Mockumentality: From hyperfaces to deepfakes

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In April 2018, a video went viral that appeared to show Barack Obama insulting Donald Trump and saying increasingly nonsensical things. At about the halfway mark, the clip suddenly turned split-screen, with the former U.S. President on the left and filmmaker Jordan Peele on the right revealing the ruse: it was a digitally manipulated version of real footage obtained by merging Obama’s face with the lips of the Oscar-winning director. The speech ended with an admonition to the viewers to not believe everything they read or see: “This is a dangerous time. Moving forward, we need to be more vigilant with what we trust from the Internet. It is a time when we need to rely on trusted news sources. Stay woke.”

The threat which Obama/Peele warned against has a name: deepfake, a technique for human image synthesis that employs artificial intelligence and deep learning technology to produce false yet deceptively realistic images and videos. Typically, deepfakes involve a superimposition of human masks on top of original footage in order to produce quasi-faces that “belong to no one but exist only as images” (Belting [2013] 2017, 240). The part of the body that should naturally guarantee the individual identity comes to be replaced by an artificial product that can be modified at will, and this, in turn, generates suspicion and mistrust in the reliability of even the apparently most faithful replicas of reality.

As novel as they seem, deepfakes are, in fact, only the most recent chapter of a far longer story in which face and mask, traditionally opposed to each other as truth and falsity, tend instead to overlap. It is the story of a specific kind of “masks” that I propose to call “hyperfaces,” that is, hyperrealistic artifacts that replicate or seem to replicate an individual’s appearance to the point of being regarded as equivalent to real faces.

CHARAKTĚR: MASKS AND FACES, MASKS AS FACES

Every day and several times per day we look at our reflection in the mirror, and what we see is ourselves. Our; selves. Invariably regarded as the most recognizable and noticeable part of our body, the face is the outer image that we attach to our inner sense of self, to who we truly are and how we fit within the social world. By expressing emotions and communicating meanings, it confers (and constantly confirms) an irreducible personal identity, while at the same time it opens to the outside world by introducing the individual into the company of other people. As the ancient Greek
word *prosopon* suggests, the face is the palimpsest of our biography, the medium through which we present ourselves “before (*pros*) the others’ gaze (*opsis*)”: face and being-faced are therefore one (Frontisi-Ducroux 2005, 19–20). Yet the same term – *prosopon* – also denotes a mask. The Greeks did not distinguish between face and mask like we are all too used to doing. The mask was the face of the actor who wore it, being “always ‘presented’ to the audience, telling the story of the character”: each performer in a masked play became “an individual on his own” (Hall 2000, 34).

A radical differentiation between face and mask only took place with the Romans. They used the word *persona* to mean “mask”, whereas they had different words to refer to the face, none of which could also designate the mask: *os* (meaning, literally, the mouth); *facies* (referring to the natural, anatomical appearance of the face); and *vul'tus* (indicating a vehicle for expressing feelings and personality traits) (Bettini [2000] 2011). Despite this seemingly clear-cut distinction, there was still one particular case where the Romans thought a mask could serve much the same function as a face: the famous *imagines maiorum*, death “masks” made of wax that were generally kept in the *atria* of the houses belonging to noble citizens, but on the day of a family member’s funeral were taken out of their shrines and worn or carried by actors (*mimetai*) who resembled the dead in terms of size and carriage and were dressed up in clothes corresponding to the social rank of the deceased that they personified. In the *Naturalis Historia* (XXXV, 6), however, Pliny the Elder does not use the term *persona*, but *vultus*, to describe the *imagines*. This suggests that at least for the entire duration of the funeral, these so-called “masks” were to be considered not as masks but as the real faces of the dead. Being not meant as representations but rather as presentificatations, they were “enacted’, playing a performative role which consisted in arousing once again the presence of the deceased ancestors” (Bettini 2005, 202). Face and mask coalesced to bring the absents once again present.

What is it that allowed a mask to be regarded as a face preserving the identity – or, as Julius von Schlosser ([1911] 2008, 184) significantly put it, the *Persönlichkeit* – of an individual intact beyond the point of physical death? According to Polybius (VI, 53, 5), the most impressive feature of the *imagines* was their “striking resemblance” to the facial traits of the ancestors, achieved through the use of wax casts from molds, most probably in plaster. Although it is still a matter of debate whether this technique was always and by rule employed (Dasen 2010, 111), the cultural fact remains that the *imagines* were celebrated for their remarkable lifelikeness attributed to (if not actually obtained through) the mechanical process of reproduction. They seemed to best embody the literal meaning of the Latin word for “to portrait”, that is, *retrahere*, which denotes the act of *trahere*, a material “taking the imprint” and “drawing it away from” the subject portrayed. It was precisely this idea of mechanical objectivity that made a mask be regarded as a face, the former being considered not just as *similar*, but rather as *equivalent* to the latter. The use of cast made it possible to produce faithful replicas that could act as veritable surrogates of the models just because they stemmed (or, as we shall see, they were supposed to stem) from a *direct contact* with them.

A tradition of funerary masks similar to that described so far spread in Renaissance Florence, where, as reported by Vasari in *The Lives of the Artists* ([1568] 1998,
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...an “infinite number” of posthumous wax portraits, often reworked from plaster casts, were placed “over the fireplaces, doors, windows, and cornices of every home”. Framed, incorporated into wreaths, or applied to prefabricated faceless busts, those pictures bore such a startling resemblance to their models that “they seem[ed] alive”. And again, this resemblance was associated to a mechanical process of reproduction, as demonstrated by Vasari’s entirely fictional assertion that Verrocchio was the inventor of plaster death masks (Didi-Huberman 1994).

Famously, the use of lifelike replicas of the faces of the dead reached its extreme in the tradition of the “double funeral” as developed in France and England between the 14th and the 17th centuries and taken up afterwards by Venetian doges until the end of the 18th century (Kantorowicz 1957; Giesey 1960; Marek 2009). In the royal prescriptive funerary and burial texts, terms like “picture”, “personage”, and “cast” were often used synonymously to describe the full-length robed effigies paraded atop the coffins of the deceased monarchs, and more particularly their hyperrealistic masks (but we should say their faces, given the equivalence for the whole duration of the ceremony between the real corpse and its faithful replica). This vocabulary raises, once again, the question of the ambiguous relationship between the image and its referent, between presentation and representation, similarity and identity, duplication and substitution, briefly: between the mask and the face.

Over the centuries, the pursuit of the most accurate imitation of the individual facial features by means of mechanical replication evolved according to different needs and scopes, but the basic idea remained the same: the conservation of the individual’s personality, of the “character” – a term that derives from the ancient Greek charaktér, which means, not coincidentally, the imprint, the cast, the mark made by pressure. One need only think of Marie Grosholtz’s early work at the beginning of the 19th century, when she was asked to make casts of the faces of famous people executed by guillotine during the French Revolution. The future Madame Tussaud was clever in making visitors believe that her wax portraits were actually derived from death masks taken “immediately after execution”, as the exhibition catalogs and newspaper advertisements emphasized (Kornmeier 2008, 75). In this case, too, the concept of mechanical, contact-based objectivity was used to pass masks off as faces; and again, it is not relevant whether the story with which Madame Tussaud’s visitors were presented was true. Instead, what matters most are the cultural implications of this story, namely the idea that the final portrait resulted from direct contact, via the inside of the original plaster mask, with the individual’s body:

His or her face has left an actual, physical trace in the material, the mask representing the visual evidence of that trace. The shape of this trace belongs so closely to the sitter that it can be considered a body part in its own right. Therefore, the portrait based on a face cast is a representation of a person's face not because of its resemblance to the face but because it is part of the face (75–76).

The (often mythical) reference to techniques of mechanical duplication imbued a mask with the aura of a face. Right about the same time Madame Tussaud’s enterprise began to gain momentum, a different use of anatomical modeling came to the fore which once more insisted on the mechanic nature of the procedure: the mou-
lages, that is, life-size, three-dimensional, colored, and stunningly realistic pictures of diseases in wax. The word comes from the French mouler, meaning – again – “imprint molding”. Contrary to 18th century highly idealized, mainly hand-modeled anatomical waxes like the famous “Venuses” or the écorchés, the moulages were conceived to document the characteristic signs of the particular disease of a particular individual.

As a specific subset of moulages, molded faces were much in vogue in late 19th century criminal anthropology (Pick 1989). In 1892, Cesare Lombroso opened a museum in Turin where he collected, among other specimens, labeled skulls and wax replicas of the faces of “madmen and criminals” (Fig. 1).

Fig. 1: Wax face of a “counterfeiter”. Courtesy of the Museum of Criminal Anthropology “Cesare Lombroso”, University of Turin. (Photo by Paolo Giagheddu)

These wax models had been conceived by Lorenzo Tenchini, whose work was entirely in the spirit of Lombroso’s assumption that criminality was an inherited trait revealing itself in the individuals’ visible features. By seeking to isolate the “natural born criminal” as a deviant type of human being, the founder of the Italian school of anthropological and positivist criminology focused on the face as a telltale mirror of the self, convinced as he was that the physical features could provide access to personality traits and, therefore, indicate whether an individual was prone to crime or madness. Through comparison of many facial characteristics, Lombroso meant to reveal the criminal types underlying them. Thus, the hyperrealistic masks (or rather, the faces) hosted in his museum are to be regarded as a hybrid form of anatomical
modeling: on the one hand, they strove (like moulages) for maximum adherence to an individual physiognomy, while on the other hand they were supposed to be (like wax Venuses or écorchés) representatives of general human categories. Paradoxically enough, in Lombroso’s museum individual faces turned into typified documents of “the degenerates”.

DOCUMENTS OR MOCKUMENTS?

Despite the motley diversity of form and context, the examples discussed so far have one thing in common: they all refer to what can be labelled “hyperfaces”, that is, facial images purposely conceived to give the impression of maximum adherence to reality while constituting visual signs meant to coincide with the signed and to conflate the picture with the depicted entity. This hyperrealistic allure goes hand in hand with the notion of objective truth: those images were passed off as produced through mechanical replication without further manipulation.

The idea that a picture results from an automatic process of imprint taking is enough to generate in the viewer a belief in its truthfulness and reliability, thus contributing to giving images an aura of authenticity and to creating the myth of pure objectivity. Unsurprisingly, at the dawn of the 20th century, Schlosser ([1911] 2008, 287) drew a parallel between ceroplastics and photography, predicting that the latter would have rapidly extinguished “the last flickering pulse” of the age-old tradition of wax modeling. He theorized that photographs, rather than the old-fashioned wax figures, would have best satisfied the need for providing a most “faithful”, “living”, “true” picture of the subjects portrayed. Suddenly photography became the symbol of truthfulness and mechanical objectivity. According to Rosalind Krauss’ famous thesis, its “undeniable veracity” (1977, 59) rests on the indexical nature of the medium: photographs are light imprints on the film, marks made directly by the referent, documents of a physical trace like finger- or footprints. This special character of photography had already been emphasized by Ernst Jünger’s remark that “the original German word for ‘to photograph [Photographieren]’ was ‘to seize, to take away [abnehmen]’. One takes away an outer layer, the outward appearance of a human face, as though it were a mask” (1974, 471).

From the imagines maiorum to photographs, the “evidentiary” value of hyperfaces is rooted not only in the highest degree of resemblance to the originals, but also and foremost in the belief that such resemblance results from direct impression without further manipulation. It is precisely the (actual or alleged) mechanicalness of the production process that makes an artifact be regarded as equivalent to a flesh-and-blood face. Life or death masks, moulages or photographs are deemed not to represent, but rather to presentify the individuals portrayed. Accordingly, hyperrealistic faces have been considered over the centuries the best candidates for assessing and validating personal identity: their (purported) quality to guarantee a perfect match between the image and its referent confers them a documentary value.

As underlined by André Bazin ([1945] 1960, 7), the production of pictures by automatic means “has radically affected our psychology of the image”. The tendency to consider hyperrealistic likenesses as pure replicas of reality in the flesh, untainted by subjectivity, is basically a psychological fact stemming from the need to satisfy
“our appetite for illusion by a mechanical reproduction in the making of which man plays no part. The solution is not to be found in the result achieved but in the way of achieving it” (7). The same argument was put forward by Kendall Walton, who observed that the remarkable realism of photographs is considered to derive “not from what they look like but from how come about” (1984, 261). The ontology of all the pictures produced (or supposed to be produced) by automatic means gives them “the irrational power […] to bear away our faith” (Bazin [1945] 1960, 8). No matter how grainy, distorted, or lacking in informational content an automatic image may be: its documentary value results from the fact that it shares, “by virtue of the very process of its becoming, the being of the model of which it is the reproduction; it is the model” (8).

In Peircian terms, two paradigms need to be put in contrast here. While the first one considers images as indexes, the second one accounts for them as icons. Indexicality is based on physical causality: it presupposes a real connection between the picture and its referent. On the contrary, iconicity stands on resemblance and analogical quality. To be sure, we invariably tend to classify hyperrealistic images among mechanically-obtained pictures and, therefore, among indexes.

Yet this psychological fact – the belief that hyperrealism per se is a guarantee of adherence to reality and objective truth, as if the visual aspect of an image were enough to testify to its reliability – can be exploited for precisely the opposite purpose, namely, to give the false impression that what is actually a hand-modeled object was on the contrary obtained by means of automatic, purely mechanical reproduction. Indeed, the traditional and almost taken-for-granted association between hyperrealism, mechanicalness, and objective truth has often proved to be unsteady and ambiguous. To refer only to some of the above-mentioned examples: famous death masks like, for instance, those of Friedrich Nietzsche, William Shakespeare, or the so-called “Inconnue de la Seine”, were drastically retouched to make them convey a predetermined message (Hertl 2002). The wax models collected by Lombroso are all but “innocent” replicas of the criminals’ real faces. And Madame Tussaud’s supposed “casts” are actually “portraits” that deviate significantly from merely mechanical reproductions, given that they did not stem directly from an impression of the sitters’ faces; on the contrary, they were taken from intermediary, embossed clay models, then remodeled and exhibited according to a carefully devised plan. One can thus conclude that what appears to be a naturalistic depiction is, in fact, “a realistic representation of a reality that does not exist”, and this demonstrates “how little the verisimilitude and feeling of authenticity […] depend on a truthful representation. […] When an image looks so real that it speaks for itself, it does not necessarily follow that what it says is the objective truth” (Kornmeier 2008, 80; emphasis added).

This is a crucial point. The simple fact that a picture “looks so real” evokes in the observer the idea that it must have been mechanically produced, and this, in turn, immediately generates the belief – the faith – in its objective truth. As a result, the image achieves the status of a reliable document. However, this train of thought can be not only, as shown above, misleading, but also dangerous. A recent example will help clarify this issue.
NEITHER INDEX NOR ICON: RAPHAËL FABRE’S AN-ICON

On April 7, 2017, French artist Raphaël Fabre successfully applied for a national identification card by submitting a computer-generated, hyper-realistic portrait of him instead of a photograph (Figs. 2–3).

The digital image met all the requirements for ordinary ID pictures: it was recent and clear, it was set against a plain background, and it complied with the specific parameters of framing, lighting, contrast, and size. Under the write-up for his project dubbed CNI (the acronym for “Carte Nationale d’Identité”), Fabre explains:

The photo I submitted for this request is actually a 3D model created on a computer by means of several different software and techniques used for special effects in movies and in the video game industry. It is a digital image, where the body is absent, the result of an artificial process. [...] The document validating my French identity in the most official way thus presents an image of me which is practically virtual, a version of video game, fiction (2017a).

Importantly, to ensure his headshot was as artistic as possible, Fabre chose to model it by hand using a 3D software toolset named Blender instead of a laser scanner. Starting from a basic cube, he shaped it into a rudimental human head; he then refined the model, added lights and shades, and used complex particle effects to generate fake hair, eventually converting the 3D render into a 2D image to make it look like it was snapped in a photobooth.

What is key here is that the picture which should guarantee a unique and secure identity is, in fact, an artifact, that is – etymologically – an arte factum, a thing “made by art”. This picture is (ontologically) no longer a photograph, but it looks (phenomenologically) exactly like a photograph. Hence the age-old contrast between “being” and “being perceived” reappears in a new guise. Fabre opted not to use a scanner precisely because it would have produced a mechanical three-dimensional imprint of his head. Scans are photocopies, that is, a subset of photographs. They belong to the tradition of casts, molds, and traces. As such, they are anchored in the paradigm of the “mere register of presence” (Harvey 2018, 23), no matter if it has long been recognized that this paradigm is often but a myth. The automatic process of
reproduction gives these images their evidentiary or documentary value. According to the ontology of social reality, documents count as a particular kind of traces, for they represent their subjects by relying “upon some direct causal link connecting the represented subject to the trace itself, and upon the capacity of the person that perceives the trace to trace back along this causal link” (Terrone 2014, 164). In the case of photographic portraits, this “tracing back” has become an almost automatic process precisely because we are accustomed to associating the fact that photographs are, indeed, mechanical imprints, to the non-fact that they always have a documentary value. Their reliability in authenticating someone’s identity does not derive from their alleged objective truth but from our hard-to-eradicate belief in their objective truth: “If a fake passport appeared to be in order and to belong to the bearer, then the traveler would be allowed to pass. Passports work on trust, not on truth” (Buckland 2014, 182–183). Passports and identity cards are meant as evidentiary devices within a specific system of control: their (objective) validity rests upon the fact that they are (subjectively) considered valid, and this holds also true for Fabre’s ID card, which is a document because it has been recognized as such.

What can strike us as most interesting in Fabre’s artistic experiment is that while document validation presupposes mechanical fidelity and “noninterventionist objectivity” (Daston and Galison 2007, 123), the picture he presented was anything but the result of a mechanical and noninterventionist process. The artist emphasized that he “sculpted” and “re-sculpted” the cube from which he started to finally obtain a basic human head; then he used a texture from photographs of himself, which were subsequently “painted” by projection on the model (Fabre 2017b). The vocabulary used clearly refers to ordinary artistic activities such as sculpting and painting: what appears to be a photograph is, in fact, the result of a meticulous hand-modeling process.

One might be tempted to find a precedent to Fabre’s artwork in the late 1960s and early 1970s American photorealism, more specifically in Chuck Close’s first portraits like the famous Big Self-Portrait (Fig. 4). However, it must not be overlooked that Photorealism never aimed at just fooling the eye of the observer (Lindey 1980, 16–21), if only because photorealistic paintings have always found their natural “habitats” inside museums and art galleries. These so-called “institutional frames”, like all frames, generate expectations in the sense that the visitors, when crossing the threshold of the museum entrance, inevitably assume that they will be confronted with images, i.e. with representations that, as such, must reveal their pictorial nature regardless of how strikingly realistic they may be. For this to happen, however, the images must immediately be perceived qua images, and the fact that they are framed within a museum helps achieve precisely this goal: “The stability of the frame is as necessary as an oxygen tank is to a diver. Its limiting security completely defines the experience within” (O’Doherty 1999, 18). When observing a photorealist painting, viewers are always aware that they are looking at a painting.

Not so in the case of Raphaël Fabre’s artwork, though. CNI tends towards unframedness, aimed as it is at being not recognized as a work of art but, instead, as part of the life-world – as an ordinary document. The structure of so-called “documentality” include “first of all, a physical support; then an inscription […] which
determines its social value; finally, something idiomatic, typically a signature (and its various variants, such as digital signatures and PIN codes), which guarantees the authenticity of the document” (Ferraris 2006, 13–14). If so, then Fabré’s ID card must be considered as a fully legitimate document, but this is precisely what makes it, paradoxically enough, a work of art. The computer-generated image looks so realistic that it is immediately deemed to be a photograph; consequently, indexicality is also taken for granted. Yet that picture is a hand-made portrait: it is not an index but an icon, or more precisely an “an-icon” – a word recently introduced by Andrea Pinotti (2017) to define an icon (in the sense of the Greek word eikon, meaning “picture”) purposely made to conceal its true nature of icon.

Fig. 4: Chuck Close: Big Self-Portrait (1967–1968), Walker Art Center. Courtesy of the Pace Gallery.

Dependent as it is on photographic convention, Fabré’s self-portrait has been officially validated because of (or thanks to) the presumption of its mechanical adherence to the original. CNI has, of course, several socio-political implications, but it first concerns aesthetics, for it challenges the traditional opposition between the mechanical process of imprint taking (which generates copies that can serve as documents) and the creative process of hand modeling (which is an essential part of the “genius” and “originality” that we use to ascribe to all works of art). By unexpectedly coupling free modeling with mechanicalness, and by making it impossible for the naked eye to distinguish a hand-made portrait from a photograph, Fabré plunges photography (and, more generally, mechanically-obtained pictures) into an abyss of mythical indexicality. No matter whether analog or digital, photography maintains a link to physical reality, which is “captured” (a telling word) either by means of light-imprint on a light-sensitive material or by translating the light impulses into the electronic binary code. Fabré’s digital sculpture disentangles precisely this link: it is deprived of
indexicality, although it retains referentiality to the real world in that it still refers to an existing individual, in this case, the artist himself. It belongs to what I propose to label “pseudographs”, meaning all images that – contrary to photorealistic paintings à la Chuck Close – fool the naked eye into believing it is confronted with ordinary photographs.

Inasmuch as forging ID cards and passports means crime, it is also important to understand the legal issues raised by CNI. In the case of Fabre’s work, the severity of the infringement is attenuated by the simple fact that it was not at all conceived for identity fraud. At the end of the day, the hyperrealistic portrait he created is (almost) identical to a real photograph of him: in both cases, the depicted person is the same, so that the question, from a legal perspective, becomes rather unproblematic. All the more so as most of recent IDs contain biometric information and security features that allow to ascertain personal identity with a much higher degree of certainty than a photograph.

But what happens when a purported photograph does not only lack indexicality, but also referentiality with respect to the real world? In other words: what about a pseudograph portraying a person who does not even exist?


On 25 October 2018, a Christie’s auction in New York caused a great sensation. A portrait of a fictional man created (or rather generated) by artificial intelligence and printed on canvas was sold for the staggering amount of $ 432,500, nearly 45 times the initial high estimate (Fig. 5).

The title of the artwork, Edmond de Belamy, is a tribute to machine-learning researcher Ian Goodfellow, whose surname can be roughly translated into French as

![Fig. 5: Edmond de Belamy, from La Famille de Belamy (2018). Image from Wikimedia Commons.](image)
“bel ami”. The only element added to the “painting” (if it can technically be called so) is the curious “artist’s” signature on the bottom right, which reads “min G max D Ex[log(D(x))] + Ez[log(1-D(G(z)))]”, a formula corresponding to the core section of the algorithm’s code of Generative Adversarial Networks (GANs), a concept in deep learning introduced by Goodfellow in 2014.

GANs are deep neural architectures comprised of two nets pitting one against the other in the attempt to synthesize artificial samples (such as images, digits, pieces of music, speeches) that cannot be distinguished from authentic samples. The generative network produces candidates to be submitted to the discriminative network, which, in turn, compares the computer-generated samples to the real ones and tells the generator how far off it is. The contest operates in terms of data distributions, with the generator automatically trying to “recognize” patterns and regularities in streams of input, then modeling analogous textures and eventually combining them in order to generate new samples that could plausibly have been drawn from the original dataset. It is the discriminator’s task to evaluate whether each instance of data it analyzes actually belongs to the original training dataset or not. Thus, the generative network can be thought of as analogous to “a team of counterfeiters, trying to produce fake currency and use it without detection”, while the discriminative network is comparable to “the police, trying to detect the counterfeit currency” (Goodfellow et al. 2014, 1).

As for the portrait (or rather quasi-portrait) of Edmond de Belamy, artificial intelligence was trained by Obvious, a French art collective that fed the system with a data set of thousands of portraits painted between the 14th and the 20th century. The generator net made new images based on the original set and submitted them to the discriminator net, which tried to spot the difference between these pictures and the human-made paintings. Edmond de Belamy fooled the discriminator into thinking that it was confronted with a real-life portrait. This poses a problem in terms of authorship, for it is hard to tell whom the “painting” should be really attributed to: to the program, to the programmers, or to all the human artists whose works were used to train the artificial intelligence?

Yet GANs raise far more urgent issues when the original data set consists of non-artistic, extremely realistic pictures, especially photographs. In this case, neural networks can create artificial worlds uncannily similar to our own. In particular since the publication of Goodfellow’s pioneering article, the generation of fake faces has been obsessively pursued, and the impressive results of this chase for the perfect forgery can be followed daily on the website thispersondoesnotexist.com, which uses Nvidia’s algorithm “StyleGAN” to create an endless stream of new facial images from scratch. Despite being often indistinguishable from real photographs, these pictures – unlike Fabre’s CNI – do not refer to any existing or existed people: they are artificial, synthetic, hyperrealistic combinations (or rather reconfigurations) of thousands of different facial traits like skin and hair color, blended together so as to create what (merely) looks like to be an entirely new person (Fig. 6).

The ancient paradigm of mechanical images has been corroded from the inside and turned upside down. Indeed, despite all the differences, and if no post-process-
ing occurs, both analog and digital photographs “reflect” reality – even if it can be, of course, a *staged* reality (van Alphen 2018) – by virtue of the process of imprint-taking through an optical apparatus. On the contrary, in the case of GANs-generated images the artificial intelligence merely “intends” the probability distribution of pixels of the photographs that it has been fed with, in the attempt to decode the statistical law at the core of the original samples and to make of it a specific visual “style” that can be used to produce what can be considered as a subset of pseudographs: automatic, machine-based pseudographs, or, in other words, “digigraphs” (Mercuriali 2019).

However astonishing, the results that can be achieved through the Generative Adversarial Networks are but a step in the increasing invasiveness of the digital to reality in the flesh. After supporting GANs’ creator Ian Goodfellow through a Fellowship in Deep Learning, Google continues to be at the forefront not only of enhancing GANs architectures, but also of exploring different ways to generate hyperrealistic synthetic images. In a recent paper, DeepMind researchers Ali Razavi, Aäron van den Oord, and Oriol Vinyals (2019) showed that Vector Quantized Variational AutoEncoder (VQ-VAE) – a generative algorithm alternative to Goodfellow’s – can produce samples with quality that rivals that of state-of-the-art GANs, while not suffering from GANs known shortcomings such as lack of diversity (the generator being able to produce only limited varieties of samples).

We have thus entered the era of *mockumentality*, a term that I introduce here to describe the turn from the psychological fact of the belief that hyperrealism, mechanical replication, and objective truth are intrinsically linked together (even though we can often prove the opposite), to the equally psychological fact of the growing
mistrust in any correspondence whatsoever between the images (however realistic they may be) and their referents. Artificial intelligence raises great hopes as well as serious concerns about malicious applications of human image synthesis, as is being made more and more evident by the recent advancements in the creation of deepfakes. Manipulated footages can be used to catfish people on social media, to swap celebrities’ faces onto the bodies of actresses in pornographic videos, or to circulate misinformation and fake news.

Experts are already committed to find new ways for authenticating digital images, and some solutions have been recently launched, like stamping pictures with geocodes to verify when and where they were taken or making forensic tools available online that analyze metadata in order to verify whether the images are genuine or fabricated. As in a kind of cat and mouse game, the same neural networks that generate deepfakes can be used to automatically detect them. The battle between artificial intelligence fakery and image authentication has just begun, and one of the key battlegrounds will certainly be how to credit facial reproduction as a legitimate way to document personal identity at a time when the threshold between actual reality and artificial (or virtual) reality is dramatically blurring. As pinpointed by Hans Belting ([2013] 2017, 240), “cyberfaces exist in fundamental contradiction to the history of portraiture; they no longer represent faces, but only interfaces among an infinite number of potential images, whose closed loop separates them from the outside without the interposition of any physical bodies. [...] The interplay of face and mask – defined as opposites in the history of the face – is nullified.” Things seem to be coming full circle, as if we were dealing again with the ambiguous overlapping of face and mask once epitomized by the Greek prosopon. One would be tempted to say that the clash between the face and the mask has moved from reality in the flesh to cyber-space, if only the distinction between the two fields were not so rapidly becoming more and more vague, blurry, and questionable.

NOTES

1 I put the word in inverted commas because the aspect and function of the imagines as masks, busts, or even full-size effigies is still a matter of debate (see Dasen 2010).
2 I use this term to indicate the peculiar agency of an image that is considered to embody and replace its referent rather than being just similar to it.
3 As pointed out by Kornmeier (2008, 75), “this notion is perpetuated even today, when visitors see in the exhibition the waxwork of a young Marie Grosholtz casting a guillotined head”.
4 The écôrches (“flayed”) are drawings, paintings, or sculptures representing the human figure with the skin removed to display the muscles and vessels. By the late 18th and early 19th centuries, wax was the most popular material for creating écôrché statues.
5 "Photographieren hieß früher 'abnehmen'. Man nimmt ein Äußeres, den Schein des Menschen, wie eine Mask ab."
6 For a detailed analysis of the analogies and the differences between traces and documents, see Terrone 2014.
7 This holds true even if Fabre, after obtaining his ID card and unveiling its true nature of artwork, has presented CNI in several museums and exhibitions.
pdf/1809.11096.pdf) in which they presented a modified version of traditional GANs model called BigGAN that immediately set the new state of the art in class-conditional image synthesis. Only one year later, in a revised version of the paper, the authors introduced BigGAN-Deep which outperforms its previous generation.

LITERATURE

Mockumentality: From hyperfaces to deepfakes


Hyperrealistic replicas of the human face owe their documentary value to the belief that they result from mechanical reproduction. The idea that a picture is automatically produced through a process of imprint taking is often enough to convince the viewer of its truthfulness and reliability, thus contributing to giving images an aura of authenticity and to creating the myth of pure objectivity. But what happens when the link between hyperrealism, mechanicalness, and truthfulness is disentangled? In 2017, French artist Raphaël Fabre successfully applied for an ID card using a computer-generated picture where the real face was, in fact, an artificial, synthetic mask. Starting from this case study, the essay tackles the issue of the increasing overlapping of actual reality and digital (un)reality, particularly focusing on the concerns raised by the confusion between faces and masks caused by the rapid spread of so-called deepfakes in a world that speeds from documentality towards what I propose to call mockumentality.

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