Digital Image: The Role of Apparatus, Artificial Intelligence, and Machine Learning in Visual Communication in the Digital Age

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Abstract

The paper aims to provide a comprehensive analysis of the current state of digital imagery and the implications of recent technologies, including artificial intelligence (AI), in shaping the future of communication in the digital age. The impact of digital transformation on photography has been significant, with a shift from representing reality to serving as a source of raw data for autonomous learning machines. The generative capabilities of AI systems signify a profound shift in creative practices. These systems, capable of producing highly realistic images that often are indistinguishable from human-made ones, have significant implications for both individual creativity and the broader visual culture landscape. This transition has led to questions regarding the role of AI and machine learning in visual communication. As the landscape of creativity evolves with AI, it is imperative to navigate these complexities thoughtfully, ensuring that the integration of AI into creative domains enriches rather than diminishes the human creative experience. In this paper, we also incorporated a set of images generated by Midjourney of an ongoing project to illustrate the remarkable ability of this AI tool to produce visuals that can be deceptively similar to real photographs. Therefore, a comprehensive analysis of the role of apparatus, AI, and machine learning in visual communication, in the digital age is needed to understand the complexities of relying solely on machines and the risks of unconditional trust in technology. Finally, we propose to understand how these technologies are changing the way we communicate and consume images in the twenty-first century, and while the ability to employ computer vision, continuous image streams,

and machine learning has beneficial implications, it also presents ethical challenges.

Keywords

Apparatus · Machine-made Images · Artificial Intelligence · Machine Learning · Visual Communication

1. Introduction

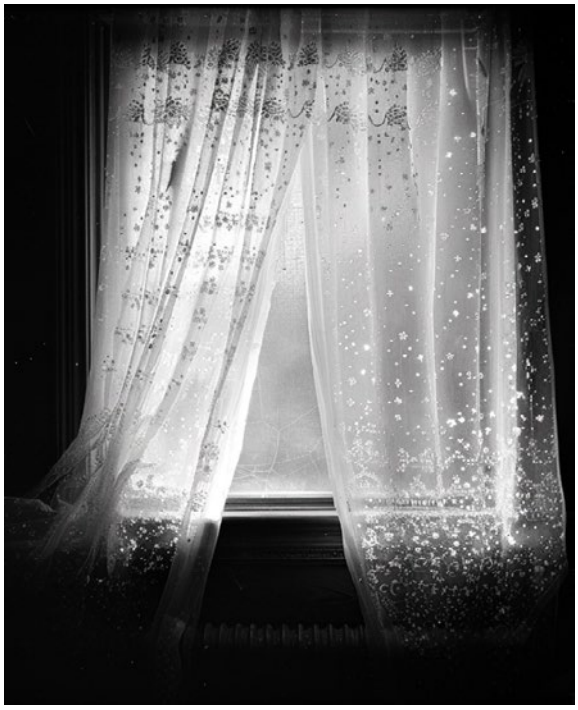

Figure 1. *Untitled*, Author: Wilson Caldeira / Midjourney. * Prompt text: The sea breeze gently lifted the fine lace curtains. There were stars floating in the void

We propose for now setting aside the requirement to declare fresh beginnings or explain the original meaning of digital images. These periods of disruptive innovation, which are fueled by the concepts of contemporaneity, force us to regularly acknowledge that we are surrounded by new apparatus, new image codes, and new perspectives. Modern innovations in image generation, distribution, and consumption brought on by the Internet's assimilation of photography have had a significant impact on a wide range of social and cultural institutions. As a result of the magnitude of the impact, anyone interested in photography studies must also be highly informed about industries and institutions that traditionally have had little to do with the study of photography (Rubinstein, 2008). Now that technological rules are the ones that produce culture's diversity of representations that can be classified, analyzed, and consumed, automation has become an algorithmic adventure that revealed new cultural realities. Automated processing necessitates a semi-open architecture of axioms, as opposed to being fatigued by the rigid and formalistic nature of laws or symbols that execute instructions. This architecture allows for replacing existing postulates with others that can convert infinite quantities into contingent probabilities. However, while the advantages of such flexibility are evident, it is crucial to acknowledge the inherent risks associated with this approach, including unpredictability, loss of control, and ethical considerations. To mitigate such risks, we need a comprehensive approach that integrates transparency, accountability, and continuous oversight throughout the AI lifecycle, from design to deployment. This strategy is critical to ensure that AI systems are safe and secure, thereby minimizing bias and unwanted consequences. In the design phase, principles such as transparency and resilience should be prioritized, which are critical to achieve reliable performance and fairness in AI systems. The establishment of robust ethical guidelines, as advocated by the European Commission's High-Level Expert Group on Artificial Intelligence, emphasizes the importance of creating frameworks that promote "Trustworthy AI" (Smuha, 2019). During the implementation phase, it is crucial to translate these principles into practices through rigorous testing, comprehensive documentation, and ongoing monitoring (Arigbabu *et al.*, 2024). This process not only enhances the reliability of AI systems but also fosters trust among all stakeholders. The need for collaboration among policymakers, developers, and users is paramount, as it facilitates knowledge sharing and resource pooling, leading to more effective and responsible AI deployment (Deep & Verma, 2023). Moreover, the integration of human oversight is crucial in mitigating the risks associated with AI systems. The establishment of independent entities, such as third-party audits and certification processes, can further improve transparency and accountability

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(Wörsdörfer, 2023). Ultimately, a multidisciplinary approach that considers the perspectives and needs of all parties is essential for ethical AI practices and ensuring that AI technologies are used responsibly, and the establishment of a comprehensive set of ethical guidelines is vital for safeguarding human creative expression and authorship.

In this world, both human and non-human beings coexist, bridging the gaps between reality and the virtual, the tangible and the digital. Every image of the world would not be confined to itself but would be expressive of a whole that was nothing more than all its varied imaging. The world would not be there to be imaged but would be itself a composition of images. Each image unfolds a world (Colebrook, 2020). A new type of connection between photography, the real and cognitive components of the world is created by the new image processing techniques, which reorder reality in its broad dimensions. They deconstruct the space, sever its connection with the visual, and strip it of any attachment to the real in its traditional manifestations (Van Essen, 2020). Since the beginning of the digital era, we have lived in a time of explosive technological development, one in which photography has a special role in the acquisition, diffusion, and interpolation of such information (Monteleone, 2019). The present digital imagery completely deconstructs the previous visual culture's network of semiotic codes, conceptual strategies, and representational patterns while also becoming increasingly intricately connected. Images are changed in meaning and versatility when they are converted to digital data. However, their use as a source for Artificial Intelligence and machine learning construction of virtual imagery has consequences that are more profound and, in some circumstances, more concerning than ever. We will not be able to form conclusions about all these computation systems or look for creative expression within them unless we accept their ambiguous architecture and make an acceptable effort to analyze digital photography in these recently emerged technologies of image-making and image manipulation. All of them allow photographs to perform new, unprecedented, and poorly understood functions. All of them radically change what a photograph is (Manovich, 1995).

Figure 2. *Untitled*, Author: Wilson Caldeira / Midjourney. * Prompt text: Black young man with a flowery shirt open over his sweating chest

2. Apparatus

The technical picture is an image formed by apparatuses, as stated by Flusser (1983) in his book *Towards a Philosophy of Photography*, and it is this apparatus into which we must go thoroughly to comprehend what sort of apparatus should we discuss when talking about machine-made photography. First, we shall attempt to deconstruct the concept of apparatus and its many components. As technology advanced over time, apparatus evolved and became harder to define. Agamben (2009) used Foucault's conceptual framework of dispositif, referred to as "apparatus," as a foundational premise in his literary work titled *What is an Apparatus? and Other Essays*, he started to investigate the word's origins, first in the works of Foucault but also in a wider context. For Foucault, what is at stake is rather the investigation of concrete modes in which the positivities (or the apparatuses) act within the relations, mechanisms, and "plays" of power (Agamben, 2009). Although other intellectuals have attempted to comment on this confusing term *apparatus*, they may have exacerbated matters by employing even more confusing metaphors for

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clarifying how this concept operates, it is Agamben (2009) who begins to make things clear and highlight its significance to philosophical theory. Agamben (2009) argues that Foucault's concept represents a key technical element in his philosophical approach, and he takes seriously Foucault's suggestion that his work should serve as a toolbox, developing and employing some of these instruments that have been kept out of sight for too long. It should come as not surprising that despite Foucault's prominence in rhetorical studies, the apparatus has not yet been granted consideration as a concept worthy of inquiry.

The conceptions of power/knowledge, followed by governmentality, shaped Foucault's view of power and, consequently, how to conduct his historical study at the time when he made his assertions about the apparatus. So, what contribution does Agamben (2009) offer to this body of knowledge? According to Agamben (2009), an apparatus may be defined as any entity that can apprehend, direct, ascertain, intercept, shape, govern, or safeguard the actions, conduct, beliefs, or expressions of sentient entities. Hence, it is apparent that various institutions such as prisons, madhouses, the panopticon, schools, confession, factories, disciplines, juridical measures, and others are undeniably linked to the exercise of power. Additionally, the pen, writing, literature, philosophy, agriculture, cigarettes, navigation, computers, cellular telephones, and even language itself, which can be considered one of the oldest apparatuses, can also be seen as interconnected with the dynamics of power. Given Agamben's own definition of apparatus, it does not appear that Agamben's theoretical grid should be stretched too far to encompass rhetorical theory and criticism as disciplines of study that can be impacted by his work. On some levels, it may appear that Agamben has begun to meta-theorize what current rhetorical critics have been doing since the Western tradition's effect on the field. Agamben reiterates, as did Foucault before him, the idea that subjectivity issues must be considered, despite how elusive they may seem to purists in the area. Agamben (2009) draws on a wide range of other Western theorists in addition to Foucault when he explores the apparatus in more simplified and understandable terms than his predecessors. Nonetheless, there is a compelling case to be made for the notion that art must continue its dialogue with the apparatus; first, it is undeniable that computers are machines in and of themselves, and secondly, there is a strong symbiotic connection between computers and traditional apparatus, there will be more, rather than fewer, machines in our future—and so an art that has not yet come to terms with even the classical machine will find itself less and less relevant (Lijn, 2018).

Should we embrace this apparatus's relation of power/knowledge to algorithms, machine learning, and artificial intelligence's role in contemporary imagery production? To comprehend the idea of apparatus in the era of digital technology, we must also look at Flusser's (1983) definition of apparatus, which asserts that apparatus may be viewed as production tools. Tools, in the traditional sense, remove items from their surroundings and transport them to the location of a particular entity. During this process, they alter the shape of the objects by imprinting a new, deliberate shape on them. They inform them, and the subject takes on an unusual, unlikely shape; it becomes cultural.

> "Apparatuses are black boxes that simulate thinking in the sense of a combinatory game using number-like symbols; at the same time, they mechanize this thinking in such a way that, in the future, human beings will become less and less competent to deal with it and have to rely more and more on apparatuses. Apparatuses are scientific black boxes that carry out this type of thinking better than human beings because they are better at playing (more quickly and with fewer errors) with number-like symbols." (Flusser, 1983)

As a result, an industry-based formulation of things is no longer capable of dealing with apparatuses and ignores what they are about. That is exactly what distinguishes the operation of apparatuses: The function that manages the apparatus via regulation of its outside, and it regulates the input and output through control of its inside. The presence of the apparatus and other elements differs significantly, and their convergence is more enigmatic than a purely mechanistic representation when machines capture pictures that are only interpretable by machines. This occurrence possesses a heightened level of enigma compared to a mere subjective instance of shared visual perception when the self and the other self-observe one another (Avanessian,

2020). We may conclude that the concept of "apparatus" in the digital age refers to the technological tools and equipment necessary to carry out various activities, particularly those using digital technology. This encompasses smartphones, laptops, and other technological gadgets as well as applications and software enabling the creation, manipulation, and communication of information and data, language translation software, speech recognition tools, and image analysis programs are some examples of technical apparatus employed in this context. The term "apparatus" may additionally be applied to the organizational, philosophical, and cultural frameworks within which these technologies and instruments are created and deployed.

Figure 3. *Untitled*, Author: Wilson Caldeira / Midjourney. Colebrook, 2020) * Prompt text: That night it rained. She opened an umbrella and went out, carrying a plastic bag (

3. Artificial Intelligence and Machine Learning

> "A human being's capacity to shape the future according to their liking via abstraction exceeds anything we can achieve in artificial intelligence today."(Shanahan, 2022)

The rapid and considerable progress in photography, communication, and other media-related technologies during the early 20th century had a profound impact on the Western art world, which was grounded in realism then. This resulted in an unprecedented level of disruption in artistic pursuits, prompting a growing recognition that the only means to establish a fresh artistic standing was through innovation. The correlation between artificial intelligence and creative engagement may be historically traced to the 1950s, a period during which the phrase "artificial intelligence" was first used (Turing, 1950). During the 1980s, the study of computer psychology saw a gradual transformation into a cognitive discipline (Sternberg, 1988). Simultaneously, research on artificial neural networks experienced rapid growth, while advancements in speech recognition and machine vision technology propelled the field of artificial intelligence into its nascent phases. The growth and integration of interactive art and artificial intelligence technologies have been deemed inevitable from their inception, owing to their shared foundation in computer technology and the intrinsic relationship between technology and art

The use of recent technologies to replace older ones is a widespread practice in human progress. Contrary to widely held belief, when we convert images into data images, we use the same logic; we no longer view images based on how they appear and visual function, but as carriers of data that can be examined, validated, structured, and categorized. Individuals have limited incentives to disengage from machines, as machines may be understood as highly advanced and concentrated manifestations of specific elements of human subjectivity. It is important to note that these elements are not the ones that create divisions and power dynamics among individuals. The construction of a bidirectional bridge between humans and robots is a feasible endeavor. Upon its establishment, this development will pave the way for novel and assured collaborations between the two entities (Guattari, 1984). But the reality is that intelligent machines are expanding from being simple tools for being at the service of ordinary day-to-day routines to determining and shaping entire economic and social branches, including intrinsic human strongholds such as areas of imaginative thinking and creative ability. The research notion

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of experience has been formally embraced by artists and technology workers, with a particular emphasis on the human interaction experience as a vital element in the production of interactive art. Hence, when individuals seek experiential and recreational gratification through interactive art, the focus of interactive art development transitions from object examination to the exploration of human behavior. Consequently, the relationship between science and art becomes more intertwined (Shen, 2021).

It is undeniable that artificial intelligence is no longer a literary or cinematic fiction of sci-fi visionary individuals, instead is becoming a reality and, in many areas, even a crucial element of our daily lives. The advent of deep learning technology in the realm of artificial intelligence has ushered in a phase of practical application and enhanced human-computer interaction. Notably, considerable progress has been made in intelligent voice communication, machine recognition capabilities, and the integration of artificial intelligence technology into virtual reality experiences. In essence, AI transcends its role as a mere technological tool for artistic creativity, instead represents a transformative force that reconfigures the very foundations of artistic thought and has a profound influence on human cognition (Shen, 2021).Therefore, it has been a significant trend in intelligent classification to include improvement modules to boost the learning power of deep learning network-based systems.

The development of new imaging technologies has revolutionized the way we perceive the world around us. These technologies not only expand our visual range but also blur the boundaries between the organic and mechanical. They are part of an ongoing process of co-constitution between the technical and the discursive in vision production. By replacing the biological eye with a machine, these technologies enable us to see things that were once invisible to us. As such, they have the potential to transform our understanding of the world and our place in it. We are currently in the midst of a cultural transition from a human to a post-human condition in which the wo/man no longer stands as an external observer facing the world, looking at and analyzing it, but rather acting from within it. In this world, human and non-human entities are operating simultaneously, connecting the natural and the artificial, objects and information, the real and the virtual (Van Essen, 2020). We can concur that Walter Benjamin's (2002) views on the relationship between technology and art have continued to influence the critical discourse in the digital age. While early aesthetes like Baudelaire (1995) saw mechanical reproduction as a threat to the power of the creative imagination, Benjamin saw it as a means of disrupting traditional notions of art. This perspective has taken on renewed relevance with the rise of computational photography, which uses AI and machine learning algorithms to create more immersive and detailed images.

Currently, the designation "Artificial Intelligence" embraces a wide range of machine learning methods. This observation can be made to suggest that AI is more liberated from the constraints of emulating human intellect or being physically embodied in a human-like form. Nevertheless, this definition remains limited in its scope since it just concentrates on AI as a technological and scientific phenomenon. It is contended that AI has emerged as a noteworthy phenomenon within the realms of society and culture (Romele, 2022). According to Romele (2022), the way in which Artificial Intelligence is communicated and represented in society can have a significant impact on its development and implementation. Technological imaginaries, or the expectations and beliefs that people hold about Artificial Intelligence, can shape the trajectory of research and development, influence funding decisions, and even affect public policy. Therefore, it is essential to consider the social and cultural context in which Artificial Intelligence is being developed and deployed and to engage in critical discourse about the implications of this technology for society. By doing so, we can ensure that AI is developed and used in a way that aligns with our values and promotes the common good.

Deep learning neural networks are used within contemporary models to train AI to self-learn correlations or symbols in data. The models of interest that we seek to understand are generative models. These models are designed to learn complex correlations and representations within data, enabling AI to generate latest content based on learned patterns. Among the diverse types of generative models, latent diffusion models have garnered significant attention due to their unique approach to data representation and generation. During the training phase, the mod-

el introduces random values, also known as noise, to the vectors. Subsequently, a model is trained to transform a vector with a slightly higher level of noise into a vector with a slightly lower level of noise (Ho *et al.*, 2020). Simply stated, the objective of the model is to replicate the initial numerical depiction of each image inside its training dataset by utilizing the corresponding textual description associated with that particular image (Troynikov, 2023). One of the most significant impacts of generative AI models on visual communication is their ability to produce highly realistic images. This technology has had a significant impact on the art world. Users are now able to use AI and machine learning algorithms to create art that is more immersive and detailed than ever before. This has led to the rise of computational imagery, which involves using algorithms to create, manipulate, and enhance images creating unique and innovative works of art.

While generative AI models have several benefits, it also raises concerns about the role of technology in our lives and the potential for AI to replace human creativity. The idea of the overuse of synthetic imagery is vital in this discussion because it pertains how visual culture is affected by technological innovations (Sloane & Zakrzewski, 2022). The interaction between technology and visual culture brings up questions about the possibility of generative AI surpassing human cognitive capacities (Joyce *et al.*, 2021). Generative AI models provide advantages such as productivity and innovation. However, they also bring a variety of ethical challenges. Concerns, like bias in AI algorithms, the dissemination of information and the emergence of highly realistic AI-generated images and videos are issues that require careful consideration. For example, the widespread use of deepfake technology demonstrates how AI can be wrongly used to distort reality (Khan *et al.*, 2023). Moreover, the absence of transparency and biases in AI data sets can worsen these problems (Daneshjou *et al.*, 2021). The incorporation of AI, in fields like the arts emphasizes the need to acknowledge the cultural influences that impact its reception and efficacy. The instances of individuals engaging with tools such as DALL-E and Midjourney in scenarios where AI produced visuals have triumphed in photography events prompt discussions about ownership rights, originality, and creativity. These scenarios highlight the nature of AI's role, in creative creations and the moral considerations tied to its use (Inie *et al.*, 2023). Moreover, the use of AI applications could give rise to a sentiment that the artistic process is being devalued since creators might sense the need to rival machines capable of generating highly satisfying results (Ghosh & Fossas, 2022). This interaction does not only impact artists but also shapes general societal views on art and creativity. The fear that AI might replace creativity has sparked what is known as " displacement anxiety," where artists and creators worry about staying relevant in a world becoming increasingly automated (Caporusso, 2023). As our understanding of art changes, over time it is important to create structures that safeguard the rights of creators while also promoting innovation. One way to tackle the issues arising from AIs impact on endeavors could be, through licensing practices and community driven regulations (Ghosh & Fossas, 2022). Involving experts and an interdisciplinary approach in the advancement of AI technologies can also play a crucial role in ensuring that these tools are designed with consideration of their influence on human creativity, ethical, and societal values (Inie *et al.*, 2023).

Figure 4. *Untitled*, Author: Wilson Caldeira / Midjourney. (Benjamin, 2002) * Prompt text: He sat down in one of the living room armchairs

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4. Machine-made images

The advent of photography has completely and permanently transformed our comprehension of historical events. The depiction of historical events in written language necessitates the utilization of one's imaginative faculties, but the advent of photography allowed for the materialization of past events. The juxtaposition of the present and past in the image creates a challenge in perceiving both temporal states as equally valid and, alternatively, equally invalid. According to your assertion, this dispute can be classified as a modal conflict (Avanessian, 2020). Now that images are generated by machines and do not belong to a timeline, it is impossible to overcome the dilemma that photographs represent, photographs show what is only present as something past in images. Machine-made images lead to questions about our ontological boundaries between the real and the imaginary since they are inevitably overly complex. Furthermore, with a machine-made image, the fundamental relationship between the signifier and the representation is one of ambiguity. The common belief is that computer-generated artificial images do not replace or represent visual reality as accurately as images produced by a camera lens. However, we can argue that machine-made photographs are already more realistic than traditional photographs. In fact, they are too real (Manovich, 1995). So, one may assert, in line with Deleuze and Guattari (2009), that worlds do not exist and cannot be observed or turned into images; rather, worlds are created from images that are observed, and the computer-generated image is not an inferior representation of our reality, but a realistic representation of a different reality (Manovich, 1995).

As a wide range of technologies may now produce images that resemble photographs for human consumption, vision is no longer limited by the spectral range that is available to the human eye. The impact of computer-generated imagery on contemporary society is currently through a transformative process, wherein it is redefining our perception of reality and creating a worldwide visual landscape (Flusser, 1983). We are living in a culture that is dominated by images and where the digital revolution has transformed photography, which now consists of visual data information without physical substance, but they are also images that are "ínvisible" to human perception (Monteleone, 2019). With the advancements emerging in the 21st century, the existing photography framework is still stuck in the past, which is a squandered opportunity. As always, everything will depend on new social assemblages' capacity for collective reappropriation (Guattari, 1996). Indeed, the advancements in imaging technology have allowed for the creation of computational photographic images that go beyond traditional two-dimensional photographs. These images often include metadata that provides additional information about the image, such as depth data, lighting information, and even the location and time the image was captured. By incorporating this metadata into the image, computational photography enables us to capture more information about the world around us and create images that are more immersive and interactive. This technology is transforming the way we perceive and interact with images, blurring the boundaries between the organic and the mechanical. Going forward, such image metadata could in fact become key to differentiating between photographic records that capture our reality, versus machine-generated imagery of alternative realities. In such a potential scenario, the apparatus may play a crucial role by embedding within the image tamper-proof cryptographic signatures that attest to the method in which the image was captured or generated.

The dialogue needs to transcend beyond its current parameters in theory and critique. Considering the various methods by which raw data may be collected, processed, and delivered, the concept of photography needs to be radically changed. Within the world of machine-generated photography, it is important to see photography as a process that occurs when a convergence of technologies, concepts, applications, and endeavors takes place, rather than construing it just as a representation, method, or tangible entity. The concept of the photographic object alludes to its manifestation as a collection of many components, and its use and propagation also have an impact on other collections, as noted by Cruz (2012).

Although the initial computer vision studies were conducted in the 1950s and the technology was first used commercially to discern between typed and handwritten text in the 1970s, today's computer vision applications have expanded dramatically. The quan-

tity of data we produce today, which is subsequently utilized to train and improve computer vision, is one of the key elements influencing the development of this technology, even if you do not often know when and where is used, you probably encounter it frequently because it is such a part of daily life.

Our world is now being magically restructured by digital images; people are willing to forget that they generated images to help them understand the world. Since they are no longer able to decode them, their lives become a function of their own images: Imagination has turned into hallucination (Flusser, 1983). A lack of understanding of machine-made images is potentially problematic at a time when they are replacing human-made images, this is because machine-made image clarity is still an abstraction. Since they reflect even more abstract layers of symbols than human-made images, they go beyond being symbolic. In this context, new photographic identification mechanisms can apparently enable the unraveling and reconstruction of familiar models of identity. In this respect, the new image-making devices function as sociopolitical objects, whose boundaries transcend their physical apparatus, into distributed systems of material and coded modules. They are integrated within a new complex of relationships between human and non-human actors: people, objects and things, concrete infrastructures, and abstract systems (Van Essen, 2020).

"We opposed the virtual and the real: although it could not have been more precise before now, this terminology must be corrected. The virtual is opposed not to the real but to the actual. The virtual is fully real in so far as it is virtual." (Deleuze, 1994)

The aforementioned quotation, attributed to philosopher Gilles Deleuze, elucidates the notion of the virtual as a genuine but non-actual facet of being. The virtual is not a separate or opposed realm to reality, but instead, a component of it that exists in a potential or latent state. In this sense, the virtual can be seen as a kind of structure or blueprint for the actual, underlying its form and function. However, it is important to distinguish between the actual and the virtual, and not to conflate the two or give undue weight to either. By recognizing the reality and significance of the virtual, we can gain a deeper understanding of the complex nature of existence and the world around us.

Figure 5. *Untitled*, Author: Wilson Caldeira / Midjourney. * Prompt text: One morning, she got up and turned on the tap and no water came out

5. Visual Communications in the Digital Age

> "Seeing comes before words. The child looks and recognizes before it can speak. But there is also another sense in which seeing comes before words. It is seeing which establishes our place in the surrounding world: we explain that world with words, but words can never undo the fact that we are surrounded by it." (Berger, 2008)

Visual communication has been a cornerstone of human communication for centuries. From cave paintings to the printing press, visual communications have played a crucial role in shaping our understanding of the world around us. With the advent of digital technologies, visual communication has undergone a transformation, with new forms of media emerging and older forms being transformed. In this section, we will explore the role of visual communication in the digital age, focusing on the ways in which recent technologies are transforming the way we create and consume visual media and the potential implications of these changes for the

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future of visual communication. According to the prevailing scenario, we are presently undergoing a 'revolutionary' transformation in image culture. The virtual revolution is about transforming, not just ways of life, but, much more fundamentally, the nature of life itself (Robins, 1996). Great expectations are being sustained: that the new image culture may enhance our knowledge and awareness of the world. The idea of a new technological order offering greater freedom and empowerment is certainly appealing. However, it is important to remember that technology is not a panacea. While it can certainly provide new opportunities, it also brings its own set of challenges and risks. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it (Heidegger, 1997). The use of artificial intelligence-generated images in visual communication has prompted ethical concerns. While users are reminded to use them with caution, others claim that such pictures contribute to a prediction in technological advancement. There is a growing reliance on machines in visual communication, and artificial intelligence and machine learning are playing a significant role. It is important to recognize the potential dangers of using these technologies in terms of privacy and ethical concerns. Aesthetics and art politics may either reinforce or suspend established systems of vision. Some believe, however, that artificial intelligence-generated images are acceptable art. If images appear real to us, it is not simply because we have internalized their conventions, but also because those conventions successfully capture something about the way our perception operates in real-world vision (Messaris, 2003). With the advancements in technology, AI algorithms can now generate images that are almost indistinguishable from those created by humans. This has opened new possibilities for its users, allowing them to create more complex and detailed visual content. These technologies have enabled the creation of more sophisticated and realistic images, while also increasing the speed and efficiency of the design process. As Artificial Intelligence continues to evolve, we can expect to see even more advancements in visual communication in the years to come. Just as the entire mode of existence of human collectives' changes over long historical periods, so does their mode of perception. The way in which human perception is organized – the medium in which it occurs is – conditioned not only by nature but by history (Benjamin, 2002). The study of visual communication and media is critical to understanding how politics, culture, and society are shaped and influenced. New forms of communication and technologies have transformed the way people interact with each other and with information. These new forms of communication and technologies have also had a significant impact on the political and cultural landscape, shaping public opinion and influencing political discourse.

Figure 6. *Untitled*, Author: Wilson Caldeira / Midjourney. * Promp text: I couldn't sleep. At four in the morning I went up onto the terrace

6. Conclusion

In conclusion, AI technological advancements have brought about significant transformations to visual communication within modern visual culture. The rise of AI and machine learning has revolutionized the way we capture, process, create, and manipulate visual content. The outlook of AI image generation technology appears bright. It is certain to influence how we visually communicate in the future. These technologies offer opportunities for generating images fostering expression and enhancing artistic explo-

ration. Nevertheless, it is essential to consider the veracity and reliability of visually generated material produced by AI. It is crucial to think about the truth and trustworthiness of generated content created by AI. Although these advancements have certainly enhanced how visual information is conveyed accurately and efficiently it is vital to acknowledge the issues, they bring up that need to be resolved. The impact of AI generated material goes beyond its appearance; it delves into questions of moral responsibility and who bears the credit for creativity as well as issues concerning ownership rights and authenticity. As we advance in the development and incorporation of these technologies it is important to think about how they might affect society and to guarantee that they are used responsibly and ethically. This research aims to encourage exploration in the field of communications as scholars delve into the profound impacts of the ever changing and continually developing fusion of artistic innovation and technological advancements, in today's digital era.

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Bio

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