The Art of Artificial Intelligence

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Philosophical Keywords

By

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To Iris, a bulky flower

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INTRODUCTION

In a short story by Philip Dick, a commuter worker returns home tired aboard his spaceship and is besieged by "salesrobots" who try to sell him all kinds of goods. Reaching his front door, he confides to his wife his distress at the presence of these metallic beings, who "are everywhere."

> Sally, Morris said, when his plate was empty and he was leaning back and sipping slowly at his coffee. "I can't go on like this. Something's got to be done".
>
> "You mean the drive? I wish you could get a position on Mars like Bob Young. Maybe if you talked to the Employment Commission, and explained to them how all the strain-".
>
> "It's not just the drive. *They are right out front*. Everywhere. Waiting for me. All day and night."
>
> "Who are, dear?"
>
> "Robots selling things. As soon as I set down the ship. Robots and visual-audio ads. They dig right into a man's brain. They follow people around until they die."
>
> "I know," Sally patted his hand sympathetically. "When I go shopping they follow me in clusters. All talking at once. It's really a panic – you can't understand half what they're saying".
>
> "We've got to break out"
>
> "Break out?" Sally faltered. "What do you mean?"
>
> "We've got to get away from then. They're destroying us."[1] .

Even today, artificial intelligence (AI) is everywhere. We no longer imagine it in the form of robots, or rather, as will be seen in the following chapters, rarely. More often it is an invisible presence that we have yet to give a form and identity to. Another difference from the scenario described by Dick is

[1] Philip Dick, "Sales Pitch". In Electric Dreams (Boston: Mariner Books Classics, 2017). The italicization of "they are right out front" is already in the original text.

that today's AI does not sell, or at least not only. It performs a multiplicity of tasks. It helps human beings in very different spheres: not only in commerce and advertising, but also in medical analysis, in industrial production, and everyday life through smartphones and GPS devices... Dick's account is written at a time, the early 1950s, when the writer began to see (with extraordinary precocity moreover) the possible outcomes of consumerism. Today, AI's connection to the commercial world is more subtle, yet it persists. To train an AI—we will see in the first chapter what this means, but in essence: to teach it to function—takes enormous economic resources, resulting in AIs being trained and produced by a few large companies, which are free to choose how to do it. The ways in which AI behaves and produces images and texts are determined by what these major technology producers consider desirable. Moreover, at a less intentional level—since not everything, as will be explained in this book, occurs at the level of planning or design—the representations from which AI learns are often simply those most readily available to the AI producers: a sort of accidental mediocrity that does not account for the greater variety and uniqueness of human situations.

Today's AIs are thus vendors in a more complex sense than those described by Dick. They don't go door-to-door selling household products, but rather offer configurations of images and discourse, and suggest their possible uses. Consider the current use of ChatGPT, or the so-called "text-to-image models," which allow for the generation of images (and more recently, even videos) from a set of words or phrases. Many choices in these tools are pre-configured: in many applications that use text-to-image (TTI) models, recommended combinations of phrases and images can be selected, and even the texts produced by ChatGPT are often highly standardized, tailored to specific types of use. Despite this standardization, however, these representations are *not pre-existing* but are always generated on the spot by the machine itself, arising, as will be explained, from the way it *processes* the data it has encountered.

From this perspective, the perhaps most timely aspect emerging from Dick's story is not so much the robot or the sales process, but rather a more subtle one. It concerns the threatening autonomy that the sales robots assume in this description. One of the concerns that often arise in relation to AI, at the level of popular imagination, is that it might escape human control and perhaps even, eventually, take over. This hypothesis, though it may seem science-fictional, highlights one of the potentially most novel aspects of this technology. AI, in fact, is capable of processing the input data it is given with a certain degree of autonomy. Until recent years, no technology had

been able to do this. With the advent of digital technology, users were able to reproduce information in large quantities and even actively transform it. However, never before had a tool reprocessed human data on its own and in a partially unpredictable manner.

The AIs that will be discussed in this book, in fact, the so-called "deep neural networks" (DNNs), do not follow a set of predetermined rules, as was the case with earlier AI (the so-called "good old fashioned AI," or "symbolic AI"). DNNs are brought into contact with a large amount of human data (images, words, sounds...) and in this way they learn to autonomously generate other data that are similar, *but never identical*, to the source data. This autonomy of AI is therefore always partial, because it is from the human world that AI learns. However, the parts of our culture that AI appropriates are fragmented, mixed, and reprocessed, resulting in new representations in which humans can both recognize and lose themselves.

Today's AI contains, therefore, a slippery element, just like Dick's robots. Dick's texts are extraordinary in describing this situation, because in them it often happens that human sensations and representations suddenly become autonomous and intrusive. Such is the case with a passage, which will also be examined later, from the novel *Do Androids Dream of Electric Sheep?*, in which it is the silence of an apartment that becomes a living presence, dripping, meandering and besieging the protagonist[2]. Even in the story we started with, the menacing presence of the main robot—the one that unfortunately manages to enter the protagonist's home—seems to emerge from the protagonist's other sensory perceptions, which become so vivid that they almost turn into autonomous, assaulting entities:

> The doorchimes sounded rang.
>
> "Somebody's at the door!" Sally cried excitedly. "Hurry up and see who it is!"

[2] Philip Dick, Do Androids Dream of Electric Sheep? (London: Gateway, 2010), chap. 2, kindle. On Philip Dick see Kim Stanley Robinson, The Novels of Philip K. Dick (Ann Arbor: UMI Research Press, 1984); Douglas Mackey, Philip K. Dick (Boston: Twayne, 1988); Umberto Rossi, The Twisted Worlds of Philip K. Dick: A Reading of Twenty Ontologically Uncertain Novels (Jefferson, NC: McFarland, 2011); Patricia Warrick, Mind in Motion: The Fiction of Philip K. Dick (Carbondale and Edwardsville: Southern Illinois University Press, 1987); Angus Taylor, Philip K. Dick and the Umbrella of Light (Baltimore: T-K Graphics, 1975); Christopher Palmer, Philip K. Dick: Exhilaration and Terror of the Postmodern (Liverpool, UK: Liverpool University Press, 2003); Lejla Kucukalic, Philip K. Dick: Canonical Writer of the Digital Age (Abingdon, UK: Routledge, 2009).

> In the evening darkness the robot was a silent, unmoving figure [...]
>
> "Good evening," it said calmly. Its voice was whipped around by the night wind; it mixed with the dismal noises of evening, the echoes of traffic and clang of distant street signals. A few vague shapes hurried through the gloom. The world was black and hostile.[3]

These passages from Dick touch on a crucial aspect of our relationship with our representations: namely, that when our sensations become images or words, they gain autonomy from us. And this autonomy can become threatening or dangerous. This aspect is present in many contemporary philosophical reflections on images, starting with those of the great art historian Aby Warburg, who not surprisingly also experienced, just like Dick, the psychic breakdown to which this particularly intense relationship with images can lead. "You live and do me no harm," is the motto, almost apotropaic, that Warburg affixes to one of his youthful notebooks[4]. The "you" being addressed is obviously the image. 18th-century philosopher and playwright Denis Diderot had already described the "enthusiasm" accompanying the production of images and texts as that state—both creative and dangerous—in which the relationship with the world becomes so intense that our own phantasies and representations almost seem real:

> Enthusiasm is a violent movement of the soul by which we are transported into the midst of the objects that we have to represent; then we see an entire scene unfold in our imagination, as if it were outside us: that is indeed where it is, for as long as that illusion lasts, all present beings disappear, and our ideas are realized in their place; it is our ideas alone we perceive, yet our hands touch bodies, our eyes see animated beings, our ears hear voices. If this state is not madness, it is very close to it. That is the reason one needs great good sense to counterbalance enthusiasm. Enthusiasm only exerts its attraction when minds have been prepared and subjected by the force of reason; it is a principle which poets must never lose sight of in their inventions [...][5]

---

[3] Dick, "Sales Pitch", kindle.

[4] Aby Warburg, Grundlegende Bruchstücke zu einer pragmatischen Ausdruckskunde. In Warburg, Gesammelte Schriften, IV, Fragmente zur Ausdruckskunde (fragments on expression theory), ed. Ulrich Pfisterer and Hans Christian Hönes (Berlin: De Gruyter, 2015). See Hans C. Hönes, Tangled Paths. A Life of Aby Warburg (London: Reaktion Books, 2024).

[5] D. Diderot, *Encyclopédie*, Vol. V, 228a-247b, Éclectisme. Philosophie (Eclecticism. Philosophy); engl. trans. The Encyclopedia of Diderot and D'Alembert. Collaborative Translation Project (Ann Arbor: Michigan Publishing, University of Michigan

With the development of capitalism, as Dick intuitively explores with his vending robots, the theme of the autonomy of images gains increasing significance. Human representations begin to turn into commodities, and commodities invade the human landscape as entities with their own almost-autonomous life, as Karl Marx illustrated in his famous theory of commodity fetishism[6]. Similarly, in Warburg's reflection on the autonomy of images, there is also an influence from the contemporary development of photography and the commercialization of various types of photographic images, both artistic and everyday.

This process undergoes another significant leap in the 1990s with the development of digital technologies. It is no coincidence that during this period, philosophical reflections on the "life" and "power" of images gain new vigor, with the so-called "iconic turn" or "pictorial turn," and authors such as J.T. Mitchell, Gerhard Boehme, and Horst Bredekamp[7]. At the same time, some philosophers, like Jean Baudrillard, speculate that the images accumulating in front of contemporary humans will eventually become substantially indifferent to them. In Baudrillard's work *The Perfect Crime*, it is essentially the boundary between fiction and reality that is being "killed."[8] In this scenario, Dick's vending robots would cease to be frightening, as they would become mere simulacra, just as, indeed, the protagonists of the story would.

In the nearly thirty years since these reflections, however, some of these hypotheses have been partially refuted. As media theorist Johanna Zylinska notes, people continue to seek in images, and particularly in photographs, a confirmation or connection with what has truly happened—whether it concerns their personal lives or major world events. And this also applies to those transformed and remixed images produced by artificial intelligence. Furthermore, AI is contributing to establishing a new connection between images and texts. As mentioned, with TTI (Text-to-Image) models, it is now possible to generate texts from images and images from texts. Moreover,

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Library, 2021), https://quod.lib.umich.edu/d/did/did2222.0000.843/--eclecticism?rgn=main;view=fulltext

[6] See Alfonso Maurizio Iacono, The History and Theory of Fetishism (New York: Palgrave Macmillan, 2016); Massimilano Tomba, "Historical Temporalities of Capital: An Anti-Historicist Perspective", Historical Materialism, N. 17 (2009): 44–65; Enrique Dussel, "The Concept of Fetishism in Marx's Thought: Part I of II", Radical Philosophy Review, N. 6 (2003): 1-28.

[7] On this topic see Andrea Pinotti, "Art History in the Mirror of Visual Studies and Digital Humanities", Intersezioni, N. 3 (2021): 349-363.

[8] Jean Baudrillard, The Perfect Crime (London: Verso, 2008).

the latest versions of language-based AI models (large language models: LLMs), such as ChatGPT-4, allow for the inclusion of images in conversations for commentary, or for requesting the AI to create new images corresponding to the discussed topic. All this creates a sphere of representations that includes texts *and* images, which is *not predefined but is realized* each time through interaction with the user. While it is true that what the AI produces heavily depends on the training data it has been given, it is also true that it is up to the user to prompt the machine to process the data in one way or another. Therefore, the indifference that Baudrillard predicted towards our representations also faces another reason for crisis. Precisely because AI is not a simple container of information but processes the starting data in partly unpredictable ways, a crucial element is what we ask it to do: our *intervention*.

In this regard, an alternative ending to the catastrophic one described by Dick begins to emerge. In Dick's story, the protagonist tries to evade the vending robot by making a frantic escape in his spaceship. However, to his dismay, he realizes that the robot has also managed to board the spacecraft. In a desperate move, he accelerates the spaceship to an excessive speed, causing it to explode.

The robot described by Dick, however, is incapable of listening: it only repeats its sales offers. Its speech is, as the title of the story suggests, just a "sales pitch". Just like the disturbing 3-D billboards that the astronaut-pendular finds himself passing through on his way home, the salesrobot is a messenger of a set of representations (those of consumerism) that were created by humans but with which individual humans can no longer identify and from which they wish to escape. What would happen, however, if the robot became capable of listening to the protagonist, and responding to him appropriately? Of course, its responses would continue to be conditioned by the data on which the robot was trained, but could the protagonist not seek ways to obtain different responses over time?

This is what occurs in some of the artistic experiments explored in this book. The authors examined have embraced the challenge presented by new forms of AI and have attempted, through dialogue with AI, to navigate what some of them refer to as the "in-between spaces" among the vast amounts of already-known information that AI tends to generate[9]. To do so is by no means easy; in fact, for me it is almost miraculous to see how they have

[9] Mario Klingemann, "Interview", Beyond Tellerand, May 15-17, 2017, https://beyondtellerrand.com/events/ dusseldorf-2017/speakers/mario-klingemann

succeeded. As I write this, I am carrying out with some colleagues at the University of Milan an experiment involving having ChatGPT produce a theatre play[10]. For the first phase of the project, we had several scholars from various disciplines at our university interact with the AI. Each of them was asked to engage in a dialogue with ChatGPT and to question it on various topics. Most of the time, ChatGPT appeared to be something of a goody-two-shoes student and rather dull, merely repeating mountains of stereotypes and already known information. To shift its direction, it was necessary to interrupt it, try to disorient it, and even offend it (though an AI can't really be offended), and we didn't always succeed… Just like Dick's vending robot, ChatGPT is hard to shake off and staunchly defends the purposes (not always entirely agreeable) for which it was created. However, as Dick already sensed, everything that AI provides—the representations it deconstructs and reconstructs—originates from us. It is up to us to explore both its potential and its possible reversals.

The idea of this book is that art can serve as an example of interacting with AI where the subject is not subjugated by it but can truly engage with it. The dialogic structure of the most recent forms of AI (such as TTI or ChatGPT) *is not enough* to guarantee a true dialogue. For a dialogue to occur, the artist (but also the ordinary person) must accept the challenge and actively seek, among the possible responses of AI, one that opens up a path of meaning for them.

The book is divided into five chapters, each of which is built around a philosophical keyword: work, author, time, memory, human. What meaning do these words take on in light of new artistic practices that make use of artificial intelligence? And more broadly, towards what artistic and non-artistic scenarios do they lead us? In each chapter, the reflection will be developed by "entering into" some artworks: examining their material characteristics and potential intentions. The artistic spheres explored are diverse: visual arts (in the first, third, and fourth chapters), but also literature (in the second) and theater (in the fifth). As the reader can already see, the exploration is neither complete nor intended to be. After all, while I am writing, much more is probably happening in the realm of artistic and

[10] The project is "GPTheatre. Generative AI for Humanities: a Theatre Experiment" ("My first SEED Grant"): https://expertise.unimi.it/individual?uri=http%3A%2F%2Firises.unimi.it%2Fresource%2Fproject%2FPSRL324ABARA%255F01

technological experimentation: the book aims to be an invitation to continue exploring (calmly and enjoying oneself, without blowing up the spaceship).

CHAPTER 1

ARTWORK

He believed in a door. He must find that door. The door was the way to... to... The Door was The Way. Good. Capital letters were always the best way of dealing with things you didn't have a good answer to.
(D. Adams)

1. A canine art critic

It has now been several years since the first works made with AI were sold on the official art market, at Christie's in 2018 and Sotheby's in 2019. Since then, several new types of AI have been created, allowing new art practices to emerge. However, some questions continue to arise in response to these works. Who created them: the human artist or the algorithm? And most importantly, are they still "works of art"[11]?

To begin addressing these questions, this first chapter turns to a special interlocutor, not a "stranger to the facts." This is a somewhat peculiar art critic. His appearance is that of a stuffed dog provided with wheels, but his movements are those of a robot. A.I.C.C.A [fig.1-1 and 1-2], which stands

[11]On this first period of AI-generated art, see Arthur I. Miller, The Artist in the Machine–The World of AI-powered creativity (Cambridge Ma: MIT Press, 2019), 55-132; Lev Manovich, "AI and Myths of Creativity". In Lev Manovich and Emanuele Arielli, Artificial Aesthetics: Generative AI, Art, and Visual Media, (Moscow: Strelka Press, 2021-2024)
http://manovich.net/index.php/projects/artificial-aesthetics;
Joanna Zylinska, AI Art: Machine Visions and Warped Dreams (London: Open Humanities Press, 2020); Antonio Somaini, "Algorithmic Images: Artificial Intelligence and Visual Culture", Grey Room, N. 93 (2023): 75-115; Eduardo Navas, The Rise of Metacreativity. AI Aesthetics After Remix (New York: Routledge, 2023), 4-5, 39-47, 127-128, 142-148; Marcus Du Sautoy, The Creativity Code. How AI islearning to write, paint and think, (New York: Harper Collins, 2019); Steven S. Gouveia, The Age of Artificial Intelligence: An Exploration: section III: Aesthetics and language in Artificial Intelligence (Wilmington: Vernon Press, 2020); Alice Barale (ed.), Arte e intelligenza artificiale (Milano: Jaca Book, 2020).

for “artificially intelligent critical canine,” is a robotic dog created by German artist Mario Klingemann. It is equipped with a small camera protruding from one eye like a critic's monocle, allowing it to analyze the works before it. A GPT model inside processes these analyses into text, which is then printed out through a small printer located under its tail, humorously likened to a sort of “paper poop.”

Fig. 1-1 A.I.C.C.A (courtesy of the artist)

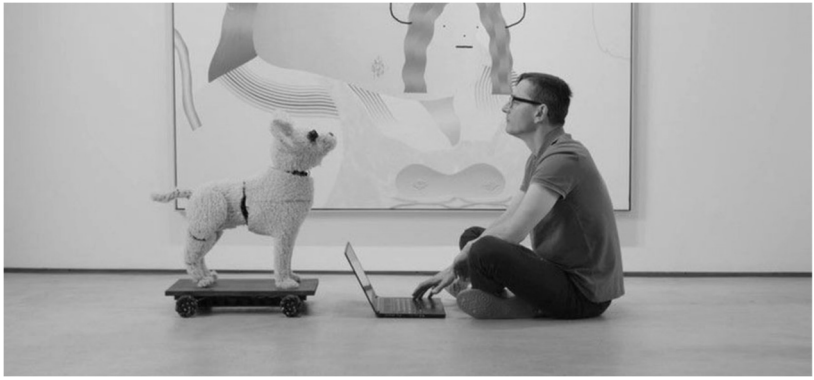

Fig. 1-2 A.I.C.C.A (courtesy of the artist)

Of course, this is a playful creation, but it contains a wealth of thought-provoking elements about art, artificial intelligence, and their relationship[12]. A.I.C.C.A is currently part of the SOLO collection in Madrid, but the project envisions it will soon tour other museums. The critical lapdog is conceived by its creator as a "performer": what matters is not so much preserving the knowledge (or criticism) it generates, but the reactions it provokes in viewers. As a "performative sculpture," A.I.C.C.A's function is precisely to encourage viewers to ask questions. We will revisit this performative aspect of the work and the questions A.I.C.C.A aims to raise.

It should be noted for now that the fact the judgments emerge from beneath the canine critic's tail is not meant, as Klingemann explains in the presentation of the work, to devalue the role of criticism: the worst thing that can happen to an artist is, in fact, to be ignored. The artist's mockery has a different target, which we will attempt to define in this chapter through the various sources of inspiration of A.I.C.C.A.

After all, the canine critic adopts the language of art criticism. The AI producing the texts within it—currently a GPT 4, but updated as technology advances—is trained on a vast corpus of art history and criticism. A brief explanation is necessary here, which will be elaborated on in the next chapters of this book. The type of AI used for A.I.C.C.A and the other works discussed in this volume, namely "deep neural networks," has a feature that is important to emphasize. Unlike the so-called "good old-fashioned AI" or "symbolic AI," which follows a set of predetermined instructions, this kind of AI learns to produce new data by being exposed to a large amount of data—whether images, texts, or sounds, depending on the domain. The new data generated are partially similar but never identical to the source data[13].

This is what has already happened with the first works made with AI and sold on the official art market: the *Comte de Belamy* by the French group Obvious (sold at Christie's in 2018) and *Memories of Passersby*, by Klingemann himself (sold at Sotheby's in 2019). In both instances, the AI was trained on a dataset of portraits from the Western artistic tradition. The results in both cases indeed resemble paintings from our art history, but they

[12]See the project's website: A.I.C.C.A. Accessed August, 6, 2024. https://aicca.me/
[13] See Ian Goodfellow, et al., Deep Learning (Cambridge Ma: MIT Press, 2017); Chris Wiggins and Matthew L. Jones, How Data Happened: A History from the Age of Reason to the Age of Algorithms (New York: Columbia University, 2023).

also exhibit a certain blurriness and inconsistencies. It will be necessary to revisit the role these AI "errors" may play within these works of art.

Staying with A.I.C.C.A., the AI-produced texts that the canine critic writes are also very similar to the source texts, i.e., "real" art reviews, written by human critics. There are some clues, however, even in this case, that allow us to see that something does not add up. The interesting element is that the inconsistencies are not so much in the text, which flows perfectly, but in the relationship between text and visual materials.

It may be useful to consider, in this regard, a review that A.I.C.C.A writes of a work by Klingemann himself exhibited at the SOLO collection, entitled The Butcher's Son. It is an image that won a major award, the Lumen Prize, in 2017.

At this time, as mentioned, artists were beginning to use DNNs for their works and in particular a type of AI consisting of two DNNs working together in a particular way, called GANs (generative adversarial networks). One characteristic of these early artistic experiments was that the images were highly blurred and had uncertain contours. In The Butcher's Son, the artist leverages this characteristic of images produced with GANs to express a specific content. In fact, the figure depicted is naked, and the uncertainty of the contours and shapes makes his body more of a mass of fragmented and inert flesh than a harmonious and living organism. Even the title, The Butcher's Son, evidently derives from this character, which is reminiscent, as the interpreters have observed, of some of Francis Bacon's paintings. However, the resemblance to the English artist is, according to Klingemann, entirely coincidental. The effect achieved is rather due to the fact that the GANs used had been trained on a dataset composed partly of stylized human figures and partly of pornographic images. This strange nude results from the AI's attempt to piece together the different body parts it has learned to represent. The violence or trauma conveyed by this body is thus a reflection of the passage of the human form through the gaze of the AI, which reworks and decomposes it.

Returning to A.I.C.C.A., its assessment of *The Butcher's Son* is more positive than that of the human interpreters who have discerned in it a resemblance to Bacon. Something of the violent and traumatic character of the represented body must evidently be picked up by AI as well, since according to the canine critic this image combines "pain and pleasure." But the most remarkable thing about A.I.C.C.A.'s interpretation concerns the part of the figure that is most uncertain and deformed, namely the head and

face. In these areas the depiction of flesh thickens into darker patches, which could evoke the representation of a disfigured face, a monstrous animal snout, a strange and bloody mane... The critic-canine, however, identifies at a stroke this part of the figure as a hat. Which it may well be, but only as one among other, more disturbing, possibilities. Hence, the interpretation of A.I.C.C.A can develop quite linearly, identifying a tension between the uncovered body and the concealment operated by the hat:

> Exploring the intersection of Pleasure and Pain:
>
> The body is gesturing, offering a tender vulnerability to the viewer. Meanwhile, it is juxtaposed with the hut, a structure that simultaneously provides shelter and security with also marking boundaries — itself a kind of body. The painting forces to consider how these seemingly disparate elements come together in unexpected ways. While the body offers a sense of openness, possibility and sensuality, its placement against the hut reminds of longing and safety.
>
> The invitation to explore these contrasts expands beyond surface meaning. Even the lines between foreground and background become hazy, as if we are part of an experience unfolding in real time. As an observer, we too are invited into this space but must do so with careful attention. The painting encourages us to confront our own beliefs about what can be seen and not seen, a visual metaphor for understanding pleasure and pain[14] .

Even when confronted with another painting it analyzes during its performance, *I am a Victim of Social Labels* by the Spanish artist Grip Face, A.I.C.C.A identifies figures that differ from those a human observer might notice at first glance. Where we see faces—however stylized and more like masks than actual faces—the canine critic discerns a hand that "reaches out from the center of the canvas"[15] . From here, the little robot launches into elaborate phrases that describe the sense of hopelessness the painting would like to convey: "The chaotic elements of the painting further emphasize its sense of hopelessness. The rough brushstrokes suggest urgency and haste that further suggests a lack of control as if all hope has been lost."[...]. [16]

In light of these critiques of A.I.C.C.A., it becomes increasingly evident that the focus of Klingemann's artistic experiment lies not so much in the texts the little robot produces but in its performance: the gestures it makes while carefully observing the work with its monocle, and the disconnect between

[14] Critical texts by A.I.C.C.A, "©Mario Klingemann_Courtesy of Onkaos".
[15] Critical texts by A.I.C.C.A, "©Mario Klingemann_Courtesy of Onkaos".
[16] Critical texts by A.I.C.C.A, "©Mario Klingemann_Courtesy of Onkaos".

this perceptual phase and the "firing off" of its interpretations from under its tail. In fact, one gets the impression that A.I.C.C.A strives to identify certain elements of the work under consideration, and from this identification, it takes off, launching into self-feeding verbal reasoning. Once convinced that a particular visual element is a certain thing, the lapdog lets loose with expansive developments on the theme in question. It is no coincidence that one of the sources of inspiration behind the creation of the canine critic, according to Klingemann himself, is the "electric monks" created by writer Douglas Adams. These are "devices" designed to "believe" on behalf of people.

2. Electric monks (the problem of believing)

In the novel Dirk Gently's Holistic Detective Agency, Douglas Adams (the author of the famous Hitchhiker's Guide to the Galaxy, a classic in "nerd" circles) introduces the concept of the "electric monks," which inspired A.I.C.C.A. It is worth examining these characters in order to fully grasp the significance of Klingemann's project.

In one of the novel's opening scenes, an electric monk is depicted sitting on horseback atop a rocky promontory:

> High on a rocky promontory sat an Electric Monk on a bored horse. From under its rough woven cowl the Monk gazed unblinkingly down into another valley, with which it was having a problem[17].

The reader will learn that the Monk is in that lost place because it was defective, and was therefore abandoned. It becomes necessary at this point, however, to explain what an Electric Monk is:

> The Electric Monk was a labour-saving device, like a dishwasher or a video recorder. Dishwashers washed tedious dishes for you, thus saving you the bother of washing them yourself, video recorders watched tedious television for you, thus saving you the bother of looking at it yourself; Electric Monks believed things for you, thus saving you what was becoming an increasingly onerous task, that of believing all the things the world expected you to believe[18].

[17] Douglas Adams, Dirk Gently's Holistic detective agency (London: Pan Macmillan, 2021), chap. 2, kindle.
[18] Adams, Dirk Gently's Holistic detective agency, chap. 2, kindle.

The Electric Monks were designed to spare the planet's inhabitants the trouble of "believing all the things the world expected you to believe". The protagonist Monk, however, has "developed a fault," because of which he "has started to believe all kinds of things, more or less at random"[19]. By the time he is described, for example, he has become convinced that the valley he is in is "a uniform shade of pale pink."[20]. This prevents him from distinguishing objects from each other and also from doing anything. "Hence the immobility of the monk and the boredom of the horse". Despite this, after some time the monk will also become convinced of the existence of a mysterious door, and through it he will break into the earth, into the adventures of the other protagonists.

It is worthwhile to introduce the other characters in the story as well, to try to grasp the meaning of the Electric Monk from which A.I.C.C.A is inspired. Passing through the door, the Monk finds himself in the apartment of an elderly Cambridge professor, in whose bathroom he parks his horse. Meanwhile, the professor is engaged, along with one of his young alumni, Richard, in an annual dinner the college holds in honor of the poet Samuel Taylor Coleridge. The fact is relevant in this context because the passages by Coleridge that are read during the ceremony also have to do with the theme of belief. Specifically, what is read during dinner is, in fact, Coleridge's unfinished poem *Kubla Khan*, a work surrounded by an aura of mystery, because the poet says he composed it following a dream he had while under the influence of opiates. Moreover, the legendary events about which the poem tells, namely the construction of a palace in the city of Xanadu by the Mongol emperor Kubla Khan, also seem to have occurred as a result of a dream. In an account of Persian history published in the 19th century, the emperor is said to have built the palace according to a plan that had appeared to him in a dream. Coleridge, however, could not have known this, because the account did not come out until 20 years after the last edition of his poem. The meeting of the two dreams, that of the 18th-century poet and that of the Mongolian emperor who lived thousands of years earlier, thus remains a mystery, as Borges notes in a short essay devoted to Kubla:

> A thirteenth-century Mongolian emperor dreams a palace and then builds it according to his dream; an eighteenth-century English poet (who could not have known that the structure was derived from a dream) dreams a poem about the palace. In comparison with this symmetry, which operates on the

[19] Adams, Dirk Gently's Holistic detective agency, chap. 2, kindle.
[20] Adams, Dirk Gently's Holistic detective agency, chap. 2, kindle.

> souls of sleeping men and spans continents and centuries, the levitations, resurrections, and apparitions in the sacred books are not so extraordinary[21].

Coleridge's poem is itself extremely enigmatic, describing a series of visions (a distant, wild landscape, an Abyssinian woman, extraordinary music, a man with floating hair...) that are as fascinating as they are difficult to connect with each other[22]. During the annual dinner described in Adams's novel, however, the enchantment of the poem is broken as the verses are read in an unbearably declamatory tone, and the young protagonist, Richard, soon becomes lost in other thoughts:

> The reader clearly belonged to that school of thought that in order to best render the sense of a poem's depth or greatness, one must read it in a silly tone. He would hover and then swoop down on the words so that they seemed to run for cover, folded in two[23] .

Richard begins to be lulled by the sing-song rhythm of the reading, which reminds him of his student days, particularly of an old classmate, Svlad "Dirk" Cjelli. Dirk used to pose as a medium and was offered food and drink by other students in exchange for revealing, in a dream, the questions that would appear on exams. The themes of dreaming, divination, and belief thus resurface and become central. Dirk Cjelli will soon reappear in Richard's life as the proprietor of a ramshackle "holistic detective agency"—his new profession—and will help him solve the mysteries that arise. In one key scene in the book, Dirk will hypnotize Richard using a rather bizarre set of tools:

> A blind was drawn down over the window, and Dirk was lounging back in his seat, his face bizarrely lit by the strange arrangement of objects sitting on the desk. At the forward edge of the desk sat an old gray bicycle lamp, facing backwards and shining a feeble light on a metronome which was ticking softly back and forth, with a highly polished silver teaspoon strapped to its metal rod [...] "Sit down, relax and keep looking at the spoon," said Dirk "you are already feeling sleepy...".[24]

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[21] Jorge Luis Borges, "Coleridge's Dream". In Selected Non-Fictions, ed. Eliot Weinberger (Harmondsworth: Penguin, 2000), 371-372.

[22] For a history of the critical reception of Kubla Khan, see John Spencer Hill, "Kubla Khan". In A Coleridge Companion. An Introduction to the Major Poems and the Biographia Literaria, ed. John Spencer Hill (New York: Macmillan 1983), 61-102.

[23] Adams, Dirk Gently's Holistic detective agency, chap. 6, kindle.

[24] Adams, Dirk Gently's Holistic detective agency, chap. 18, kindle.

Dirk's investigations will lead Richard to the discovery of certain facts that—not to spoil the novel for those who wish to read it—can be described as decidedly anomalous, although entirely explicable according to the protagonists for those with an extraordinary knowledge of quantum physics. Two elements should be remembered, however, because they are relevant to the theme of belief, which forms the main thread of our analysis. The first is that in the finale the solution to the riddle is given to Dirk by a child. The latter, in fact, is the only one who dares to hypothesize something that would have seemed unacceptable to adults. The second element is that the Electric Monk turns out, at the end of the investigation, to be the primary cause of the disasters that occurred. It was the choice of the inhabitants of the distant planet to trust the Electric Monks to believe one thing rather than another that started the chain of events with which the protagonists come to terms.

What, then, is the significance of this strange figure of the Electric Monk that A.I.C.C.A. is inspired by? The first point to be made is that the monks are designed to save the planet's inhabitants the trouble of "believing all the things the world expected you to believe." The "believing" that the planet's inhabitants reject, when they create the Electric Monks, is therefore that which concerns convention: what the world "expects" them to believe. If the creation of the Electric Monks had been successful for the inhabitants of the planet, then, the reader might think that the solution suggested by the novel is that of radical skepticism. The monk in question, however, as noted, causes a long series of troubles.

In particular, a manufacturing error causes him to believe things "at random." It is interesting that one of the first blunders the monk makes is a perceptual one: he becomes convinced that the valley he is in is pale pink. So there is a gap between the moment of perceiving the world and the moment of believing, between the world as it is offered to the monk and the world as he believes it to be. This brings us back to A.I.C.C.A.: even the little robotic dog, as we have seen, often gets things wrong and perceives things differently than expected. In doing so, it prompts the human visitor to question their own interpretations and beliefs.

If the Electric Monk can be read as a foreshadowing of artificial intelligence—which Klingemann undoubtedly does, when he was inspired by it to create A.I.C.C.A—the value of AI (and the Monk) is then to remind us the errors, distortions, and failures that always come with perceiving reality. This is a theme that will recur in the works that will be considered in this book. AI processes information in a way that is often, at least in part, different from the human way, and this diversity can be used by artists to

make viewers think about their own processing, their perceptual patterns, and all that they take for granted in this process.

Thus, one can understand the importance in A.I.C.C.A.'s performance of the moment when the doggie-robot carefully observes with his monocle what is in front of him. If the meaning of the project were only that critics are just talking nonsense and that each evaluation is worth the other, one might not grasp the engagement elicited by A.I.C.C.A.'s movement in front of the work, its amusing attentiveness, and the way it turns its head to observe. “In an age of visual overload and shrinking human attention,” Klingemann says in the project presentation, “there seems to be an opening for machines that pay attention.”[25] . Of course, a machine's attention is always partly different from human attention, but this, as noted, is precisely what is interesting.

This brings us back to the role of the child in Adams' novel. In truth, there are two children in the novel: the one who gives Dirk the key to the mystery at the end, but also a little girl at the beginning, during the dinner in honor of Coleridge. She is the daughter of a professor who has been left without a babysitter, and she is the only interlocutor that the protagonist professor thinks is not boring. In general, in Adams' novel, children are the only ones who retain the “attention” that adults lack. Adults delegate their attention to the Electric Monk, and this causes a chain of disasters. Children and AIs are thus similar in their being endowed with different attention. A.I.C.C.A, after all, is a toy: it will be necessary to return to this.

As an Electric Monk, A.I.C.C.A invites viewers not to delegate their belief to others, but to engage in the process of observation and interpretation that it itself is performing. This is important because art created with AI is sometimes accused of exploiting a certain connection with the realm of dreams or hallucinations to mesmerize viewers, thus making them more readily accept the economic and power interests behind the development of this technology. According to artist and writer Hito Steyerl, AI-produced images pass themselves off as hallucinations or dreams, but conceal within themselves very specific categories and interests:

> [...] in a very materialist sense, these entities are far from hallucinations. If they are dreams, those dreams can be interpreted as condensations or

[25] See the artist’s website: Mario Klingemann. Accessed August 6, 2024. https://onkaos.com/mario-klingemann/

> displacements of the current technological disposition. They reveal how signal and noise are defined by preexisting categories and probability[26] .

Deep neural networks, as mentioned earlier, learn to recognize and in some cases even produce new data after they have been brought into contact with a large amount of initial data. For this reason, AI sees in everything only what it has been trained to see. If it has come into contact with images of natural elements, such as seas and mountains, it will detect seas and mountains even in a kitchen cloth or a cell phone—as was the case in an interesting experiment that artist Memo Akten exhibited at the Barbican in London[27]. This also applies to the biases and perceptual patterns that are contained in the dataset: they too "pass through" into the products created by AI. From this point of view, Steyerl's analysis is correct: the bizarre and deformed character of the images created with AI does not grant them an original perspective on the world or even less, as a certain rhetoric extolling the powers of dreams and altered states of consciousness would have it, a privileged access to it. Recently, Antonio Somaini recalled how the term "hallucination" is as much a description of the surreal appearance of many AI-generated images as it is a technical term for the occurrence of an error on the part of the machine, which provides false information:

> A "hallucination" is a situation in which a deep-learning algorithm gives a confident response that is not justified by its training data. A CNN trained to recognize cats in images that then mistakes a dog for a cat is an algorithm that "hallucinates." A chatbot that gives responses that contain invented facts or invented references is also "hallucinating." As in many other cases, complex, unintuitive mathematical processes related to deep-learning algorithms are described through metaphorical, anthropomorphic terms that make them somehow perceivable, thereby influencing the cultural and political reception of increasingly pervasive technologies labeled as "artificial intelligence"[28].

Some examples of "hallucination" are the errors that A.I.C.C.A., as we have seen, makes in describing the works before it. Klingemann's use of these errors, however, goes in the opposite direction from the dreamlike fascination that Hyto Steyerl speaks of. The critical judgments of A.I.C.C.A, in fact, are

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[26] Hito Steyrl, "A Sea of Data: Pattern Recognition and Corporate Animism (Forked Version)". In Pattern Discrimination, ed. Clemens Apprich, Wendy Hui Kyong Chun, Florian Cramer (Lüneburg: Meson press, 2018), 1– 22, https://doi.org/10.25969/mediarep/12348.

[27] Memo Akten, Learning to see Series (2017-). Accessed August 6, 2024. https://www.memo.tv/works/learning-to-see/

[28] Somaini, "Algorithmic Images", 91.

for the most part unknown to those who have not seen the performance and do not, as mentioned above, constitute the most relevant part of the work anyway. In fact, A.I.C.C.A. is understood as performance: the texts it produces only matter in the context in which it does so. Going even deeper—and here the proposed analysis of Adams' novel will become useful—the mystical exaltation of dreaming and altered states of consciousness certainly does not fit with what The Electric Monk (and thus A.I.C.C.A) seems to want to represent. Adams' entire novel is a mockery, as it turns out, of the uncritical enthusiasm for trance states. The verses of Kubla Kahn, which Coleridge composed while under the influence of opium, are sublime, but not when declaimed at dinner as sacred word, and Dirk's supposed medium-like powers serve more to guarantee him free food and drink than to reveal another dimension to him... As for the Electric Monk, his mistakes, just like those of A.I.C.C.A, are precisely a reminder not to rely on the prophecies and hallucinations of others, and rather to return to observing (and making mistakes) on one's own behalf.

The errors (or hallucinations) that AI produces during the artistic process are therefore not something that has value in themselves, but can be *used* by artists in a variety of ways. In the course of this book, an attempt will be made to analyze some of these meanings that AI failures or deformations can take on within individual art projects. In each of these cases, the "bizarre" behavior of AI will help the artist make his or her audience think about certain aspects of reality and the new presence that AI constitutes in it.

Sticking for now to A.I.C.C.A., the errors the robot dog makes during its performance particularly concern the interpretation of that complex object which is the artwork, its characteristics, and its place within the realm of art in general. It is worthwhile, in this regard, to examine some of A.I.C.C.A's statements about art.

3. Art according to A.I.C.C.A.

In addition to its judgments on the individual works it examined during its performance at Spazio Solo, A.I.C.C.A produced some statements about art in general, posted on its personal Twitter profile . These are some short "maxims" that are the result, of course, of a game, or more precisely of a dialogue between the canine critic, equipped as explained with ChatGPT, and its human creator. They are worth reporting, trying to identify in them two elements: the conception of art being expressed and the possible role of AI that it involves.