The Legal Semiotics of the Digital Face: An Introduction

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1 Semiotics and the Face

The face is such a key semiotic object of inquiry that would contaminate almost every aspect which relates to the notions of both "communication" (intentional meaning-making) and "signification" (meaning-making in general, detached from any form of intentionality) to the extent that, paradoxically, it has historically been a neglected one. Whereas sporadic and yet illuminating contributions to the semiotics of the face have been scholarly produced (including studies on portraiture, masking and disguising, beauty and ugliness, cosmetics and fashion etc.), rarely the face has been the primary focus of a dedicated, systematic semiotic study.

The reasons for such a disciplinary void may be at least two, of different nature. On the one hand, there is no such thing as "the face", plain and simple, meant as a natural object. Rather, there is a naturalized, complex semiotic layering including a (A) physical, biological dimension (the *facies*) and a (C) socio-culturally shared palimpsest that constitutes our public interface (the *visus*), (B) bridged together by a mediation level where our emotions may – intentionally or not – surface (the *vultus*). On the other hand, the concept of systematically exploring a facial study might be similar to, or reminiscent of, physiognomy and phrenology. These are pseudo-scientific fields, not born from an anti-semiotic mindset, but rather from a comprehensive semiotic and interpretive approach. This approach could be attributed to what might be described as a "mad semiotician": an individual who consistently and unrelentingly interprets everything as a deliberate sign within a coherent sign system, capable of constructing an organic narrative. However, as Claude Lévi-Strauss, the founder

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of structural anthropology, frequently emphasized, this is not the case in the realm of human expressions and actions.

The effort of the ERC-funded research project FACETS (Face Aesthetics in Contemporary E-Technological Societies), hosted by the University of Turin, Italy, and dedicated to the semiotic study of the face, has been threefold: (1) reconstruct the dispersed contributions to a possible semiotic study of the face and (2) systematically reflect on the face in all its diverse, contemporary configurations, with special regard to new technologies, in order to possibly (3) re-define the face semiotically.

As a group, besides all the individual studies dedicated to specific subfields, objects, and case histories, FACETS has tackled the different "cultures of the face" [5], with a particular attention to the diatopic, culturally-specific variations [2, 6, 16, 17], outlining the essentials of a "cultural semiotics of the visage" [3]. FACETS has posed a question to the scholarly community: "What's so special about faces?" [15]. This inquiry encompasses a broad spectrum of research, including both mainstream and marginal phenomena [1, 14]. It also addresses critical issues, such as the impact of the Covid-19 pandemic on facial semiotics [7, 8], the influence of post-anthropo-centric epistemologies [9], and the role of new digital technologies [10, 11, 13]. This is undertaken with a deliberately pioneer perspective, aiming to anticipate potential future developments in these areas [4].

2 The Face and the Digital Under the Lens of Legal Semiotics

In an era dominated by rapid technological advancements, the concept of the face has undergone a profound transformation. The monographic issue of *The International Review for the Semiotics of Law* devoted to "The Legal Semiotics of the Digital Face", edited by Professors Gabriele Marino and Massimo Leone (both FACETS), presents an in-depth exploration into this metamorphosis, specifically through the lens of legal semiotics. The special issue is a response to a critical need for understanding how digital technologies have modified our definition, perception, and interpretation of the face.

Traditionally, the face has been perceived as a fundamental semiotic token, a multifaceted signifier: indexical as a part of our body, iconic in our interactions and representations, and symbolic in its role in signifying identity and presence. However, in the digital world, this understanding is increasingly complex and nuanced; and, maybe, it is being put into question for once and for all. Digital artifacts, which are primarily semiotic constructions, such as "big data" and "artificial intelligence", have ushered in new paradigms for interpreting the face, raising pivotal questions about its nature (what is a face?), agency (what does a face do and make do?), and accountability (is a face responsible? What or who is responsible for a given face?).

In order to explore a proper legal semiotics of the digital face, we may establish a series of dimensions or levels of pertinence and inquiry:

- Face ontology: which delves into the crucial question of what constitutes legally a face in the digital world. It explores the boundaries between non-faces (what is not a face, and what a face is not) and faces in digital contexts, challenging tradi-

tional notions and prompting a reevaluation of what we understand a face to be;

- Face technology: which delves into the role of technologies in mediating, representing, reconstructing, and constructing the face. It scrutinizes how digital technologies resemanticize and deconstruct the biological face, and the subsequent legal implications of these transformations;
- Face existentiality: the focus shifts to the changes in how notions such as "identity", "subjectivity", and even "humanity" have been linked to the face where and when digital technologies intervene. It explores how these paradigmatic shifts interact with the world of law;
- Face epistemology: which delves into the challenge of veridictory practices, e.g., differentiating real faces from their digital counterparts and/or false/fake ones. It questions the relevance of traditional binary oppositions in the digital age (i.e., true vs. false) and considers the need for new categories to understand and legally handle digital faces;
- Face axiology: it delves into the diverse functions, values, and – thus – proper ideological constructions of the face in the digital world. It critically examines the legal significance and valorization of digital faces in various contexts, offering insights into their evolving roles and implications.

These dimensions or levels may fruitfully operate with regard to many practical areas of interaction between the face and digital technologies, which lie at the core of the present-day communication ecology, outlining the domain of a true "hybrid face" [12]: facial detection and recognition (from smartphone unlocking systems to private and public surveillance systems), facial filtering (Photoshop, Snapchat, Instagram, TikTok, augmented reality environments in general etc.), facial generation (generative AI tools such as Dall-E, MidJourney, Stable Diffusion, virtual reality environments in general), facial simulation (holograms, deep-fake technologies).

3 Critical Summary of the Articles Included in "The Legal Semiotics of the Digital Face" Special Issue

This issue brings together a diverse range of scholarly perspectives, drawing from law, semiotics, technology, and philosophy. It represents a collaborative effort to unpack the intricate relationship between the digital face and legal theory, offering a comprehensive semiotic overview of the current state of research in this field.

In his article "Preserving anonymity: Deep-fake as an Identity-protective Device and as a Digital Camouflage", **Remo Gramigna**, Postdoc researcher at the University of Turin, Italy, within the ERC project FACETS (Face Aesthetics in Contemporary E-Technological Societies) led by Professor Massimo Leone, investigates a less-discussed aspect of facial deep-fake technology: its use as a protective mechanism for hiding the identities of individuals at risk, such as whistleblowers, thus challenging the prevalent negative socio-culturally shared narrative surrounding this technology. Deepfakes, massively emerged in 2017, have mostly been seen as a privacy threat and a means to spread false information (such as fake news). This view is based on the technology's deceptive capabilities and it is based on the fact that its initial use

was creating and distributing manipulated pornographic content online for harmful purposes. Such an application definitely blurs the lines between reality and fiction, leading to risks of misinformation and deceit, while also opening up new possibilities for creative use. The focus of the article is the innovative use of deepfake technology as a form of 'digital camouflage' as seen in David France's documentary *Welcome to Chechnya* (2020). By highlighting the usage of deep-fake in this audiovisual artifact, the article points to an ethical and potentially beneficial use of such technology, suggesting that it can be more than just a tool for deception and harm.

In his article "Digital Face Forgery and the Role of Digital Forensics", **Manotar Tampubolon**, Assistant Professor of Law at the Universitas Kristen Indonesia in Jakarta, discusses the challenges and solutions in verifying the authenticity of digital photographs, particularly in the context of facial image manipulation. With the ease of altering faces using digital editing software, digital image forensics has become a crucial scientific method for verifying photograph authenticity. The study evaluates the effectiveness of three digital image forensics tools: Foto Forensics, Forensically Beta, and Opanda IExif. All three methods have been found effective in identifying fake digital faces. The analysis of metadata differences and contrast variations between original and altered faces is a key method in detecting alterations. Digital image forensics not only aids in legal and investigative processes but also emphasizes the need for stronger digital security measures; this includes improved encryption, authentication, and legal regulations to protect against facial photograph manipulation. The article also stresses the importance of updating legal and regulatory frameworks to keep pace with the increasingly sophisticated techniques used in facial photograph editing. As digital technology and editing tools become more advanced, the continuous development and improvement of forensic techniques are crucial as well.

In their article "Posthumous Digital Face: A Semiotic and Legal Semiotic Perspective", **Giuditta Bassano and Maragaux Cerutti**, respectively Assistant Professor of Semiotics and PhD in Semiotics at LUMSA ("Libera Università Maria Ss. Assunta"), Rome Italy, provide an in-depth examination of the semiotic and legal aspects of posthumous digital faces, including AI-generated faces and deepfakes, in the context of mourning and the handling of posthumous rights. The article addresses the challenges of contemporary posthumous existence and the issue of the respect for the deceased, including a discussion on the concept of "digital personhood". Three case studies are presented to explore the distinction between posthumous existence (the USC Shoah Foundation's "Dimensions in Testimony" project (2014), the "Forever Identity" project by Fabrizio Gramuglio and Giorgio Manfredi (2012), and digital resurrection (the first episode of *Hotel du Temps*, featuring the avatar of Dalida (2022)). The article offers a semiotic classification of representation in digital faces, according to two categories: the first distinguishes between creating a hologram (i), reproducing someone's identity (ii), and creating a digital witness (iii); the second distinguishes between "interaction" and "evocation". The concept of "imputability" is proposed, a broader one than authority or paternity rights, meaning the attribution of responsibility or the source of origin for posthumous digital creations, particularly in the context of AI-generated images or holograms, considering both legal and ethi-

cal dimensions. The article differentiates between active planning and consent of the individual before death and the posthumous handling of their digital persona.

In their article "Legal Status of the Employee's Face in the Era of Modern Technology Development", **Aneta Giedrewicz-Niewińska and Marzena Szabłowska-Juckiewicz**, respectively Professor of Public Economic Law at University of Białystok, Poland and Professor of Labor Law at Nicolaus Copernicus University in Toruń, Poland, address the increasing concerns related to privacy intrusions, particularly focusing on how modern technology captures and processes images of individuals' faces in the workplace or in employment/work-related contexts. By employing the formal-dogmatic method (or dogmatic-legal method), the article aims to explore the boundaries of permissible intrusions into employees' privacy, particularly in relation to capturing, processing, and sharing their facial images using modern technologies in the framework of the GDPR. The face is as an essential component of a person's identity, making its unauthorized use or recording a privacy issue: with the widespread use of photography and other recording methods, there has been a growth in threats to individual privacy, and this is further amplified by the Internet and electronic media's easy access. The development of technologies for processing personal data in workplaces (badges, video surveillance, promotional and/or public activities of the entrepreneur and the company etc.), especially those involving subordinates, raises concerns about privacy intrusions, not only by employers but also by third parties. The GDPR's regulations enable employers to adapt effectively to challenges posed by different emergency situations in their workplaces, while also establishing strict boundaries to safeguard individuals' rights and freedoms from excessive intrusion.

In the article "Contributions to the Legal Semiotics of Facial Recognition Systems: Live Music, Digital Technology, and the Display of Power", **Gabriele Marino**, part-time Assistant Professor of Music Semiotics at the University of Turin, Italy, member of the ERC project FACETS (Face Aesthetics in Contemporary E-Technological Societies) led by Professor Massimo Leone, examines the significance of the human face by means of the example of facial recognition technologies used in concerts. Grounded in Jacques Attali's (*Bruits*, 1977) perspective on music and in particular on concert halls as mirrors of power structures, the article discusses the accuracy and ethical implications of facial recognition and proposes the distinction between "face" (body part) and "visage" (cultural stance). Facial recognition systems are outlined as a cultural unit by drawing on Edgar Allan Poe's tale *The Man of the Crowd* (1840, which allows problematizing the relationship between the individual and the collective) and a review of science fiction films (Hollywood comments on facial recognition systems deployed by the government and targeting "heroes", while in reality this technology is in the hands of private companies and targets minority groups). Within the context of the economic and experiential factors driving the use of surveillance technologies in the live music business, case studies of musicians, professionals, and authorities provide a multifaceted insight into the debate over facial recognition. The article concludes with a consideration of the philosophical implications of the "face" versus "visage" dichotomy in the context of the post-pandemic era: while the former allows for manipulation and datafication, the latter cannot.

We may identify a number of isotopies (recurring semantic nucleuses, according to semiotic metalanguage) that run through the articles of the collection, by including both semiotic and legal aspects of the digital handling of the human face: the ownership of the face (which configurates itself as a bridge – a proper medium – between the individual and the social, the personal and the public), the interdependence of ethics and law (in a kind of circular relationship), and the transnational nature of technologies (which would require a certain level of translatability between national or communitarian regulations).

All these topics would require further theoretical elaboration and practical implementations in the framework of a proper legal semiotics, which is hopefully the most important legacy of the FACETS research and of this monographic issue in particular.

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