Dis/ordering AI–Human Oversight: Materialities, Aesthetics and Contestability

Joaquín Santuber
Johannes Kepler University Linz, Austria/ Pontificia Universidad Católica de Chile
Mariana Costa Morais
Johannes Kepler University Linz, Austria
Kristina Tica
Johannes Kepler University Linz, Austria/ University of Applied Arts Vienna, Austria

Abstract

This article aims to dis/order the concept of *human oversight* as established in Article 14 of the EU AI Act through an alternative ontological lens. By inquiring into the modes of existence of the law and digital objects, we imagine that human oversight can serve as a form of contestation rather than merely as a supervisory mechanism. This reconceptualisation offers a pathway to overcome the alienation between law and technology. This alienation, we argue, is rooted in the law's alienation from image and the sensorial, resulting in alienation between humans and technological systems. We address this issue by materialising oversight in the form of an artistic project and installation, HUMAN OVERS[A]IGHT: THE OPS ROOM. We propose a shift in perspective – specifically, we suggest that aesthetics, through image and art, can foster critical engagement and open up new avenues for imagining human oversight beyond the legal frameworks currently in place. They can do this by dis/ordering AI–human oversight.

Keywords: Human oversight; individuation; EU AI Act; aesthetics; media theory.

1. Introduction

Our aim in this article is to critically examine the AI–human construct for oversight as delineated by the EU's AI regulation, specifically Article 14 of the European Artificial Intelligence Act (EU AI Act). This legal provision equips oversight with 'human–machine interface tools' for real-time control, and even a 'stop button' for a natural person to 'bring the system to a halt'. These are explicit references to technical components and cultural techniques,[1] utilising a vocabulary that is foreign to the law originating from computer science in general, and human–computer interaction (HCI) in particular.[2] However, the relationship of the law with the materiality of life and the technics – technologies and images – has been a troubled and impoverished one.[3]

For that reason, these sci-fi-inspired techno-imaginaries of the legislator come to matter differently when encountering the technical intricacies and deviations of these systems. The legal understanding of AI is based on a relation of alienation between humans and technology, a nature/culture cut[4] that hinders the possibility of a harmonious coexistence between humans and AI. As such, as a mechanism ordering the AI–human relation, human oversight is condemned to replicate even more of the same old tragic relationship between law and the technics, a paradox between the ways of the law and politics and the ways of science

---

[1] Vismann, "Cultural Techniques and Sovereignty."
[2] Koivisto, "User Accounts."
[3] Vismann, "Image and Law"; Tranter, "The Laws of Technology."
[4] Grear, "Deconstructing Anthropos"; Boulot, Editorial Posthuman Legalities; Santuber, "Designing for Posthuman Legalities."

– a tension between rhetoric and logic.[5] Therefore, it demands us to think of it otherwise, to diffract it,[6] to cut the law *differently*.[7]

Our goal is to explore what law *could be*, rather than what law *is*. With this research strategy towards different becomings, we take critical engagement not as a mere diagnosis of what is wrong with AI–human oversight, but as a form of making up space, making room for other possibilities for human oversight. Law does not have the last word, but the first. We take legal provisions to be cultural artefacts or objects that provide a starting point,[8] a set of references from which communities construct a meaningful normative universe,[9] ecology, niche and shared environment.[10] However, this process is not an exclusive endeavour of people, but rather an achievement of myriad human and non-/more than-/other than-human actors.[11] This constellation of actors needs explicit mechanisms for the agency to circulate. We argue in this article that AI–human oversight could articulate that relationship between humans and technologies *otherwise*.

The central argument of this article is that dis/ordering the dominant images of AI–human [over]seeing can open the field of possibilities for other forms of constructing an embodied and situated normativity and legality.[12] From a sociolegal perspective, we take inspiration from Robert Cover's opening of *Nomos and Narratives*, "We inhabit a *nomos* – a normative universe. We constantly create and maintain a world of right and wrong, of lawful and unlawful, of valid and void",[13] in conjunction with Henri Bergson's "this aggregate [ensemble] of images is what I call the universe".[14] As a result, our view of legality is that the construction of a normative universe is the aggregation of a meaningful world of images. As such, this normative imagery – legality – attends to our senses, and our bodies, which are our medium for having the world[15] and the Law.[16] This aligns with the idea that the legal system is first a system of images and then a system of rules.[17] Thus, the construction of legality is, in part, the construction of a meaningful world of images, which are then translated into words (written text). So far, the images we have known are representational; they refer back (and forth) to phenomena, the perceivable, rich and concrete world that humans can access through their senses. However, the images of the AI system – how the machine sees – that a natural person is entitled to oversee do not refer to phenomena but instead to pure statistical abstraction. Those images are operational.[18]

In previous work, we have argued that, from a technical perspective, human oversight is not possible.[19] The technical image has changed how we perceive the world, and with that how the world is enacted, as such images are not just representations of reality, but co-produce it.[20] However, operational images are produced as a string of values readable only by other machines. The operational image is no longer a representation, but it refers to an abstraction, far away from the phenomena and lived experiences of people, and as such it is *invisual*.[21]

Beyond user interfaces, 'machines rarely even bother making the meat-eye interpretable versions of their operational images'.[22] For that reason, AI systems produce images in the form of human–machine interfaces that apparently fulfil the need of the viewers, yet do not convey meaningful references to the rich and complex lived experiences of people. Then the question is how we construct legality when there is no image to see by human eyes. How do we exercise human oversight and create and maintain a world of lawful and unlawful in AI systems from computational images that do not allow them to be seen by human eyes?[23]

There is something tragic about this paradox, or contradiction, in the EU AI Act's ordering of the AI–human construct. The tension between the legal provision and the technical possibilities of AI systems operations is not solvable because they are

---

[5] Minkkinen, The Tragic Politics.

[6] Barad, "Diffracting Diffraction."

[7] Arvidsson, Posthuman Feminism, 2024.

[8] Giddens, "Cultural Legal Studies."

[9] Cover, The Supreme Court.

[10] Cohen, Configuring the Networked Self.

[11] Hayles, How We Became Posthuman; Haraway, When Species Meet; Barad, Meeting the Universe Halfway.

[12] Cohen, Configuring the Networked Self.

[13] Cover, The Supreme Court, 4.

[14] Bergson, Matter and Memory, 21.

[15] Merleau-Ponty, Phenomenology of Perception.

[16] Goodrich, "Rhetoric and Somatics."

[17] Goodrich, "Specula Laws."

[18] Farocki, Eye/Machine I; Paglen, "Operational Images"; Parikka, Operational Images.

[19] Tica, "COMPUTING HUMAN OVERS[A]IGHT."

[20] Flusser, Universe of Technical Images.

[21] MacKenzie, "Platform Seeing."

[22] Paglen, "Operational Images," 2.

[23] Santuber, "Visualizing AI Operations for Human Oversight"; Tica, "COMPUTING HUMAN OVERS[A]IGHT."

formulated under two modes of existence that are apart from each other: on one side, the rhetorical ways of the law; on the other, the logical ways of the statistics and AI operations. However, Western history is marked by paradoxes that cannot be surmounted, antinomies that no science or law can solve, but a middle ground between the two. Between the dogmatic modes of knowing of the law and the scientific one of the technics, there is a third way that transcends the other two: art and aesthetics.[24]

In ancient Greece, tragedy served as a form of channelling what could not be solved – a way of transcending the existential and constitutive tension between individual freedom and collective fate – by attending not to reason, but to the senses. This is central to the dialectical relationship with technology in the West.[25] This approach opens the possibility of a generative mode of existence of the law (jurisgenerativity), based not on the strict interpretation of the written word (aspiration to science, jurispathic), but on the myth and narrative that give meaning to our shared existence.[26]

In the ordering of the relation between humans and technologies, science fiction in film and literature has played a crucial role in populating the legal imaginaries of the law and society.[27] The reference to 'human–machine interface tools' and a 'stop-button' in the EU AI Act is another example of the science-filled techno-myths and narratives that give flesh and bones to these neo-legal concepts. As such, the process of ordering the AI–human construct is not an enforcement of the words of the EU AI Act given by the legislator and interpreted by a judge, but a collective embodied and situated experience by a paideic community,[28] exploring the variations of a common being in the world together – with technologies included. This is to be achieved not by statistical means (logic and reason) and oversight, but by aesthetic means (rhetoric and the senses).

In this view, a dis/ordering attempt is to examine how AI–human oversight comes to matter differently through the artwork HUMAN OVERS[A]IGHT: THE OPS ROOM.[29] By developing an artistic approach and drawing on a Greek tragedy, we present this tension to an audience – the public – as a way of rehearsing a political agency that contests techno-legal human oversight imaginaries. In this context, rather than being a mechanism of control over what we cannot see, human oversight becomes a collective experience and a mechanism of contestability. The question is no longer what we must oversee yet cannot, but what we ought to contest together.

The article is structured in six sections. After this introduction, the following section provides a brief background on human oversight as per the EU AI Act, art. 14. Sections 2 and 3 are dedicated to an analysis of the mode of existence of the law and digital objects, respectively – the first with an emphasis on the troubled relation between the law and technology, based on literature from law, technology, aesthetics and media theory.[30] Section 4 focuses on the relation between humans and technology, under the concept of alienation from Gilbert Simondon, revisited by Yuk Hui. Section 5 offers a presentation an analysis of the artwork HUMAN OVERS[A]IGHT: THE OPS ROOM. The closing section offers some reflections on human oversight as a mechanism of contestation to overcome the law–human–AI alienation.

The contribution of this article is twofold. First, we present theoretical and conceptual resources to critically examine the AI–human construct and how the modes of existence of law present and order the relation between humans and technology. This conceptual framing opens possibilities of thinking about alternate ways – other ontologies – of seeing this relation, providing the conditions for a generative onto-epistemology of law and technology. Second, by means of an artistic installation, we present an aesthetic mode of dealing with the paradoxes of the AI–human construct, based not on statistical and binary logic but on rhetorical and narrative resources.

---

[24] Simondon, Mode of Existence of Technical Objects.
[25] Hui, Art and Cosmotechnics.
[26] Cover, The Supreme Court.
[27] Green, "Legal Imaginary"; Tranter, Living in Technical Legality.
[28] Cover, The Supreme Court; Minow, Narrative, Violence, and the Law.
[29] Tica, "HUMAN OVERS[A]IGHT: THE OPS ROOM"; Santuber, "HUMAN OVERS[A]IGHT: THE OPS ROOM."
[30] Vismann, "Image and Law"; Legendre, "Dogmatic Value"; Douzinas, "Sublime Law"; Goodrich, "Rhetoric and Somatics"; Hildebrandt, Smart Technologies.

2. The Human Oversight in the EU AI Act

Article 14: Human Oversight

1. High-risk AI systems shall be designed and developed in such a way, including with appropriate human-machine interface tools, that they can be effectively overseen by natural persons during the period in which they are in use. (EU AI Act: Art 14 (1) 2024)

Technologies and tools under the roof term of artificial intelligence (AI) have increasingly penetrated different areas of social life. The expansion of their use has made it inevitable that there will be a need to rearrange the order of this new system of relationships emerging in our society. Not by chance, the discourses concerning AI replacing humans, becoming uncontrollable or acting autonomously have increased, as have the discourses that AI is the future and will solve all of humanity's problems.[31] In the face of these ideas, the EU AI Act is constructed to create order, bringing stability, promoting guidance and guaranteeing individual rights and the well-being of humanity. Following the human-centric principle, the legislator – with the intention that humans can be in "control" – creates mechanisms that convey the idea that humans can interfere and even interrupt the system when necessary, and therefore have the final decision on the AI.[32] One of these mechanisms is defined in Article 14 of the Act: Human Oversight.

According to the EU AI Act, human oversight is a mechanism to 'prevent or minimize risks to health, safety or fundamental rights'[33] that high-risk AI systems can generate when used for their intended purpose – which, according to Annex III and Article 6 of the same Act, can be biometrics, critical infrastructure, education and vocational training, employment, access to essential services, law enforcement, migration and administration of justice.

Human oversight should be performed by a natural person, indicated by the deployer of high-risk system AI, who can understand, interpret, decide and intervene in the operation of the high-risk AI using 'human–machine interface tools'.[34] The legislator intends that this natural person would represent a way to safeguard fundamental rights and verify the potential risks or prevent eventual harms to individuals or society, through transparency and explainability mechanisms. The legislator wants to overcome, or at least prevent, the "black box paradox" related to technology[35] and make sure that the high-risk AI systems are being reviewed and validated by a human.

Human oversight is based on the belief that humans are generally better than AI systems at integrating ethical reasoning and social norms into decision-making contexts. However, some critics question the feasibility of such systems and whether human integration with AI systems leads to better outcomes.[36] Challenges arise when humans place excessive trust in automated decisions, potentially overlooking errors or unfair outputs.[37] Conversely, in other contexts, people may distrust AI decisions and rely too heavily on their own perceptions.[38] On the other hand, there are promising findings, showing that humans have successfully identified mistakes made by automated systems.[39] Human oversight can be considered effective when individuals are able to establish causal connections with relevant aspects of the real world, possess sufficient agency and maintain awareness of their decisions.

In this sense, the notion of human oversight emerges as a legal construct – an institutionalized fiction aiming to symbolize human control and supervision. It functions as a mechanism of reassurance against entities that humans cannot see (technical images). Technological systems are increasingly perceived as detached from cultural experience, therefore reflecting the deepening estrangement between the human and the technical reality.

---

[31] Koulu, "Proceduralizing Control and discretion."
[32] Enqvist, "'Human Oversight'."
[33] *EU AI Act,* Art 14.
[34] *EU AI Act,* Art 14 [1].
[35] Koulu, "Proceduralizing Control and Discretion."
[36] Holzinger, "Is Human Oversight to AI Systems Still Possible?"
[37] Laux, "Institutionalised Distrust."
[38] Sterz, "Quest for Effectiveness."
[39] Sterz, "Quest for Effectiveness."

3. The Mode(s) of Existence of Law

In this section, we address the alienation between law and technology – both the technologies of the law and the technologies law makes possible. We argue that this alienation is rooted in the need to conceal the ambiguity and contestability of law, and therefore the renegading of the image and the senses as the primary sources of legality.

Addressing the modes of existence of the law is an inquiry into the ontology of law, its being-in-the-world, and the relations it makes possible with other beings – human and non-human. The mode of existence of law is, first, dogmatic, meaning 'a truth that is sanctioned by its staging: the mirror's truth or the emblem's, the legal truth, honoured as such, the exact opposite of a scientific demonstration'. As such, there is a crucial element of shared faith (or a collective fiduciary role) that is made possible by the orchestration of media and cultural techniques that attend not to our intellect but to our senses. However, we face the problem of legal abstraction:

> The legal project is a systematic attempt to depurate law from any compromise with the sensible and its contingent imprecision. The violence, coldness and alienation of legal abstraction, and its systematic denial of the polymorphous and sensual spontaneity of life, are the de rigueur accusations addressed to law, whose failure the critical thinker is quick to point out: senses are not amenable to legal machinations, they always escape its cumbersome and sad, to put it à la Spinoza, apparatus.[40]

In the essay 'What is an Apparatus?' Giorgio Agamben[41] traces the philosophical genealogy of the concept of an apparatus (*dispositif*) back to Hegel, via Foucault (*dispositif/positivité*) and his teacher Hyppolite. According to Hegel, a positive religion (*positivität*), in opposition to a natural religion, refers to the historical element, a set of beliefs, rules and rites in a specific time and society – a collective fate – that constitutes an obstacle to the freedom of humanity, a constraint to the souls externally imposed on the individual.[42] The apparatus can be seen as the modern operationalisation of ancient tragedy, as in the law of the modern state. Following this thread, the parallel to the discussion in legal theory between naturalism and positivism is clear: apparatuses (*dispositifs*) are the core of positivist law. Our interest in this section is the 'investigation of concrete modes in which the [legal] positivities [or the apparatuses] act within the relations, mechanisms, and "plays of power"'[43] – or, put differently, how these legal apparatuses of ordering come to matter in the relationship between humans and AI, and how they make particular imaginaries possible and foreclose others.

Dispositif, in French, or *dispositivo* in Spanish, refers to mechanisms and practices that can affect the order of things. From its roots can be divided into dispus- and –tivo (think of the suffix -tivity), the first part meaning to put or to place, and -tivo meaning relation. Thus, we can also think of apparatuses in specific ways, the practices and mechanisms of putting in relation. Moreover, dispositive or *dispositivo* refers to the part of a judicial decision in which the court attests the application of the law, or a specific legal provision, to the case of dispute. Laws are general and abstract, and through this apparatus – the dispositive part of the judgment – they are interpreted and applied to a specific and concrete situation, bodies and technologies. These dispositive ways of the apparatus in judicial interpretation fix the meanings of law, killing its vitality, the possibility to explore the variations of constructing a legality and a normative universe, and thereby inviting other worlds.[44]

In this sense, the legal apparatus 'manages and administers order and justice, but to do so, those qualities resistant to systematisation must be stricken from the record. This subtraction process, this shaving off the "excess" is necessary for the apparatus to function.'[45] The excess that the law removes is the images that escape the law's dominance and the embodied sensing of them. However, the law relies on visual images to enter the realm of what is perceived and what is not. Law is a system of images before it becomes a system of written rules.[46] In this system of images, to see is to become part of the staging of the law.[47] To see is to become part of the paideic community, its myths and narratives, and to participate in the construction of a normative universe with its technologies.

---

[40] Pavoni, "Introduction," 3.
[41] Agamben, "What is an Apparatus?"
[42] Agamben, "What is an Apparatus?"
[43] Agamben, "What is an Apparatus?", 6.
[44] Cover, The Supreme Court.
[45] Kahanoff, "Will and the Way," 3.
[46] Goodrich, "Specula Laws."
[47] Douzinas, "Sublime Law."

As such, the law relies on myriad technologies and artefacts. The bench, the bar, the form and the files are all technologies of the law.[48] And those images are the images that make the law, because 'the law has to communicate itself in images in order to overcome its abstractness'.[49] The alienation of law and technology can be said to be first an alienation from the sensorial – the ban on the image, the messy senses. As such, the proto-technology of the law, even if the law renegades from it, is not the written text but the image as a cultural technique.[50] Legendre reminds us that the printing press, the composition of the text by the typographer, is the production of an image that works as a mirror of ourselves.[51] This is reflected in the actual process of arranging the characters in reverse, so the print appears readable to the eye from left to right. As such, the written text is an arrangement, an ordering of the legal image to reflect the modes of the modern state. However, the relation between law and the image has not been an easy one – Vissman calls it a 'troubled relationship'.[52] The law has banned the image because of its excesses.

The first excess the EU AI Act removes is the humane excess, by defining AI systems as machine-based, making them discrete, manageable and governable.[53] This ontological cut performed by the EU legislator[54] is grounded and reinforces the troubled relationship between law and technics, which limits the possibility of constructing a legality with alternative images. We argue that at the centre of an apparatus there is the constitutive tension between what is revealed and what is concealed, and this is the case with the law in its foundations: 'Beyond this revelation – this visibility … the founding of law requires an act of concealment in which, once again, a performance mode is called upon.'[55] It is a necessary form of 'counter-performance within performance'.[56] In human oversight, the apparatus of the law surfaces the tension between the natural person as a *de jure* subject overseeing an object, an AI system and the natural person, who is in turn being seen by the system as a *de facto* subject. This also raises the question of boundary-making of the subject first, but then within the de jure subject, the natural person (natural as opposed to positive, the Hegelian apparatus).

In this sense, 'the operation of normative systems (religion, morality, increasingly law) interposes a "legal screen" between the subject and the social gaze, filtering the objects of vision and determining the way in which we see and are given to the world to be seen'.[57] This is what lies at the core of high-risk AI systems: the capacity to filter how we see and, in doing so, to mark the boundaries of possible images and possible legalities.

Overcoming the alienation between law and technology is necessary because, by banning the image, renegading its own – and very much needed – materiality, the legal system cedes the power over the image. It does not disappear; rather, it is ceded to experts in the techniques to exploit it. Nothing of the law can exist outside the material world of techné, yet the law has given it away. The world-making image produced by the AI systems is no longer ambiguous and contestable, but can only be labelled as accurate or inaccurate, intended or unintended.

For a generative mode of existence of the law and technology to be possible, the legal system must keep the space for the possibility of contesting these images. A key distinction between the image produced by the law and that of the machines is that the former always remains ambiguous, self-doubting and contestable.[58] The normative affordances – the field of possibilities for constructing a meaningful nomos – are that human communication is the basis of law, in contrast to computational law, which is grounded in machine-to-machine communication – operations and abstractions.[59] Moreover, the key feature of law is given by 'the ambiguity of natural language, the resulting open texture of legal concepts, the multi-interpretability of legal norms and, finally, the contestability of their application'.[60]

The law and the rule of law, as we know them, are contestable, while technologies are seen as factual, accurate and precise. And it is so because the technology of the law – the images and the written text – affords that contestability. Technological development is essentially about engineering robustness and accuracy – the seal of excellence. In such a context, it is difficult

---

[48] Vismann, "In Judicio Stare"; Mohr and Contini, "Reassembling the Legal"; Tranter, "The Laws of Technology."
[49] Vismann, "Image and Law," 1.
[50] Vismann, "Cultural Techniques."
[51] Legendre, "The Dogmatic Value."
[52] Vismann, "Image and Law."
[53] *EU AI Act,* Art. 3[1].
[54] Arvidsson, Posthuman Feminism.
[55] Kahanoff, "The Will and the Way," 5–6.
[56] Stone Peters, Law as Performance.
[57] Douzinas, "Sublime Law," 18.
[58] Hildebrandt, Smart Technologies; Hildebrandt, "Adaptive Nature."
[59] Hildebrandt, Smart Technologies.
[60] Hildebrandt, "Adaptive Nature," 1.

to imagine that the legal system was designed to be contested – and not for accuracy, but for a self-inflicted tension between certainty and ambiguity. A form of self-doubting system by design, a stark contrast to the design of self-assuring AI systems. All technologies of the law are embedded with contestability. For example, an essential element of a contract is the breach of it. It is the same with the rule of law: the crucial feature of it is that people can always disobey it – an image that always escapes the ban of the policing law.[61] Contestability, which is made possible by the medium, is not an invention of the law but is essential to the image. Overcoming the self-imposed alienation of the law and the image offers a broader set of resources to foreground the contestability of our cultural techniques.

The EU AI Act categorises high-risk systems as those that may affect fundamental rights. Annex III describes more specific use cases that may fall under the high-risk category. We argue that the threat posed by these systems is not a threat to the fundamental rights individually considered, but to the system of fundamental rights and the rule of law as a whole. Most importantly, it is a thread to the capacity of communities to make meaning of the environment beyond the possibilities offered by AI systems' outputs – jurisgenerativity, in Robert Cover's sense.

This is based on the argument that at the core of the rule of law is the production of institutional facts that are essentially contestable.[62] This is the possibility for any person to contest the social truth that those institutional facts convey, and that gives rise to legally binding situations. Hildebrandt argues that human communication, as the apparatus of law, affords the necessary ambiguity for the institutional facts to be contested, while code-driven apparatuses do not. The performativity of the institutional facts created by AI systems, a fact that by means of statistical analysis and regressions produces a fact closer to a brute fact, is backed by the accuracy of mathematics and science (data science). This technically rules out contestability – even if the system fulfils the requirements for human oversight, a meaningless human oversight, a jurispathic cultural technique of the law.

While most AI risk-management mechanisms aim to improve accuracy and eliminate bias, they are misguided in seeking to mitigate risk by making AI-generated institutional facts incontestable. The belief in accuracy as the remedy to plurality very likely increases the risk of leaving oversight out by bullet-proofing a system against contestation. For the law to function, it needs an institutional fact. High-risk AI is creating new institutional facts upon which the law can be built, outsourced to a combinatorial predictive mechanism, based on a pattern recognition of human cognition/condition.

We imagine that, in exchange for the capacity of AI systems to create institutional facts and their performativity, the EU AI Act attempts to ascribe to these apparatuses – high-risk AI systems – law's most valuable attribute: the ability to be contested. This is the possibility of existing outside the realm of AI statistical hegemony, an openness to ambiguity and imagination. It does so through human–machine interface tools and a stop button. Once again, the law's reliance on the techniques and materiality it seeks to escape offers an opportunity to reintroduce the rich world of phenomena and to transcend the violence inflicted by AI abstractions.

Between the modes of thinking of religion and technics, there is a bridge between the two that Simondon frames as an aesthetic mode of thinking. In this regard, 'Aesthetic thinking is therefore a mediation between technics and religion that is more primitive than science and ethics.'[63] To overcome the alienation between law's dogmatic being and technics, the mode of existence of law in relation to technologies, we argue, belongs to the realm of aesthetics.[64] In this regard, '"aesthetics" is a term that refers to: the sensory apprehension of thought. The field of pure abstraction is left behind.'[65] In this way, human oversight, the bridge between law and AI, is a matter of aesthetics.

In this middle point, between the affordances of a law based on the phenomenology of the image and human language, and that of the abstractions of the AI systems, arts and aesthetics can create a space for an AI–human jurisgenerativity. By foregrounding the reciprocal relations among the law, the image and technologies, we can make room for other forms of being and for dis/ordering the AI–human construct. This implies a recovery of the imagination, myths, narratives and fictions that continually ensure the law is a meaningful sense-making of shared existence.

---

[61] Vismann, "Image and Law."
[62] Hildebrandt, Smart Technologies.
[63] Simondon, "Mode of Existence," 8.
[64] Philippopoulos-Mihalopoulos, Law is a Stage.
[65] Legendre, "The Dogmatic Value," 10.

4. The Mode(s) of Existence of Digital Objects

AI–human oversight, as envisioned by the EU AI Act, is another attempt to order and stabilise a long-standing process of alienation between humans and technology. In this section, we examine the alienation between humans and AI systems – articulated under separation[66] and control[67] – drawing on the concept of individuation articulated by Gilbert Simondon and revisited by Yuk Hui. From this perspective, humans and machines engage in reciprocal transformations and co-participate in the ongoing process of individuation. As such, instead of relying on fictional predefined roles and identities, human oversight should serve as an articulator of the process of individuation between individuals, communities, society and AI systems. However, as we argued in the previous section, this alienation is already present in the law as we know it – alienation between law and technology (materiality and the senses). A form of overcoming this alienation is to understand the relation between AI and humans as a form of contestability, by highlighting the inherent ambiguity of AI–human relationships.

In 1958, Gilbert Simondon wrote *On the Mode of Existence of Technical Objects*,[68] extending the theory of individuation first developed in his earlier work to introduce a new ontology of the technical objects: the notion of how the technical object is challenged by the view of seeing it as solely through its current, individuated state. Rather than prescribing a fixed framework of existence, technical objects actively participate in the ongoing process of individuation. Humans and technologies co-evolve, constantly redefining each other in a dynamic interplay.[69]

The main goal of Simondon's book[70] was to address the question of alienation – to go beyond what Marxist theory envisaged at the economic and social levels of relations, framing alienation in terms of the relationship between the human and the technical object. The traditional separation between human reality and technical reality does not exist; devices are not merely functional tools – they have affective and societal meanings.[71] Technical objects must be understood as symbolic expressions of our values, culture and subjectivity.[72] These artefacts mediate our presence in the world, shaping and transforming our role within it. In this context, Article 3 of the EU AI Act presents a set of definitions that reveal a clear conceptual split between humans and machines. The legislator explicitly defines an AI system as machine based, while identifying providers and deployers as natural or legal persons who merely use these systems. This distinction reflects a positivist-rationalist perspective in which humans act solely as consumers, and machines function as servants.

However, such a separation is artificial. Machines embody human values, subjectivity and cultural meaning – they are not sterile, isolated instruments.[73] Instead, machines are an extension of humanity itself. There is no hierarchy of superiority or inferiority between human beings and AI systems; both are essential agents in a co-creative process that shapes culture and technological advancement. Humans and machines mutually influence and transform one another. This view aligns with the assertion that human existence is inherently tied to technical objects.[74] It is no longer possible to speak of a purely human essence or a purely technical one – we are humanised in collaboration with our technical counterparts.[75]

With digital technologies, and particularly with the automated and autonomous decision-making operations under AI, the process becomes more complex as they are grounded in cybernetics, in contrast to the mechanical mode of being of the industrial technology.[76] Automated machines are no longer based on the same mechanical epistemology performed homogeneously and repetitively. Instead, they are recursive; the contingency that could once break a machine is now integrated into its operations. The primary basis for a new relationship between organicism and organology is the theory of cybernetics. AI systems are closer to the organic than the mechanical, especially in the way they perform.[77]

Yet the law still adopts a mechanistic (linear) view of technology as distinct from humans – a perspective in tension with a cybernetic conception of technology. The rise of cybernetics marked a break with traditional philosophical thinking by

---

[66] *EU AI Act*, Art. 3[1].
[67] *EU AI Act*, Art. 14.
[68] Simondon, Mode of Existence.
[69] Liyanage, "Smart Mobilities."
[70] Simondon, Mode of Existence.
[71] Simondon, Mode of Existence.
[72] Necyk, "Usos e sentidos de tecnologias."
[73] Simondon, Mode of Existence.
[74] Latour, Reassembling the Social.
[75] Oliveira, "Pensar as Tecnologias."
[76] Hui, Recursivity and Contingency.
[77] Hui, Recursivity and Contingency.

challenging the dichotomy between the natural and the artificial.[78] The key difference among machines based on technicity, linear causality, and complex cybernetic systems lies in recursive causality. With the advent of cybernetic thinking, technical systems were able to account for contingency and redefine themselves based on changes in their environments.[79] As such, these systems are not bound to their original architecture and design, but actualise themselves in their interaction with the world. In AI systems, the capacity to capture contingency and integrate it into the system's self-referential meaning-making is virtually unlimited. Every interaction, every prompt, every click, every enter or delete of information is captured. The level of detail is microscopic and telescopic, the tiniest interactions at a planetary scale.

There is a significant rupture in the transition from thermodynamic machines to information machines. At this point, the human is displaced from the centre of production; in the age of information machines, the machine itself organises the information, and humans are no longer at the centre – even though they consider themselves the commanders and organisers of the information. This identity is false, and it generates constant frustration and a search for identity.[80] Such an inability to integrate the reality of machines creates an unfortunate antagonism between humans, machines, culture and technique.

This contrasts with the principle of human-centredness on which EU AI Act is based.[81] The concept of human-centredness traditionally emphasises the prioritisation of humans as playing a central role in guiding decisions related to the design, implementation, deployment and application of AI technologies. This approach is based on the premise that human judgement is better equipped to navigate complex scenarios that defy simple binary distinctions. This reproduces a view that humans remain at the centre of technology and in control of the machine. It reinforces a hierarchical dichotomy between humans and machines, rather than recognising the latter as an integral element of cultural and existential structures. Consequently, humans perpetuate a process of alienation from the very systems with which they coexist.

The dialectic that occurs between the technical object and the human, in which the two organisms co-emerge in a common individuation process, is called 'transductive'.[82] Both organisms interfere with the process of adaptation and the ability to change and adapt to internal and external conditions. Just as a human affects the technical object, the technical object also affects the human. In this sense, machines are hyper-developed and hyper-concentrated forms of aspects of our own subjectivity.[83] From this perspective, the notion of human centricity becomes untenable, given that technology is already intrinsically embedded in our values, subjectivities and culture. Technologies are already human-centric, as they are built by and for humans. The big question is for which humans this technology is designed and regulated by law. Therefore, it is inconsistent to assume the existence of a purely technical machine that requires the reinsertion of the human element, since it has always been present.

Understanding how a technical object works involves transposing an operating mode to the operation itself. 'To have a concrete intuition of an object's movement means, to some extent, putting oneself in its place and situation, as if our body were that very object.'[84] The problem of alienation stems precisely from the mismatch between humans and machines, from a misunderstanding or lack of understanding of technologies.[85] The main reason for alienation in the contemporary world lies in the misunderstanding of the machine, which is not an alienation caused by machines, but rather by a lack of understanding of their nature and essence, by their absence from the world of meanings in culture.[86]

We claim that the role of human oversight, which can adhere to this role of interpellation by 'putting oneself in its place and situation', can articulate the process of individuation between individuals, communities, society and AI systems. The process of individuation in this setting becomes increasingly blurred and less discernible, due in part to the rapid and unrestrained advancement of responsive technologies. This acceleration fosters a persistent condition of alienation, intensifying human discomfort with AI systems. Such unease is reflected in prevailing narratives of displacement, fear, diminished autonomy and a pervasive lack of understanding. In this regard, the law appears misaligned with contemporary technological paradigms, as it continues to conceptualise technology through a mechanistic lens. Its efforts to stabilise and regulate fail to reflect the evolving ontology of digital objects, which are better understood not through linear causality but through a dynamic, spiral-like process.[87]

---

[78] Hui, On the Existence of Digital Objects.
[79] Hui, Recursivity and Contingency.
[80] Hui, Machine and Sovereignty; Simondon, Mode of Existence.
[81] *EU AI Act*, Preamble number 1, 6, and 8.
[82] Simondon, Imagination and Invention.
[83] Guattari, Chaosmosis.
[84] Simondon, Imagination and Invention, 40.
[85] Hui, On the Existence of Digital Objects.
[86] Hui, On the Existence of Digital Objects.
[87] Hui, Recursivity and Contingency.

Such misalignment reinforces alienation, which primarily involves the alienation of humans from themselves, their desires and their culture, when there is no awareness of which behaviours are shaped/created by technical objects. It is present in law – as we argued in the previous section – through the alienation between law and technology (materiality and meanings). Alienation can only end when the operator of technology recognises that they have been transformed by and with it. That is why we believe one way to overcome this alienation would be to understand it as a process of engaging in contestation with the operation of AI systems. Contestation reflects a state of non-alienation, emerging not only from operational control, but from transformation in the relational modes between humans and machines.

Currently, the imaginaries of super-intelligent machines that are independent of humans through self-regulating and autonomous decision-making exclude the possibility that the construction of standards and the decisions made by machines are based on ethical choices and replicate human behaviours. Technology is not merely an instrument/tool; it should not be treated solely for its use because there is no separation between nature and technique or culture and technique.[88] We are submerged in technical culture and are subjectivised by technologies; at the same time, as we produce them, we are produced by them.[89]

5. Artwork: HUMAN OVERS[A]IGHT: THE OPS ROOM

The relational complexity of the law, as a negotiable and rhetorical plateau within social norms and its boundaries, has been reduced by the EU legislator[90] to a mere operational function of a human controller, with a binary yes/no logic. Facing the responsibility that seemingly holds the power to 'put a system to a halt' is the final threshold of agency, or a trace of the will. In the eyes of the law, the intent or *will* of a subject [person] to do a certain action is what is being proven or disproven. If there is no *will*, there is no *law* placed upon an automated system – but on the bureaucratic performer of human oversight.

Between Simondon's individuation and an individualisation of a conjoined operative human–machine subject, we are treating the human component as a singular participant in this unit – a human. This human does not equal 'people'; the 'human unit' is an interchangeable position that eliminates social negotiation, unified construction of meaning or any aspect of societal knowledge-making. This unit is isolated and reduced to a system operator. If there are too many people, the system could become overly influenced, and decisions could become ambiguous due to conflicting interests and biases. We argue that the absence of multiple negotiators or human agents does not make the system any less biased, as the system is already a by-product of clustered statistical predictions based on patterns and training done by 'some' humans. However, this apparatus allows everyone in the production and development to avoid accountability and become invisible in the eyes of the law.

As a response to such understanding of limitations of the law, we applied these findings in a specific cultural context, producing an installation artwork entitled HUMAN OVERS[A]IGHT: THE OPS ROOM (Figure 1). It is an interactive installation in which the spectators are invited to participate. Our human–machine interface is not just 'a button' – as per Article 14 of the EU AI Act – but rather a multitude of buttons. We break the isolation of a mundane union of machine and its human oversight by social interaction, intervention, confusion and discussion as an open-ended experience.

---

[88] Simondon, "Culture and Technics."
[89] Oliveira, "Pensar as Tecnologias."
[90] *EU AI Act,* Article 14[4].

Figure 1. HUMAN OVERS[A]IGHT: THE OPS ROOM. Installation view Ars Electronica Festival Linz. 2025
Image credit: Kristina Tica and Joaquín Santuber. Metaverse Lab, JKU. Photo: Reinhard Zach, 2025

The installation consists of a button-object with 34 wired and programmed glowing red buttons attached to a metal construction, and 33 LED screen modules, constructed in space as self-standing objects. The audience can interact with the contents on the screens via button pressing. The aesthetics of the installation form an open space control area, where visitors can walk around and behind the screens, interact directly with the buttons or observe and investigate the real-time video-generative process.
The visual component of the work (Figure 2) is a four-channel video piece running in real time via a custom application written in Python. These video channels are running on different applications for computer vision operations, trained to detect objects such as military weapons, armed officers, protests and attacks. The use of military or police operation footage was chosen as a corresponding example of the current use of high-risk AI systems, such as facial recognition in public gatherings or autonomous weapons in drone warfare.

Figure 2. Real-time video processing screengrabs. Kristina Tica. 2025. HUMAN OVERS[A]IGHT: THE OPS ROOM
Image credit: Kristina Tica. Metaverse Lab, JKU, 2025

The project's conceptual framework was to foster an open-ended interaction, focused on the experience rather than a game-like narrative. As Article 14 left the further definition of 'appropriate interface' undefined, we also corresponded with an ambiguous solution. The question in mind was to challenge the machinic/computer vision against the human experience of viewing and observing video material.

While the computer operates at a pace unperceivable to the human eye, and makes a decision about whether something in the video-data is a threat, the human analyses other contexts and contents, and tries to correlate events and layers of the video. The positioning of the LED screen modules in a Tetris-like setup (Figure 3) meant there would always be parts of the video data missing or absent to the human eye. The layers of video channels overlapping one another were emphasised to prevent visitors from developing a narrative, to prevent a sense of full control of the image processing.

Figure 3. HUMAN OVERS[A]IGHT: THE OPS ROOM. Kristina Tica and Joaquin Santuber. Installation detail Ars Electronica Festival Linz 2025
Image credit: Kristina Tica and Joaquín Santuber. Metaverse Lab, JKU. Photo: Reinhard Zach, 2025

The button-pressing interaction (Figure 4) serves to make subtle alterations in the software – whether to start an object recognition process to target a 'threat', to detect motion, create saliency maps or activate bounding boxes. The interactions were randomised over different buttons triggering different commands. There is no user manual, no rulebook on how to keep the system safe from its self-imposed harm, and there is no interface to stop the system from harming society. It is a prompted decision-making reality TV, a control room of occasional indiscernible imagery, operational image and vision not made for any human or legal processing, but computational. It is a collective deconstruction of the imposed meaning and role of an AI system. The imagery is real-time processed, real-life, documentary and surveillance video footage upon which machine learning-based models for computer vision render and alter data based on human input via button pressing.

Figure 4. HUMAN OVERS[A]IGHT: THE OPS ROOM. Kristina Tica and Joaquin Santuber. Installation view. Ars Electronica Festival Linz 2025
Image credit: Kristina Tica and Joaquín Santuber. Metaverse Lab, JKU. Photo: Reinhard Zach, 2025

The image is a data plane – for the computer, a matrix of probable patterns, and for the human, a substance of suspicion, legal compliance and bureaucratic responsibility. Aesthetics become politics in this system of relations, constructed through the observation of a computational image processed by an automated decision-making system, a computer algorithm, which presents a deterministic view of data operations. What remains for a human is to alert and warn about the possibility of a false-positive or false-negative result. Yet there is an immense probability that human oversight will overlook some of the gaps and disruptions made by an AI system. In this image-reading chase, the system of human oversight in a high-risk AI system is not a place of legal contestability, but of statistical determination.

A warning image of a system of its own will, yet legally illegible, invisible software product that requires a human to guide it, paves the way for a science fiction imaginary of a control room, a button [and the power it holds]. A networked system cannot be stopped by shutting down the hardware components, or by a single emergency report of a human oversight service operator, as they are not the proprietors but a component of the system itself. This premise serves as the inspiration for the installation's visual communication. Such interplay of [pop-]cultural encoding came directly from the way the law is written, which we found as a critical spot to argue about the feasibility of such an imaginary, yet it strengthens the visual appeal and accessibility of the experience of the overall system for the broader audience, making a platform for empirical critique of the envisioned apparatus.

6. Closing Remarks: Human Oversight as a Mechanism of Contestation

Images and imagination[91] are important for relationships with technical objects[92] and their relation to the law.[93] They establish patterns of action and virtually explore future behaviour in human–technical object relationships. However, the image cannot

---

[91] Antaki, "Imagination."
[92] Simondon, Imagination and Invention.
[93] Goodrich, "Rhetoric and Somatics"; Legendre, "Introduction to the Theory of the Image."

present itself without a certain force or violence because the image to come to light must remove and put aside another image.[94] The image to put aside is the image and the imaginary of alienation between AI–human and AI–law.

In this sense, reimagining the symbolic view of the 'oversight image' can be a way to cope with alienation. Through images and imagination lies the pre-reflection on patterns of action from which organisms plan and explore their future behaviour and grasp the meaning of perceptual worlds. The process of imagining, inventing and manipulating technological devices is part of the process of individuation and the process of transduction – in other words, the relation between technical objects and humans. This is not merely a process of utility, but also a normative world-making process that gives meaning to our coexistence with technologies: an embodied and situated construction of legalities. Transduction, beyond the Simondonian theory, is understood as 'the transformation of meaning that a given text undergoes when it is interpreted in different historical or social contexts involves a transductive component, since "a transmission of information with modification of meaning" is produced',[95] opening up the possibility for contestation.

Law, as a normative act, attempts to exert control over the system of images by the written text (alienation law-technics/image) and, by extension, over the imaginary, serving as a means of regulating social behaviour. However, there are always images that escape it – the banned images – which open up the possibility of thinking and becoming outside the policing eye of the written law, and with that construct new situated and embodied legal meanings. We have argued that this possibility can be framed by extending the notion of contestability to the AI–human relation.

In this article, our goal has been to develop an alternative imaginary of human oversight that departs from the traditional conception of control symbolised by the EU AI Act. We presented a possible form of oversight as a deliberate and structured mode of contestability that fosters the process of individuation between humans and AI. Our society is based on norms that we are constantly using without realising it. Whether grounded in morality or social conventions, the law establishes a structure, such as boundaries, within which these norms fit and seeks to adapt to the situation. Just as society is constantly changing, these norms also evolve. Political, economic and social changes are reflected in the law and, recently, technologies have directly interfered with what we can call normative affordances. These norms shape our judgements of technology; whether we judge a killer robot to be good or bad depends on our understanding of the normativity it can generate for us.[96]

Uses, values and affordances of technical objects are not invented by humans alone, but are made possible and constrained by the material conditions of AI systems as well as other non-human actors. Using objects does not consist only of a passive function that lets objects shape our intentions, but is a constant process of transduction, back and forth. The discovery of the operational modes by which they are established also assigns a continuous affective and expressive meaning and value, from a process of imaginative and generative individuation.[97] Reimagining the intentionality embedded in technological artefacts allows for their interpellation through alternative epistemological lenses. As Arvidsson notes, viewing reality through a different 'cut' in the diffraction method 'enables us to understand the world in new ways, to see new problems – and old ones – and find new ways of approaching them'.[98] Such a perspective suggests a possible pathway of human oversight to overcome alienation.

In this article, we argued that the first form of alienation between law and technology – both its own technological apparatus and the technologies it enables—stems from a rupture with the image and the sensorial, enacted in the name of eliminating ambiguity. Yet law reintroduces a normative image: a normative visual regime, mediated through its own technologies, designed to manage abstraction and exert control over bodies, culture and society. The legal system's technological apparatus, an AI–human construct, can be dis/ordered through the reintroduced image to become contestable.

However, the EU AI Act appears to negate this tradition by privileging the technical image – the image of AI – by placing faith and credibility solely in visual representations grounded in accuracy. In doing so, it relinquishes the contestability that is intrinsic to the legal image. Beyond this, a second layer of alienation emerges: that between humans and technology. The EU AI Act, as a legal instrument, reinforces this rupture by stripping away excess subjectivity and human presence, favouring only what is deemed precise and accurate. Yet, much like its treatment of images, the EU AI Act reintroduces the human – through the construct of *human oversight* – as a symbolic figure of alienation between human and machine: the human as controller of the machine.

---

94 Sbordoni, Semiotics of the End.
95 Rodríguez-Ortega, "Exploring the Concept of Transduction," 23.
96 Hildebrandt, "Smart Technologies."
97 Dereclenne, "Simondon and Enaction."
98 Arvidsson, Posthuman Feminism, 41.

In an attempt to overcome these dual alienations, we dis/ordered the AI–human construct by imagining oversight as a system to dismantle the notion of separation between human and machine. If developed in such a way, it would entail a more egalitarian stance, in which the human is not merely a supervisor or controller but a figure of contestation *vis-à-vis* the machine. To address the alienation between law and technology, we advocate for the recovery of image, meaning and imagination – alternative visualities that challenge the dominant paradigm of accuracy and supervision. In this view, the human does not merely oversee, but contests, as is proper to the legal technology.

To restore the sensorial and dissolve the human–machine divide, in this article we turned to aesthetics and artistic practices. We analysed HUMAN OVER[A]IGHT: THE OPS ROOM[99] as an artwork and exploration vehicle. In this vein, the artwork emerges as a site of possibility: a space to reimagine the symbolic and to generate alternative images – potentially those excluded by the EU AI Act – through a collective, immersive and reflective sensorial experience in a public space. This act of resignification and the creation of new meanings constitute a process of transduction between human and machine,[100] or the disclosing of how matter comes to matter differently.[101] Within this space, the human is repositioned – not to affirm what is seen, but to question it – enabling a transductive reconfiguration of the image and fostering a process of individuation in which human and machine co-evolve in a more balanced manner, thereby reducing alienation.

In the definition of human oversight in Article 14 (EU AI Act), the legislator introduces the idea of supervision, akin to surveillance and control of the machine's actions. This implies that humans determine whether the machine's actions are right or wrong, good or bad, legal or illegal, thereby positioning humans as superior to the machine, which is there to serve them. It is an alienating idea, presupposing that the machine does not influence human decision, while humans alone influence the machine. Simondon further argues that culture, like legal institutions and language, cannot keep pace with changes in technical objects. The mismatch between culture and technology, as well as a lack of understanding of the reality surrounding the human–technical object, contributes to ideologies and myths surrounding technical progress and evolution.

Images, like imagination, are related to how we appropriate and use objects, the functions we ascribe to them and how they adapt to new situations. As Simondon points out, there are no pregiven uses or affordances displayed in objects. By reproducing the subjectivity embedded in social, economic and political systems, we give these objects a particular use. However, we can alter the meaning of these objects by assigning them value, by imagining them and by creatively appropriating their use. Seeing human oversight as a form of contestation seeks to place humans on an equal footing with machines. Beyond a position of control, it is understood that contestation is a democratic instrument, not one of subjection. Humans challenge the machine, just as the machine challenges humans. Placing human oversight merely as a supervisor of the machine's decisions denies the reality that the machine is interwoven with human values, subjectivity and visions, and that it produces and reproduces these human values in its actions.

This judgement is grounded in human subjectivity, which entails a certain ambiguity. Unlike machines, humans do not operate with binary logic, black or white, but with a broader, context-dependent interpretation. Law is one form of sign system that translates human languages, and therefore relates to the inherent ambiguity of language and discourse. Due to this ambiguity, the text of computer systems that lack multi-interpretability does not generate the specificity of a contestable norm; if the norm cannot be disobeyed, it does not qualify as a legal norm. But this could imply that a computer system does not need to be challenged; if it is always correct, it has been programmed not to deviate from the norm. This is the most rationalist, positivist view of the human/nature, nature/culture, human/machine divide. From this perspective, the machine is devoid of the subjectivity and ambiguity possessed by humans.

Overcoming alienation means there is only a simultaneous, collective co-construction between human and technical objects, which is always normative. One contributes to the other in the process of individuation. There are no individuals, only relational processes in which human, sociotechnical objects and culture are continually constructed in reciprocal and simultaneous ways. This is the process of constructing a normative universe that can always be different.

---

[99] Tica, "HUMAN OVERS[A]IGHT: THE OPS ROOM."
[100] Simondon, Mode of Existence.
[101] Barad, "Diffracting Diffraction."

Bibliography

Agamben, Giorgio. *"What is an Apparatus?" and Other Essays.* Stanford University Press, 2009.

Antaki, Mark and Kirsten Anker. "Imagination." In *The Routledge Handbook of Cultural Legal Studies*, edited by Karen Crawley, Thomas Giddens and Timothy D. Peters. Routledge, 2024.

Arvidsson, Matilda. "Posthuman Feminism as a Theoretical and Methodological Approach to International Law." In *International Law and Posthuman Theory*, edited by Matilda Arvidsson and Emily Jones. Routledge, 2024.

Barad, Karen. "Diffracting Diffraction: Cutting Together-Apart." *Parallax* 20, no 3 (2014): 168–187. https://doi.org/10.1080/13534645.2014.927623.

Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press, 2006.

Bergson, Henri. *Matter and Memory*. Edited by Nancy Margaret Paul and Palmer and William Scott. MIT Press, 1912.

Boulot, Emille and Anna Grear and Joshua Sterlin and Iván Darío Vargas-Roncancio. "Editorial Posthuman Legalities: New Materialism and Law Beyond the Human." *Journal of Human Rights and the Environment* 12 (2021): 1–12. https://doi.org/10.4337/jhre.2021.00.00.

Cohen, Julie E. *Configuring the Networked Self: Law, Code, and the Play of Everyday Practice*. Yale University Press, 2012.

Cover, Robert. *The Supreme Court, 1982 Term – Foreword: Nomos and Narrative*. Harvard Law Review 97, no 5 (1983): 4–68. https://scispace.com/pdf/the-supreme-court-1982-term-foreword-nomos-and-narrative-1j5zihelp0.pdf.

Dereclenne, Emilien. "Simondon and Enaction: The Articulation of Life, Subjectivity, and Technics." *Adaptive Behavior* 29, no 5 (2021): 449–458. https://doi.org/10.1177/1059712319861915.

Douzinas, Costas. "Sublime Law: On Legal and Aesthetic Judgements." *Parallax* 14, no 4 (2008): 18–29. https://doi.org/10.1080/13534640802416819.

Enqvist, Lena. "'Human Oversight' in the EU Artificial Intelligence Act: What, When and by Whom?" *Law, Innovation and Technology* 15, no 2 (2023): 508–535. https://doi.org/10.1080/17579961.2023.2245683.

Farocki, Harun. *Eye/Machine I.* 2000. https://www.harunfarocki.de/installations/2000s/2000/eye-machine.html.

Flusser, Vilém and Nancy Ann Roth. *Into the Universe of Technical Images.* University of Minnesota Press, 2011.

Giddens, Thomas, Karen Crawley and Timothy D. Peters. "Cultural Legal Studies: Methodologies of Reflexive Attunement." In *The Routledge Handbook of Cultural Legal Studies*, edited by Karen Crawley, Thomas Giddens and Timothy D. Peters. Routledge, 2024.

Goodrich, Peter. "Rhetoric and Somatics: Training the Body to Do the Work of Law." *Law Text Culture* 5, no 2 (2001). https://doi.org/10.14453/ltc.692.

Goodrich, Peter. "Specula Laws: Image, Aesthetic and Common Law." *Law and Critique* 2, no 2 (1991): 233–254. https://doi.org/10.1007/BF01128679.

Grear, Anna. "Deconstructing Anthropos: A Critical Legal Reflection on 'Anthropocentric' Law and Anthropocene 'Humanity'." *Law and Critique* 26, no 3 (2015): 225–249. https://doi.org/10.1007/s10978-015-9161-0.

Green, Alex, Mitchell Travis and Kieran Tranter. "The Legal Imaginary and Science Fiction." In *Science Fiction as Legal Imaginary*, edited by Alex Green, Mitchell Travis and Kieran Tranter, 1–16. Routledge, 2024.

Guattari, Félix. *Chaosmosis: An Ethico-Aesthetic Paradigm.* University of Washington Press, 2006.

Haraway, Donna. *When Species Meet.* University of Minnesota Press, 2008.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. University of Chicago Press, 1999.

Hildebrandt, Mireille. "The Adaptive Nature of Text-Driven Law." *Journal of Cross-Disciplinary Research in Computational Law* 1, no 1 (2021). https://journalcrcl.org/crcl/article/view/2.

Hildebrandt, Mireille. "Smart Technologies." *Internet Policy Review* 9, no 4 (2020). https://policyreview.info/concepts/smart-technologies.

Hildebrandt, Mireille. *Smart Technologies and the End(s) of Law: Novel Entanglements of Law and Technology*. Edward Elgar, 2015.

Holzinger, Andreas and Kurt Zatloukal and Heimo Müller. "Is Human Oversight to AI Systems Still Possible?" *New Biotechnology* 85 (March 2025): 59–62. https://doi.org/10.1016/j.nbt.2024.12.003.

Hui, Yuk. *Art and Cosmotechnics*. University of Minnesota Press, 2021.

Hui, Yuk. *Machine and Sovereignty: For a Planetary Thinking.* University of Minnesota Press, 2024.

Hui, Yuk. *On the Existence of Digital Objects*. University of Minnesota Press, 2016.

Hui, Yuk. *Recursivity and Contingency*. Rowman & Littlefield, 2019.

Kahanoff, Sharon. "The Will and the Way of the Apparatus in World Rehearsal Court (Judy Radul)." In *Catalogue of an Exhibition at the Morris and Helen Belkin Art Gallery, The University of British Columbia, October 9 to December 6, 2009*. 2009. https://worldrehearsalcourt.com.

Koivisto, Ida and Riikka Koulu and Stefan Larsson. "User Accounts: How Technological Concepts Permeate Public Law through the EU's AI Act." *Maastricht Journal of European and Comparative Law* 31, no 3 (2024): 412–432. https://doi.org/10.1177/1023263X241248469.

Koulu, Riikka. "Proceduralizing Control and Discretion: Human Oversight in Artificial Intelligence Policy." *Maastricht Journal of European and Comparative Law* 27, no 6 (2020): 720–735. https://doi.org/10.1177/1023263X20978649.

Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press, 2005.

Laux, Johann. "Institutionalised Distrust and Human Oversight of Artificial Intelligence: Towards a Democratic Design of AI Governance under the European Union AI Act." *AI & SOCIETY* 39, no 6 (2024): 2853–2866. https://doi.org/10.1007/s00146-023-01777-z.

Legendre, Pierre. "The Dogmatic Value of Aesthetics1." *Parallax* 14, no 4 (2008): 10–17. https://doi.org/10.1080/13534640802416900.

Legendre, Pierre, Peter Goodrich and Alain Pottage. "Introduction to the Theory of the Image: Narcissus and the Other in the Mirror." *Law and Critique* 8, no 1 (1997): 3–35. https://doi.org/10.1007/BF02699759.

Liyanage, Kushani. "Smart Mobilities and the Technical Production of Subjectivity After Gilbert Simondon." UNSW, 2025. https://doi.org/10.26190/UNSWORKS/31191.

MacKenzie, Adrian and Anna Munster. "Platform Seeing: Image Ensembles and Their Invisualities." *Theory, Culture & Society* 36, no 5 (2019): 3–22. https://doi.org/10.1177/0263276419847508.

Merleau-Ponty, Maurice. *Phenomenology of Perception.* Translated by Donald Landes. Routledge, 2013.

Minkkinen, Panu. "The Tragic Politics of Public Law." In *Questioning the Foundations of Public Law*, edited by M. Dowdle and M. Wilkinson, 51–61. Hart, 2018.

Minow, Martha, Michael Ryan and Austin Sarat, eds. *Narrative, Violence, and the Law: The Essays of Robert Cover.* University of Michigan Press, 1993.

Mohr, Richard and Francesco Contini. "Reassembling the Legal." *Griffith Law Review* 20, no 4 (2011): 994–1019. https://doi.org/10.1080/10383441.2011.10854728.

Necyk, Barbara Jane. *Usos e Sentidos de Tecnologias Digitais de Informação e comunicação em contextos de Ensino-aprendizagem no Design*. Doctoral thesis, University Pontifica Universidade Catolica do Rio de Janeiro, 2013. https://doi.org/10.17771/PUCRio.acad.21993.

Oliveira, Andréia Machado. "Pensar as Tecnologias a Partir de Gilbert Simondon e Yuk Hui." *Educação & Realidade* 48 (2023). https://doi.org/10.1590/2175-6236120769vs01.

Paglen. "Operational Images." *E-flux Journal*, no 59 (2014). https://www.e-flux.com/journal/59/61130/operational-images.

Parikka, Jussi. *Operational Images: From the Visual to the Invisual.* University of Minnesota Press, 2023.

Pavoni, Andrea. "Introduction." In *SEE*, edited by Andrea Pavoni, Danilo Mandic, Caterina Nirta, and Andreas Philippopoulos-Mihalopoulos. University of Westminster Press, 2018. https://doi.org/10.16997/book12.

Philippopoulos-Mihalopoulos, Andreas. "Law is a Stage: From Aesthetics to Affective Aestheses." In *Research Handbook on Critical Legal Theory*, edited by Emilios Christodoulidis, Ruth Dukes and Marco Goldoni, 201–222. Edward Elgar, 2019.

Rodríguez-Ortega, Nuria. "Exploring the Concept of Transduction to Interpret AI-Generated Images." In *From Hype to Reality: Artificial Intelligence in the Study of Art and Culture*, edited by Eva Cetinić and Dario Negueruela del Castillo, 23–28. Max Planck Institute for Art History, 2024.

Santuber, Joaquin and Pablo Hermansen. "Designing for Posthuman Legalities: Legal Design(Ing) and the Ontological Turn." In *Design (s) for Law*, edited by Rossana Ducato, Alain Strowel and Marique Enguerrand. Ledizioni, 2024. https://doi.org/10.5281/zenodo.10829515.

Santuber, Joaquin and Kristina Tica. "HUMAN OVERS[A]IGHT: THE OPS ROOM." In *Proceedings of the 18th International Symposium on Visual Information Communication and Interaction (VINCI 2025)*, New York, 2025. https://doi.org/10.1145/3769534.3769583.

Santuber, Joaquin and Kristina Tica. "Visualizing AI Operations for Human Oversight: The Ops Room." In *Proceedings of the 18th International Symposium on Visual Information Communication and Interaction (VINCI 2025)*, New York, 2025. https://doi.org/10.1145/3769534.3769580.

Sbordoni, Alessandro. *Semiotics of the End: On Capitalism and the Apocalypse*. Institute of Network Cultures, 2023.

Simondon, Gilbert. "Culture and Technics (1965)." *Radical Philosophy*, no 189 (2015): 17–23. https://www.radicalphilosophy.com/article/culture-and-technics-1965.

Simondon, Gilbert. *On the Mode of Existence of Technical Objects*. Translated by Cécile Malaspina and John Rogove. University of Minnesota Press, 2017.

Simondon, Gilbert and Joe Hughes and Christophe Wall-Romana. *Imagination and Invention: A Univocal Book*. University of Minnesota Press, 2022.

Simondon, Gilbert, Ninian Mellamphy, Dan Mellamphy and Nandita Biswas Mellamphy. "On the Mode of Existence of Technical Objects." *Deleuze Studies* 5, no 3 (2011): 407–424.

Sterz, Sarah, Kevin Baum and Sebastian Biewer. "On the Quest for Effectiveness in Human Oversight: Interdisciplinary Perspectives." In *FAccT '24: Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency.* ACM, 2024: 495–507.

Stone Peters, Julie. *Law as Performance: Theatricality, Spectatorship, and the Making of Law in Ancient, Medieval, and Early Modern Europe*. Oxford University Press, 2022.

Tica, Kristina and Joaquin Santuber. "COMPUTING HUMAN OVERS[A]IGHT: LAW/APPARATUSVISION/AGENCY." In *Proceedings of the Sixth Decennial Aarhus Conference: Computing X Crisis*, New York. Association for Computing Machinery, 2025, 244–251.

Tica, Kristina and Joaquin Santuber. "HUMAN OVERS[A]IGHT: THE OPS ROOM." In *Ars Electronica 2025 Festival for Art, Technology and Society: Panic Yes/No*, edited by Gerfried Stocker and Markus Jandl. Hatje Cantz, 2025.

Tranter, Kieran. "The Laws of Technology and the Technology of Law." *Griffith Law Review* 20, no 4 (2011): 753–762. https://doi.org/10.1080/10383441.2011.10854719.

Tranter, Kieran. *Living in Technical Legality: Science Fiction and Law as Technology. Edinburgh Critical Studies in Law, Literature and the Humanities.* Edinburgh University Press, 2022.

Vismann, Cornelia. "Cultural Techniques and Sovereignty." *Theory, Culture & Society* 30, no 6 (2013): 83–93. https://doi.org/10.1177/0263276413496851.

Vismann, Cornelia. "Image and Law: A Troubled Relationship." *Parallax* 14, no 4 (2008): 1–9. https://doi.org/10.1080/13534640802447152.

Vismann, Cornelia. "In Judicio Stare: The Cultural Technology of the Law." *Law & Literature* 23, no 3 (2011): 309–323. https://doi.org/10.1525/lal.2011.23.3.309.