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# 8. Caged by Data

Exposing the Politics of Facial Recognition Through Zach Blas's Face Cages

Rosa Wevers

#### Abstract

With the emergence of facial recognition software, faces are continuously digitized and analyzed through machine vision. While facial recognition appears as an objective and unobtrusive security tool, feminist data scholars have shown that this technology is entangled with structures of power. This chapter explores how critical artistic responses to facial recognition have the potential to activate feminist critiques on the politics of facial recognition in nonverbal, material, and affective ways. Taking Zach Blas's *Face Cages* as a case study, the chapter analyzes how the art project uses strategies of defamiliarization to instigate critical reflection and activate an understanding of biometric datafication as a process of capture, which entails a violent reduction of lived experiences of identity and embodiment into biometric capta.

Keywords: facial recognition, art, Feminist Data Studies, capta, capture

In a dark room at the Sonic Acts Festival in Amsterdam, three faces appear on screens. At first sight, they seem to be photographs of faces taken against a dark background. But when I look more closely, I realize that the faces are slowly moving. I see eyes blinking, heads that totter slightly from left to right, and curly hairs in motion. Any other possible movement of the face is hindered by the metal masks that the people portrayed are wearing. The masks consist of metal bars in geometric lines that follow the shape of the face and connect the face's nodal points, defining facial features such as the distance between one's eyes. The metal bars press hard into the skin and encapsulate the face as a cage.

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Fig. 7. Face Cage 3 by Zach Blas, endurance performance with micha cárdenas, 2014. (Courtesy of the artist).

The geometric lines of the masks may remind us of a phenomenon that is gaining visibility in our visual culture today: the digital face prints that are used in facial recognition technology. When facial recognition software scans a face, the information about the face's nodal points is converted to a face print that consists of digital code. These face prints — or "data masks"— can

be compared to a database, on the basis of which someone's identity can be checked. However, rather than the distant and unobtrusive character that is dominantly attributed to these digital face masks (Introna and Wood 2004, 178), the metal masks of the art installation Face Cages (2014–2016) tell a different story. By squeezing the flesh of faces to fit within the frame of the metal cage, a violent image appears that I find much harder to look at than the digital green and blue lines of facial recognition software. In her review of the Sonic Acts exhibition in the art magazine *Metropolis M*, Lotte van Geijn describes a similar feeling of discomfort. She writes that the unpleasant performance creates an image that reminds her of torture devices and causes her to feel "anything except safe" (2017). Both I and van Geijn were moved by the Face Cages; the installation mobilized affect, which can be understood as "a social, pre-personal and pre-subjective dimension—[...] that which forces us to feel" (Quinan and Thiele 2020, 1). Through this embodied sensation, a process of reflection begins, because we are forced to make sense of this experience (Hengel 2018, 134).

This moving image of the caged faces directs the spectator's attention to the embodied and lived experiences of the datafication of faces: Which meanings about faces and identities are produced when faces are reduced to machine-readable code, and what gets lost in transformation? What relations of power are involved when faces are datafied and how does it produce processes of in- and exclusion? By evoking such questions, Face Cages involves the viewer in a process of critical reflection on the datafication of faces, and how this process is embedded in structures of power. Media scholars Ulises Mejias and Nick Couldry (2019) understand datafication as a set of processes in which elements of human life become quantified into digital code and in which value is generated from that data (e.g., for surveillance or economic purposes). As they state, datafication always comes with abstraction because social meaning is transformed into "streams of numbers that can be counted" (2019, 3). In the context of algorithmic facial recognition, which is used for security purposes (among others) such as international border control, this abstraction concerns the face.

In this chapter, I take up the art installation *Face Cages* as a central case study to investigate how artistic practices contribute to critical feminist debates on facial recognition technology. Using the strategy of "defamiliarization" (Stark and Crawford 2019) as an analytical lens, I analyze how Zach Blas's *Face Cages* not only mediates feminist critiques in nonverbal, material, and affective ways but also activates new ways of conceptualizing and making sense of biometric data and the datafication of faces, namely as "biometric capture" (Blas and Gaboury 2016) and "capta" (Kitchin 2014).

My inquiry draws upon methodological approaches from cultural analysis and feminist data studies. I combine visual analysis with a close reading of *Face Cages* alongside feminist data studies scholarship that examines and exposes the discriminatory logics of facial recognition algorithms.

## Feminist Approaches to Data and Facial Recognition

Processes of datafication are not neutral, nor do they exist in a vacuum. Rather, data practices and visualizations are situated and implicated in intersecting structures of power (D'Ignazio and Klein 2020; Luka and Leurs 2020). Feminist approaches to data, which analyze how power operates and how it creates specific positions of in- and exclusion, have proven to be fruitful in deconstructing a deeply rooted belief in the objectivity of data practices. When it comes to facial recognition technology, such approaches to data allow us to analyze the cultural norms and prejudices that are part of the system's logic. The digital lines and numbers that appear in a biometric scan suggest that this is a neutral and objective registration of a face in which the face is presumed to be a unique and stable "anchor" of identity (Currah and Mulqueen 2011; Wevers 2018). In other words, facial recognition operates from the expectation that faces and identities are static sources of information that are "legible" to the algorithm. These systems scan faces and categorize them into identity categories; their programmers claim that they can identify "gender," "race," and "age," and those categories are defined through binary frameworks, erasing ways of being in the world that do not fit one single category or refuse those categories in their self-identification (Browne 2015; Magnet 2011; Quinan 2017). As design scholar Os Keyes argues regarding the recognition of gender in facial recognition, these systems "impos[e] their views on gender on unwitting users and research subjects" (2018, 17) and deny the role of self-identification and self-knowledge, which makes these systems structurally trans\*-exclusive. Additionally, facial recognition systems disproportionality misrecognize or fail to recognize, for example, people of color, people with disabilities, and individuals who are situated at the intersection of those categories (Buolamwini and Gebru 2018; Magnet 2011; Quinan 2017). These structural failures reveal the instability of faces as "anchors of identity," which is an assumption deeply ingrained in facial recognition systems.1

<sup>1</sup> This assumption is also apparent in recent studies by Stanford University that used facial recognition techniques to make claims about people's sexual orientation on the basis of their physical appearance. These studies were highly criticized by LGBTQI+ and human rights

In addition to issues concerning the structural failure of the technology, marginalized and minoritized subjects and communities are disproportionately targeted by biometric surveillance. Facial recognition systems are used to profile, police, and criminalize marginalized and minoritized groups (Blas and Gaboury 2016; Browne 2015; Magnet 2011; M'charek, Schramm, and Skinner 2014). While facial recognition systems are frequently installed under the guise of "objectivity," substituting profiling by human security guards, the decision of which groups to subject to facial recognition surveillance and subsequently whose information to save in databases for further profiling is deeply political (Wevers 2018).

Feminist approaches to datafied practices such as digital facial recognition offer important insights in the politics that surround data. However, as they operate on the level of theory, they are also complex and abstract, especially for non-expert audiences. In visual, performative, material, or sonic ways, artistic critiques to facial recognition offer a different entry point into these discussions, which offers potential for engaging non-expert audiences into these conversations.

### **Artistic Interventions into Datafication**

An engagement with algorithms and datafication is prominent in the field of cultural critique in the arts (Alacovska, Booth, and Fieseler 2020; Stark and Crawford 2019). Facial recognition software is a popular topic of inquiry among such artistic critiques on datafication (Vries 2019). Many contemporary art projects, such as *How do you see me?* by Heather Dewey-Hagborg, expose the logics and politics of facial recognition technology by making visible the inner operations of these systems. Other works, such as Zach Blas's *Facial Weaponization Suite*, take the form of anti-surveillance projects that propose tactics of masking and camouflage to hide individuals from biometric recognition. Facial recognition is also used as an artistic tool, often as a way to create interaction with the spectator as a starting point for critical reflection. Projects including *The Biometric Mirror* by Lucy McRae and *Face to Face* by Ningli Zhu use facial recognition to make the spectator part of the artwork. Each of these artistic projects engender and embody a cultural critique of data in their own way.

In their analysis of the role of art in discussions on data ethics, critical data, and media studies, scholars Kate Crawford and Luke Stark (2019) argue

organizations, among others, that expressed their concerns on how this would impact the safety and privacy of LGBTQI+ communities.

that many artists working on and with data deploy strategies of defamiliarization to engage audiences into these debates. By introducing an experience of unfamiliarity, strangeness and discomfort, artworks can create a critical distance between the spectator and digital technologies that prompts critical reflection. Media scholar Loukissas defines critical reflection as "a process by which the interwoven social and technical dynamics of data are made visible and accessible to judgment" (2019, 162). Critical reflection thus entails critically attending to the hidden "attachments, values, absences, and biases in data" (Loukissas 2019, 162) and processes of datafication and is made possible through artworks that expose these otherwise invisible elements.

Artistic strategies of defamiliarization that enable such critical reflection include opening up black-boxed digital technologies, evoking strong emotional responses in the viewer, showing the moments when systems fail (for instance, by redesigning systems to turn them against themselves), and making normalized elements of datafication seem strange (Stark and Crawford 2019). The defamiliarizing and destabilizing potential of art seems to be especially productive when artists work with the very digital technologies that they aim to criticize. Such close engagement with digital technologies directs the spectator's attention to their destructive and structurally exclusionary elements and can function as an awareness strategy against "technological carelessness" (Alacovska, Booth, and Fieseler 2020, 31; Alacovska 2020).

Due to the limited scope of this chapter, and to do justice to the specific ways in which an artwork can mobilize critical perspectives and activate new conceptualizations of data, I now zoom in on Zach Blas's *Face Cages* as an exemplary case study. I find this installation especially significant, because it exposes the oppressive dynamics of facial recognition in material, visual, and affective ways, and because it was made by using the very technology that the art project puts into question. The project thereby allows us to understand how facial recognition is a process in which the complexities of bodies and identities are abstracted and reduced to binary code and how this process is embedded within intersecting structures of power. Before I turn to my analysis of the affective dimensions of *Face Cages* and its intervention into discussions within feminist data studies, I introduce the artwork and provide a visual analysis using semiotics (Barthes 1997) by discussing its most important visual elements.

### **Face Cages**

Face Cages is a mixed media art installation that consists of four metal masks and accompanying videos that present "a dramatization of the abstract

violence of the biometric diagram" (Blas n.d.).<sup>2</sup> In these videos, we see an endurance performance in which the masks are worn by four queer-identifying artists: micha cárdenas, Elle Mehrmand, Paul Mpagi Sepuya, and Zach Blas himself. In theory, the masks should fit the performers' faces perfectly, as they were constructed from their personal biometric information that Blas measured using facial recognition software. However, once materialized into three-dimensional metal form, the personalized masks turn out to be extremely painful to wear, which is the direct result of biometrics' processes of abstraction and reduction. *Face Cages* is part of Blas's ongoing investigation of the implications of biometric technologies for non-normative and marginalized subjects, which includes criminalization, discrimination, and violence.<sup>3</sup> The installation reflects Blas's interdisciplinary artistic approach, which is characterized by a combination of moving image, computation, performance, theory— with a focus on feminist and queer theory— and science fiction.

The metal masks of *Face Cages* have a violent connotation that evokes associations with prison bars and cages. The project thus provides a counterimage to the digital, unobtrusive, and scientific connotations typically associated with the digital face masks used for biometric recognition. It is a suggestion that is strengthened by the green or blue light that usually appears during a biometric scan and which presumably implies "a scientific, clean moment of technological identification" (Magnet 2011, 134). The masks of Face Cages show a gradation of intensity: the more metal bars, the more clearly they recall the facial torture devices that were used in medieval Europe and during periods of slavery in the United States.<sup>4</sup> In addition to torture devices, the metal masks also remind one of nineteenth century anthropometric instruments that were used to measure human skulls with the purpose of classifying them into different categories of criminality or hierarchically organized racial groups, with whiteness as the norm. The theories of difference that were built on these anthropological measuring practices of the face have shaped the project of colonialization and functioned as a scientific justification for colonialist oppression and violence (Gould 1996; M'charek 2020; Pugliese 2005). As scholars have shown, anthropometric knowledge is still used for the development of facial recognition technologies today, despite its colonial and racist history (see for example Magnet 2011; Browne 2015).

<sup>2</sup> At Sonic Acts Festival (2017), three out of the four masks were exhibited.

<sup>3</sup> Theoretically, *Face Cages* is heavily informed by Shoshana Magnet's work (2011) on the gendered and racialized failure of biometric technologies.

<sup>4</sup> Grada Kilomba's book *Plantation Memories: Episodes of Everyday Racism* (2008) offers an analysis of the history and effects of this facial torture.

### **Defamiliarizing Facial Recognition**

The violent and severe connotations that *Face Cages* evokes reveal the intrusiveness of facial recognition systems and open up new ways of conceptualizing and making sense of the datafication of faces. In the following, I deploy defamiliarization (Stark and Crawford 2019) as an analytical lens to investigate how *Face Cages* evokes critical reflection on the datafication of faces and how this activates different conceptualizations of facial recognition and biometric data that are sensitive to their implication in power structures. In addition to this theoretical intervention, I analyze how *Face Cages*—through a defamiliarization on the level of affect—mediates theoretical feminist critiques on data in emotional and embodied ways.

In *Face Cages*, defamiliarization is at work both on a material and on a visual level. By materializing his subjects' biometric data into metal cages, the artist makes visible what usually stays obscured and black-boxed, namely the violence implicit in the abstraction that comes with datafication. The faces caged in metal grids function as a counter-image that disrupts dominant representations of biometric recognition as efficient, unobtrusive, and objective. Turned into hard metal, the biometric masks appear as cages that evoke the spectator to consider facial recognition as a form of "capture" that fixates predefined notions of identity onto the body.

Inspired by communication scholar Philip Agre (1994), Blas understands biometric capture as a process in which bodies and identities are read through predefined "grammars" that function as a framework through which the face becomes codified (Blas and Gaboury 2016). Biometric technologies can only start processes of identification and verification when someone's face is first reorganized in a template that is legible to the biometric apparatus. In other words, somatic information needs to be transformed by algorithms into "a machine-readable identifier" (van der Ploeg 2009, 86—87). What the notion of biometric capture that is made present in *Face Cages* allows us to see, is how this process goes beyond a merely visual practice of scanning the face but entails a transformation of the subject into binary data. Thus, rather than a passive registration of bodily information, capture, which has a connotation of imprisonment and conquest, points at to an active force of control (Blas and Gaboury 2016).

Through the defamiliarizing image of the materialized biometric mask, *Face Cages* invites critical reflection on how we conceive of biometric data. As human geographer Rob Kitchin (2014) has shown, "data" originates from the Latin word "dare," which means "to give." The term thereby suggests that data is a simple given, which implicitly obscures the fact that data is

always already interpreted and abstracted. As an alternative to data, Kitchin (2014) and digital humanities scholar Johanna Drucker (2011) propose using the term "capta," meaning "to take." The notion of capta makes explicit that data are always partial, situated, and interpreted rather than objective and neutral representations (Drucker 2011, 7). Face Cages activates this notion in the context of the datafication of faces. The project exposes how biometric capta are not "already out there" but rather need to be scanned and turned into digital code in order to be meaningful for the biometric apparatus. In this process of datafication, the face is fragmented: only the face's nodal points are deemed relevant for recognition whilst other dimensions of the face are ignored. Face Cages' violent aesthetic of the metal bars pressing into facial skin makes the violence implicit in biometric capta and capture visible and allows us to draw connections between current forms of biometric capture and the technologies' colonialist and racist histories.

In representing a dramatization of biometric capture, Face Cages creates a critical distance in the viewer toward facial recognition systems and evokes questions about power: By whom were these systems designed? For what purposes? Whom does it serve, and whom does it harm? The installation thereby invites spectators to examine critically the intersecting operations of power in facial recognition systems, which is an approach that is similar to D'Ignazio and Klein's propositions for practicing "data feminism" but molded into a different form (2020). Such an approach includes, among other strategies, "asking who questions about data science" (2020, 26), gaining insight in the ways in which data practices are intertwined with structures of power, challenging classifications, and asserting that data are neither neutral nor objective. As spectators, we see four performers, each with their own positionalities along the axes of gender, ethnicity, sexuality, and nationality, who are all vulnerable to experiencing structural exclusion via biometric technologies and/or to becoming the target of profiling because of these positionalities. By visually foregrounding these non-normative subjectivities in relation to the violent aesthetic of the metal face masks, Face Cages emphasizes how facial recognition is implicated in structures of power and produces vulnerabilities and exclusions.5

5 The choice to work with these performers also raises a complex ethical question, as these artists were subjected to a form of biometric violence during the performance that they were already potentially subjected to on a daily basis. When asked about this, the artist explained that he has thoroughly discussed this with the participating performers, who then agreed, because Face Cages was created parallel to Facial Weaponization Suite, which is another of Blas's works that offers the possibility to resist biometric recognition. Together, the works present a dystopic and utopic perspective on biometric capture.

Through the lens of defamiliarization, we can also analyze how Face Cages involves the spectator on an emotional level in feminist critiques on facial recognition. As a growing body of scholarly texts points out, "there are clear links between perception, embodiedness and empathy. The perception of images involves seeing and reading, but also, importantly, it involves feeling" (Shinkle 2013, 78). When art produces affect in spectators, they relate to the artworks' central issue not only on a cognitive but also on a corporeal level. In providing an embodied and emotional entry point into discussions on datafication, artworks such as *Face Cages* can communicate expert knowledge from feminist and critical data studies in nonverbal ways (Alacovska, Booth, and Fieseler 2020, 23; Duxbury 2010) and play an important role in making critical approaches to data "stick."

As I described above, when I encountered the work, I was immediately immersed in it, while also experiencing it as extremely uncomfortable to watch. The videos of caged faces confronted me with four different experiences of biometric capture and the violence that is involved in condensing "complex relationships and situated knowledges into a single digital map of the body" (Magnet 2011, 29). As the performers wearing the masks are visibly in pain, the endurance performance disturbs the unobtrusive and distant character of facial recognition. Through this form of defamiliarization, *Face Cages* makes tangible "how artificial intelligence and data systems are embodied—not abstract—elements of everyday existence" (Stark and Crawford 2019, 446). In *Face Cages*, feminist critiques on facial recognition are thus taken outside the realm of abstract theory and concretized in a video performance that makes these critiques visible and sensible while also engendering new critical questions itself.

### Conclusion

In the video installation *Face Cages*, the dominant image of the "unobtrusive" digital biometric scan is defamiliarized and disturbed through a new image of metal pressing into skin. This moving image makes tangible how facial recognition captures people into normative grammars of identity and how it produces quantifiable biometric capta that erases performances and experiences of identity that do not fit those norms. The artwork was created by using technology to form a critique on this technology, which is an artistic strategy that appears to be effective in drawing attention to the destructive elements of digital technologies.

Face Cages forms an exemplary case that shows how art can make debates on the politics of facial recognition visible and tangible. Such interventions are especially relevant for feminist approaches to data when they draw attention to the entanglement of data and power. As I have sought to show in this chapter, by creating a critical distance in the viewer through strategies of defamiliarization, critical art can contribute to theoretical conceptualizations of data and datafication. Moreover, by communicating expert knowledge in visual and affective ways (Alacovska, Booth, and Fieseler 2020; Duxbury 2010), art projects such as Face Cages have the potential to involve non-expert audiences in critical data studies debates.

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