

# Beyond the Human Gaze: Materiality and the Deanthropologization of Vision

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## **Abstract**

This article examines how contemporary media technologies transform the conditions of visibility, challenging anthropocentric models of perception historically grounded in the human gaze. Drawing on the philosophies of Gilbert Simondon and Bernard Stiegler, it argues that vision is not merely extended by technical apparatuses but reconfigured through processes of technological individuation and transindividuation. From optical devices and perspectival systems to algorithmic media and machine vision, the image progressively detaches from embodied human perception and becomes an operational entity within technical infrastructures. Through an analysis of historical and contemporary media systems, the article develops the concept of *distant visibility* to describe modes of seeing that function beyond phenomenological experience. In this context, vision emerges as a distributed process shaped by material, computational and mnemonic systems, marking a transition toward the deanthropologization of perception and the emergence of posthuman and nonhuman regimes of visibility.

**Keywords:** posthuman perception, technological individuation, distant visibility, machine vision, media theory

## 1. Introduction: From Gaze to Interface

The central claim of this article is that media technologies do not merely extend vision but participate in the individuation of subjectivity and perception itself. Thus, traditional understandings of perception—rooted in phenomenology and Cartesian scepticism—are no longer adequate to account for contemporary modes of visual experience mediated by technical systems. A problem arises in Husserlian phenomenology, wherein the psyche remains foreign. In a logical theory of reflection, the mutual production of the phenomena of consciousness, the need for the other in the genesis of thought, and the interactive processes we call “persons” establish an eidetic reduction. Here, reflection does not designate perception as such, but a second-order operation through which perceptual experience is thematised, stabilised and rendered intelligible. This reduction does not exclude intersubjectivity; rather, it presupposes it, insofar as consciousness is always already given as co-constituted with others.<sup>1</sup> This reduction excludes hyper-material worlds, but it does not exclude the need for “others” (thought of in a broad sense). This is because the presence of an “other” consciousness is given with consciousness itself, whereas the worlds that emerge between such interactions appear only as provisional and unstable. As a result, these interstitial worlds remain subject to doubt. In modern societies, this doubt is intensified by the accumulation of simulacra, which mediate and displace lived experience. Our task, then, is not to resolve this uncertainty, but to work methodologically within it—through intersubjective reflection on the logical transformations that accompany our co-evolution with digital images.

Media, I argue, are the conditions of possibility for world genesis—that is, for the emergence of relational fields in which beings, meanings and interactions take form (a world is not a pre-given totality of objects, but a dynamically constituted horizon of relations). Media operates as a non-place: situated outside any single “world,” yet enabling the existence of multiple worlds.<sup>2</sup> In this sense, media are themselves possible worlds, just as we are possible worlds for them. Unlike classical theories that treat the world as a stable order of objects, media appear within our world as objectified subjects—neither mere objects nor bodies, but interactive ontological operators that participate in the ongoing genesis of worlds through our engagements with them. This relational complexity exceeds Aristotelian frameworks that reduce reality to a sum of discrete, semantically bounded entities.

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1 Reflection here should not be conflated with perception. In the phenomenological tradition, perception refers to first-order, pre-reflective experience, whereas reflection designates a second-order operation through which perceptual experience is thematised and rendered intelligible. The eidetic reduction concerns this reflective level of analysis rather than perceptual givenness itself.

2 Here, world designates a relational and processual horizon through which beings, meanings and interactions are co-constituted, rather than a fixed or totalised collection of objects.

This allows us to observe how the terminological force of the concepts of medium, image, and what Gilbert Simondon describes as the “individuation of technical beings,”<sup>3</sup> can be applied as powerful leitmotifs for thinking about interfaces. The following question arises: How can we think about and focus on the depth of the interface? Where, and how, can we find or create new and surprising relationships between a surface and its depth? How can we make visible the many layers that are hidden behind and within the interface? This singularity will not occur through the medium, nor will it offer a different way of treating media, nor will it serve as a technical achievement. The transition to something completely different will only be possible through the advent of new systems of meaning—a transcript or chiasmic crossing of previous world models; that is, through interactive and intersubjective acts.

To rummage through pre-existing genealogies also means revealing the place of thought in thought. To do so would mean that the thinking being must make their rootedness known, and that rootedness must be revealed in the multiplicity of living and non-living contexts. Do we understand, then, that media has been invisible until now? We said that media has no body, nor affection, despite understanding that the compartmentalised plains (which were never separated) can be reunited to collectively create a new condition of visualisation which has, until now, remained invisible. Today, however, that is not the real problem. Today, the issue is the overabundance of data images and the extent to which they can be processed by humans. It is an issue of scale. It is not simply a matter of delegating the production of images to machines—as in the case of technical images—but of delegating their analysis, including the processes through which they are selected, processed and rendered visible. If we follow Stiegler, it is the synthesising of images that has been delegated to machines, and today, algorithms are in charge of their analysis.

## **2. The Crisis of Focalisation: From Optical Apparatus to Attention Economies**

In this section, I will try to map a historical and epistemological transition in how vision is structured, understood, and instrumentalised—from the classical model of perspective to today’s algorithmic visual systems. The notion of “focalisation”—the act of constructing and stabilising a view from a subjective point of origin—grounds a model of perception based on unity and control. However, digital and computational technologies have disrupted this paradigm. What emerges is a dispersed, non-localised, and dynamic visual field marked by the erosion of subject-centred vision.

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3 Gilbert Simondon, *El modo de existencia de los objetos técnicos*, trans. M. Martínez and P. Rodríguez (Buenos Aires: Prometeo, 2008), originally published 1958.

## 2.1 The Pictorial Turn and Media as *Epoché*

William J.T. Mitchell's (1995) concept of the "pictorial turn" signals a shift in the humanities from linguistic to visual paradigms. This does not simply mean more attention to images but a change in the status of the image itself: from representation to operational logic. In tandem, Husserl's notion of the *epoché*—a suspension of inherited perceptual and epistemological categories—helps frame the media's role not just in representing the world but in reconfiguring it. This transformation did not occur because of the dependence of the image on language, as Mitchell points out, but because of the emergence of computing, information theory, and therefore, the transformation of the world into mathematical language.<sup>4</sup> Hence, what is relevant is not that other disciplines are interested in the image, but rather how the concept of the image *itself* begins to metamorphose in the context of global digitalisation.

The operational division<sup>5</sup> between the real and virtual is illusory. The virtual is an extension of ourselves in a manufactured and constructed space. It is not separate from, but a projection of our being. The virtual recreates and projects the specific and local conditions of our bodies. The space of the virtual, digital, and the technosphere are worlds that reflect our virtual work back into the realm of lived experience and embodied being through a techno-translation (coding). This reconfiguration also involves a shift in disciplines. Semiotics and structural linguistics previously sought to decode meaning in images based on symbolic systems. But with the rise of computation and global digitalisation, the image itself undergoes a transformation: it is no longer tied to visual apprehension but becomes a mathematical and informational entity. Hence, the pictorial turn is accompanied by a computational turn, where what is visual is increasingly determined by what is quantifiable, processable, and exchangeable as data.

The power of images that Mitchell discusses is therefore cultural and symbolic, just as it is for Belting.<sup>6</sup> It is worth asking, then, the extent to which data-images are capable of conveying cultural aspects, because although the paradigm of the network and globalisation tends towards breaking with local cultural models, data analysis makes it possible to determine and predict local behaviours, depending on the information collected via the web. These are the default digital footprints that Louise Merzeau talks about (2009). But it is necessary to highlight that the power of data-images does not reside in their observation or contemplation—in their being seen. Their power lies in the information they are capable of conveying, independent of sight.

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4 William J.T. Mitchell, *The Language of Images* (Chicago: University of Chicago Press, 1980), 7.

5 To read more about this operational division, see Friedrich Kittler, "There Is No Software," in *The Truth of the Technological World: Essays on the Genealogy of Presence*, trans. Erik Butler (Stanford, CA: Stanford University Press, 2014), 219–229.

6 Hans Belting, *Anthropologie de l'image* (Paris: Gallimard, 2014).

Media, in this sense, are not passive carriers of content but active participants in shaping the conditions of visibility and intelligibility. They instantiate their own “worlds,” no longer indexed to anthropocentric perception. Media becomes ontogenetic: they give rise to new ontologies and relational milieus.

## 2.2 Optical Apparatus and Prosthetic Vision

The development of optical devices—telescopes, microscopes, cameras—has historically functioned to extend the visual capacities of the human body. These devices operate within the laws of optics, allowing the construction of a stable, perspectival image. The observer is situated as the central node of perception, aligned with the Cartesian model of rational subjectivity. The Renaissance invention of perspective epitomised this centre of the subject: the eye governs the organisation of space.

In this sense, devices such as the telescope, photographic, or cinematographic camera construct a *focused* image. This is thanks to the laws of optics, a discipline which configures a series of devices capable of amplifying the visual capabilities of the human eye so that it can construct and structure space. Since “natural” perception is always mediated by such structuring devices that enable a way of seeing, these act as prostheses, expanding the natural (albeit limited) capabilities of the human eye. It is necessary to note, however, that today the history of the focused gaze, through the most diverse of optical devices, is being questioned. The result is a whole series of epistemological consequences. Ultimately, the concept of “a point of view,” or subjectivity, is still problematic. This does not mean that devices which focus the gaze disappear, but rather that the eye behind these prostheses no longer holds a central place in the construction of the image. In other words, it is no longer based on perspective and projection, and therefore, focus.

This “model” of focused vision is destabilised by modern media, which introduce forms of visual organisation that fragment attention, disrupt continuity, and weaken the coherence of a single viewpoint. As Walter Benjamin observed (1973), this shift replaces concentrated contemplation with modes of distracted reception, inaugurating a regime of perceptual shock. The observer becomes fragmented, disoriented, and increasingly passive in relation to the flow of visual stimuli. As Benjamin states, “It is the time of perceptual shock.”<sup>7</sup>

How, then, do these technical systems reconfigure the gaze in contemporary image production? From a Kantian perspective, the thing in itself remains inaccessible, and the effects of such systems on perception are not logically necessary but conditioned by the structures that make rational experience possible. What is at stake here is not merely

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7 Walter Benjamin, *Charles Baudelaire: A Lyric Poet in the Era of High Capitalism*, trans. Harry Zohn (London: NLB, 1973), 117.

how things appear, but how subjects are positioned as rational agents within conditions that enable judgment, interpretation and action. Knowledge, in this sense, does not arise from access to things as they are in themselves, but from the formal conditions under which a subject can relate to appearances as meaningful and actionable. Any claim to an unconditioned or immediate access to reality would therefore be illusory.<sup>8</sup>

Moreover, Simondon's philosophy compels us to see these optical devices not as discrete instruments but as phases in larger processes of technical individuation. For Simondon, every technical object is part of a continuous evolution, shaped by incompatibilities and thresholds within systems. The eye, in this context, becomes a node within a prosthetic assemblage. Vision is not natural but composed—technically, socially, and affectively. When combined with Kant's perspective, what becomes apparent is that the individual is only one aspect of a process. What is important is the whole. But what is this process? For Simondon, it is the process of individuation, a trigger of external stimuli that are then processed internally (ensemble).<sup>9</sup> For example, the steps of life are a process of individuation, as are "techniques". Hence, prosthetic vision is not merely an extension but a transformation. Optical media do not just add to human capabilities—they recode them. They participate in transductive relations that reshape what it means to perceive, to interpret, and to relate to the world.

### 2.3 Attention, Memory, and the Industrialisation of the Gaze

The rise of digital media, and especially of networked platforms, has introduced new regimes of attention. Paul Virilio (1994) describes the condition of "dyslexic vision," in which rapid visual turnover weakens central focus. Images become ephemeral, peripheral, and affectively thin. Acceleration replaces contemplation, leading to perceptual disorientation and attentional fragmentation.

This shift aligns with Bernard Stiegler's (2008, 2018) analysis of the "crisis of attention." In his view, attention is a psychic and social resource increasingly captured and commodified by media systems. New technologies automate reflexive responses, bypassing deliberation and fostering behaviours governed by speed, automation, and externalisation. Here,

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8 While Kant's epistemological account of space and time as forms of intuition is developed in the *Critique of Pure Reason*, the present argument draws on the *Grounding for the Metaphysics of Morals* insofar as it articulates the conditions under which a subject can count as a rational agent. In this context, the limits of knowledge are understood not only in terms of cognition, but in relation to the formal conditions that enable autonomy, judgment, and responsibility. The epistemic constraint on access to things in themselves is thus reframed as a practical constraint on what can meaningfully appear for a rational subject. See Immanuel Kant, *Grounding for the Metaphysics of Morals*, trans. James W. Ellington (Indianapolis: Hackett Publishing Company, 1993).

9 Gilbert Simondon, *El modo de existencia de los objetos técnicos*, 178.

attention is short-circuited—subtracted from symbolic circulation and reduced to instantaneous reactions.

Stiegler's concept of tertiary memory is essential to this discussion. He distinguishes between primary memory (immediate experience), secondary memory (recollection), and tertiary memory (technical inscription). Digital media exteriorise memory through devices and platforms, transforming the processes of individuation. These changes contribute to what Stiegler calls an "anthropological mutation"—a reconfiguration of how human beings think, remember, and perceive.

The gaze, once structured by perspective and embodied contemplation, is now industrialised. It is harvested, measured, and predicted through computational infrastructures. Interfaces and platforms modulate not only what is seen, but how it is seen, and for what purpose. As a result, the economy of vision becomes entangled with technocapitalist logics, where value is derived from visual traces, engagement metrics, and predictive analytics.

Virilio makes a similar diagnosis. He posits the concept of dyslexic vision to account for the perceptual changes that result from an increase in visual and audio-visual prostheses, and which take us further from the phenomena of the gaze.<sup>10</sup> For Virilio, acceleration plays a fundamental role, since the succession of increasingly faster and more ephemeral images produces a lack of significance for the observer. Images are no longer internalised, re-appropriated, or integrated into personal experience/memory. They do not leave a trace. Based on studies of dyslexia, Virilio emphasises that we would suffer from a weakening of central vision in pursuit of peripheral vision that presents imprecision as one of its characteristics (unlike central vision, which is focused and therefore more acute).

Alternatively, Stiegler notes a crisis of attention as a consequence of new hyper-material technologies, bringing about or giving prominence to reflexive, automatic behaviours. By "reflexive" and "automatic" he refers to that which is the opposite of being attentive, which implies attention.<sup>11</sup> Attention is thus called into question with new technologies, implying a phenomenon of dispersion or lack of focus. If, therefore, one can say that technological advancements, such as digital devices and social media, contribute to the fragmentation of attention and memory, then technological interventions could be said to alter both. For example, the reliance on digital memory aids can impact our ability to engage in deep, reflective thinking. One can argue that these technologies often lead to a diminished capacity for sustained focus. On the other hand, Stiegler's *mnemonic* or *tertiary*

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10 Paul Virilio, *The Vision Machine*, trans. Julie Rose (London and New York: Bloomington 1994), 8.

11 Bernard Stiegler, *Technics and Time, 2: Disorientation*, trans. Stephen Barker (Stanford: Stanford University Press 2008), 117.

memory<sup>12</sup> allows the experience to be externalised and for knowledge to be transmitted. This epiphenomenon is crucial for our explanation. Currently, psychogenetic memory, as well as sociogenetic memory, must confront an externalisation of memory disseminated across an infinite number of technological devices—a technogenetic memory. This phenomenon, from Stiegler's perspective, entails an anthropological mutation intended not only to modify the cultural-economic dimension (how symbolic goods are produced, distributed, and consumed) but, more radically, to transform the mass sensorium as the foundation of the social-historical imaginary of our time; that is, the modes of seeing and meaning.

In sum, focalisation is no longer a purely optical function. It becomes a systemic operation governed by technical standards, algorithmic processing, and economic imperatives. This is not just a shift in visual style, but a profound transformation of subjectivity, temporality, and worldhood. The image, the gaze, and attention itself are reterritorialised within computational capitalism's evolving infrastructures.

### **3. Distant Visuality and Technological Individuation**

Throughout this section, I explore how contemporary visual culture is shaped not only by the externalisation of the image but also by the individuation of perception through digital infrastructures. Drawing from Simondon's philosophy of individuation and Stiegler's concept of tertiary retention, we examine how digital visibility operates at a scale, speed, and logic that destabilises human-centred perception. Rather than being an object of vision, the image becomes a node in complex systems of computation, creating a regime of *distant visibility*.

#### **3.1 Individuation and Transindividuation in the Digital Era**

Gilbert Simondon's theory of individuation offers an ontogenetic framework in which technical beings, environments, and individuals co-emerge through metastable processes. In this view, the individual is not a pre-given entity but the result of ongoing interactions across material, energetic, and symbolic milieus. Applied to digital media, individuation describes how visibility is constituted not by stable subjects or fixed meanings but by continuous transformations within the technical ensemble.

Individuation in the digital era extends beyond the psychic and biological. Stiegler (1998) adds the notion of *transindividuation*—the symbolic circuits through which psychic and collective processes of individuation are shared, stored, and transmitted. This symbolic exteriorisation is no longer inscribed in human memory or oral tradition but increasingly

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12 Stiegler, *Technics and Time*, 2, 97.



mediated by technical apparatuses: platforms, networks, databases, and algorithms. However, there are also ontogenetic patterns that generate epigenetic landscapes. These patterns support the interpretive capacity of a sense-making and decision-making process, in the moment when a relationship with such technologies is formed, and meaning is produced. We see here an opportunity to interact with both the technical environment and biosemiotics. Both perspectives can complement each other in understanding the meaning of information. This introduces a new semiotic perspective on how cellular organisms fuse to become aggregate organisms, phagocytosis, and even the life cycle itself. Let's hope that in the future these pathways of the recognition system can be described through cellular organisms. Nevertheless, this biosemiotic approach is expected to amplify the description of minimal cognition with semiotic details of such recognition pathways.

What is presented in this reflection is a material variation of a possible approach or reinterpretation of Simondon's concept of individuation.<sup>13</sup> This is essential to rationalise how the symbiosis between subjects with information and computational systems is explored. It also marks an important milestone in rethinking the relationship between subjects and technology.

### 3.2 Distant Visualisation and Algorithmic Seeing

Contemporary digital culture is marked by the proliferation of images at scales that vastly exceed human perceptual and interpretative capacities. The paradigm of "distant visualisation" emerges to describe how computational systems render visual data meaningful without human sight. Franco Moretti's (2013) method of "distant reading" in literary studies serves as an analogy: rather than reading individual texts, one studies patterns across massive corpora using algorithmic tools.

Moretti's concept of distant reading accounts for new research methodologies enabled by data science. This new methodology involves working with a large volume of data that an individual researcher cannot process. Instead, software is used to read data and visualise certain patterns, redundancies, and so on. It is called "distant" reading because it is no longer necessary—or possible—to physically read the texts; their quantity exceeds the possibility for analysis by an individual. Only software can analyse such a volume of information.

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13 Simondon speaks to us about individuation (psychic-physical and biological): individuation not only produces the individual as a result, but also forms the associated environment. The individual is, therefore, a specific phase of being that possesses a pre-individual reality with potentials that individuation is incapable of consuming. Being is in the process of becoming and therefore has the capacity to phase out of its own consciousness and resolve its tensions, understood as the change from one state to another, that is, its ontogenesis. Gilbert Simondon, *La individuación a la luz de las nociones de forma y de información* (Buenos Aires: Cactus, 2015).

Lev Manovich (2020) extends this principle to the visual domain through his project of Cultural Analytics. Instead of focusing on singular works, Cultural Analytics analyses vast databases of images—museum collections, Instagram feeds, video archives—to detect aesthetic patterns, social trends, and iconographic shifts. This shift from close reading to distant seeing signals a transformation in epistemology: knowledge is derived not from direct contemplation but from statistical and algorithmic operations.

In *Cultural Analytics* (2020), Lev Manovich provides an alternate perspective. Positioned at the intersection of data science and media studies, Manovich's research presents concepts and methods for computational analysis of cultural data, with a focus on visual media. His work leads to several questions: How can we see a billion images? What analytical methods can we bring to bear on the astonishing scale of digital culture? Added to this, if AI can learn to "see," we will soon realise that we are facing a paradigm shift that requires a new concept of "seeing," and consequently, of the image.

Algorithmic sight, then, operates beyond phenomenology. It decouples vision from the eye and embeds it in architectures of code, servers, and neural networks. In these systems, images are not visual representations but actionable datasets. They are parsed, segmented, classified, and scored for relevance or affective intensity. Distant visibility refers to this condition of mediated perception, where the human is no longer the necessary referent or receiver of the image.

### 3.3 Transmateriality and Metastability

Anna Munster (2014) introduces the concept of *transmateriality* to articulate the energetic and differential nature of digital media as "matter in motion, matter as relations of forces, matter as energy."<sup>14</sup> Drawing on Simondon, she argues that matter in digital contexts is not fixed or inert but is dynamically shaped by processes of signalling, coding, and affect. Transmateriality emphasises the in-between: not the substance of images, but the forces and relations through which they emerge and transform. And she adds: "transmaterial relations then, are both the metastable virtual ones of pure difference and the procedural updates of a set of singular materiality."<sup>15</sup>

In this view, the digital image is not merely an immaterial abstraction; it is composed of electromagnetic pulses, voltage differentials, and algorithmic instructions that traverse material infrastructures. These ongoing flows are metastable—they contain within them the potential for reconfiguration, interruption, or individuation. Transmateriality

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14 Anna Munster, "Transmateriality: Toward an Energetics of Signal in Contemporary Mediatic Assemblages," *Cultural Studies Review* 20, (2014): 158.

15 Munster, "Transmateriality," 159.

challenges the binary of material/immaterial by focusing on process, modulation, and emergence.

Simondon's notion of metastability becomes crucial here. Unlike equilibrium, metastable systems are charged with potential energy that can be actualised through minor perturbations. In digital culture, such perturbations may arise from user interactions, algorithmic updates, or shifts in data flows. The image becomes a relational field, a phase space for technical and symbolic individuation. Consequently, with respect to the interiority and exteriority of this metastable operation, Simondon clarifies:

An immediate belief in the interiority of the being as an individual comes, undoubtedly, from the intuition of one's own body [embodiment] which seems, from the position of a thinking man, to be separated from the world by a material envelope that has a certain consistency and defines a closed space. In fact, a relatively deep psychobiological analysis would show that, for a living being, the relationship with the external environment is not distributed only on its external surface. The notion of the internal environment, developed by Claude Bernard for the requirements of biological research, shows quite well through the mediation it establishes between the external environment and the being, that the substantiality of the being should not be confused with its interiority, even in the case of the biological individual.<sup>16</sup>

We can say that the perceptual modification first detected at the end of the nineteenth century and beginning of the twentieth century—that is, since modernity (understood as the era of the technification of the world)—is presented either in Simondon, Benjamin, Virilio, or Stiegler as a crisis of focus and attention. Yet what is perspective, if not a focus on the world?<sup>17</sup> It is to look from a point of view, to cast the eye to the objective of a screen, digital camera, or telescope. To focus is to concentrate, to converge towards a point. Therefore, the modification of our perceptual structure goes hand in hand with a shift from the perceptual paradigm to an era I will call *distant visibility*.

Thinking (us), in a “distant” perception or reality, invites reflection on the sensible operation of optical phenomena and their inference and impact on forms of representation,

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<sup>16</sup> Gilbert Simondon, *La individuación a la luz de las nociones de forma y de información*, 152.

<sup>17</sup> As Alberto Romele states, “In the specific field of digital technologies, hermeneutics is not out of the picture, both in a ‘special’ and in a ‘general’ sense. First, because language, signs, and symbols, which have been brutally defenestrated by philosophy of technology after its ‘empirical turn’, have come back in force. In computation, indeed, it is a matter of special kinds of signs, which are both human-readable and machine-executable.” See Alberto Romele, Marta Severo, and Paolo Furia, “Digital Hermeneutics: From Interpreting with Machines to Interpretational Machines,” *AI & Society* 35, no.1 (2020): 76 (<https://doi.org/10.1007/s00146-018-0856-2>).

as well as the epistemological transformations that occur today through media and exact sciences. It also opens the question: What is a simulation? In etymological terms, the concept of simulation refers to the act of simulating something. In one sense, a simulation is fraudulent, yet this fraud could be the simulation of a symptom, of a non-existent condition, which it is able to simulate.

This *distant visibility* always blurs. It is an element of metastability, hence the possibility of moving towards other, more complete structures, or eventual destruction and different structuring. Simondon's message is that there are no individuals. Traditional philosophy has always looked for the atoms that make up the universe and its elements. For Simondon, there is a kind of chaotic environment and individuation processes. In the best of cases, a living being can be understood as a process of individuation, in the same way as a psychological itinerary and individuation is a taking of form.<sup>18</sup>

Thus, transmateriality invites us to see digital visibility not as fixed or virtual but as active and embodied across multiple scales: microelectronic, cognitive, social, and ecological. It foregrounds the techno-aesthetic entanglements that shape how images appear, circulate, and operate in our posthuman media environments. Clinamen or freedom, notions reviewed by Henri Bergson,<sup>19</sup> could be synonymous with this impulse, in which the production of information and computational systems develops. By virtue of the fact that both notions highlight their physical or material aspect, a becoming that unfolds increasingly stronger movements in our reality.

#### 4. The Eye as a Medium: From the Anthropological Image to Deanthropologization

The history of the image has long been anchored in an anthropocentric framework, in which visual perception and symbolic interpretation are closely linked to human subjectivity and embodiment. However, the emergence of digital technologies, algorithmic media, and machine perception compels a critical shift. This section explores how the anthropological model of the image—rooted in embodiment, intentionality, and human agency—is challenged by contemporary media ecologies. Drawing on theorists such as Belting, Crary, Hayles, Krämer, and Stiegler, we chart the move from an embodied gaze to posthuman regimes of vision and interpretation.

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18 On this point, see Jean Barthélemy, *Simondon ou l'encyclopédisme génétique* (Paris: University of France Press, 2008), 9–19.

19 Given the assent, it seems that only the anecdote serves as an answer. Bergson dedicated his first courses to Epicurean philosophy through the study of Lucretius (1883), reserving the expression of assent for the doctrine of the *clinamen* (1937, 24) and, later, to topics related to the philosophy of nature, especially the *stoic* and the *fatum* notion as a product of the same strange logic (2004, 72). See Henri Bergson, "Lucrecio," *Hiperión* 20, (1937), and Henri Bergson, *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (New York: Dover Publications, 2004).

#### 4.1 Image and Embodiment: From Warburg to Belting

Image anthropology places the body at the centre of image reception. However, numerical images challenge this by removing the need to be seen. Image theorists such as Hans Belting (2014) and Didi-Huberman (2009) belong to a tradition inaugurated by Aby Warburg, who developed a robust anthropological theory that situated the body—especially the eye—as a site of image production and reception. Belting argues that images require a medium in which to be embodied and thus are always entangled with the viewer's perceptual apparatus. In this view, the image has no autonomous reality; it is animated only through human interaction and cultural symbolisation.

If we analyse the concept of the image, under this approach, a possible definition would be: “a visible representation of a phenomenon.” The visibility of numerical-digital images is only one possibility among others, since they can remain in an information state and still be analysed and transmitted. Without the need to acquire visibility, images can remain only code. One might ask, then: is an image in the pure state of code also an image? For Belting, the anthropological perspective focuses on the practice of the image—its uses. For this author, the image goes beyond perception, because “it is the result of a personal or collective symbolization, the concept of image, it can only be an anthropological concept.” In this sense, and after Belting, the image is not confused with its support. It has a certain independence. The support is its materialisation: “since an image lacks a body, it requires a medium in which it can embody.” What counts is the symbolic, for, as Belting writes, “it only becomes an image when it is animated by its viewer.”<sup>20</sup>

However, the shift to numerical-digital images complicates this framework. These images can be generated, stored, and transmitted without ever being seen or interpreted by a human subject. The centrality of the body—as the site of image activation—becomes marginal. In digital networks, images exist as code and function within circuits of machine-readable data. Although Belting recognises that “digital images are stored invisibly as a database,” such an invisibility would be determined only by image-data storage and other fundamental elements, such as their analysis, transmission, and interaction. In short, it would be characterised as an interaction between the algorithm and the image data, with the human not occupying a central place. The human, in that sense, would simply be one more dispensable element of the interaction. Furthermore, it is no longer necessary to contemplate, see, or observe images. They can simply be “processed,” that is, to the extent that they give us information or knowledge. As a result, Belting's framework, while insightful for pre-digital and analogue image regimes, becomes insufficient for understanding the distributed agency and nonhuman mediation of contemporary images.

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20 Hans Belting, “Image, Medium, Body: A New Approach to Iconology,” *Critical Inquiry* 31, no. 2 (2005): 302–319.

The anthropology of the image must be expanded to include nonhuman interfaces and machinic gazes.

Crary (1999) and Jay (2007), who focus on the issue of perception, visualise a greater perceptual change where the eye and focus lose prominence.<sup>21</sup> In essence, image theorists don't often consider the emergence of numerical images relevant, since they continue to hold meaning for human beings; numerical images and their meanings are considered products of the *Anthropos*. On the contrary, for vision theorists, numerical or digital images would be the final stage in a process of modifying visual perception, one which emerged at the beginning of the twentieth century.

## 4.2 Nonhuman Perception and Computational Media

N. Katherine Hayles (2017) introduces the concept of "nonconscious cognition" to describe cognitive processes that occur without human awareness or intention. She argues that both biological and technological systems exhibit forms of sense-making that are not reducible to human consciousness. This has profound implications for how we understand viscosity. Digital images are increasingly produced, analysed, and circulated through automated systems that bypass human cognition altogether. Surveillance cameras, facial recognition software, and content moderation algorithms all operate at speeds and scales inaccessible to human perception.

From Hayle's perspective, this illustrates a shift towards non-conscious cognition and machinic agency. *Distant viscosity* becomes emblematic of this posthuman turn. Hayles tells us that many new materialists refer to distributed agencies. Hayles emphasises the range of technological and biological decision-making that actively constitutes much of our reality while being beyond conscious control:

Nonconscious cognition provides a means by which agency can be located in material processes and in nonconscious cognition as their emergent result, without implying the allegedly stultifying effects of a consciousness unable to transform in relation to its environment.<sup>22</sup>

Similarly, Friedrich Kittler's (2014) work on media theory highlights how technical systems replace and extend human faculties. For Kittler, the history of media is a history

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21 See Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture*. Massachusetts (The MIT Press, 1999); and Martin Jay, "Downcast Eyes: The Denigration of Vision," in *Twentieth-Century French Thought*, eds. Todorov Tzvetan (Berkeley: University of California Press 1993); 163–185 (<http://www.jstor.org/stable/10.1525/j.ctt1ppwv>).

22 N. Katherine Hayles, *Unthought: The Power of the Cognitive Nonconscious* (Chicago: University of Chicago Press, 2017), 77.

of substitution—writing replaces memory, photography replaces observation, and computation replaces thinking. In such an environment, the image becomes an operational entity: it functions not as a representation for human contemplation but as a data point in a larger system of machine processing.

These shifts invite us to think of images not only as objects of perception but as agents within posthuman epistemologies. They are embedded in infrastructures of code, metadata, and machine learning that make decisions and predictions independently of human users. In this context, vision becomes infrastructural, automated, and dispersed—a condition that demands a re-theorisation of what it means to “see” in a posthuman world.

In these terms, computational media have a distinct advantage over every other technology ever invented. First, as data, digital numerical images no longer hold exclusive meaning for humans. Secondly, images no longer belong solely to the record of the visible, since they can be stored or transmitted as information without needing to be viewed by an individual. Furthermore, new methodologies of working with software to analyse texts or images no longer require one to read.

#### **4.3 Organology and Phase-Shifting the Human**

Bernard Stiegler’s organological framework provides a useful lens for understanding the implications of these shifts. According to Stiegler, human evolution is always already technical: tools and artefacts are not external additions to human life but intrinsic to its development. Technical systems shape psychic and collective individuation, and each new technological epoch reorganises the human sensorium.

Stiegler (2018) argues that digital technologies impose a phase shift in human-technical relations. The process of deanthropologization—where technologies increasingly assume cognitive and perceptual functions—requires a redefinition of human agency. Krämer (2003) similarly explores how cultural techniques, such as writing and computation, precede and shape the very notion of the human. The human is not a given but an effect of recursive interactions with nonhuman systems.

For Stiegler, technical life, in installing technical milieus, brings a whole new kind of infidelity into play. Life—and this is the point—is therefore no longer to be conceived of as organic life but as organological life. Organological life henceforth proceeds in jumps and draws on technological shocks that impose readjustments of the entire organological assemblage:

It is an exteriorization that is at the same time an interiorization. In other words, it is what, while distinguishing an outside and an inside

in a movement of going outside that is also a movement of going inside, mutually establishes this inside and this outside by their transductive relationship—the mutuality of what Derrida called the *archi-trace*<sup>23</sup>

Since the beginning of hominization, the production of knowledge from sensations has been mediated by techniques. In fact, know-how (technique) and knowledge are difficult to disentangle formally. It could be said that techniques always complement the courses that sensations must follow on their path to provisionally crystallise as knowledge. To summarise, for Stiegler, the externalisation of memory in *hypomnemas* is the very condition of the gap between reflective human consciousness and the sensations and reflexes that guide the animal within its semiotic environment.<sup>24</sup> However, it should be noted that supplementation already occurs at the body level. The brain's interface with the world is already mediated by layers of neurological organisation, nested feedback systems, and retentional contexts that selectively and sequentially transport sensations from outside to inside—"nervous currents," as William James called them.<sup>25</sup> These layers of evolutionarily sedimented supplementation constitute the organic prehistory of technical supplementation. That is to say, the organism is always already prosthetic. As Brian Massumi rightly points out: "What art and technology do is extend the existing regime of natural and acquired artifice of the body, which has long been active in the production of the "virtual reality" of our daily lives."<sup>26</sup>

This leads to a conceptual feedback loop: the more we rely on technical systems to mediate experience, the more these systems become co-constitutive of what we call human. The distinction between the human and the technical becomes increasingly blurred, and with it, the boundaries of vision, memory, and knowledge. Stiegler calls this a moment of organological bifurcation—where new configurations of body, image, and machine give rise to emergent forms of sensibility and subjectivation. The deanthropologization of the image, then, is not a loss but a transformation: it marks the genesis of a new technocultural condition that demands novel theoretical tools and critical vocabularies.

## 5. Rethinking Mediation: Image-Objects and Posthuman Aesthesis

As our interactions with images increasingly unfold in algorithmic and non-perceptual realms, the notion of mediation itself requires rethinking. Mediation no longer functions

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23 Bernard Stiegler, "Elements for a General Organology," *Derrida Today* 13, no. 1 (2020): 72–94, 88.

24 Bernard Stiegler. *The Neganthropocene*, trans. Daniel Ross (Open Humanities Press, 2018), 48.

25 William James. *The Varieties of Religious Experience: A Study in Human Nature*, eds by Jeremy Carrette and Eugene Taylor (London: Routledge 2003).

26 Brian Massumi. "Envisioning the Virtual," in *The Oxford Handbook of Virtuality*, ed. Mark Grimshaw-Aagaard (Oxford: Oxford University Press, 2014), 64.



solely through anthropocentric modes of seeing, interpreting, or feeling. Instead, it emerges from dynamic processes of individuation across technical, affective, and informational regimes. Drawing on Simondon's theory of technical objects and the role of invention, and on Stiegler's organological approach, we propose a conception of images not as static representations but as agents within a techno-symbolic ecology. This demands a broader understanding of aesthetic experience that accounts for posthuman sensibilities—sensing that is distributed, delegated, and datafied.

### 5.1 The Posthuman Gaze and Disembodied Vision

Rouillé (2012) and Simondon (2022) help us reconceive the image not as a passive object of vision but as an active node within cultural and technical systems. Rouillé describes the shift from analogue photography's "decisive moment" to the dispersion and automation of digital image capture. This represents not just a technical evolution but a transformation in the subject-object relation: the human is no longer the sovereign observer. Instead, the image exists within a flow of technical mediation, processed without necessarily being seen or framed by the human eye. In this context, Simondon's "object-image" becomes crucial. These are not just mediators of memory and imagination, but carriers of collective individuation, shaped by technical and aesthetic operations.

Rouillé,<sup>27</sup> in his analysis dedicated to numerical-digital photography, points out that the emergence of cameras and cellphones with screens marks the decline in dominance of the construction of the gaze. Looking through a camera lens today is one among many options, since the screen allows the eye to be placed at a distance from what it is intended to photograph. Rouillé talks about how "this kind of non-sighted (numerical) aesthetic is also an aesthetic of what envelops things and events in a flow of images produced "in burst." This succeeds an (analogue) aesthetic governed by an eye armed with a viewer, and by the law of the single and sovereign image, taken at the "decisive instant in the precise place."<sup>28</sup>

Alternately, if we apply the notion of "object-image" that Simondon developed in *Imagination and Invention* (2023), it implies rethinking the relationships between technique and imagination beyond traditional oppositions (material/ideal, sensible/intelligible, concrete/abstract, interiority/exteriority), both at a psychic and collective level.<sup>29</sup> Firstly, "images" are described as intermediaries between the subject and the world, which circulate from the inside out, through "introjection" (of external images in the imagination of the subjects) and "projection" (of subjective images about external objects). Secondly,

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27 André Rouillé, "Esthétique (numérique) de la dispersion," *Éditorial* 396, 27th September 2012.

28 Rouillé, "Esthétique (numérique) de la dispersion."

29 Gilbert Simondon. *Imagination and Invention*, eds by Joe Hughes and Christophe Wall-Romana (Minneapolis: University of Minnesota Press, 2022).

“object-images” are described as intermediaries between the past and the future, which ensure the “cultural continuity” of human groups: they are materialisations of collective meanings that must be revived and transformed through cultural activities. Thus, for Simondon, “object-images”—which can be technical, prosthetic, or aesthetic objects—seem to play a crucial role in individual and collective imaginaries.

From this perspective, the image acquires a posthuman gaze: one constituted by systems of code, metadata, platform protocols, and machine vision. This gaze is disembodied, not anchored in a human retina or subjectivity, but emerging from layers of networked computation. In effect, images “look back” not through presence but through traceability, datafication, and predictive modelling. Such dynamics call for a redefinition of visual culture itself, where what matters is not what is seen, but what is computed, parsed, and stored for future analysis.

## **5.2 The Delegation Effect and the Epistemology of the Interface**

Technical images, as Flusser anticipated (Flusser, 2000), no longer rely on symbolic interpretation by a human subject. Instead, they are the product of automated synthesis, governed by protocols and machine-readable instructions. In this context, we face what might be termed a “delegation effect”: the outsourcing of perceptual and epistemological labour to interfaces and computational systems. The interface becomes both the threshold and the medium of cognition. Its function is no longer merely visual or tactile but operative—it determines what can be seen, known, or acted upon.

This delegation entails a fundamental epistemological shift. Following Stiegler (2018), the interface is part of a larger organological transformation in which memory, perception, and anticipation are technogenetically exteriorised. Rather than accessing the world directly, humans now engage with operational environments designed to filter, pre-process, and reconfigure data into actionable forms. The human becomes one point among many in a wider ecology of sense-making.

Crucially, this process introduces new asymmetries of power and agency. Interfaces decide visibility: what counts as an image, what remains latent, and what becomes noise. In doing so, they participate in aesthetic-political formations that determine the terms of attention, affect, and participation. As such, the epistemology of the interface is inseparable from the politics of mediation in the age of ubiquitous computing. This calls for a renewed aesthetic theory attuned to the logics of automation, opacity, and post-perceptual experience.

## 6. Conclusion: Technogenesis and the Future of Seeing

The notion of *distant visibility* reframes our perceptual regime. Through computational media, we no longer see but are seen through. Technogenesis is not only epistemic but ontological. Digital images no longer depend on a human observer; they exist as data, as algorithmically processed phenomena. In this sense, individuation is posthuman, dynamic, and techno-symbolic. Simondon's and Stiegler's insights allow us to rethink vision as an ontological interface. What is at stake is not just how we see, but how seeing itself is constituted through machines, codes, and environments.

On the other hand, this notion has certain antecedents and a wide range of applications for how we relate to digital images nowadays. Virilio has already pointed out—with respect to the photographer who simply machine-guns rather than stopping to focus—that by observing through a lens, the photographer no longer sees what he is photographing. It is the device that does it in his place, at a speed beyond the human eye's.<sup>30</sup> That is to say, although the photographic device is a perceptual device par excellence, its introduction and technological evolution made it increasingly faster, going beyond natural perception. As a result, it necessarily leaves the eye behind. The eye no longer manages to focus on each one of the images produced in a burst. This has the consequence that the human eye becomes accustomed to not seeing and to being seen through it. Produced by technologies, this is called the delegation effect. That is, we delegate certain operations to technologies that we previously performed ourselves.

Through this article, we tried to explore this topic and raise the following question: what are the effects of the digitisation of objects and images on individual and collective imaginaries? As invented objects, technical objects are necessarily related to human beings. But, for Simondon, the inventor is not an ingenious demiurge who creates *ex nihilo* through his own imaginative resources. Simondon describes technical invention as a process that transcends the individual psyche. First of all, in most cases, there is not one inventor, but a succession of inventors who, separated by time and space, communicate through already existing technical objects. These technical objects, detachable as they are from the space and time of their creation, support what Simondon calls relations of cumulative participation.<sup>31</sup> What appear to be necessary prerequisites for a *deanthropologization* of the gaze, in fact, are a selection of pre-existing technical objects from which elements or schemes of operation can be extracted, scientific knowledge of natural effects (physical, chemical, or electrical), as well as suitable materials. As Erich Hörl states, it is always an “epochal techno-logical shock” that interrupts a specific organological assemblage.<sup>32</sup> Last

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30 Paul Virilio, *The Vision Machine*, 25.

31 Gilbert Simondon, *El modo de existencia de los objetos técnicos*, 63.

32 Erich Hörl, “Introduction,” in *General Ecology: The New Ecological Paradigm*, ed. Erich Hörl and James Burton (London: Bloomsbury, 2017), 25.

but not least, for Simondon, what is required is an awareness of a problem to be solved. The most difficult and paradoxical part of the invention process is that it requires a kind of “vision” of a state that does not yet exist, in which the problem is solved. This field of purpose, as he calls it, is in tension with the actual field of experience, which is characterised by incompatibilities between subsets of the system and a lack of functioning. According to Simondon, the game of limits, the overcoming of which constitutes progress, resides in the incompatibilities that arise from the progressive saturation of the system of subsets. However, by its nature, this improvement can only occur as a leap, as a modification of the internal distribution of functions, a reordering of its system.<sup>33</sup>

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33 Gilbert Simondon, *La individuación a la luz de las nociones de forma y de información* (Buenos Aires: Cactus, 2015), 32.

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