

Contributions to the Legal Semiotics of Facial Recognition Systems: Live Music, Digital Technologies, and the Display of Power

Gabriele Marino¹

Accepted: 25 January 2024 © The Author(s) 2024

Abstract

The use of facial recognition systems in concerts provides a perfect pretext to semiotically discuss the role of the face in contemporary culture, identifying different strategies and axiologies (systems of values). In his visionary essay Bruits ("noises") from 1977, the French thinker Jacques Attali establishes a close connection between music and power and locates it in the site of the collective unfolding of music: the concert hall. Following this hint, the article reconstructs the current debate on facial recognition systems in the music business, with a particular focus on concerts and festivals. The different positions (of musicians, authorities, and professionals) are outlined (some are openly in favor, others openly against), key moments are identified (Beyoncé's concert in Cardiff, 2017; Jacky Cheung's in Nanchang, 2018; Taylor Swift's at the Rose Bowl in Pasadena, 2018; the "banfacialrecognition.com" campaign launched in 2019; the case of Barbara Hart at Brandi Carlile's show at the Madison Square Garden, 2022) and, finally, the issue is framed within the broader debate about the face as an indexical marker of presence, identity, and humanity (the contrast between Italian philosopher Giorgio Agamben and American sociologist and design theorist Benjamin Bratton is addressed).

Keywords Crowd · Facial Recognition Systems · Music Concert · Semiotics · Visage

Gabriele Marino gabriele.marino@unito.it

¹ University of Turin, Turin, Italy

1 Prologue: Snitching the Face

In one of Eric Andre's sketches for his Adult Swim-produced show (*The Eric Andre Show*, season 6, episode 5, titled "Woodchipper Hijinks", airing on Cartoon Network on June 18, 2023)¹, we see the comedian lingering in front of a vendor's booth selling wigs, glasses, makeup and other dressing-up paraphernalia. The vendor is amused by Andre's enthusiasm (he puts on a big wig and big sunglasses and starts applying red lipstick) until he begins to disguise himself with exaggerated effort – As if he really needs to hide from someone or something.

The vendor's unease turns to shock when a police officer comes to the stall and shows him a flyer with the face of a wanted man: it's that of Eric Andre. The leaflet does not say what crime he has committed, only that he is a suspect and should be arrested. The danger is thematized ("this man is dangerous"), but not explained in detail ("we do not know why and how the man is dangerous"), it is coded heuristically ("danger recognized!"), but not factually ("danger not specified"). The salesman does not know what to do, while the comedian warns him not to rat him out by making the cutthroat gesture. Cornered, the salesman opts for a technically neutral stance: he asks Andre to return the wig, which would allow the policeman to identify him. In other words, the salesman chooses to literally unmask Andre, but without verbally betraying him or explicitly pointing him out. Then a third man, a burly security guard, appears at the booth holding another flyer with the face of another wanted man on it: the supposed police officer, accused of prowling around disguised as a policeman. Like Andre, the fake officer warns the vendor not to blow the whistle on him.

The whole situation culminates in a surreal slow-motion chase in which the three people in disguise – Andre, the policeman and the security guard (whom we also suspect) – run around the vendor's stall repeating the phrase "Don't you say a fuck-ing word" like a mantra. The salesman gets more and more into a grotesque situation and becomes more and more confused, but perhaps also more and more relieved that the whole scene has turned out to be a staging. Since the viewer of the video knows Andre's routines, he cannot decide whether the salesman is also an actor or not.

2 Introduction: Power on the Spot

In 1977, the French economist and thinker Jacques Attali, then a member of the French Council of State and personal advisor to President François Mitterrand, published an extraordinary pamphlet entitled *Bruits* [2] (literally "noises", translated as *Noise* in 1985 [3]). In this book, Attali reconstructs the history of Western music within the framework of a political economy of music. According to this perspective, music has the ability to indirectly anticipate history: in the final chapter, entitled "Composing", Attali even attempts to "predict" the future of music by anticipating, to some extent, the development of so-called remix culture in popular electronic music and what we

¹ See "Eric Takes it to the Streets | The Eric Andre Show | adult swim", uploaded by Adult Swim on June 23, 2023: https://youtu.be/w8GKXf7Kz8w?si=8OenV9d4X-X_QcKT. The comic scene, decontextual-ized with no metadata, spread virally on social media such as Instagram with the simple title "Prank".

now commonly define as user-generated content – An era of widespread, horizontal music production. For Attali, power manifests itself primarily in a Sibylline way through music: "When power wants to make people *forget*, music is ritual *sacrifice*, the scapegoat; when it wants them to *believe*, music is enactment, *representation*; when it wants to *silence* them, it is reproduced, normalized, *repetition*" [3: 20, 2: 39, italics in original].

The concert hall coincides with the establishment of the network or the form of music dissemination that Attali calls "representation": it is meant to simulate and replace the value of the previous form, the "sacrificial ritual" (the epoch of the foundation of "all orders, myths, economic, social or religious relations in symbolic societies" [3: 31, 2: 48]). According to Attali, the concert hall is a bourgeois invention that first appeared in 1771 on the initiative of a group of merchants in a hotel in Leipzig, Germany. Attali sees the concert hall as an essential element of a "representative" society that remains functional in a "repetitive society", a prerogative of an elite that feeds on learned music.

Attali astutely analyzes the importance of the concert and the environment in which it is situated in the era of "repetition", the current age characterized by recording technology and a constant stream of repetitive music consumed as a substitute for social interaction. It does not matter what kind of music is offered, the concert hall remains an instrument of power and social representation (just as the museum is only the political translation of mercantile dominance in the art world). Attali claims that the real spectacle is not the music, but the concert hall itself, where the power dynamic between the audience, the performance and the work of art takes place. Audiences often judge the music more than they enjoy it, as the concert has become a pretext for asserting one's own culture rather than experiencing it. The elite defines and protects itself through the esoteric knowledge required for the works it listens to, which are no longer suitable for the bourgeois audience. The concert therefore becomes a space in which the elite can convince themselves that they are not as cold, inhuman and conservative as they are accused of being.

Outside the world of the elite, the concert is seen as mediocrity disguised as an artificial celebration. Popular music concerts are often nothing more than copies of recorded music, attempting to recreate the original perfection through widespread playback practices. Folk dance, which has also become a form of concert, has lost its original meaning and has become a kind of carnival without masks and a sense of tragedy. In this context, music serves as an excuse for the lack of communication, where solitude and silence are enforced by the volume of the reproduced sound.

Attali believes that much could have been learned in the field of social sciences by analyzing the relationship between audience and musicians and the social composition of concert halls. He believes that this would have revealed a precise arrangement of power relations, to the extent that "*The theory of political economy of the nineteenth century was present in its entirety in the concert hall of the eighteenth century, and foreshadowed the politics of the twentieth*" [3: 57, 2: 86, italics in original].

Attali's reflections are cloaked in a stylistic hermeticism that corresponds to the prophetic capacity attributed to music. They refer primarily to a world in which concert halls host performances of the classical repertoire and in which popular concerts imitate records that have become repositories of a paradoxically "original" musical

object, since they themselves reproduce something already played. One may disagree with Attali's critical – and technically conservative – judgment, but his diagnosis of the relationship between power and audience through music and music halls sheds light on what has been happening in recent years in highly organized, spectacular and technologized live music performances, which would constitute a perfect field of investigation for an approach such as that of legal semiotics.

3 Elements of a Legal Semiotics of Facial Recognition Systems (in Music Events)

It is not possible here to go into detail on the various issues that should be conscientiously analyzed in order to outline a scientific program such as that of a legal semiotics of facial recognition systems in concerts: we should at least ask ourselves what a "face", what "recognition" and what a "concert" are in terms of "cultural units" [11].

As a rough guide, we can divide what is commonly referred to in English as a face into at least three different dimensions [22]: a biological, a physiognomic and a sociosemiotic dimension. We have (1) a part of the body (2) that mediates emotions (a meeting point between voluntary and involuntary semiosis, namely the production of signs and meaning) and (3) is exposed to the public gaze. If we rely on the original Latin etymology, we can semiotically refer to the first dimension as face (*facies* = "surface") stricto sensu and the second as visage (*visus* = "that which is exposed to the gaze").

We can explain the concept of recognition in more detail by briefly considering three different yet related operations [13]. Recognition – the broader term – involves understanding recognizable patterns that go beyond human faces. Identification is about using faces as markers of personal identity. Typification refers to the extraction of information from a face based on sociocultural codes. At the same time, each system must go through a phase of detection (identify a human face as such) before the actual recognition (matching a face with an identity).

We can provisionally transform the term "concert" into an operational discourse by associating this term (which refers to the live performance of a music artist in front of an audience, i.e. people gathered in one place for a specific reason) with its hypernym "crowd": a gathering of people in a public and/or non-private and/or open space (e.g. shows: sports, music, cinema, rites, ceremonies; actions: standing, e.g. on public transport, strolling, queuing, processions; demonstrations: protests, marches, assaults, flash mobs, challenges, etc.)².

All three of these key definitional elements (face, recognition, crowd) would need to be further specified and linked in order to function as a system. At this point, we can only add that facial recognition systems only focus on some relevant aspects (literally, on the face in the narrow sense, i.e. the biometric parameters), to such an

 $^{^2}$ This list does not provide a systematic typology, rather a provisional, operative tool that does not want to get rid of the fundamental differences between, for instance, an ordered (e.g. in theatrical shows) and a chaotic crowd (e.g. in a heavy metal festival), between a specific (e.g. in concerts) and a generic (e.g. in the streets) crowd etc. Key references may be found in [19].

extent that in the case of profound interventions (depending on their type, strength and aspectuality, or in other words, depending on the degree of "parafaciality" [22], ranging from facial expressions to cosmetics and jewelry to permanent body modifications), the face (as a body part) is jeopardized – altered and/or hidden – and thus becomes a visage (as a cultural stance).

This has two main consequences: the system must be able to separate the visage from the face, in the sense that it must be able to reconstruct the latter on the basis of the former, and it must be able to separate the given visual token (e.g. an image stored in a database) from the present face, in the sense that it must be able to reconstruct the latter on the basis of the former. A facial recognition system therefore needs to be neither a simple image matching technology nor a simple "face recognition" system, but what should be more precisely named as a "visage recognition" system. Recent data suggests that of all biometric methods (which include fingerprint, iris, palm and voice)³, facial recognition is the least accurate [24]. This inaccuracy can occur in one or more of the following cases, the first two relating to "objective identity" and the third to "subjective identity" [32]: misidentification (the system does not recognize some characteristics of the person), miscategorization (the system assigns wrong characteristics to the person), and misrecognition due to the inability to infer subjective identity (the system is technically unable to recognize non-binary genders or mixed-race backgrounds).

It is generally agreed that facial recognition was conceived in the 1960s by artificial intelligence pioneers Woody Bledsoe, Helen Chan Wolf and Charles Bisson and was first put into operation in the mid-1970s by computer scientist Takeo Kanade. At this time, a certain consensus emerged in criticism of this technology [26], for two main reasons: first, it was criticized for its accuracy and, second, for its ethical implications - In other words, facial recognition was criticized for not working well or, on the contrary, for working too well. In both cases, we can find a unifying element of concern, which is not the notion of "recognition" per se, rather the role of automation and the unsupervised nature of the process, which in turn can be related to what we would define as "schizopoiesis" (literally "separate, distanced creation, realization"), namely the notion that there is a spatiotemporal separation between the human-driven design process and its machine-driven implementation⁴. On the one hand, we know that automated systems are biased due to the biases of the humans who created them (and, consequently, due to the corpora on which they were trained [31]); on the other hand, we do not like the idea of a form of agency that is not oriented towards what we have always understood as (human) intentionality.

³ For detailed discussion of the relationships between facial recognition and forensic fingerprinting, see [20].

⁴ The term is inspired by musician and musicologist Raymond Murray Schafer's "schizophony" [28], which refers to the revolution of phonofixation (recording, in common language), that is, the possibility of fixing a sound to a medium and hearing it again after it has ceased to exist.

4 The Face in the Crowd

In order to attempt to grasp facial recognition systems semiotically, it can be crucial to examine the relationship between a single human face and multiple faces, even if only from a bird's eye view.

"The Man of the Crowd" is a short story by Edgar Allan Poe from 1840 [27]. It is narrated, as is usual with Poe, in the first person by an unnamed observer sitting in a London coffee house recovering from an unspecified illness and spending his time observing the people passing by the window in order to classify them into different types (occupation, lifestyle, etc.) based on their appearance and behavior. As evening falls, the narrator's attention is captured by an elderly man with a peculiar appearance, whom he describes as decrepit vet agile, poor vet ostentatious. The man's face has a complexity of expressions that the narrator cannot decipher: intrigued, the narrator decides to go out and follow the man as he makes his way through the city. The old man moves from wealthier neighborhoods to poorer, more crime-ridden areas and seems to be in search of something or someone, but never stops for long. The narrator observes the man's interactions (or lack thereof) with the people and environment around him, trying to understand his purpose and character: on the one hand, he seems deeply connected to the crowd, on the other, he seems completely detached from it. The narrator becomes increasingly obsessed with understanding the man (the tailing lasts all night and into the next day), but his motivations and identity remain a mystery. In the end, he is exhausted and frustrated and is forced to give up the pursuit. He concludes that the indecipherable old man is a symbol of the human condition, of a deep and incomprehensible connection to the crowd, to the city and to modern life itself.

What may be relevant here is that Poe's story may serve as an elaboration of the themes of physiognomy (the pseudoscientific attempt to find a strict correspondence – a code, stricto sensu – between facial features and character) and facial recognition systems (automated technologies capable of identifying a particular person based on the recognition of their face). Both the obsessive observation at the center of Poe's narrative and the facial recognition systems deal with observation and surveillance as they attempt to dissect individual identities in a sea of faces. The narrative highlights the enigmatic nature of the stranger, much like facial recognition aims to remove anonymity, and raises the question of whether it is possible and ethical to understand someone based solely on their appearance. The narrator's inability to truly understand the old man he is following reflects the inherent limitations of technology in fully capturing human complexity and raises questions about the extent and appropriateness of using such tools to interpret human behavior and intentions.

Poe anticipates the emergence of the "crowd" as a phycological and anthropological category thanks to Gustave Le Bon's [18] classic work and the emphasis on its collective and political power through the reflections of Elias Canetti [8]. From the perspective of legal semiotics, the crowd is indeed an interesting chiastic object of study: in most contemporary democracies, it has the right to exist, it has the right to cohere in public space (for example, Article 17 of the Italian Constitution of 1948 [10] states: "Citizens have the right to assemble peacefully and without arms. Assemblies do not have to be announced, not even in a place open to the public. Assemblies in public places must be notified to the authorities, who can only prohibit them for proven reasons of security or public order", my trans.), but at the same time a crowd as such has no rights of its own. Only superficially is "crowd" a neutral noun, for even from its etymology it is endowed with a dysphoric connotation, a sense of unease stemming from the implied premodern ideology (the image of an oppressed individual deprived of individual agency): "Crowd", attested since 1500 BC, comes from the Old English *crūdan* ("to press"), which is of German origin; the even older French *foule* (*folla*, in Italian), attested since 1300 BC, comes from the Vulgar Latin *fullo* (the person who presses the wool).

Put simply in sociosemiotic terms, the crowd is an integral totality (indivisible)⁵ endowed with a kind of enunciation which is impersonal only in the respect of being collective ("Rumor has it")⁶. Roughly speaking, enunciation is the positioning of the "speaker" (sender, enunciator, model author, depending on semiotic ideology) and the "listener" (receiver, enunciatee, model reader) within the given communication token (text). As the sociologist Gary T. Marx [23] aptly points out, crowds depend on the semiotic configuration of anonymity (a precise regime of visibility and narrative) to function as such. People do and become things within a crowd that they could not do or become outside of this framework, whereby anonymity is only instrumental and yet fundamental: think of rituals, of behaviors that are accepted within certain "magic circles" in collective form (e.g. loud chants in stadiums), but not in individual form (e.g. fans are not allowed to enter the stadium alone, nor to chant loudly outside the stadium, as this would be a case of breach of the peace), or think of festivals such as carnivals (as outlined by the Russian literary scholar Mikhail Bakhtin in relation to the literary world of François Rabelais [4]) which are located in a kind of gray area of legitimacy that does not always overlap with legality⁷. Facial recognition systems intervene precisely in the semiotic nature of the crowd, with the aim of breaking it and transforming it into a collection of partitive units.

5 Facial Recognition Systems in Science Fiction Cinema

In order to attempt to grasp facial recognition systems semiotically, it is perhaps crucial to examine, if only from a bird's eye view, how such a cultural unit is represented and commented upon in a very emblematic area of (popular) culture.

Avatier, a California-based company founded in 1997 whose main business is identity management software, used a corpus of 18 mainstream films to investigate which biometric technologies are most commonly used in science fiction (SF) [5]. The analysis shows that facial recognition technologies are in the majority (6 films), followed by voice (5), eyes/retina (4 films; this can indeed be considered a subset of

⁵ The categories of "integral" and "partitive" "unit" and "totality" are semiotically discussed in [14].

⁶ Impersonal/collective enunciation is discussed in [16] and [25].

⁷ The concept of the "magic circle", a spatial metaphor that identifies the dimension of play, was first proposed by Johan Huizinga and was later taken up by Roger Caillois, Gregory Bateson, and Erving Goffman, among others, always with reference to playfulness as an explicitly "alternative" dimension, animated by rules different from those that organize daily life.

facial recognition) and DNA (4 films). As a rough guide, facial recognition can be used to identify people (*Blade Runner, Robocop*) and interpret their emotions (2001: A Space Odyssey, Ex Machina), monitor movement (*Terminator, Minority Report*) and access information or protected areas (*Star Trek, I Robot*).

We can delve deeper into this topic by drawing on a paper published on the website of renowned American media scholar Henry Jenkins. In it, PhD student Mehitabel Glenhaber [12] examines the misrepresentation of facial recognition in science fiction media. Although science fiction has understood – and even anticipated – some key features of such technologies (and the problems associated with them), its most common narrative leaves out some important aspects. In films such as those mentioned above (to which we must add the implicit source of many of them, George Orwell's novel *1984*), facial recognition technologies are generally a tool deployed by a hyper-technologically equipped dictatorship of the near future, enabling the established power to implement a surveillance dystopia. These systems are portrayed as potentially ubiquitous, invisible, machine-cold and privacy-threatening. Nevertheless, there are some aspects that are not addressed in Hollywood's SF and that, on the contrary, are particularly relevant for a correct understanding of the nature of such technologies, which we can summarize as possession, purpose, accuracy and goal.

While facial recognition in science fiction films is often used by totalitarian and repressive governments to monitor citizens, in the real world the ownership of facial recognition technology is often in the hands of private companies that profit from state surveillance, raising concerns of abuse and discrimination. In line with the technocratic mythology embodied by buzzwords such as "big data", "automation", "algorithm", etc., the purpose goes beyond security identification and extends to contexts such as employment and behavioral assessment: companies and computer labs are trying to convince us that they can determine a person's health, emotional state or even sexual orientation based on a photograph alone. Contrary to what is portrayed in movies, real-life facial recognition systems can make mistakes and show bias, especially towards marginalized groups. As a result, films tend to portray white men as victims of surveillance and ignore the reality that people of color, women and LGBTQ+people are targeted. All of these issues, which are overshadowed by the Hollywood narrative, are at the heart of the relationship between music, spaces, power, legislation and technology.

6 Growing Technologies in the Live Music Business

On October 10, 2022, critically acclaimed US alternative pop-rock band Animal Collective announced via Instagram that they would have to cancel their UK and EU concerts because touring in the wake of the Covid-19 pandemic is "an economic reality that simply does not work and is not sustainable": "From inflation, to currency devaluation, to bloated shipping and transportation costs, and much much more, we simply could not make a budget for this tour that did not lose money even if everything went as well as it could"⁸. Live events are increasingly a strategic revenue

⁸ Post by the "anmlcollective" Instagram account: https://www.instagram.com/p/CjieADlLygL/.

sector in the music business, especially after the debacle of collective gatherings caused by the Covid pandemic: It costs more and more to organize them, and therefore it costs more and more to participate as part of the audience. This is an area with increasingly complex and delicate mechanisms. Musicians and organizers are exploring every avenue to ensure that a music event is safe in every way.

Blink Identity is an Austin, Texas-based company that specializes in a privacyfriendly access control system that would be able to "everyone in the blink of an eye, regardless of skin color, gender, or walking speed"⁹. In 2023, the company published a report [33] discussing the impact of technology on the future of live events. The report is interesting in itself, and it is doubly interesting due to a possible conflict of interest: indeed, Live Nation's Ticketmaster – the global monopolist in this field – has been investing in Blink Identity since 2018 with the ultimate goal of replacing ticketing systems with facial recognition technologies. According to the report, the live events industry, particularly concerts, is growing in the US, generating around \$8 billion in revenue in 2017, with audiences consisting primarily of young adults between the ages of 18 and 34. This demographic, known as millennials, is receptive to technological innovations and experiences: concert organizers and artists are therefore striving to create "memorable experiences" for audiences that are worth the rising cost of attending a concert.

To enhance performances, engage audiences and improve the overall customer experience, the industry is experimenting with various technologies such as RFID (radio frequency identification) wristbands, smartphone apps, VR (virtual reality), holograms, social media and, indeed, facial recognition. To a layperson, it may seem surprising that such technology should be used in a context such as live music performances and music festivals in particular. The rationale is that this technology would increase security and operational efficiency as it would speed up transactions (cashless and facial recognition-enabled payments, already in operation in China from 2020 and in Japan from 2022, would reduce queues), improve security controls and provide data for personalized marketing decisions [30].

Indeed, these systems are being deployed and growing, but there is no consensus on them. According to a 2019 study by the Pew Research Center, "a nonpartisan fact tank that informs the public about the issues, attitudes and trends shaping the world"¹⁰, more than half of US adults trust the responsible use of facial recognition by law enforcement. At the same time, the same public is less receptive to facial recognition technology when it is used by advertisers or technology companies [29]. This technological, pragmatic and legal tension is precisely the phenomenon we want to explore.

⁹ https://www.blinkidentity.com/.

¹⁰ https://www.pewresearch.org/about/.

7 Authorities, Musicians and Professionals: For and Against Facial Recognition Systems

We can chronologically identify a handful of case studies where all stakeholders involved (audience, musicians, professionals, entrepreneurs, authorities, venues, etc.) interacted to reach an agreement on the use of facial recognition systems at live music events.

Shortly before Beyoncé's concert at the Principality Stadium in Cardiff on May 17, 2023, part of her Renaissance World Tour, the local police announced the use of Live Facial Recognition (LFR) technology. This was to help identify people wanted for serious crimes, support law enforcement and ensure the safety of children and vulnerable people. Police explained that the technology would only be used in specific areas of Cardiff, clearly marked by signs, and not directly in the stadium, and stressed that facial recognition was not required for entry. Despite ongoing concerns and notable legal precedents such as the infamous "Bridges case" (Dec. 2017 - Aug. 2020)¹¹, facial recognition technology was eventually deployed during the Beyoncé concert. This decision was part of a wider roll-out and normalization in everyday policing, supported by embedded devices, a move supported by Minister of State for Crime, Police and Fire Chris Philp, among others. The decision also followed a report by the National Physical Laboratory, which gave a 1 in 6,000 chance of mistaken identity [21]. This contrasts with previous data, such as the 2018 study by a joint team from the MIT Media Lab and Microsoft Research, which found errors in 21-35% of cases for dark-skinned women and less than 1% for light-skinned men [7].

On April 7, 2018, during a Jacky Cheung concert at the Nanchang International Sports Center attended by nearly 60,000 people, Chinese police arrested a 31-yearold suspect named Ao who was wanted for "economic crimes". Ao had been hiding in the crowd but was identified by facial recognition cameras at the entrance to the stadium: his details were stored in the national database, and upon his arrival the cameras flagged him and alerted the authorities. This unusual arrest is linked to the increasing use of facial recognition technology in China, facilitated by the beginnings of the *Xue Liang* ("sharp eyes") surveillance system, which is designed to monitor citizens' movements.

During her concert at the Rose Bowl in Pasadena, California, on May 18, 2018, country and pop star Taylor Swift both thrilled and "trolled" her fans – Using a disguised facial recognition system similar to those used by federal agents at airports to verify the identity of international passengers. Swift's team used kiosks to take

¹¹ In December 2017, around Christmas time, Ed Bridges, an advocate for civil liberties, noticed the words "automatic facial recognition" (acronym AFR) on the police van parked in front of the Cardiff shopping center he was about to get in. He realized he could have been scanned by this technology then, and the same happened at an anti-weapons demonstration at Motorpoint Arena in 2018. Bridges, backed by the civil rights organization Liberty, took legal action against the police. Despite initial setbacks in London's High Court, his persistence paid off in August 2020 when he secured a legal victory. By this time, the police had amassed a database of 500,000 facial images. The court ruled in favor of Bridges on three out of five issues brought up in the appeal. It found that there were no clear rules regarding the deployment of AFR systems or the criteria for adding individuals to watchlists. It also pointed out that the police had conducted an inadequate data protection impact assessment and failed to adequately investigate whether the AFR technology was biased based on race or gender.

facial photos of each concertgoer to identify potential stalkers: as people entered the venue, a pre-recorded Swift video was played on a screen next to the ticket booth; each person who walked by stopped and a camera in the screen took a photo of their face. The image was then processed by software that extracted biometric facial data and sent electronically to the headquarters of Oak View Group in Nashville, the software company responsible for this work. The data was compared to known images of Swift's known stalkers, however, it is unclear how Swift used the information collected through facial recognition technology. Privacy experts have raised concerns about the use of such technology at several major concert venues in Australia, including the Melbourne Cricket Ground (MCG), where tens of thousands of people, including children, will flock for Taylor Swift's tour in February 2024.

In 2019, the digital rights group "Fight for the Future" launched a call and website (banfacialrecognition.com)¹² for a ban on facial scans at all live events. Soon, guitarist and activist Tom Morello, former frontman of the band Rage Against the Machine, joined the movement and began leading a group of artists who have announced a boycott of concert events using facial recognition technology, citing privacy concerns and increasing discrimination. By 2023, small, independent venues in particular have pledged not to use facial recognition technology for their shows.

8 Outro: "Persona non grata" (and the Dubious Nature of Guilt)

On October 22, 2022, shortly before a country music concert by Brandi Carlile at Madison Square Garden in New York, a woman was approached by security guards and strongly urged to leave the venue. The woman, identified as Barbara Hart, is an attorney who works for a law firm handling a lawsuit against Madison Square Garden. The venue's owner, James Dolan, has a policy in place that prohibits attorneys involved in litigation against the company from entering the premises. As a result, facial recognition technology is being used to identify and remove people involved in litigation. Hart and another attorney, Kelly Conlon, filed a lawsuit against Madison Square Garden following her disbarment. In their response, the company stated that the attorneys would be reinstated once the legal cases were resolved.

Similar to the Eric Andre skit [See par. 1], it proves difficult to establish a direct causal link between recognition and culpability. Indeed, this episode confirms that the use of facial recognition systems at live music is primarily instrumental: the "dangerous person" attending the concert is dangerous per se according to ideological criteria, outside of the specific context (for example, they are not dangerous to the audience and in most cases not to the artist). The private nature of most venues and the transnational nature of these technologies, which nevertheless operate in national contexts, further complicate the picture.

¹² https://banfacialrecognition.com/.

9 Conclusion: Face Value

The issue of facial recognition systems in public contexts (in the open spaces of civil society) or in places meant for collective gatherings (such as concerts, which often take place in private places) is essentially based on the possible dichotomy of whether or not the face is seen not only as a site of identity and individuality, but also of humanity, freedom and politics.

On the one hand, Italian philosopher Giorgio Agamben [1] pursued an explicitly humanistic ideal in his immediate responses to the Covid-19 pandemic. A proud ambassador of a continental tradition ranging from Martin Heidegger's anti-technocratic thought to Michel Foucault's (focused on reconstructing the conditions of possibility for surveillance and punishment in biopololitical regimes)¹³, Agamben strongly opposed restrictions on public life and the prophylactic use of medical face masks - Measures he saw as denying face and thus dehumanizing and anti-humanistic. On the other hand, in his 2021 book The Revenge of the Real [6], the American sociologist and designer thinker Benjamin Bratton has presented a true transhumanist manifesto in which, in open disagreement with Agamben, he shifts the biopolitical paradigm from the negative to the positive. In the following passages, I present Bratton's proposal synthetically, commenting on them and integrating them with glosses inspired by other authors. If, as the Italian philosopher Emanuele Coccia claims (although he is not quoted by Bratton), "the virus has produced a second globalization" [9: 6, my trans.], this was possible because we as humanity already constitute "a single, unitary life" [9: subtitle of the book]. Bolstered by the overwhelming evidence the pandemic has provided us, we should no longer see ourselves as individual and isolated subjects, but as part of a planetary and cross-species "immuno-logical commons", Bratton maintains, based on what critical philosopher Byung-Chul Han [15] would likely call a "swarm logic" (also Han is not addressed by Bratton). Thus, Bratton suggests, we should welcome not only masks (a symbol of common prophylaxis), but also epidemiological surveillance systems based on data that are not just biographic or biometric but even biochemical: thus, we would move from an individual dimension to one simultaneously supra-individual (the social body) and sub-individual or pre-individual (the body as a biological organism with what it contains and mediates).

Although the two thinkers stand at opposite poles, for both Agamben and Bratton the mask is the totem of a social and, more radically, anthropological transformation based on the moral axiology of security to which everything must be subordinated. For both, we would not get rid of the mask, as it would remain as an extension – a prosthesis – of the new post-pandemic citizen: for Agamben it is imposed, for Bratton it is a proud decision to hide one's face "for a greater good". Agamben, who firmly adheres to an anthropocentric vision, rejects the non-face of the Anthropocene, which Bratton welcomes with the optimism of a designer who is, in a certain sense, per-

¹³ Foucault coined the successful neologism "biopolitics" so as to define the interference of power to the point of regulating not only the sociocultural aspects of life, but also those related to sexuality, health, reproduction and death.

versely Latourian (although Bratton does not cite Bruno Latour [17]), being finally able to unite Nature and Culture under a single paradigm.

We could say, then, that even in cultures where the covering of the face has traditionally been considered as a sign of some deviance, the mask has made it clear that the visage, as a "social technology" [6: 94], is nothing other than an interface, a site of exchange between different semiotic realms: between the human, the internal, and the individual on the one hand, and the non-human, the external, and the social on the other.

To consider the visage only as the face, an ontological reality, a mere somatic surface on which to act, or as a palimpsest on which to reveal or project the most intimate essence of the human being, has precise consequences: in the first case, there is no obstacle to treating it positivistically, to altering it, concealing it, or treating it as quantifiable, identifiable, storable, and salable data; in the second case, it is unthinkable to alter it, conceal it, or treat it as an identifiable, storable, and salable number.

Acknowledgements This publication results from a project that has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. 819649 – FACETS).

Funding Open access funding provided by Università degli Studi di Torino within the CRUI-CARE Agreement.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/ licenses/by/4.0/.

References

- 1. Agamben, Giorgio. 2020. A Che punto siamo? L'epidemia come Politica. Macerata IT: Quodlibet.
- Attali, Jacques. 1977. Bruits: essai sur l'économie politique de la musique. Paris: PUF- Presses Universitaires de France.
- Attali, Jacques. 1985. Noises. The Political Economy of Music. Minneapolis/London: University of Minnesota.
- 4. Bakhtin, Mikhail. 1965. Tvorčestvo Fransua Rable i narodnaja kul'tura srednevekov'ja i renessansa [Rabelais and his World]. Moska: Jazyki slavjanskjh kul'tur.
- Bonette, Rowena. 2017. Biometrics in Movies Sci-Fi Security. Avatier Jan. 31. https://blog.avatier. com/biometrics-in-sci-fi-movies/
- 6. Bratton, Benjamin. 2021. The revenge of the Real: politics for a Post-pandemic World. London: Verso.
- Buolamwini, Joy. 2018. and Timnit Gebru. Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification. *Proceedings of Machine Learning Research* 81:1–15. https:// proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf
- 8. Canetti, Elias. 1960. Masse und Macht. Hamburg: Claassen.
- 9. Coccia, Emanuele. 2022. Metamorfosi. Siamo Un'unica, sola vita. Turin: Einaudi.

- 10. Costituzione della Repubblica Italiana. 1948. https://www.senato.it/documenti/repository/relazioni/ libreria/Costituzione_anastatica.pdf
- 11. Eco, Umberto. 1975. Trattato Di Semiotica Generale. Milano: Bompiani.
- 12. Glenhaber, Mehitabel. 2020. What Science Fiction Media Gets Wrong About Facial Recognition. *Pop Junctions* Nov. 20. https://henryjenkins.org/blog/2020/11/19/mehitabels-post
- Gramigna, Remo, Cristina Voto. 2021. Notes on the semiotics of face recognition. Sign Systems Studies 49(3–4):338–360. https://doi.org/10.12697/SSS.2021.49.3-4.05
- 14. Greimas, Algirdas Julien. 1976. Sémiotique Et sciences sociales. Paris: Seuil.
- 15. Han, Byung-Chul. 2013. Im Schwarm. Ansichten Des Digitalen. Berlin: Matthes & Seitz.
- 16. Latour, Bruno. 1984. Les microbes: Guerre et paix suivi de Irreductions. Paris: Editions A.-M. Metailie.
- 17. Latour, Bruno. 1999. Politiques de la nature. Comment faire entrer les sciences en démocratie?. Paris: La Découverte.
- 18. Le Bon. Gustave. 1895. Psychologie Des foules. Paris: Alcan.
- 19. Leone, Massimo. ed. 2013. Protesta/Protest. Monographic issue of Lexia 13-14.
- Leone, Massimo. 2021. From fingers to faces: visual semiotics and Digital Forensics. *International Journal for the Semiotics of Law* 34:579–599. https://doi.org/10.1007/s11196-020-09766-x
- 21. Mansfield, Tony. 2023. Facial Recognition Technology In Law Enforcement Equitability Study. Final Report. https://science.police.uk/site/assets/files/3396/frt-equitability-study_mar2023.pdf
- Marino, Gabriele. 2021. Cultures of the (masked) face. Sign Systems Studies 49(3–4):318–337. https://doi.org/10.12697/SSS.2021.49.3-4.04
- Marx, Gary T. 2001. Identity and anonymity: some conceptual distinctions and issues for research'. In *Documenting individual identity. The development of state practices in the modern world*, eds. J. Caplan, and J. Torpey. 311–327. Princeton: Princeton University Press.
- Najibi, Alex. 2020. Racial Discrimination in Face Recognition Technology. Science in the News Oct. 20. https://sitn.hms.harvard.edu/flash/2020/racial-discrimination-in-face-recognition-technology/
- 25. Paolucci, Claudio. 2020. Persona. Soggettività nel linguaggio e semiotica dell'enunciazione. Milan: Bompiani.
- Patterson, K. E. Alan Baddeley. 1977. When face recognition fails. Journal of Experimental Psychology: Learning Memory and Cognition 3(4):406–417.
- 27. Poe, Edgar Allan. 1840. The man of the crowd. Graham's Magazine December 1840:267-270.
- 28. Schafer, Raymond Murray. 1969. *The New Soundscape. A handbook for the Modern Music teacher*. Ont.: Berandol: Scarborough.
- Smith, Aaron. 2019. More Than Half of U.S. Adults Trust Law Enforcement to Use Facial Recognition Responsibly. *Pew Research* Sept. 5. https://www.pewresearch.org/internet/2019/09/05/ more-than-half-of-u-s-adults-trust-law-enforcement-to-use-facial-recognition-responsibly/
- The University of Gloucestershire's degree programs in Events, Hotel and Tourism Management. 2021. Facial Recognition Technology at Music Festivals – Benefit or Invasion?. https://uniofglos. blog/eventsglos/2021/03/05/facial-recognition-technology-at-music-festivals-benefit-or-invasion/
- Voto, Cristina. 2022. Visualizing the latency of facial big data. *Punctum* 8(1):47–62. https://doi. org/10.18680/hss.2022.0004. From archive to dataset.
- Waelen, Rosalie A. 2023. The struggle for recognition in the age of facial recognition technology. AI Ethics 3:215–222. https://doi.org/10.1007/s43681-022-00146-8
- 33. Wajaya, Rico. 2021. How is Technology Impacting the Future of Live Events? *Blink Identity* June 7. https://www.blinkidentity.com/forum/how-technology-impacts-future-of-live-events

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.