as creations of critical stand-ins for the current data culture. In *ScanOps* by Andrew Norman Wilson (2012–), a tip of a finger scanned by mistake, or a scrambled page, stands in for the immense and underpaid human effort behind book digitization for Google Books. Humans are turned into hands, or faces (of Google cars' drivers) captured by chance in Google Street View and collected in *The Driver and the Cameras* by Emilio Vavarella (2012). Constant Dullaart, in his project *Brigading\_Conceit* (2018), exhibits a small part of his collection (which runs to thousands) of SIM cards used to register followers on social media. A SIM card, in this case a valuable Phone Verified Account, stands in for the person in social media metrics—and can do so with lethal consequences (when used to locate people in drone attacks). Having a SIM card is like having a body, only better, as one can buy ten for £10. A stand-in as abstracted capacity is clear in Stephanie Kneissle and Max Lackner's *Stop the Algorithm* (2017): here, a mechanical apparatus rotating a brush so that it sweeps the screen of a tablet stands in for the gesture of swiping, usually reserved for the human user. In a series of elegant mechanical constructions, they extract clicking, liking, pausing, and other obsessive-compulsive gestures invented by social media and from which value is derived, from the human user into an abstract machine. This is an example of stand-in infrastructure: gestural infrastructure of attention. The exhibition title hijacks an infamous statement, replacing its content and context; the exhibition meaningfully stands in for an endless networked proliferation of meaninglessness.

## **Conclusion**

Stand-ins, core to our linguistic capacity and indispensable for safety, are also a medium for a poetics of practice and a means of re-enchantment of the world. At the same time, stand-ins can be errors, and can exhibit limits to human capacity, sometimes *some* humans' capacity to survive. The use of stand-ins inherited from



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<sup>1</sup> Is it possible to fix these without fixing society? What uses will the correct identification of Black faces be put to in a racist society? See Samudzi (2019).