

## Louvain School of Management

**How is Artificial Intelligence transforming the Creative Process of artists, challenging traditional notions of copyright and originality in the creative and cultural arts sector?**

Author: Camille de Sauvage  
Supervisor: Julie Hermans  
Academic year 2023-2024  
Dissertation for the Master of  
Management in International Business  
Daytime schedule/Staggered schedule

**UNIVERSITÉ CATHOLIQUE DE LOUVAIN**  
**Louvain School of Management**

Place des Doyens, 1 bte L2.01.01, 1348 Louvain-la-Neuve  
Boulevard Emile Devreux 6, 6000 Charleroi, Belgique  
Chaussée de Binche 151, 7000 Mons, Belgique

[www.uclouvain.be/lsm](http://www.uclouvain.be/lsm)

## Acknowledgement

The completion of this intense and enriching work was made possible thanks to the help and support of many individuals.

First and foremost, my gratitude goes to my supervisor, Mrs Hermans, for her support and numerous pieces of advice during the writing of the thesis. We had extensive exchanges, which were a real source of encouragement and allowed me to persevere despite my numerous doubts.

Then, a special thanks to the people I met and with whom I had many discussions about my thesis. I emerge from these interactions having grown significantly, as I learned a great deal about myself and others. They guided me through the various stages of my writing, providing invaluable advice.

Finally, I would like to extend special thanks to my family and friends who never ceased to believe in me and the completion of this thesis. Their numerous feedback, encouragement, and critical insights were essential in the finalization of this work.

## Table of contents

<b>ACKNOWLEDGEMENT .....</b>	<b>III</b>
<b>ABSTRACT .....</b>	<b>VI</b>
<b>INTRODUCTION .....</b>	<b>1</b>
<b>I. LITERATURE REVIEW .....</b>	<b>2</b>
<b>CHAPTER 1: MANAGEMENT OF THE CREATIVE PROCESS .....</b>	<b>2</b>
1.1 CONCEPT OF CREATIVITY AND ART .....	2
1.2.1 <i>Fundamental definitions: Creativity</i> .....	2
1.2.2 <i>Connections between “Art” and “Creativity”</i> .....	3
1.2 CONCEPT OF ORIGINALITY .....	4
1.2.3 <i>Definition of Originality in Art domain with a legal perspective</i> .....	4
1.3 DEFINITION OF THE CONCEPT “COPYRIGHT” UNDER EUROPEAN REGIME .....	5
1.4 THE CREATIVE PROCESS .....	5
1.4.1 <i>Origin of the Creative Process</i> .....	5
1.4.2 <i>The Creative Process</i> .....	6
1.4.3 <i>Models of the Creative Process</i> .....	6
<b>CHAPTER 2: ARTIFICIAL INTELLIGENCE IN THE CREATIVE PROCESS .....</b>	<b>11</b>
2.1 CONCEPT OF ART AND DIGITAL ART .....	11
2.2 ARTIFICIAL INTELLIGENCE .....	11
2.2.1 <i>History of the development of AI</i> .....	11
2.2.2 <i>Definitions and key concepts of AI</i> .....	12
2.2.3 <i>Different categories of AI</i> .....	13
2.3 AI IN ART .....	14
2.3.1 <i>AI tools in the domain of Art</i> .....	14
2.3.2 <i>Birth of the movement “GANism”</i> .....	15
2.3.3 <i>Consequences</i> .....	16
2.4 AI IN THE CREATIVE PROCESS .....	18
<b>II. EMPIRICAL PART .....</b>	<b>21</b>
<b>CHAPTER 1: RESEARCH APPROACH-METHODS .....</b>	<b>21</b>
1.1 INTRODUCTION TO THE RESEARCH METHODOLOGY .....	21
1.2 ANALYSIS APPROACH .....	25
<b>CHAPTER 2: RESULTS .....</b>	<b>26</b>
2.1 AI IN THE ART WORLD .....	26

2.1.1	<i>The fundamental difference between "Creativity" and "Art"</i> .....	26
2.1.2	<i>Can a robot create a piece of Art?</i> .....	26
2.1.3	<i>"Prompt Art"</i> .....	27
2.1.4	<i>How do you personally feel impacted by AI?</i> .....	28
2.2	ETHICAL AND LEGAL CONCERNS .....	28
2.2.1	<i>What are the issues surrounding Copyright and Originality?</i> .....	28
2.3	AI IN THE CREATIVE PROCESS OF ARTISTS.....	29
2.3.1	<i>The overall impact of AI tools in the Creative Process</i> .....	29
2.3.2	<i>AI in the inspiration phase</i> .....	29
2.3.3	<i>AI in the work of ideas</i> .....	29
2.3.4	<i>AI in the apparition of the idea</i> .....	30
2.4	THE FUTURE OF ARTISTS.....	30
2.4.1	<i>Could AI one day replace the artist?</i> .....	30
<b>CHAPTER 3: DISCUSSION .....</b>		<b>32</b>
3.1.	AI POTENTIAL IN ART WORLD .....	32
3.2.	ETHICAL AND LEGAL CHALLENGES.....	33
3.3.	OPPORTUNITIES OF AI IN THE CREATIVE PROCESS FOR ARTISTS .....	34
3.4.	THE FUTURE OF ARTISTS.....	37
3.5.	EVALUATE THE FINDINGS AND THEORETICAL STUDY .....	37
<b>CHAPTER 4: LIMITATIONS AND RECOMMENDATIONS FOR THE FUTURE RESEARCH.....</b>		<b>38</b>
<b>CONCLUSION .....</b>		<b>40</b>
<b>BIBLIOGRAPHY.....</b>		<b>41</b>
<b>APPENDICES.....</b>		<b>46</b>
	<i>Appendix 1: Analysis table of Creative Process Model of Véronique Dethier</i> .....	46
	<i>Appendix 2 : Zoetrope project (Brice Le Blévennec)</i> .....	47
	<i>Appendix 3: "The Next Rembrandt" in the Netherlands</i> .....	47
	<i>Appendix 4: Interview guideline</i> .....	48
	<i>Appendix 5: Interviews</i> .....	49

## Abstract

This thesis explores the transformative influence of Artificial Intelligence (AI) on the creative process of artists, challenging conventional notions of copyright and originality in the creative and cultural arts sector. Investigating the intersection of AI technology and artistic expression, the study aims to comprehend the ways in which AI reshape artist's workflows, disrupt traditional concepts, and raise inquiries about the future of Art.

By focusing on the evolving relationship between artists and AI, the research seeks to illuminate the impact on the process of creation of artists, copyright, and the fundamental understanding of what constitutes “original” artistic work. Empirical part confronts these observations with established theories, providing insights into the changing landscape where AI meets the domain of Art.

## Introduction

Art expresses and reproduces human creativity and imagination in any form, such as music, visual arts (painting and drawing), performing arts (theatre, dance, and circus, etc.), literature, photography, cinema, sculpture, and architecture.

Art aims to capture the sensitivities and emotions of human beings in various forms, depending on the eras it traverses. Art has never ceased to evolve, to metamorphose, with the emergence of new techniques, methodologies, or creativity procedures, as more extensively explained in Chapter 1.

In recent years, machines have become capable of replicating behaviors related to humans, such as reasoning, planning, and creativity. This is known as Artificial Intelligence ("AI"), which revolutionizes our daily lives every day. The emergence of these new technologies is discussed in Chapter 2.

It is observed that AI is present in all fields, as there are now algorithms and other processes, also more extensively defined in our Chapter 2, which are, for some, capable of generating "Art."

It is, therefore, permissible to question the impact of AI on the artists' creative process and the way it manifests. With all the consequences this implies in terms of defining Art in general and notions of copyright and originality in particular. The aim of this thesis is to understand:

*"How is Artificial Intelligence transforming the creative process of artists, challenging traditional notions of copyright and originality in the creative and cultural arts sector?"*

The two chapters mentioned above, which together form the first part known as the "theoretical" section of this thesis, are followed by a second part called the "empirical" section, which analyzes the results obtained in the field, often hostile to any interference of AI in the world of Art, to confront our observations with theory before concluding on the subject.

## I. Literature Review

### Chapter 1: Management of the Creative Process

In this initial chapter, we will discuss about the management of the creative process. To begin with, we will provide comprehensive definitions for both “creativity” and “art”, elucidating their interconnections. Subsequently, we will explore significances of "originality" and "copyright" as fundamental elements in the field of artistic creations. Lastly, we will analyze the definition of the creative process and its various models.

#### 1.1 Concept of Creativity and Art

##### 1.2.1 Fundamental definitions: Creativity

Creativity is recognized as a scientific research field with vital implications for management and innovation. Governments, companies, research centers, universities, and schools invest significantly in understanding the keys to enhanced creativity and innovation. There is an imperative link between fostering greater creativity and achieving innovation, highlighting their close interconnection (Reiter-Palmon et al, 2014).

Beghetto and Kaufman (2014) highlight, "creativity and innovation are central to significant outcomes such as economic and sales growth, scientific productivity, and student learning." The growing emphasis on creativity has led to numerous scientific articles, conferences, seminars, and events across diverse disciplines like business, management, marketing, design, psychology, and education. El Qochari (2022) emphasizes the crucial role of culture and creative sectors in societal development, forming the core of the creative economy, contributing 6% to the GDP. The creative sector is recognized as a pivotal driver of growth, involving the creation and distribution of knowledge and information in areas such as advertising, arts, design, film, and music.

Creativity, a scientifically explored domain, has diverse definitions in the literature. Brecht and Pucker (2004) suggest that creativity is used in three ways: ‘*Referring to a set of processes, a set of personal characteristics, and outcome*’. Creativity is conceptualized as the outcome of a creative process or the manifestation of a creative personality, treated both as a cause and an effect.

Stein (1953) proposes that a creative work must be novel and useful, emphasizing novelty and utility as dimensions. This viewpoint is shared by researchers in organizational psychology, management, and engineering, forming a consensus that creative output should possess both novelty and utility. However, alternative dimensions have been suggested, such as a three-dimensional conceptualization that includes novelty, usefulness, and surprise for creative advertising products (West, Caruana, & Leelapanyalert, 2013). In summary, most creativity researchers agree that creative entities should have both novelty and utility, but there is divergence on the third dimension (surprise).

The crux of the debate surrounds whether an object is deemed creative based solely on novelty, utility, or the interplay between the two. This model posits creativity as the product of novelty, usefulness, and surprise, expressed as the equation **creativity = novelty x usefulness x surprise**. According to this model, if any component has a value of 0, overall creativity is reduced to zero (Puente-Diaz, Maier, Brem, & Cavazos Arroyo, 2016). Amabile (1996), asserts that a product becomes creative when individuals collectively agree on its novelty, usefulness, and surprise. Boden (2004) aligns with this definition, stating that creativity is the ability to generate ideas or artifacts that are new, surprising, and valuable.

In the context of this research, the emphasis is on understanding innovation attributes, where novelty, usefulness, and surprise are seen as prerequisites for the success of a creative idea. Therefore, the general definitions of Boden (2004) and Pucker (2004) will guide this study.

### 1.2.2 Connections between “Art” and “Creativity”

Once we have established the definition of “creativity” for Management scholars, it becomes crucial to understand the connections between “art” and “creativity”. In the thesis of Véronique Dethier (2022), it is revealed that Creative Industries encompass two realms: industry and creativity. Creative professionals are required to assume roles as both artists and managers. Chiapello (1998), in his work "artist versus Managers: cultural Management in the Face of Artistic Critique," analyzes the historical conflict between artists and managers. Consequently, we position individuals labeled as "creative" at the intersection of Chiapello's artistic and managerial perspectives.

Brun (2012) highlight the difference between “art” and “creativity”: **Creativity** is a process accessible to everyone, and every individual possesses creative abilities, it involves the act of

self-creation. Creativity can be seen by artists as a process with useful and novel outcomes. Ultimately, we are all creators in our everyday lives, and creativity is not exclusive to artists. It leads to the notion of “creator. A “creator” possesses the ability to infuse their intimate expression with a universal significance. Chouvier (1998) explored the paradox linking the personal and the universal, suggesting that creation involves transposing a part of oneself and transcending limitations to connect with the universal. Whereas **art** refers to the finalization of the process which is the artistic creation and is not accessible to everyone.

To sum up, on the one hand, **creativity** is a universal aspect present in each person, and it is crucial to continue to stimulate its development, including in the context of management. This creative capacity is closely tied to the quantity of our interactions with the environment and matures through lifetimes. It can also be organized as a process within organizations. On the other hand, **true creations and art** are domains that only a few exceptional individuals can achieve, imparting a universal dimension to their innate creative impulse (ArThuy, 2021). In other words, all instances of creativity lead to art of creation, however, to attain any form artistic creation, one must inevitably travers the path of creativity. We understand that creativity is an essential component of the creation of art (Jordanous, 2016).

## 1.2 Concept of Originality

After carefully defining “creativity” and “art”, it is essential to focus on the concepts of “originality” in artistic creations. We will delineate the concept from a legal perspective, enabling us to subsequently analyze the significance of the term "copyright."

### 1.2.3 Definition of Originality in Art domain with a legal perspective

According to Murielle Cahen (2020), a French lawyer, the condition of an "original work" reflects the unique essence of its creator, aligning with Chouvier's notion that a "creator" infuses their intimate expression with universal significance (1998). The concept of originality in artwork encompasses two distinct meanings: one pertains to the expression of personality, while the other centers on the author's creative input. In pure works of art, originality emphasizes personality, and creative innovation is not required for recognition. Being original does not demand the introduction of a creative invention, as it goes against copyright's principle of indifference to merit.

According to the commonly accepted definition (Cahen, 2020), "an original work is one that bears the imprint of the personality of the person who created it. Originality, a subjective notion, is distinct from novelty, an objective notion of anteriority. In the event of a dispute, originality is assessed by the court." This further emphasizes that the notion of "novelty" is a patent requirement.

### 1.3 Definition of the Concept “Copyright” under European Regime

The definition of "originality" leads us to address the notion of “copyright” under the European regime. This will enable us to comprehend how artistic works can be protected. In European law, “copyright” is regulated by various directives and regulations, with a key directive being the Information Society Directive<sup>1</sup>. This directive focuses on legal protections for copyright and related rights within the internal market, particularly in the information society. It excludes certain subject matters like computer programs, databases, rental rights, lending rights, and specific rights related to copyright in intellectual property, as they are separately regulated. In their judgments, the courts have developed the criteria of "*author's own intellectual creation*," interpreted in line with the justification of copyright protection, emphasizing the preservation and advancement of creativity.

### 1.4 The Creative Process

Once, we have seen the importance of “originality” for the artist engaged in an entrepreneurial venture, both in terms of their (original) outcomes and (original) process, we can turn to the creative process. In this final section of Chapter 1, we will tackle the principle of the creative process. We will begin by discussing the origins of the principle, then provide a deep explanation on what the creative process consists of, and finally, analyze three pertinent models of the creative process.

#### 1.4.1 Origin of the Creative Process

When analyzing the creative process, the artistic domain takes the forefront, closely followed by science, renowned for its pursuit of novelty and the belief that researchers generate new

---

<sup>1</sup> Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society.

knowledge (Csikszentmihalyi, 1996). Parallels between science and the arts in studies on creation and creativity are often drawn by Lubart (2003) and Sternberg (1999).

Our research focuses on the field of arts. In artistic creation, the concept is linked to boundless imagination, allowing for the crossing of boundaries or taboos, even at the risk of marginalization. Intriguingly, the theorization of the creative process originated in the context of scientific research, intimately connected to art during the Renaissance (as seen with Leonardo da Vinci). According to Lieutaud and Ouellet (2013), the origins of the creative process emerged during a famous conference at the Society of Psychology in Paris in 1908. Poincaré's description of mathematical invention involves four stages. Those stages are explained in the model of Wallas.

#### 1.4.2 The Creative Process

The origins of the theorization of the creative process enable us to draw an overview of it as elaborated in different research community. According to Veronique Dethier, the creative process is studied at three different levels: individual, collective and organizational level.

It is crucial to note that the creativity process is centered on the "generation of ideas," the initial step in the creative journey. Then, innovation, is seen as the developmental phase that follows creativity. According to Von Stamm (2008), innovation comprises the creativity process plus the successful implementation of the idea in the form of a product, process, or service.

#### 1.4.3 Models of the Creative Process

The creative process has been the subject of numerous studies and has sparked the interest of many researchers. Its different models allow us to understand how creativity and innovation emerge. In our analysis of the different models of creative process: first, we will briefly explain the Individual Creative Process by Graham Wallas (1926), followed by the Creative Problem Solving (CPS) model of Osborn at collective level. Finally, we will study deeper the Creative Process Model of Véronique Dethier (model of Space-Time).

##### *A. Individual Creative Process Model of Wallas (1926)*

Wallas (1926) was the pioneer in introducing a four-step process for individual creative thinking, involving both conscious and unconscious cognitive aspects. We learn that the

psychology field focuses only on the individual level of the creative process (Lubart, et, al, 2015).

According to Graham Wallas (1926), the individual-level creative process unfolds in four key stages: **Preparation (1)**, involving the clarification of the problem; **Incubation (2)**, borrowing a term from the medical field to describe a latent work and often unnoticed process that leads to **Illumination (3)**, the sudden emergence of the creative idea (akin to Archimedes' Eureka moment); finally, the idea is subjected to **verification (4)** through concrete testing. Here's a diagram to illustrate the process. This model has been revisited, adapted, enriched, and continues to be a cornerstone in contemporary literature on creativity. Wallas' model appears to serve as the groundwork for the well-known Creative Problem Solving (CPS) matrix.

### *B. Collective Creative Process Model: Creative Problem Solving (CPS) of Osborn (1965)*

In management field, the creative process was only studied at collective and organizational level. We will focus on the collective model with Osborn (1965).

Creative Problem Solving (CPS) is defined as: “A proven method for approaching a problem or a challenge in an imaginative and innovative way. It helps you redefine the problems and opportunities you face, come up with the new innovative responses and solutions, and then take action” (Creative Education Foundation). CPS is based on two major assumptions: "everyone is creative in some way" and "creative skills can be learned and enhanced." Osborn developed two key modes of thinking that are essential for creativity: Divergent Thinking and Convergent Thinking. On the one hand, brainstorming represents the **divergent thinking** stage within the Creative Problem Solving (CPS) process. On the other hand, **Convergent thinking** involves the application of criteria to brainstormed ideas, transforming them into actionable innovations.

As we can see on the graph<sup>2</sup>, Osborn's CPS matrix consists of three main stages: **Problem formulation, Solution Formulation and Solution implementation:**

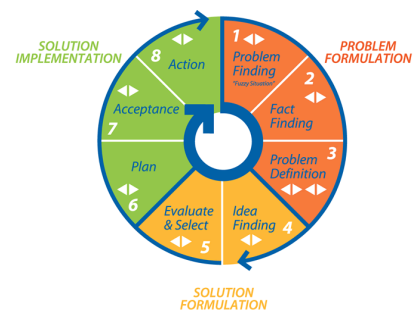


Figure 1: Creative Problem Solving Framework

---

<sup>2</sup> Graph of Creative Problem Solving. <https://www.pinterest.com/pin/creative-problem-solving-framework--407505466265556586/>

### C. Véronique Dethier's Experiential "Space-Time" Model of the Creative Process (2022)

The linear and individual models proposed by Poincaré and Wallas are primarily based on the cognitive and the rational, involving conscious and unconscious phases.

As for Véronique Dethier's model (2022), it also unfolds at the individual level but is much more dynamic, featuring unconscious and unthought-of phases. It is a model that dynamically traverses all spacetimes, not in a sequential manner. Her "Space-Time" model is defined as: "A movement of space and time created and experienced by the creative individual at the Cognitive, Corporeal, and Heart (CCH) levels in connection with the external environment and others participating in the creative process."

It highlights an unthought-of creative process. Véronique Dethier (2022) elaborated on the creative model process "from a dynamic, experiential, and holistic perspective (cognitive, body, heart, environment)." Each "Space-Time" represents moments that encompass both time and space through which the creative individual passes. This process focuses on idea generation, where the idea development phase (innovation) is not being considered.

There are 5 "Space-Time" experiences within the creative process: [PARALLEL ATTENTION], [DILATED DENSIFICATION], [DECANTED DISTANCE], [CAPTURED EMERGENCE], and [RESTITUTIVE EXPULSION].

Here is the graph of the Creative Process of Véronique Dethier and the interrelations of Space-Time. It illustrates well the dynamic effect of the creative process:

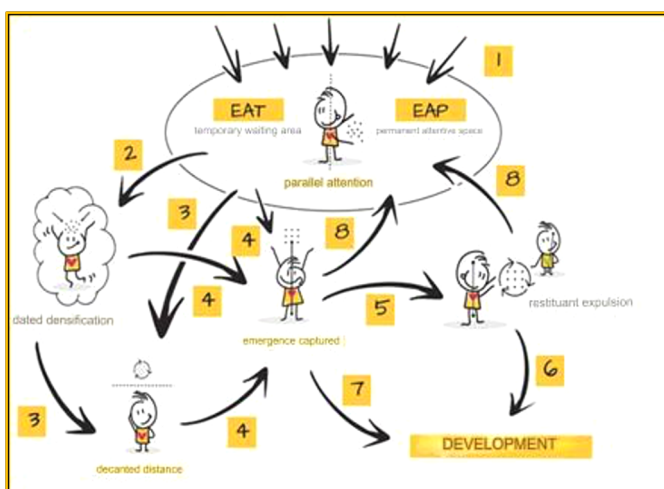


Figure 2: Interrelations of Space-Time

1. Capture of elements of Environment or exchanges with others
2. Work of elements in Dilated Densification
3. Creative break with decantation of elements
4. The idea emerges in Emergence/captée
5. The idea is confronted with a loved one
6. The idea is validated by the loved one is developed
7. The idea validated by the creative is developed
8. The validated idea is not developed but kept in the permanent attentive space

Each Space-Time is experiences across different dimension: Space-Time-Connection to others-how the cognitive, the body, and the heart are mobilized and specificity. How it is experienced, the mindset it requires, physical space where it takes place.

The model of Véronique Dethier (2022) will be used in our Empirical part where the impact of AI on artist's creative processes will be explored. The goal is to understand for each “Space-Time” how AI is transforming the creative process of artists. Let’s examine in deeper each “Space-Time”:



"Parallel Attention" represents both the inspiration and problematization phase. It is during this phase that the problem is identified, and information is gathered. This Space-Time refers to Wallas's preparation phase and Osborn's (1965) "data finding" phase. For instance, you see a print or a color on someone that you like when you walk on the street.

Then, you store it in your library with all of the elements captured from your environment. In the next step, all the stored elements will be blended and used in the creation of another design.



"Dilated Densification" is the moment when we work on the elements of ideas. We don't talk about ideas because they haven't yet emerged. All stored elements nourished by the “Parallel Attention” are cognitive resources for this phase. It is during this phase that we dilate the body and senses, activating one of the senses extensively (touch, hearing, sight, voice).

This Space-Time is connected to Wallas's (1926) incubation phase since it is the step where we do not consciously think about the problem, like when you are driving a long distance or taking a shower.



"Decanted Distance" represents the pause phase that serves as a "reboot" for the creative individual. The creator takes distance from the creative process with a “break”. It involves rebooting one's reasoning, dimensions, and body. This Space-Time is linked to Wallas's (1926) incubation phase. This step refers to the moment when one does not consciously think about the problem.



"Captured Emergence" is the moment when the idea appears. This Space-Time is connected to Wallas's (1926) "illumination" phase and Osborn's (1965) "Idea finding" phase. The mindset here is crucial, as well as confidence in oneself and in the small things that emerge.

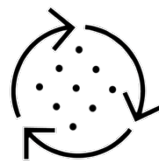


"Restitutive Expulsion" is the moment when we confront our idea with a trusted person. This Space-Time is linked to Wallas's (1926) "validation" phase. It is the step during which the validity of the idea is tested.

**Legend:**



« Brut » elements



Ideas in construction



Idea finished

## Chapter 2: Artificial Intelligence in the Creative Process

In the first chapter, we defined what a creative process is and what it involved. In this second chapter, we will attempt to understand how Artificial Intelligence (“AI”) impacts the world of art, specifically the creative process of artists. First, we will define the concept of digital art, then introduce AI and its consequences in the field of art. Finally, we will analyze the AI regarding the creative process.

### 2.1 Concept of Art and Digital Art

We already explored the term "art" in connection with “creativity”. Now, let's offer a more comprehensive definition of "art" to establish a basis for defining "digital art." Merriam-Webster (2023) describes “art” as a skill acquired through experience, study, or observation, involving intentional application of skill and inventiveness guided by aesthetic awareness, particularly in creating artistic objects. The digital age has revolutionized how people live, work, and create, giving rise to digital art. By harnessing digital technology, artists can push the boundaries of traditional art, creating new avenues for expression. The emergence of digital art challenges established ideas about artistic works. The area of digital art is one that is fast developing and has had a big influence on the art world. Following the emergence of Artificial Intelligence, we will see how digital art has evolved even further and transformed the art industry.

### 2.2 Artificial Intelligence

In this part, we will trace the story of AI and give a deep definition of “Artificial Intelligence” and its key concepts.

#### 2.2.1 History of the development of AI

The history of AI begins in 1943 with Warren McCulloch and Walter Pitts' paper "a Logical Calculus of Ideas Immanent in Nervous Activity," introducing the first mathematical model for a neural network. In 1950, Harvard students Marvin Minsky and Dean Edmonds created the first neural device, named "SNARC." During the same year, Alan Turing published the Turing Test and pondered the potential intelligence of a machine in his influential article "Computing Machinery and Intelligence. " Turing laid the foundations for AI, proposing the Turing Test, which aimed to demonstrate that a machine could engage in conversation like a human. Turing's test initiated the exploration of the boundary between human and machine intelligence (Council

of Europe). In 1997, a pivotal event occurred in AI history when IBM's Deep Blue system defeated Gary Kasparov, marking the first time a machine triumphed over a human. Since 2010, AI has experienced a resurgence, driven by two key factors. Firstly, the accessibility to massive volumes of data (Big Data) enables the retrieval of millions of items of information, facilitated by platforms like Google. Secondly, the efficiency of graphics card processes has significantly increased, accelerating the computation of learning algorithms (Georges, 2019).

AI is not a new field and has existed for many decades, continually evolving across various domains. The prominence of AI in discussions heightened in 2020 with the release of GPT-3 (Generative Pre-trained Model) by OpenAI, led by Elon Musk. GPT-3 is recognized as the largest language model ever trained. In 2022, tools like DALL-E2 and MidJourney were introduced, allowing the generation of images based on text prompts, known as the "Prompt Art"(Beelen & Dambly, 2023).

### 2.2.2 Definitions and key concepts of AI

In this section, we will define the concept AI and explore its current development in conjunction with technological evolution.

Defining AI precisely proves challenging due to its complexity and the multitude of existing definitions. The Study Panel recognizes that there cannot be a single "general definition" because AI systems are specialized for specific tasks, each requiring years of focused research and unique construction. The definition of AI is inherently tied to its specific domain and application (One Hundred Year Study on Artificial Intelligence, 2015). OECD (2023) defines an Artificial intelligence system as “*an automated system which, for a given set of objectives, is able to make predictions, formulate recommendations or take decisions influencing the environment.*”

Various types of AI exist, with machine learning and deep learning being among the most recognized. The different categories of AI will be further explained in the following section (2.2.3)

The recent surge in interest in AI can be likened to historical developments such as the introduction of the steam engine or electricity. This technological evolution is propelled by the growth in computing power, data availability, and advancements in algorithms, making AI one of the most strategic initiatives of the 21st century.

### 2.2.3 Different categories of AI

The concept of AI encompasses various types of technologies that are part of what is known as the "fourth industrial revolution." AI systems are diverse and have evolved over time. We will first discuss Machine Learning, which is the primary category, then, Deep Learning, one of the branches of Machine Learning. Finally, we will delve into Generative AI and multimodal models. To define those three categories, we will base mainly on Beelen and Dambly's book (2023).

#### *Machine Learning*

Machine Learning stands as a branch of artificial intelligence that enables computers to learn to perform tasks without being specifically programmed for them. Machine learning is considered as the opposite of expert systems, where humans must input/code/develop all the rules that will apply to the data. "*Machine Learning provides the opportunity to develop algorithms to analyze a large amount of data more quickly and accurately.*" The objective is to learn from existing examples and train to perform tasks more efficiently afterward. There are three main categories of Machine Learning: Supervised Learning, Unsupervised Learning and Reinforcement Learning.

#### *Deep Learning*

Deep Learning, a branch of Machine Learning, was introduced by Geoffrey Hinton in 1986, and it translates to "deep neural networks." Deep Learning is characterized as: "*A learning method based on neural networks that can identify a complex chain of correlation links, serving as probable indicators of causality.*" Examples include systems capable of pattern recognition, facial and speech recognition, navigation in autonomous vehicles, drone piloting, and tools for web and social media monitoring and analysis. (The Académie Sciences Techniques Comptables Financiers, 2021).

## *Generative AI and Multimodal Models*

The category of "Generative AI" refers to AI algorithms that enable the use of existing content such as text, audio files, or images to create new, realistic, and similar content. This category of generative AI is interesting as it includes generative language models developed by OpenAI, such as ChatGPT. In January 2021, OpenAI notably released DALL-E and CLIP, which are considered two multimodal models. We will explore various tools related to generative AI, specifically those used for "artistic" purposes.

### 2.3 AI in Art

As we have learned in the previous section, technological advancements, coupled with the abundance of data for machine learning algorithms, have accelerated the progress of AI development. In the field of art, AI has emerged as a powerful tool for creating new avenues of artistic expression and exploring innovative creative possibilities. AI is reshaping the landscape of the art industry by granting robots the ability to generate "pieces of art." Indeed, extensive datasets are employed to train AI art algorithms, enabling them to recognize patterns, styles, and techniques employed by different artists. Subsequently, these algorithms leverage this knowledge to generate "new works" of art (Jonathan K, 2023). AI has the potential to assist artists by automating laborious tasks such as color correction, image resizing, and filtering. Additionally, AI can analyze and interpret existing pieces of art, providing insights into the methods and style of the creator. While AI in the arts is a relatively new discipline, it holds the promise of fundamentally transforming the production, examination, and appreciation of art.

#### 2.3.1 AI tools in the domain of Art

Beelen and Dambly (2023), state that the integration of AI into the art domain pushed artists to use AI tools, either for the generation of "new artworks" or as aids in the creative process. The fact that OpenAI released tools like ChatGPT and DALL-E has democratized AI tools, making them accessible to everyone. Consequently, AI tools have become democratic, as anyone could now use them. This has expedited the impact of AI in art, as a vast number of individuals became curious to explore and test the AI tools made available to the public. A multitude of tools has emerged, such as Image Synthesis Models (ISM) like Stable Diffusion, Google's Imagen, DALL-E and Midjourney which are part of the generative AI category. These models have acquired the ability to generate images based on users' written prompts (key words), utilizing images obtained from the internet, call "Prompt Art". This poses a concern, which we

will explore later, regarding the unauthorized extraction of images and its implications for copyright and intellectual property. Here is a graph<sup>3</sup> explaining the process of AI-Art generator:

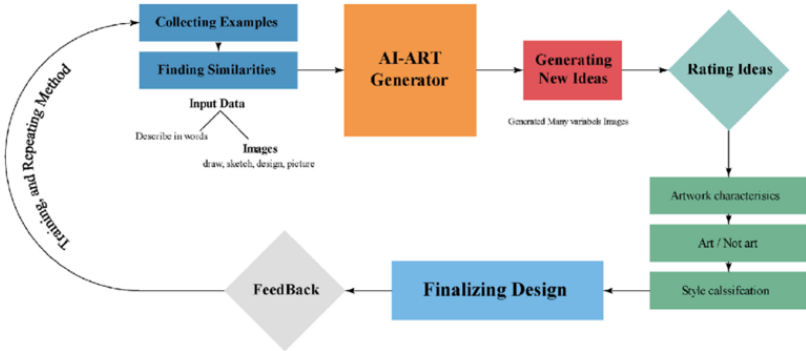


Figure 3: Process of AI-Art generator

2.3.2 Birth of the movement “GANism”

Over the past two years, the number of artworks produced by machine learning algorithms has been steadily increasing. These artworks are increasingly featured in fairs, art galleries, and auctions.

Doherty (2019), details the presentation of artwork crafted by an “Artificial Intelligence Creative Adversarial Network “(AICAN) at SCOPE Miami Beach in 2018. Developed by Ahmed Elgammal, the director of the Art and Artificial Intelligence Lab at Rutgers University. AICAN is described as: *“both an artificial intelligence artist and a collaborative creative partner. Fueled by hundreds of thousands of samples from the art history of the last 500 years, this technology has been trained to produce original works.”*

These creations are displayed globally, and Elgammal emphasizes that only the name of the AICAN technology should be acknowledged in the exhibition of the artworks. In October 2018, the artwork titled "Portrait of Edmond de Belamy" was purportedly the first portrait created by a neural network to be auctioned by Christie's. Acquired for \$432,500, this piece by the Parisian



Figure 4: Portrait of Edmond de Belamy

<sup>3</sup> [https://www.researchgate.net/figure/A-block-diagram-of-a-creative-Art-generator-process-Showing-the-artists-role-using-AI\\_fig1\\_371956576](https://www.researchgate.net/figure/A-block-diagram-of-a-creative-Art-generator-process-Showing-the-artists-role-using-AI_fig1_371956576)

collective Obvious marks the emergence of a new category of artists in an already competitive art environment.

During one of the conferences held by the Parisian group Obvious in 2020, it was revealed that a new artistic movement is emerging: "GANism." This movement refers to an artistic process that utilizes GANs, or Generative Adversarial Networks. *"The functioning is based on a large database of examples of images, and the algorithm attempts to create new images that share common characteristics."*

AI, utilizing Generative Adversarial Networks (GANs), can create "art" by producing images that progressively achieve greater realism and visual appeal. The fundamental objective is to mimic or generate diverse elements, including shapes, colors, textures, and patterns. Artists using AI aspire to create artworks that differ from conventional styles, aiming for a distinct sense of legitimacy.

Nevertheless, those employing GANs, and comparable databases often encounter critique for generating visually similar pieces. It is evident that AI is progressively gaining the capability to independently reproduce artworks, drawing from existing styles. This current phenomenon of AI raises questions such as *"Could a machine artist surpass a human?"* or *"Can a robot truly create a work of art?"* This raises reflections about the role of the artist, the originality of an artwork, and copyright. Our next discussion in this second chapter will explore the various repercussions of AI in the art industry.

### 2.3.3 Consequences

#### *Legal Issues*

Many questions arise regarding the legal use of AI, particularly those related to intellectual property, specifically artistic property involving copyright issues. The primary challenge with AI-generated art is that it creates an image from millions of pictures sourced from an extensive database, often without the consent of the original authors.

Throughout the book of Beelen and Dambly (2023), it becomes evident that the issue of "ownership" is a central concern. Who is the author of the work? Is it the person who generated the prompt, or is it the machine that created an "artwork" through access to billions of internet images? These new algorithmic tools necessitate a debate around intellectual property protection.

Concerning copyright for a work generated by AI<sup>4</sup>, "a person who has obtained a copy of a computer program under a license is authorized, without the copyright holder's permission, to observe, study, or test the operation of this program to determine the ideas and principles underlying any element of the program."

Beelen and Dambly (2023), clarify that, in practice, a fundamental aspect for qualifying for copyright protection hinges on the principle of originality: "*A computer program is protected if it is original, in the sense that it is the intellectual creation of its author. No other criterion applies to determine if it can benefit from protection.*" Defining the author's unique imprint proves elusive and continues to hold a significant place in legal considerations. The criterion of originality was deliberated by the Court of Justice of the European Community in the well-known Infopaq case, where the Court established that this condition is met when "*the author has been able to express his creative abilities.*"

Ultimately, in practical terms, a user who engages repeatedly, carefully selecting keywords, defining a style, color constraints, and other parameters, legitimately feels like the author of their creation, thus falling within the domain of "Prompt Art." Nevertheless, from a legal perspective, this creative process is excluded as the origin of copyright. This exclusion applies equally to the AI designer, who has no control over the outputs of the algorithm. In conclusion, under French law, works generated by AI are not protected by copyright and can therefore be utilized by anyone, regardless of the purpose. Due to the enforcement of European law, many artists are inclined to remove their works from several platforms to prevent any potential "copying." In the RTBF press article (2023), some artists expressed their dissatisfaction with generative AI programs on the ArtStation platform, where many of them showcase their work. A situation deemed unacceptable by Suzanne Helmigh, Art Director at Ghostfire Gaming.

### *Ethical Issues*

AI in the field of art also raises ethical issues called "artificial ethics". Martin Gilbert (2022), defines "artificial ethics" as follows: "*ethics applied to artificial intelligence is the domain of ethics that considers what is good, just, or virtuous in the implementation of artificial intelligence systems.*"

---

<sup>4</sup> A 2012 ruling from the Court of Justice of the European Union

As is often the case in ethics, responses are complex, diverse, and heavily context dependent. This is because not everything that is technically possible is morally desirable, highlighting the necessity for an ethics of AI.

Doherty (2019) told us that a significant ethical issue arises regarding the creation of images. Indeed, certain ethical concerns can emerge, as demonstrated by the creation of "The Next Rembrandt" in the Netherlands (see appendix 4). A 3D portrait was generated by an algorithm based on 346 paintings by Rembrandt, an artist who passed away 351 years ago. Moreover, the act of "reviving deceased masters by exploiting their unique style" is a remarkable feat.

Once again, this sparks numerous debates as exhibiting this artwork alongside authentic paintings can be misinterpreted. Is it a lack of respect, a forgery, or, conversely, a tribute? Many press articles, such as the one from RTBF, confirm this concern: "*But what about museums and other cultural institutions? Are they ready to display images generated by DALL-E 2, Midjourney, and the like, alongside works by Leonardo da Vinci, Pablo Picasso [...]?*" (RTBF, 2023)."

## 2.4 AI in the Creative Process

During the first chapter, we examined the creative process at three different levels: individual, collective, and organizational. We primarily focused on the first two levels with Wallas (individual) and Osborn (collective) but we did not really explore the organizational level. We learn that from the point of view of organization, the creative process is a managerial tool that gives an overview of creativity (Gabriel et al., 2016). This third perspective is often considered to constitute innovation rather than creativity (Damanpour and Aravind, 2012).

According to Lubart (2005), there is a wide range of approaches to support creativity by means of digital devices. "A creativity support can be considered as a coach (gives advice and helps to implement and apply techniques); as a pen pal (provides support for collaboration); as a nanny (monitors the work's progress and provides a framework); or as a colleague (the computer generates its own ideas and solutions)." Each of these classes represents a specific approach to creativity via digital devices and introduces specific issues and vocabulary.

The digital system seen as a “colleague” corresponds to a system that becomes actively involved in the creative task and is therefore able to suggest new ideas to humans. This led to the “computational creativity approach” (Boden, 2009; Wiggins, 2006). The term “computational creativity” involves the application of the Artificial Intelligence to model of human creativity. According to Ramon Lopez (2017), it represents the study of building software that exhibits behavior that would be deemed creative in humans.

Such creative software can be used for autonomous creative tasks, such as inventing mathematical theories, writing poems, painting pictures, and composing music. Computational creativity studies also enable us to understand human creativity and to produce programs for creative people to use, where the software acts as a creative collaborator rather than a mere tool.

The example of the system “AARON<sup>5</sup>” illustrates well the concept of “computational creativity”. AARON's knowledge and utilization differ significantly from human knowledge, as human understanding is rooted in experiential interactions with the world through bodies, brains, and reproductive systems which computers do not have. Consequently, AARON lacks the capacity to "break" rules or envision unconventional possibilities, such as drawing humans with a single leg. In that sense, AARON's creativity is limited and very far from a human one.

Based on Bedford's thesis (2016), programs like Aaron, Painting fool cannot make “art”. If we refer to the definition of creativity, robots are not creative as they are not original or intentional when making they work or the art. Those artificial systems do not fulfill the criteria of novelty, originality, and surprise to be considered as creative (definition of creativity, Boden, 2004). Indeed, Art can only be created if the artist utilizes creativity. Creativity is an essential component of the creation of art (Jordanous 2016), which means that computers must be creative to create art (Gaut 2000).

The **first criterion** of novelty is not fulfilled because it is based on pre-existing images. So those systems do not create something new. The resulting image is not a truly new work art. It is more an adaptation rather than a new work of art.

---

<sup>5</sup> “Aaron” is a robotic system, developed over many years by the artist and programmer Harold Cohen (1995), capable of independently wielding a paintbrush with its robotic arm and creating paintings on canvas.

As we previously saw the example of the new painting of “Rembrandt” by a computer. It embodied his pre-existing style (Baraniuk 2016). This illustrates that the **second criterion** is not respected where the work of a computer is unoriginal.

The **final criterion** remains unmet, as computers lack intentionality and the ability to evoke a sense of "surprise." Their only objective is computation, devoid of emotion, inspiration, or intention. These systems cannot autonomously decide the visual outcome or composition of their work since they lack the capability for personal intentions. Even if outcomes seem unexpected or accidental, they are inherently tied to the programmer's and/or system user's intentions (Raczinski & Everitt, 2016). The absence of intentions and the inability to improvise or adapt stem from the lack of consciousness and contextual understanding in these systems.

Beelen and Dambly (2023) also argue that a robot cannot create art; however, it can generate the effect of "surprise." Robots lack personal opinions, intuition, and an understanding of what they create and produce as a result. Furthermore, being an artist is not merely about applying a style or technique; it involves intention and a certain artistic genius at the heart of the artwork. Currently, robots do not possess such perceptions, even though the artistic creations of robots may evoke emotions and raise questions.

The empirical approach will enable us to confront theory and analysis about the different discussions such as the fact that a robot can make art or the future of the artist to finally understand how AI transforms the creative process of artists with its concerns of copyright and originality.

## II. Empirical Part

### Chapter 1: Research Approach-Methods

Through the first part of the thesis, the theoretical framework concerning the concepts of the creativity process and AI was established. In the following section we will put in perspective what we have discovered in the field, in conjunction with the theory. This will enable us to address the research question: "*How is Artificial Intelligence transforming the creative process of artists, challenging traditional notions of originality and copyright in the creative and cultural arts sector?*"

#### 1.1 Introduction to the Research Methodology

##### *Sample and Field Choice*

The interview sample consisted of 8 people, including Véronique Dethier, an expert in the field, who specializes in the Creative Process Model of "Space-Time." Among the interviewees, 5 incorporate AI into their artistic practices, 1 is an expert in the creative process, while 2 abstain from using AI, citing a lack of necessity. Given the novelty of AI in the realm of art, identifying artists actively using AI and gaining comprehensive insights was challenging. Out of 20 interview requests, 10 responses were received from traditional artists who do not integrate AI into their work. Interviews were conducted with 2 of them, and discussions were held with the remaining 8 to understand their perspectives on the subject and find out the reasons why they are not using it. Since the research question specifically focused on artists employing AI tools, exceeding the inclusion of 2 traditional artists was beyond the study' scope. Positive responses were obtained from 5 artists using AI, and from one expert in the creative process and interviews were successfully scheduled with them. The final 4 requests went unanswered, underscoring the prevalent reality in the field. Contacting AI artists proved challenging, reflective of the hesitancy within the artistic community to embrace this emerging trend.

The 5 interviews with artists using AI were very interesting and allowed me to understand the field better, to discover the various point of views and to gain valuable insights into how AI transforms their creative process. This sample includes 6 men and 2 woman (including 1 expert), who are artists AI or traditional artists without AI:

<b>Interviews</b>	<b>Background</b>	<b>Professional function</b>	<b>Artistic background</b>
<i>Anouchka d'Oreye</i> (25 years)	Studied at Beaux-Arts	Independent graphist design	Painting and photographer
<i>John de Radigues</i> (24 years)	Management studies	Independent painter for 2 years	Painting since ever
<i>Olivier Renzonnet</i>	Was a director in graphism design for 25 years	Full-time artist	Always had the soul of an artist
<i>Brice Le Blévennec</i> (56 years and retired)	Created his communication agency	Supports start-up at the stage of Business angels and launched his start-up: "Zoetrope"	Has a lot of knowledge in the domain of creativity and has experienced "AI-art" with his project "Zoetrope"
<i>Martin Raucent</i> (23 years)	Bachelor in marketing at Ephem and in Design at CAD	Independent painter in the past 6 months	Has been painting since he was 10
<i>John Happé</i>	-Studied Cinema at IAD -Set up a 3D special effects company for advertising	-Since few years, professor of Visual effects at IAD -Work with production companies and agencies	Photographer and passionate of art
Bruno Ribeiro	-studied in an art school at Lyon	Work in lighting and interactive projection installations for festival, events, etc.	Artist and director for 15 years
Véronique Dethier	- PhD in Creativity Management (UNamur - 2022)	Project Manager @TRAKK Namur (Namur Creative Hub)	An expert in research into the space and time dimensions of creativity and creative processes in relation to creative hubs and spaces.

Nevertheless, following the 5th interview with AI artists, I discerned a lack of new topics emerging in the discussions and the interviewees answers started to reiterate what had already been conveyed by prior interviewees. As articulated by Guest et al. (2020), this aligns with the concept of saturation, which refers to “the point during data analysis at which incoming data points (interviews) produce little or no new useful information relative to the study objectives.”

The purpose of the interviews was to provide an overview and analysis of the impact of artificial intelligence on the creative process of artists, with its implications in terms of copyright and originality. In addition to the 8 interviews and the various discussions with artists and experts in the field, I attended two conferences. The first was given by Axel Beelen and Phillippe Dambly about "*R(e)volution of Artificial Intelligence*", towards a legal and technical framework for AI. The second was given by the community “Art x Terra” about “*Artificial Intelligence and Art*.” During this conference, I realized how much artists were scared to use AI and were sometimes upset of the advent of AI in their domain. This conference confirmed the reality on the ground: artists are still very reluctant to use AI in their works of art and do not want their creative process to become banal and automated.

Additionally, I went to the Kikk festival at Namur, where I met Brice Le Blévenec with his interesting project Zoetrope. It has helped me a lot to understand the impact of AI in art world and its consequences.

During the interviews, I identified the vocabulary used by the artists to understand how the artist is impacted by AI in the different space-time phases of the creative process. This idea comes from the “Space-Time Model” developed by Véronique Dethier. The following table shows the interview questions and the vocabulary used to answer them, and their relations to the different phases of the creative process.

<b>Dimensions of “Space-Time” of the Creative Process</b>	<b>“Parallel Attention”</b>	<b>“Dilated Densification”</b>	<b>“Decanted Distance”</b>	<b>“Captured Emergence”</b>	<b>“Restitutive Expulsive”</b>
<b>Question asked</b>	“Do you use an AI tool during your inspiration phase?”	“Are one or more of your senses stimulated when you use an AI tool?” “Do you feel emotions when you use AI?”	“When you are on your creative pause, do you use an AI tool?”	“What do you do when a sudden idea appears?”	“Have you ever confronted your idea to an AI?”
<b>Key words that help us to recognize in which dimension of Space-Time we are</b>	Tools like ChatGPT, Stable Diffusion or Midjourney for inspiration.	Brainstorming, hearing, sight, feel surprised.	AI does not intervene in this dimension.	AI help to visualize and generate the idea with ChatGPT, Stable Diffusion or Midjourney.	Confront my idea to ChatGPT. Will use AI tool only if I want to show it to someone.

### *Data Collection*

In the context of my research, I opted for a qualitative analysis, which is highly recommended in the case of an exploratory study. According to Mucchielli (2011), Qualitative Research Methods (QRM) encompass a series of techniques for data collection and analysis. “*The goal of qualitative research is the development of concepts which help us to understand social phenomena in natural (rather than experimental) settings, giving due emphasis to the meanings, experiences, and views of all the participants*” (Mays et Pope, 1995, p. 43).

Qualitative research is a way of understanding social reality and takes various forms, such as interviews and observations, which are the most used (Laurence and Christiaens, 2014). In my qualitative research, I have relied on interviews, discussions, observations, conferences, videos, and documents.

According to Marriam & Tisdell (2015), interviews can be characterized as highly structured (standardized), semi-structured, or unstructured (informal interviews). My interviews were mainly semi-structured to optimize flexibility and response quality. This interview technique was a combination of open and closed questions.

## 1.2 Analysis Approach

Interpretation is considered as the most crucial component of qualitative data collection and analysis. This means that categorization and explanation of the data are essential. Based on Braun and Clarke's manual (2012), they are two main steps in data analysis that should be followed. **The first step** is to make sure that the data is accurate and to analyze well the interviews. In my case, verifying the accuracy of the data and analyzing the results were the most important part of the work. Indeed, every interview notes were thoroughly analyzed. **The second step** is to summarize the data and be able to separate the information into specific topics. Indeed, similar codes and words should be used to group data, which will help to separate the data in clear themes. With this in mind, I divided the findings of my interviews into four main categories and numerous sub-topics, which will be explained further in the following section.

## Chapter 2: Results

In this chapter, the results from the interviews and the data collected are presented. Through the 7 interviews with artists using AI or not, four main themes emerged: (i) AI in the Art World, (ii) Ethical and Legal concerns, (iii) Artificial AI in the creative process of artists, and (iv) the future of the artists. For each topic, I have listed the questions that were asked during the interviews and summarized the main ideas behind the answers given by the interviewees.

### 2.1 AI in the Art World

#### 2.1.1 The fundamental difference between "Creativity" and "Art"

All the participants agreed that “art” comes from the very essence of being human and of being able to express oneself and convey one's point of view. “Creativity”, on the other hand, involves the generation of ideas, which can take the form of storyboarding or even brainstorming. B Le Blévenec confirmed this difference by stating: “Art is when the artist tells a story and expresses himself through a work. Creativity involves doing something within constraints and often on demand. Creativity is often used within a determined framework or with defined topics and could therefore lead to less flexibility in the work of the artist.” This connection between creativity and art is essential, and without creativity, art cannot exist. According to J de Radigues to achieve art, one must go through creativity, whereas to achieve creativity, one does not necessarily go through art.

#### 2.1.2 Can a robot create a piece of Art?

With the previous definitions of art and creativity in mind, the main idea that came from the interviews is that we cannot consider that a robot can create art. Robots only draw inspiration from images that already exist on the internet, and that have been previously created by humans. The generative AI we use today only remixes things, trends, and styles. It does not create a new stage in the history of art.

As an example, confirming this view, B Leblevenec created an AI project, called “Zoetrope” and himself believes that this type of creation cannot be defined as art because there is no human behind the work created by the robot. The project Zoetrope is an artistic frame powered by AI. A picture of the project is depicted in appendix 2. However, the process doesn't require the

work of any artist and can therefore, according to B Leblevenec, not be called an actual piece of art.

All participants agreed that a robot can create something beautiful without necessarily considering it as art. However, during the discussions the definition of art was discussed a lot, and some participants came to the conclusion that with the increasing interest of AI creations, the notion of art will surely have to be redefined.

Concerning the question of emotions linked to art, participants mentioned that they believe we could be emotionally affected by an AI work even though robot do not have consciousness nor autonomy. O Rensonnet stated: “When Artificial Intelligence will have evolved sufficiently to have emotions and autonomy, if it happens, then its creations might be more intelligent and sensible.” Moreover, M Raucent emphasizes the importance of the creative process in the finality of the piece of art. Indeed, it holds much more value to purchase a piece of art that has had a whole a creative process and many thoughts behind it than an AI image that was generated in a few seconds. “The result is the same, but there is the entire process of the artist and the work behind it that has value, and you have something unique in art that a robot will not have because it will not create things that no one has ever created.”

### 2.1.3 “Prompt Art”

The advent of AI in the art world has brought to light a new category of creations called “Prompt Art”, which is when people generate “prompts” in platforms like Midjourney. As A D’Oreye said it well “I have seen magnificent creations that really impressed me and that were created by AI. When I started to explore MidJourney, I quickly realized that I wouldn’t be able to reach such high-quality creations. I believed that these images generated by AI created a new profession of AI professionals.” The main talent of these AI professionals might be less seen as creativity or art but is mainly gathered around the “prompts” that they create and can therefore be seen as a new profession. B Ribeiro confirmed this point of view when he explained that he does not believe that the images created when he uses AI are art, but that they are mainly due to the prompts he generates.

#### 2.1.4 How do you personally feel impacted by AI?

Generally, the participants discussed the positive impacts of AI, and they don't fear it. J de Radigues compared the emergence of AI with the emergence of photography, and B Le Blévenec compared it to the creation of internet. "Internet changed our lives, and I believe it will be the same with AI. Indeed, AI will change everything, and I hope it is for the better, even if there might be casualties. I see it as one more wonder in the arsenal of human creativity, ultimately."

However, the emergence of AI can be frightening because it's unknown and we currently have little insight into the future impact of it. A D'Oreye expressed this view by saying: "At first, I was scared thinking that my job could disappear, that the creative process would lose its reflection, and that everything could become automated." This is also the view of many artists in the field.

## 2.2 Ethical and Legal Concerns

### 2.2.1 What are the issues surrounding Copyright and Originality?

Opinions differ about the issue of "**copyright**" around AI-generated work: On one side, some say that before the advent of AI, artists have always drawn inspiration from the styles of other artists. It's precisely the same situation with AI: "In fact, robots do the same thing humans do. They don't really invent something. They just take a combination of many works and trends, and they create something new, so that's exactly what all artists do. In the end, it's the mix of inspirations that creates creativity and, therefore, an artistic movement" (M Raucent). B Reibero confirms this by saying that if the artist's images are on the internet, it is normal for other artists to use them as inspiration. On the other side, speakers like O Rensonnet find it a problem that an AI can develop images that closely look to the artist's technique and that this is considered "plagiarism". For him it raises the concern of "artist consent" because an AI can reproduce an artist's style without their consent if the image is available on the internet. However, even if the artist claims his copyright, he does not have the right to sue users of a generative image or text engine for claiming copyright, because ultimately, these algorithms do nothing but draw inspiration or remix various things to generate something new (B Le Blévenec). For B Le Blévenec, there is a solution to copyright problem: "The artist has the right to request the exclusion of their intellectual property from the training of an engine".

Then, according to the participants, the concern of “**originality**” should not arise because AI differs from original copies since it's not a copy because and nothing more than the process of adding something directly inspired or dreamed up based on what already exists.

## 2.3 AI in the Creative Process of Artists

### 2.3.1 The overall impact of AI tools in the Creative Process

AI tools allow the creative process of the artist to gain efficiency, precision, and to delve further into creativity: According to A D'Oreye, AI is **an effective tool** that saves her time and allows her **to explore her creativity** even more: “I use artificial intelligence a lot as a tool, such as CHATGPT, to create painting drafts. I also often use MidJourney or even Photoshop. It's an additional tool that opens up more possibilities. Before, I could feel restricted by my abilities and the inspirations found on the Internet. Now, thanks to AI, if I want to imagine a crab flying on the moon, I ask MidJourney, and it gives me many other ideas or helps me evolve.” John H describes AI as **a precise tool**: “Giving access to AI to achieve this result with certain net controls (CTRL) can really help artificial intelligence go in the direction we want, thus having much more precision and control over image generation.”

### 2.3.2 AI in the inspiration phase

AI tools like ChatGPT, Midjourney and Stable Diffusion can be used in the inspiration phase of the artist. For example, ChatGPT can generate keywords and prompts which can help the artist when he will ask to an AI to create an image. Some of the participants use them during this phase like J Happé but others like M Raucent and B Reibero do not. For them, AI doesn't inspire them, it is more their favorite artists and their artistic approach.

### 2.3.3 AI in the work of ideas

Some artists have mentioned that their hearing and sight are stimulated when they used an AI tool. For M Raucent, it's his hearing that is stimulated when he uses an AI tool: "I use a playlist created by an AI that knows exactly how to stimulate me when I need to isolate myself. My AI-created playlist really helps me calm down and focus since, based on algorithms of what I was listening to, it knows exactly what will make me feel good in this isolation phase." Meanwhile, for J Happé, it's his sight that is stimulated when he uses AI in his creative process: "When I use it, I'm fascinated and astounded by the results that artificial intelligence is capable of."

During this stage, the artist can potentially use "brainstorming." Anouchka uses an AI tool for brainstorming and generating other ideas.

#### 2.3.4 AI in the apparition of the idea

At this stage of the creative process, AI tools like Stable Diffusion and Midjourney are useful in helping artists to visualize their ideas.

According to A D'Oreye, AI tools can be used as references and offer the possibility to describe a scene that doesn't exist. For M Raucent, AI helps him, for example, when he's doing something figurative, and he needs proportions that are accurate and closer to the most realistic rendering. Furthermore, AI is used as an aid and exploration tool in creating a work rather than in its finality. It improves the overall creative process of artists. A D'Oreye confirmed this tendency "I use it to create drafts but not in the realization of my final product". M Raucent mentioned the time that he saves when he uses AI. "Instead of spending 20 hours on the creation of the work, I can spend only 2 hours on it and use most of my time thinking about what I want to create. I just need to make sure that the AI does exactly what I wanted." Indeed, AI allows artists to automate repetitive tasks and focus on the more complex aspects of their work.

However, some artists highlight the potential danger of producing more quickly and how it can make them more fervent and break their creative process. The important thing is not to go to extremes and become dependent on AI tools. In the end, it's all about how one uses the AI tool and for what purposes. Artists agree that what is satisfying is to create something from A to Z and express themselves, and most of them see AI as a help.

## 2.4 The Future of Artists

### 2.4.1 Could AI one day replace the artist?

For the participants, AI can never replace the artist. The emergence of AI can be seen as a threat, but it represents only the continuity of our technological evolution. J de Radigues confirms this by saying, "When photography arrived, some said it would be the death of art, whereas it was the emergence of a new object. It's the artist behind that object that remains at the origin of all creation and how they use it. I'm more inclined to believe that AI will also go in this direction." B Le Blévennec added that, like every new tool, there will be an impact: "When Photoshop came out, it was the death for some photographers but also a fantastic tool for many others."

M Raucent compared AI to the time of the industrial revolution: "There were artisans who created shoes, and with the advent of machines that created shoes, artisans were replaced by guys who manage the machines. As a result, the profession evolved, but they don't do the same thing." Indeed, we are learning that AI can make professions disappear but also create new ones, as we have seen with "Prompt Art". As J Happé points out, artists can never be replaced, but the more creative professions such as designers and graphic artists may be. Given that AI is a tool that is free and accessible to all, certain categories of artistic profession could disappear, and unfortunately this will be part of our evolution. B Le Blévennec qualifies by saying that with our current economic situation, this is becoming very complicated for creative companies because if they want to survive and remain competitive, they have to outsource to countries like Vietnam or India. AI tools therefore enable employees to remain productive and create value. "It's a new productivity tool that recreates air in our economy."

## Chapter 3: Discussion

The results obtained during the interviews show that most of our theoretical elements confirm the theoretical framework. In this discussion, we will return to our four main themes and link them to the various theoretical points.

### 3.1. AI Potential in Art World

First, the distinction between Creativity and Art made by the speakers confirms our theory: **Creativity** is a universal aspect present in each person, and it is crucial to continue to stimulate its development, including in the context of management. **True creations and art** are domains that only a few exceptional individuals can achieve, imparting a universal dimension to their innate creative impulse. Creativity is an essential component of the creation of art (Jordanous, 2016). The words of J de Radigues are then in accordance with this sentence: all instances of creativity lead to art of creation; however, to attain any form artistic creation, one must inevitably travers the path of creativity.

Then, the speakers agree that a robot cannot make art while for others like Jonathan (2023), robots are able to generate “pieces of art” and these algorithms leverage this knowledge to generate “new works” of art. The answer depends on the definition of art we have, and this debate calls into its definition which will necessarily have to be redefined. However, if we referee to the definition of creativity, a robot cannot create art. « *Creativity is the ability to come up with ideas or artefacts that are new, surprising and valuable*” (Boden, 2004) and “*art can only be created if the artist utilizes creativity (Gaut 2000).*” To create a work of art, 3 creative criteria must be met: new, valuable and surprising.

We'll illustrate this with B Le Blévenec's Zoetrope project. The **first criterion** concerning **novelty** is not fulfilled because it is based on pre-existing images and styles. Zoetrope uses images that already exist, it doesn't create anything new. Zoetrope can create something visually beautiful but it's not art, it's decoration. **The second criterion** on **valuability**, however, can be considered as fulfilled in the case of Zoetrope, because the creations can be seen as “valuable” in the sense that a buyer might want to buy it. **The final criterion** concerning the **effect of surprise** is a matter of debate. In the theory, on the one hand, Raczinski & Everitt (2016), say that computers lack intentionality and the ability to evoke a sense of "surprise". On the other

hand, Beelen & Dambly (2023) argue that robots can create emotions in humans, including the effect of surprise. However, being emotionally moved and surprised does not mean that the work is considered art. J Happé has the same opinion because he often is surprised by what AI can do. The Zoetrope Project can make us experience emotions without us considering its images as art. As O Rensonnet puts it so well: “One day we may be able to consider these types of creations as art only if AI evolves emotionally”.

Finally, the emergence of AI in art has created a new category of "artists". The theory names this new artistic movement "GANism." This movement refers to an artistic process that utilizes GANs, or Generative Adversarial Networks. Participants do not consider that the images created as a work of art, but rather the prompt, which ultimately gave rise to a new form of art: "Prompt Art". Whether it's spending time generating a good prompt or creating a piece of art, the creative process and artist's reflection remain crucial.

Moreover, the emergence of AI is linked to various technological developments such as electricity and the steam engine. We observed that participants have also compared AI to the advent of photography or the internet. It is part of the continuity of human evolution and is considered as “the fourth industrial revolution”. Every new evolution involves challenges, and it is normal to question its impact.

### 3.2. Ethical and Legal Challenges

Concerning copyright for a work generated by AI<sup>6</sup>: "A person who has obtained a copy of a computer program under a license is authorized, without the copyright holder's permission, to observe, study, or test the operation of this program to determine the ideas and principles underlying any element of the program." This definition may worry some artists like O Rensonnet since their works can be copied without their consent. Indeed, French law stipulates that “works generated by AI are not protected by copyright and can therefore be utilized, regardless of the purpose.”

As previously mentioned in the analysis, artists have always been inspired by the style of others, and that's exactly what artificial intelligence does too. However, this remains a delicate

---

<sup>6</sup> A 2012 ruling from the Court of Justice of the European Union

discussion because for some people, it is considered plagiarism and there is no law protecting AI works from copyright. As B Léblevenec and RTBF press article (2023) say: Artists can withdraw their works from art platforms to avoid plagiarism and copyright issues. Furthermore, according to Cahen (2020), a work of art is not original, and “novelty” is a patent requirement which confirms the words of the participants. In ethical terms, the painting "The Next Rembrandt" was generated by an algorithm based on 346 paintings by Rembrandt. Using the image and style of a deceased artist can be perceived as unethical. This an ethical debate about whether it is right or wrong.

All these discussions are delicate and provoke debates on the following question: “*when an AI work is created, who is considered the author?*” Several answers are possible: is it the original works that were used? Is it the way the algorithm was fed through a selection? Is it the way it was made through the prompt? etc. No one holds the answer due to the complexity of the subject.

### 3.3. Opportunities of AI in the Creative Process for Artists

We learn that “Computational Creativity” (Boden, 2009; Wiggins, 2006) involves the application of the Artificial Intelligence to model of human creativity. Interviews shows that Creative software can be used for autonomous creative tasks where the software acts as a creative collaborator rather than a mere tool.

Indeed, according to Lubart (2005), there is a wide range of approaches to support creativity by means of digital devices. “A creativity support can be considered as a *coach* (gives advice and helps to implement and apply techniques); as a *pen pal* (provides support for collaboration); as a *nanny* (monitors the work’s progress and provides a framework); or as a *colleague* (the computer generates its own ideas and solutions).” AI tools can support artists in 4 different ways depending on what they need:

- “Coach”: when the artist needs advice on whether the idea is “good”. For example, by asking ChatGPT its opinion.
- “Pen pal”: when the artist is looking for a collaborator and ideas generation. The artist and the AI can discuss and collaborate together.
- “Nanny”: The AI tools can act like a “nanny”, keeping an eye on the artist's work, with a follow-up function that provides reminders, for example. This enables the artist's work to be organised efficiently.

- “Colleague”: AI tools can take on the role of 'colleague' as they can autonomously generate ideas, actively contributing to the artist's creative process.

To sum up, interviews have shown that the use of AI in the creative process allows them to devote more time to the more complex aspects of their work and automate repetitive tasks. In term of how AI art tools may be used by artists, they can help with ideation, enable rapid prototyping of concept ideas, etc. They described AI tools as: efficient, precise, and enabling you to take your creativity even further. AI tool can act as a coach, pen pal, nanny or colleague and ultimately improves the artist's work.

Now that we have seen how AI can have an overall impact on artists' creative processes, I identified the role of the AI tool (a coach, pen pal, nany or colleage) for the 5 time-spaces mentioned earlier (AI can take on several roles at once).

### *Parallel Attention*

This Space-Time represents both the inspiration and problematization phase. It is during this phase that the problem is identified. This refers to Walla’s preparation and Osborn’s “data finding” phase.

Artists use AI in the Space-Time of “Parallel Attention” to explore new directions and possibilities for inspiration. Indeed, AI tools such as ChatGPT, MidJourney, and Stable Diffusion assist them in finding inspiration and subsequently generating ideas. For example, ChatGPT can help them discover suitable keywords that will enable them to generate effective "prompts" in MidJourney or Stable Diffusion. While some artists incorporate AI in this phase of inspiration like A D’Oreye, others like M Raucent and B Reibero do not feel the need. At this stage, AI tools can act as a “pen pal” because the artist can discuss with it to get more inspiration by seeing AI images on the different platforms (Midjourney, Stable Diffusion, etc.)

### *Dilated Densification*

It refers to the moment when the artist work on the elements of ideas. We cannot talk about idea because they have not yet emerged. It is also during this phase that the body and senses are activated (touch, earing, sight, voice). This phase refers to Walla’s Incubation.

During this phase, AI has less impact than the previous one. Some artists mentioned that one of their senses are stimulated, but the majority did not discuss the use of an AI tool in this incubation phase. This is the moment when the artists isolate themselves and needs to focus on all elements they have absorbed during the inspiration phase. AI tools are not particularly helpful in this stage; they may accompany the artist, as exemplified by M Raucent, who used an AI-generated playlist to aid concentration.

### *Decanted Distance*

It represents the pause phase that serves as a “reboot” for the creative individual. This is the moment when one does not consciously think about the problem. We understand that the artists do not use AI in this pause phase. It therefore has no impact on this time-space of the creative process.

### *Captured Emergence*

This is the moment when the idea appears. The Space-Time is connected to Walla’s “illumination” and Osborn’s “Idea finding” phase.

It is the space-time where AI has the most impact and influence on the artwork. Artists often use AI tools to help visualize the ideas they have in mind. This provides them with the opportunity to generate additional ideas and explore horizons they had not considered. Indeed, these various AI tools expand their domains of creativity and knowledge. They can go deeper into their imagination and enhance their creative process. AI tools act like as:

- A “colleague” because AI tools can generate ideas and solutions that artists had not thought of.
- A “nanny” because AI tools can supervise the work of the artist.
- A “pen pal” because they can collaborate to generate even more ideas. They'll be able to discuss and bounce off what the other says.

We can observe that the Space-Time of Captured Emergence is the phase where the AI acts in different roles. The AI will have a big impact up until this Time-Space, after which the artist will make very little use of the AI during the innovation phase.

### *Restitutive Expulsion*

It is the moment when we confront our idea with a trusted person. In this case, artists could elaborate their ideas to an IA tool like ChatGPT for example. However, most of interviews showed that they did not use an AI tool to confront their idea. For J Happé, it depends if he needs to show the idea to someone or not, otherwise he stated that the use of AI tool is not necessary in this Space-Time.

### 3.4. The Future of Artists

We learn through the theory and interviews that AI is an incredible tool that can truly enhance the creative process for artists. However, it will never replace the artist. Like any new technological arrival, certain professions will be impacted and may even disappear. When photography appeared, it created new forms of art. Emergence of AI in art gave birth of new artistic movements like GANs and its new form of art: "Prompt Art". However, the robot "Aaron" is not capable of emancipating itself and breaking the "rules" we have taught it. Aaron's creativity is therefore limited and far from that of a human. He can create beautiful images but does not invent something new. To sum up, it's the artist's eye behind the machine that will always count. We will always need to discover the state of the world through the work of the artist who is sending us a message. Even if the robot can make us experience emotions, it will never be able to convey its feelings and its vision of the world. However, it is normal for artists to worry about their future when they see what an AI can generate in the way of work. This leads to another debate about how to distinguish an AI work from a human work. Will people end up preferring what AI produces to what humans produce?

### 3.5. Evaluate the Findings and Theoretical Study

The results of the interviews are broadly in line with the theory. The rise of AI in the art industry is new and will continue to evolve. To date, no one has an exact answer to questions such as "can a robot make art", "will AI one day replace the artist?" or "Does AI really call into question the notions of copyright and originality?" or "Does AI really transform the artist's creative process? Ultimately, everyone has their own vision and way of thinking. This was clearly reflected in our interviews, where points of view sometimes diverged.

## Chapter 4: Limitations and Recommendations for the Future Research

Throughout my research work, three limitations need to be specified and some recommendations will be given for the future research.

First, as already mentioned, I interviewed artists who were interested in exploring and using AI, as well as artists who weren't currently using it but might one day. So, I conducted 8 interviews, including 5 AI artists, 1 expert and 2 non-AI artists. Even though I had reached saturation point, the sample of 8 people may not represent the full range of perspectives within the industry. In addition, my research work focused mainly on the visual arts, and the AI tools used can vary depending on the category of art concerned. Furthermore, art as defined by the artist might be different from art as defined by the buyer.

Next, during the interviews, it was not always easy to enter deeply into the different stages of Véronique Dethier's creative process model. Each artist has their own creative process without necessarily having specific stages in mind. Therefore, we encountered difficulties in asking the right questions and identifying the stages impacted by AI. Sometimes interviewees did not understand questions because they are not aware of the different stages in their creative process. Results are mainly based on Véronique Dethier's model with references to those of Wallas and Osborn. However, there are many other models that we did not explore in detail. For instance, design thinking model can help to highlight the role of the user in the creative process. Or the creative process model according to Runco, which is based on the Wallas model, adds two stages such as communication and validation to improve the creative process. (Patillon. T, 2014).

Ultimately, due to the swift progress of technology, anticipating the future trajectories of AI-generated art and its utilization by companies and artists across diverse creative industries is challenging. Consequently, the conclusions outlined in this research are rooted in the author's individual perspective. Future studies might explore the potential of AI-generated art to generate fresh business prospects, including the establishment of novel art markets or the emergence of innovative art forms.

This final limitation also led to three different recommendations for future research. The first recommendation emphasizes the importance of keeping pace with the rapid evolution of AI and

closely studying changes in legal definitions such as copyright and originality. These definitions will need to be adjusted to better reflect the new forms of artistic expression created by AI.

The second recommendation proposes a more in-depth exploration of economic impacts. While our work has primarily focused on ethical and legal issues, it would be interesting to understand how AI can create new economic opportunities for artists.

The last recommendation concerns the evolution of artistic education. Given that AI will continue to disrupt our society and the artistic sector, its integration into educational programs needs to be strengthened. This involves teaching students how to use AI tools thoughtfully and appropriately. Further exploration of possibilities for collaboration between humans and AI in the creative process without compromising their personal artistic expression is warranted.

## Conclusion

In the rapidly evolving landscape of AI technology, the emergence of AI-generated art fundamentally redefines the notion of “art” in general and the expression of art in particular with the birth of “Prompt Art”. This implies, for the artist, new perspectives in the framework of his creative process.

This (r)evolution of art world explains the interest of this thesis to explore: « *How is Artificial Intelligence transforming the creative process of artists, challenging traditional notions of copyright and originality in the creative and cultural arts sector?* »

In this respect, we observe that AI effectively offers new possibilities in the creative process of the artist such as new medium of thought, expansion of the imaginative power, accessibility to new domains of creativity, generation of creative ideas that were previously inaccessible. AI transforms the creative process of the artist because “art” is built differently. AI acts as a tool that will help the artist during the idea generation and creativity phase, which will then enable him to innovate and produce his work. AI does not create the final product; it intervenes in his creative process, and it will always be needed in the production of his works.

The arrival of AI in the Art world is likely to call into question the notion of copyright. The implications of this new technology divide opinion on this issue. Some artists are calling for the introduction of more legal rules to protect their works from copyright. Others see AI as a new technology that draws inspiration from the works of artists found on the internet, just as humans do with the work of others. However, the notion of originality should not be called into question because AI does not create anything original, just a copy that mixes existing images, styles, and techniques.

The question of whether a robot can create art remains unanswered. Most would say no, but again it all depends on how you define art. The new category of “Prompt Art” may lead artists to ask questions about their future. The difficulty of distinguishing an AI work from a human work opens the door to another question: “Will the “AI work” one day be preferred to the human work?” What is certain is that the role of the artist is currently essential, and AI cannot replace him. It is up to human beings to keep control and not give the machine what sets us apart: Emotional Intelligence.

## Bibliography

ArThuy. (2021, 9 novembre). La créativité et l'art. <https://arthuy.lu/blog/la-creativite-et-lart/>

Bedford, J. (2016). Artificial Intelligence in Art.

Zellous. [https://www.academia.edu/30297492/ARTIFICIAL\\_INTELLIGENCE\\_IN\\_ART](https://www.academia.edu/30297492/ARTIFICIAL_INTELLIGENCE_IN_ART)

Beelen, A., Dambly, P. (2023). R(é)volution de l'intelligence artificielle. Anthemis, 1-406.

Bibliothèques de l'Académie de Louvain. (2020). *Le droit d'auteur*.

[https://www.usaintlouis.be/infosphere/fichiers\\_commun/module7/droit\\_auteur.html](https://www.usaintlouis.be/infosphere/fichiers_commun/module7/droit_auteur.html)

Brem, A., Puente-Díaz, R., & Agogué, M. (2017). *Creativity and Innovation: State of the art and future perspectives for research*. In Series on technology Management, 1-12.

[https://doi.org/10.1142/9781786342010\\_0001](https://doi.org/10.1142/9781786342010_0001)

Braun, V., & Clarke, V. (2012). *Thematic analysis*. In American Psychological Association eBooks, 57-71. <https://doi.org/10.1037/13620-004>

Broecke, S. (2023). *Intelligence artificielle et marché: introduction*. In OECD ILibrary.

<https://www.oecd-ilibrary.org/sites/dd8897f0->

<fr/index.html?itemId=/content/component/dd8897f0->

<fr#:~:text=L%27OCDE%20d%C3%A9finit%20l%27IA,d%C3%A9cisions%20influent%20sur%20l%27environnement.>

Brun, A. (2011). Repères pour une évaluation de la créativité. *Gerontology and society*, 34 / n° 137(2), 49-65. <https://doi.org/10.3917/g.s.137.0049>

Cahen, M. (s. d.). *Avocat en ligne*. Avocat

Paris. <https://www.muriellecahen.com/publications/originalite-oeuvre.asp>

CNAP - Centre national des arts plastiques. (2023). *Le droit d'auteur*.

*Cnap*. <https://www.cnap.fr/ressource-professionnelle/droit->

[dauteur#:~:text=Il%20permet%20%C3%A0%20l%27auteur,plastiques\)%20et%20droit%20de%20repr%C3%A9sentation](dauteur#:~:text=Il%20permet%20%C3%A0%20l%27auteur,plastiques)%20et%20droit%20de%20repr%C3%A9sentation)

Clavie, A. (2023, 17 mars). *L'impact de l'intelligence artificielle sur l'art - Amanni*. Amanni. <https://amanni.fr/2023/03/27/impact-intelligence-artificielle-art/>

Compeers, T. (2018). *Mémoire de fin d'études : "Le processus de conception créatif : origines, influences, modèles"*.

<https://matheo.uliege.be/bitstream/2268.2/7394/4/TFEFINAL.pdf>

Council of Europe. (s. d.). *History of Artificial intelligence - Artificial intelligence*. <https://www.coe.int/en/web/artificial-intelligence/history-of-ai>

Creative Education Foundation. (s. d.). *What is CPS?*

<https://www.creativeeducationfoundation.org/what-is-cps/>

De Mántaras, R. L. (2017.). *Artificial Intelligence and the Arts: Toward Computational Creativity*. OpenMind. <https://www.bbvaopenmind.com/en/articles/artificial-intelligence-and-the-arts-toward-computational-creativity/>

Dethier, V. (2022). *L'expérience spatio-temporelle de la créativité*. Doctoral thesis. University of Namur.

Doherty, S. J. (2019). *Art in the age of artificial intelligence*. *Érudit*. (30-41).

<https://id.erudit.org/iderudit/91455ac>

Drzewinski, C. (2023, 1 février). *Intelligence artificielle : les craintes et réactions du monde de l'art*. RTBF. <https://www.rtbf.be/article/intelligence-artificielle-les-craintes-et-reactions-du-monde-de-l-art-11145284>

Etudes. (2012). *Originalité*, 416, 663-672. <https://doi.org/10.3917/etu.4165.0663>

European Commission. (s. d.). *Cultural and creative sectors*.

<https://culture.ec.europa.eu/cultural-and-creative-sectors/cultural-and-creative-sectors#:~:text=Cultural%20and%20creative%20sectors%20are%20important%20for%20ensuring%20the%20continued,they%20generate%20considerable%20economic%20wealth>

European Parliament. (2020). *What is artificial intelligence and how is it used?*

<https://www.europarl.europa.eu/news/en/headlines/society/20200827STO85804/what-is-artificial-intelligence-and-how-is-it-used>

Filiod, J. P. (2011). Au-delà de l'art : créativité et expérience esthétique.

*Gerontology and society*, 34 / n° 137(2), 37-48. <https://doi.org/10.3917/g.s.137.0037>

Gabriel, A., Monticolo, D., Camargo, M., & Bourgault, M. (2016). *Creativity Support Systems: A Systematic mapping study Thinking Skills and Creativity*, 109-122.  
<http://dx.doi.org/10.1016/j.tsc.2016.05.009>

Garbarg-Chenon, M. (2021, 9 décembre). “The Next Rembrandt” : L'IA peut-elle créer des œuvres d'Art ? Medium. <https://medium.com/@mathieu.garbargchenon/the-next-rembrandt-lia-peut-elle-cr%C3%A9er-des-%C5%93uvres-d-art-3927873eb1fc>

Georges, B. (2019). *Intelligence artificielle : de quoi parle-t-on ?* Constructif, 54, 5-10. <https://doi.org/10.3917/const.054.0005>

Guest, G., Namey, E., & Chen, M. (2020). *A simple method to assess and report thematic saturation in qualitative research*. *PLOS ONE*, 15(5), e0232076. <https://doi.org/10.1371/journal.pone.0232076>

Gilbert, M. (2022). Introduction à l'éthique de l'IA : Manuel du cours de Martin Gibert. University of Montreal.

Gintz, C. (2012). *Créativité*. In Association de Recherche en Soins Infirmiers. *eBooks*, 135-138. <https://doi.org/10.3917/arsi.forma.2012.01.0135>

Harrington, D. M. (2018). On the usefulness of “Value” in the definition of creativity: a commentary. *Creativity Research Journal*, 30 (1), 118-121.  
<https://doi.org/10.1080/10400419.2018.1411432>

Hausman, C. R. (1985). Originality as a criterion of creativity. In BRILL eBooks (p. 26-41). [https://doi.org/10.1163/9789004455511\\_005](https://doi.org/10.1163/9789004455511_005)

Jovanic, M. (2020). *The originality requirement in EU and U.S., different approaches and implementation in practice*. Thesis.  
<https://ecta.org/ECTA/documents/MinaJovanovic3rdStudentAward202012149.pdf>

Kohn, L., Christiaens, W. (2014). *Les méthodes de recherches qualitatives dans la recherche en soins de santé : apports et croyances*. In Reflets et perspectives de la vie économique, 67 à 82. <https://www.cairn.info/revue-reflets-et-perspectives-de-la-vie-economique-2014-4-page-67.htm>

Le Club Influence de l'ECE. (2021-2022). Intelligence Artificielle : les normes comme outil d'influence.

Lieutaud, A. (2013, 19 juin). Processus créatif et mutation de paradigme chez le chercheur, 2-20. <https://hal.science/hal-00914381>

Lubart, T., Mouchiroud, C., Tordjman, S. & Zenasni, F. (2015). *Chapitre 6 : Le processus créatif*. In Psychology of creativity, (111 à 128). <https://www.cairn.info/psychologiede-la-creativite--9782200611620-page-111.htm#:~:text=1%20La%20notion%20de,cours%20des%20cinquante%20dernieres%20années>

Mazzone, M., & Elgammal, A. (2019). *Art, creativity, and the potential of artificial intelligence*. *Arts*, 8(1), 26. <https://doi.org/10.3390/arts8010026>

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Wiley.

OPOCE. (s. d.). *EUR-LEX - 32001L0029 - EN*. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32001L0029>

Qochairi, N. E. (2022, 3 juin). *The creative economy: a key driver of economic growth*. *Medium*. <https://medium.com/@nassim.elqochairi/the-creative-economy-a-key-driver-of-economic-growth-c9a82267abb7>

Runco, M. A., & Jaeger, G. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92-96. <https://doi.org/10.1080/10400419.2012.650092>

Schaeffer, J. (1997). Originalité et expression de soi. *Communications*, 64 (1), 89-115. <https://doi.org/10.3406/comm.1997.1974>

Standing Committee of the One Hundred Year study of Artificial Intelligence (2016). Artificial Intelligence and life in 2030. Stanford University. <https://ai100.stanford.edu>.

Van Broekhoven, K., Cropley, D. H., & Seegers, P. (2020). *Differences in creativity across art and STEM students: We are more alike than unlike*. *Thinking Skills and Creativity*, 38, 100707. <https://doi.org/10.1016/j.tsc.2020.100707>

## Appendices

### Appendix 1: Analysis table of Creative Process Model of Véronique Dethier

<b>Dimensions of “Space-Time” of the Creative Process</b>	<b>Parallel Attention</b>	<b>Dilated Densification</b>	<b>Decanted Distance</b>	<b>Captured Emergence</b>	<b>Restitutive Expulsive</b>
<b>Questions asked</b>	<i>“Do you use an AI tool during your inspiration phase?”</i>	<i>“Are one or more of your senses stimulated when you use an AI tool?”</i> <i>“Do you feel emotions when you use AI?”</i>	<i>“When you are on your creative pause, do you use an AI tool?”</i>	<i>“What do you when a sudden idea appears?”</i>	<i>“Have you ever challenged your idea to an IA?”</i>
<b>Brief description of the “Space-Time”</b>	Represents both the inspiration and problematization phase.	This is the moment when we work on the elements of ideas. Body and senses are activated (touch, hearing, sight, voice, etc.)	This is the pause phase that serves as a "reboot" for the creative individual.	This represents the moment when the idea appears.	This is the moment when we confront our idea with a trusted person.
<b>Key words that help us to recognize in which dimension of Space-time we are</b>	Tools like ChatGPT, Stable Diffusion or Midjourney for inspiration.	Brainstorming, hearing, sight, feel surprised.	AI does not intervene in this dimension.	-AI help to visualize the idea -Tools like ChatGPT, Stable Diffusion or Midjourney help to generate other ideas.	ChatGPT to challenge if the idea is good.

Appendix 2 : Zoetrope project (Brice Le Blévenec)



Appendix 3: “The Next Rembrandt” in the Netherlands



## Appendix 4: Interview guideline

### Introduction phase

1. Can you introduce yourself (your art, how long you've been an artist, etc.)?
2. In your opinion, what is the main difference between creativity and art? Between being creative and being artistic?
3. In recent years, artificial intelligence has had an impact on many fields. To what extent do you feel concerned by AI?
4. In your opinion, can a robot make art?

### Centring phase

5. AI raises a lot of questions, particularly about copyright, intellectual property and originality. What are your thoughts on this?
6. What challenges do you see arising from the increasing use of AI in your artistic practice?
7. Do you identify legal and ethical challenges? increased competition? but also opportunities linked to creativity? Opportunities in terms of marketing your art?
8. What different AI tools do you use?

### In-depth phase

9. Tell me about your creative process? What is your process like when you are looking for ideas?
10. How does AI impact your creative process overall?
11. During your inspiration phase, do you use an AI tool? Does AI come into play when you are in the problematisation phase?
12. When you use AI, are one or more of your senses stimulated? Are emotions involved in your process with AI?
13. When you are on a "break", do you use an AI tool?
14. When you have a sudden idea, do you use an AI tool? For example, do you use an AI tool to help you visualise the idea?
15. Once you have your idea and want to test it, do you use AI? For example, do you ask ChatGPT if your idea is a good one?
16. If you don't use one or you're against using one, what are your reasons?

## Appendix 5: Interviews

### Interview with Anouchka D'Oreye (13 November 2023)

#### *1. Can you introduce yourself?*

My name is Anouchka and I've been working as a freelance graphic designer for two months now, and I've been doing art for a very long time. Basically, I started with a preparatory year where I dabbled in a bit of everything to get into the Beaux-Arts, where I didn't yet know which section to go into, so I discovered painting, film photography, sculpture, in short, a bit of everything. In the end, I did a year of film photography at the Beaux Arts. So, I would still describe my job as artistic, but more creative. I chose the graphic design option because that's where the demand is greatest.

#### *2. Are you still exploring a lot of different areas in the art world?*

Yes, that's it. As I was saying, my current job is more creative than artistic. So really anything that involves digital creation. But it's often linked to advertising, so it's for brands or independent clients. And then alongside that, I've kept painting and photography. Photography, I'd say, is more recreational for me than artistic and painting, on the other hand, is more artistic, like I do more realistic paintings or, from time to time, it might just be illustrations that are a bit more abstract but, in any case, I still look at this artistic thing as a hobby on the side.

#### *3. You talk about your job being more creative than artistic. What's the big difference for you?*

For me the difference is that, from my point of view, the artistic is an outlet for feelings/emotions to be felt by the spectator through artistic mediums such as painting/sculpture/performances/etc... without necessarily an advertising purpose behind it. Creativity, on the other hand, can be associated with any activity: it's present in an artistic activity but can also be present in a very corporate activity such as brainstorming for a large company etc...

4. *Do you feel affected by artificial intelligence, both professionally and privately? How do you feel about it?*

In both cases, artificial intelligence has taken over. At the beginning, I was a bit afraid that my job was going to disappear, that the creative process was going to lose its reflexion and that everything would be automatable.

5. *You mentioned the creative process. How has artificial intelligence impacted and transformed it?*

I use artificial intelligence a lot as a tool, for example CHATGPT, I use it to create painting drafts, I also often use MidJourney or even Photoshop. For example, I rework an image that already exists, I remove what I don't want. And then, with AI, I add objects that really match the light. This allows me to either take the photo myself, paint some sort of scene and choose the objects myself, go through the process of finding a nice light and really create everything from start to finish. Or I can use IA, which makes my job a lot easier and ultimately allows me to create things that are a lot more abstract too. In the end, it's a really powerful tool. I think that's a positive thing at the moment. And then for anything design-related, it will be more to help me, to get references for something I need but that doesn't exist on the internet.

6. *Overall, you often use artificial intelligence in the various stages of the creative process. What other tools do you use, such as Midjourney?*

I don't really use many of them, MidJourney is really brand new, it's only been around for a few weeks. ChatGPT, I think everyone uses it, but it's a very, very good tool. And then in the Adobe suite they've implemented artificial intelligence with versions called beta version and so Photoshop beta. And now Illustrator BTA has also just launched something that generates illustrations if you describe something, so I haven't used that yet, but overall it's still Photoshop beta, MidJourney and ChatGPT.

7. *How long have you been using AI in your art?*

It's been six months-seven months, I'd say.

8. *Were you a bit reluctant at first? How did you start using it?*

But in fact, even at the beginning, I didn't really want to get involved. It scared me more than anything else. And then I thought it would completely destroy the authenticity of the creative

process and that it was too easy. In fact, it annoyed me when people used it because I thought it really broke the traditional side of things and, given that it's inspired by lots of different things that exist, it doesn't really deal with the artist's intellectual side. And so I had a bit of trouble with this thing of stealing an image and that's why I use it for draft purposes and never for final purposes, like I'm never going to take a MidJourney thing and be like, I did that. Anyway, I really use these tools as references and it's great for generating other ideas. Because really, whatever's in your head, you can describe a scene that doesn't exist at all.

*9. How does AI affect your creative process overall?*

The AI can provide support in imagining ideas and how they might be realised. It doesn't have a major impact on my creative process, but it can be a tool to be used sparingly.

*10. When you use AI, are one or more of your senses stimulated? Are emotions involved in your process with AI?*

Personally, I don't think emotions come into play because it automates everything, it's more of a passive process.

*11. Do you use an AI tool when you're on 'break'?*

No, I don't use any.

*12. When you have a sudden idea, do you use an AI tool?*

Yes! Midjourney is a great way to visualise an idea and see how it can be implemented in different ways.

*13. Once you have your idea and you want to test it, do you use an AI? For example, ask ChatGPT if your idea is any good?*

Not especially

*14. In the end, do you see AI more as a tool to help you create than as the ultimate goal of your art?*

Yes, that's right. But then I think there are artists who specialise in AI. And that's their style. But I don't think it's a good idea to turn it into a final product. But afterwards, if it's for putting

together creations. So the concept is original. I think it's great. But what about turning it into something commercial? I don't even know if it's really legal. I don't really know, but I think it's a great tool in any case. It gives you lots of possibilities, but it can also make you lazy. That's what scares me the most, but apart from that, it's a positive thing.

*15. Do you fear that one day artists will be replaced by artificial intelligence? Or are you still confident in the idea that a machine can never replace authentic human work?*

Yes, I don't think it will ever replace it. I mean, even if it did, people still need that human-to-human contact and to know that it's a robot that's designed or painted or done something artistic. I think that appeals to a part of the population but not to the majority. I don't think we need to risk losing our jobs either. After that, we can be replaced for the sake of convenience and budget. That may happen in some companies, but there are still many that work in the traditional way, so it doesn't scare me any more than that.

*16. Are there any artists among your contacts who really don't want to use AI? Or do you work in a field where people are a bit like you and are intrigued to use AI tools?*

In graphic design, you don't have the choice of testing, you really have to be on the lookout for everything that comes out in terms of new developments and new technologies to implement them in your work because at the end of the day, they're often tools to help you go faster. In my field, everyone uses it and everyone knows how to use it in the right way, whether it's for moodboards, to show clients or to give them inspiration or, for example, like me, to have the right scenes to be able to redraw over. In any case, I think everyone uses it in my field, but if you go and see the artists who are more painters, etc., I don't think they want to hear too much about it.

*17. Do you think that older people are more reticent about using AI?*

Yes, I think that if you're in your sixties, people don't even want to try to use it. So much the better, they keep something that's very traditional but which is perhaps a little restricted. I think that what surprises me about AI is that, for example, with MidJourney I write a scene and I come up with a really great result. And in fact, it gives me other ideas. It generates lots of ideas for me and that's what I think is great too, because it's a tool for bouncing back creatively. In the end, on the one hand, you have to be careful because it can make you lazy because you have less work to do on your own, but on the other hand, I think it's also a gym where it generates

ideas, textures, colours and light. In any case, I can also see the positive side, but I don't really think that older people use it. All in all, it's clear that we're in a generation that's jumping on the bandwagon. You have to look at it in the same way as the arrival of the Internet, which was also the subject of debate. AI really needs to be seen as a tool available to us that we need to explore.

*18. Artificial intelligence raises a lot of questions about copyright and intellectual property.*

*What do you think? Are you worried that other artists will be inspired by your work?*

I don't think I'd be too scared of it because I think it's really a mixture of lots and lots of different things, depending on the light and the subject. I think it's inspired, but it's never going to be copied one hundred per cent. In the end, I've already seen graphic design work copied in quotes. But I tell myself that everything exists on the Internet and that I'm not the only one to have used colours like that, tipos like that and that yes, the resemblance in itself is very blatant. But I mean, it happens. In fact, from the moment you expose yourself on the Internet with your work, it's a bit of a risk you have to take. On the other hand, I'd be more annoyed if humans saw my work copied or really inspired rather than an AI that's made a mixture of things that look a bit like what I do. So I'm not really worried about it.

*19. Aren't these issues holding you back in your use of AI?*

I think that people who work a lot with AI and who therefore create their work using AI, would be more worried about being copied because people who use AI would work in much the same way. So that would be more risky for them. And as for me, if I only use it as part of a draft, there's no risk at all. There's still the human paste on my work that I don't have. I don't think I run any risk of being copied.

*20. If I summarize correctly, you use AI a lot, but mainly in the idea generation phase?*

Yes, exactly. Especially in the case of brainstorming and references to generate other ideas, but it will never be my finished product.

*21. Has your work evolved since you started using AI?*

An evolution, I don't think, but other ideas, well, in fact, it's an evolution in the way I think, telling myself that I have an extra tool that opens up more possibilities. Before, I might have felt restricted in terms of my abilities or skills. Now, thanks to AI, if I ever feel like imagining

a crab flying on the Moon. I ask the MidJourney to do it for me and then I can think about all sorts of things. Well, it's opened up a lot of possibilities. So I think that the evolution is there in the sense that there are fewer restrictions and as a result creativity can continue to exist or evolve even more. I also ask ChatGPT a lot of questions about programmes that are much more technical, like 'After Reflex' for example, which is an animation programme, so it's much more technical. So if I have a question, instead of going to YouTube and not finding the answer, I can ask ChatGPT, which will redirect me to super clear explanations. And that's something I don't implement at all because I forget it exists. I mean, I know it exists, but I'm saying that I can ask him really random questions like that, rather than help him write an email, or ask him questions about how to do this or that. And in fact, it's still going to work and I don't implement it automatically. It's once a month, I remind myself that, in fact, I can just as easily use it rather than searching the Internet for a thousand years. It's not always automatic for me to use AI.

*22. Wasn't it too hard to start using AI on your own and feel lost with all the tools at your disposal?*

It was fine, I just felt a bit overwhelmed by the idea that the more tools we give to people who don't really have any academic or university skills, the more it devalues the profession. I cut back my years of study and really compacted my studies, but I ended up doing three years, so a baccalauréat in two years and a master's in one year. There are ways of doing evening classes and private lessons for graphic design. Basically, it's like being a photographer, you need a diploma to be able to do it. Already with YouTube tutorials, anyone can be a graphic designer and now with AI, what's worse is that really anyone can create digital content that will be considered a graphic work when in fact it's demoralising, there are people who have really studied for years and it still requires some basic rules to be followed, etc. I think it's the same thing with the Internet. I think it's the same for any kind of art. It's a bit demeaning for the profession to see people practising without any of the rules we've been given.

*23. Do you think that 'fake artists' could blend in with 'real artists'?*

Yes, just like Canva, in the end it's created to simplify design for people, but in fact it devalues our profession but it's never going to replace it because everything that's done on Canva is practical but it shows that it's done on Canva and that it doesn't have that personal thing where it follows trends and so it shows that it's not done by 'customate'. Basically, it won't replace real designers. In the end, on the one hand it's a really positive tool and it really helps us.

And on the other hand, I find it extremely problematic because there have even been recent controversies about the Adobe suite, all the design programmes, creating images with AI about the war in Palestine and selling them to journalists. So these are false images of war and I think it's getting a bit out of hand. It's supposed to be a tool for creativity or a support that's positive and encourages evolution, but in fact we've ended up with something that can generate money from false information. It's like all the images that have been made, like the Pope in a down jacket, it's really funny but if you don't have any common sense, you can believe anything that comes along. We're entering an era of false information. The scariest thing about AI is knowing what's real and what's not. I think we need to remain confident about the future of AI and not be too afraid of it.

And here's a little anecdote: the big boss of the agency, Thierry Bruneau, he took the piss out of people who were saying that artificial intelligence was going to replace designers because he said that for AI to replace them, you'd have to know what the client wanted in the first place, and that's really the joke between all designers, that clients never know what they want and so they don't know what to ask, they don't know. In fact, it's true that if customers wanted to create their own design, they should know what they want in the end. You have to be creative to know how to use it too.

*24. How can you tell the difference between the "artists" who are strong in the generation of prompts on MidJourney, for example, and the "real" artists?*

I think it's actually created a new category of artists who are really AI artists because I came across accounts on Insta with people who were making art with AI and it was really beautiful. I saw some magnificent creations that really impressed me and when I saw that they were made with AI, I said to myself that when I explore MidJourney, I don't come up with creations that are so unrealistic and with beautiful light and in reality it's super complicated to generate images. They've created a new profession of professional AI.

*25. Do you feel you're facing competition in your profession with the arrival of AI?*

I feel I'm competing with people who don't have a diploma and who come out of nowhere and manage to do things that are ultimately great because you have to know how to manipulate AI, which is also a talent in itself. I feel I'm competing more with people who are hyper-traditional and, well, traditional, who still work on the computer and so on. But I mean who have their

own ideas, their own style. I find that much stronger than someone who's going to use AI. So I don't feel threatened by AI or the use of AI, because I think everyone has their own style.

*26. To what extent can AI replace artists?*

It won't replace artists, but it can help art evolve into something more passive, that doesn't require special skills... It can fool people, and that's where the 'danger' of new technologies lies. Someone could completely pass themselves off as a professional photographer, for example, by generating images without ever having touched a camera.

*27. What would you like to share in closing?*

I don't think we should be afraid of AI, but we should remain aware of new technologies and use them as a tool rather than relying on them and becoming passive in the face of our creativity.

Meeting with John de Radigues (20 November 2023) in his workshop in Uccle:

1. *Thank you for taking the time to answer my questions. Can you introduce yourself?*

*What does your art consist of and how long have you been an artist?*

My name is John de Radigues, I'm twenty-four and I've been painting for a year and a half, two years now, and I think I've always been passionate about it. What I'm trying to put across in my creations is the idea of perspectivism. And so it's this idea that to get closer to the truth, you have to take several different points of view and put them together. It's only by considering a range of possibilities and perspectives that we can get closer to the truth with a capital V. And that's what I try to achieve in my work. And so before it was perhaps a little less so. But this way you can see how I've evolved. (he shows me his creations)

It was perhaps a little less direct because I used all different colours. But the idea, you see, is that each cube is exactly the same. You have a repetition of colours, you have six colours. But each cube is unique and different because it's arranged in a different way. The colours are also applied differently to the cubes, so there's no repetition. And yet it's the same shape every time. And it's when you look at it and see the mix that you get closer to the truth. It's an ode to considering several options.

2. *How did you come up with the idea for the cubes?*

So, for me, the first thing about art, and what moves me in a work of art, is the aesthetic side, but not only that. I like it when there's a concept behind it, and it's when there's a real balance between the two that it moves me, because it's obviously personal to each person.

In this case, there's a real connection that's created with a work. It's that side where you say waah already visually, I like it. And on top of that, what's behind it is powerful, it speaks to me. It's this whole thing that makes me, I'm touched by what I see and that's what I love about art and that's what I try to recreate with my work. So typically, as I was saying earlier, you see twenty-five different blues to talk about blue, thirty-five different greys to talk about grey and you can't isolate one to talk about grey. You can't say I know about grey and talk about just that one grey. It's only by taking at least these thirty-five that you say to yourself OK, we can start talking about what is grey. It's this exercise of showing and wanting to share this perspectivism which is the opposite of polarisation. Polarisation means that nobody listens to each other and everyone is in their own truth. Here, if you want to get a good overview, it's really important to

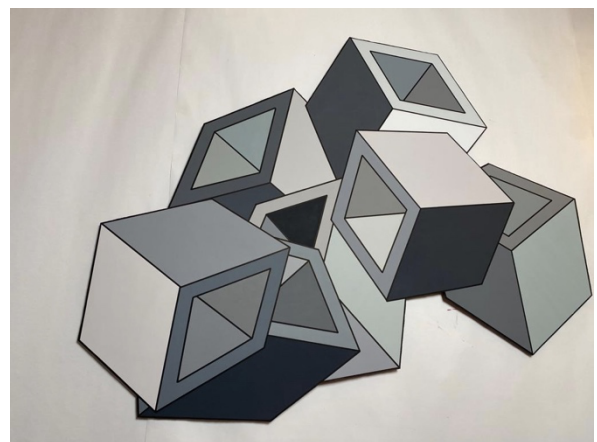
at least consider other ways of seeing things. That's what I'm trying to do as easily as possible, using simple principles like colours and shapes. The cube.

Why the cube? Because the cube is a shape that everyone understands. It's universal, in fact. Someone in the middle of a Pacific island or someone in Belgium knows what a cube is. You're going to talk to them about a, well maybe the iPhone nowadays it's all too well known. For example, lipstick only concerns a certain segment of the population, whereas a cube is universal and everyone can imagine it.

And what I also really like is that my art is also timeless in a way, and what I mean by that is that perspectivism, that desire to look at things from several perspectives, means that a guy three thousand years ago would have been able to understand it and a guy three thousand years from now will be able to understand it. For me, that's what's important. We could understand a cube three thousand years ago. A cube three thousand years from now, we'll be able to understand it. A formula one a thousand years ago, we couldn't understand a formula one when it may be flying cars, we'll say what's that? You see what I mean?

While the cube will remain, I think. And perspectivism too, because the exercise of taking several points of view. It applies very well to a native living in isolation in his tribe back home. So, for me these are powerful things and that's what I want to emphasize too.

Pictures of the work of John:



3. What do you think is the main difference between creativity and art? Between being creative and being artistic?

I have the impression that to reach an artistic stage, you have to go through the creative process, then does everything you do in terms of creativity end up as a work of art? For me, to get to art, you have to go through creativity, but to get to creativity, you don't really go through art. Creativity for me is the desire to express yourself in a certain way, maybe a bit different, and whether it's with paintings, which is what I do, or with music, whatever it is, it's very, very broad.

4. *Over the last few years, artificial intelligence has had an impact on a wide range of fields. To what extent do you feel concerned by AI?*

For me, if I had to compare AI, it's like when photography emerged. You see, before art, it was really the most accurate representation of reality. That's why you see in these old paintings that there's not much abstract. There are a few abstract concepts like we're representing God or we're going to do things that don't exist in reality. But you rarely see a guy who's going to start doing something abstract. It's really because photography came along that abstract art came along. For me, when photography arrived, some people said it was the death of art, but for me, it wasn't the death of art, it was a new object and it was the artist behind this object who remained at the origin of all creation. Well, time has shown us that it wasn't the death of art at all, on the contrary, it opened up a whole new world of possibilities. I'm more inclined to believe that AI is going to be in that too. It's the artist's eye behind the software. You see, I think it's the way we use it that remains.

5. *Do you use AI in your work?*

I experimented with it because it's stuff that's so topical. If I've experimented with them, it's just because I want to keep up with what's going on and understand what's going on. But that's not what I'm using, but maybe in the future but not for the moment.

6. *Are you afraid of the future with the arrival of AI as an artist? Afraid of being copied, for example?*

I've got some NFTs on the internet but I'm not afraid of AI, in fact I'm fascinated by it. All the hyperrealism it opens up, now you can create a guy who looks super humanoid when he's

actually some kind of Alien with pipes everywhere. I mean, it's crazy stuff. You see, like I find it, you think wow! But it's also not easy to create works with AI. You have software like Blender, but it's really hard to use. I've already tried to create 3D sculptures with it, but digitally it's a crazy thing. It's a really crazy art too. It's oil painting, it's very technical. But knowing how to manage something like that, I think it's going to create other artistic professions. Let's say that those in music, who use this kind of creator for their clips, for you know everything in films and everything already, you know, it's a crazy art, eh, everything that's behind it, it's just that now, I think, it's spreading a bit more with everything that's happening.

7. *You told me that for the moment you don't use AI in your creative process. I've already spoken to a few artists who told me that they use AI more in the generation of ideas than in the final realization of the project, what do you think?*

I don't use it much on this project but I have other projects where I think that could be interesting. Honestly, I see a lot of potential and rather than being afraid of it, I welcome it. But I'm not too worried about art falling apart because of that. If there's one thing that's always been timeless, and you go back to prehistoric times, it was already art. It's something we've always had and it's survived the test of time. The iPhone may not last as long as our tshirt, it doesn't last as long.

8. *So what do you think of artists who claim to be artists simply by using AI tools when they have no real training?*

Ah, but that's what's good, I think it's good because I haven't studied yet, so obviously I can't say otherwise, but the aim of art isn't just to be an academy. For me, art is open, it's all about creativity. You have to know how to adapt. And the schools? Well, of course they're going to flip in the face of that, that's logical. They're not going to say 'Yes', because then that means their whole existence is called into question and they're going to tell me it's not art because it's not in their interest. There's also a game, I think of interest, but obviously it's creation. In fact, it all depends on whether it's art or not. That's always the question. But you can question everything. But it's true that compared to a classic career path, which is, I studied, I went to art school, I did three years, I did my master's, then after that I went into residency and in fact all that, these are somewhat classic indicators. It's a way of industrializing the art process. Because the artist has gone through this, it's a certain certification, which means that in fact you, as the buyer, have to do more of the work of: Is this guy good or not, because he's been in good houses,

you see, so it depends what kind of buyer you want to be too. I think you have to be a buyer from the heart, but there are those who invest, and it's true that for those who see it as a pure investment, well, the fact that it goes through a big gallery, to quote a huge one like White Cube, an artist who goes there, obviously for a buyer, you say to yourself Ah well, if this guy is here, he must be good. In any case, it's a value, that's all. So there's a lot of that. And that's where you have to be careful because it also channels a lot of what art is and your creativity. So you have to fall into line with them in a certain way, but is that what you want to generate as an artist? Now, it's up to each artist to be clever enough and go their own way, trying to share as much of what they do as possible so that it can be heard. And for me, that's how it all starts?

*9. The problem is differentiating between works generated by AI and 100% by humans, what do you think?*

It's probably going to get harder and harder. The problem of authenticity and all that. For the moment, we're not yet at the point where we're going to be able to differentiate.

What I wanted to understand when you had the emergence of the NFT and this rage for digital creation. Before that, nobody had heard of it. Even though it existed, we just didn't hear about it. And then these NFTs came along and made all this crazy noise and I was like, yeah, OK, but where's it going? There was so much money and everything. But where was it going? I'd been exhibiting NFTs in Dubai, stuff that's completely fucked up, it doesn't make any sense anywhere, but I wanted to do it. I thought it was completely crazy. I was asking questions and I realised that people's long-term vision of digital creation is that everything will make sense and fit together as soon as we all have glasses, and that's what people are hoping for, I don't know, but in a way that's what's being projected. And the funny thing is that this has now been confirmed to some extent by Apple with their goggles, which they've unleashed in hyper-reality mode. Once everyone has adopted one of these augmented reality glasses, as everyone has done with an iPhone, then it makes sense, because through these glasses you could very well see digital creations on the walls of houses, for example, because today, with our biological lenses, we can't see them. But if you have a digital lens on your glasses, then you can see in augmented reality a work that you've bought. Today, we don't know how to project ourselves into this, but if we adopt augmented reality glasses as much as iPhones or smartphones, then there's a market in which there's digital art that we can no longer see with the naked eye. In any case, what's certain is that we don't know if it's going to happen, but we're getting closer to it than we are

away from it. Things are moving so fast that, for me, if there's a future, it's here, it's from this angle and I can't see it any other way.

*10. How do you find out about AI and its evolution as an artist?*

It's a mess, it's a jungle, there's no school, it's really new for everyone. It was a bit like when the NFT came out. You had curricula for everything and anything. I saw guys who did anything and sold anything. It was mind-boggling. So it's a bit the same thing, as soon as you have a new market, that's when there are no standards yet. There aren't yet people who have made a name for themselves and who have a reputation. Some people are going in every possible direction to try and establish themselves. So you can see some very good, qualitative stuff.

*11. For example, in the case of NFTs, how did you learn?*

I used Procreate and, in my case, I also used Adobe to some extent. Those were the two I used. So how does an NFT work? The idea was that if you had a Twitter community, I'm sorry, but you had a good community, that represented a certain credibility and so everything happened via Twitter. It's a bit like your reputation on Twitter was worth as much. It was thanks to that as an artist that you could sell your work at such and such a price.

If you were a nobody from nowhere, it was no good if you had X number of followers it worked. So that's more or less how NFT was sold. Now in AI I'm not really an expert but in any case for NFT it was your notoriety online that was really it.

*12. In the end, do you see AI more as an opportunity than a threat?*

In other words, it's an opportunity for all creators, it's so great, there's still so much to create in this thing. If you see, typically, I'm painting, well everyone knows what I'm doing and it's more complicated to stand out. I mean, it's not that it's easier in one or the other, but I mean it's already known Revue, revue, revue so it's not the same thing at all.

*13. The day you start using AI more in your work, would it be more like a source of inspiration?*

The day I use it will be mainly to visualise ideas. Typically, instead of making models or whatever, you type in what you want, you type in your idea and you try to see what it might look like and how it could be done. I'm quite clear that if you want to make a sculpture, you're going to use a mould or I don't know how you'd like to make your sculpture. But here you're

saying, here in this medium, I'd like to have something that looks like this. There are ways of being more precise. You'll have a visual, whereas if you're going to have this visual without the AI, either you're really good at blender and you can do it yourself in 3D, or you can do it physically, but in fact all the people who aren't very tech-savvy are also really good at it.

The AI tool, I think it's a lot simpler than NFT for example. The funny thing was that I was trying to understand a bit. I'd read a book on NFT, so it was already funny because there's no point in having a book and blockchain and a book, because in fact when we talk about NFT, the reality is that we're talking about blockchain technology, which is something else again. For me, AI is much easier to understand than NFT in the sense that anyone can use it easily. When I see ChatGPT, anyone can use it, it's easier to ask ChatGPT a question than to do a Google search, it's userfriendly. That's what's so confusing and what's so scary about all the jobs where it's normal, it affects everyone. Imagine you've spent fifty years of your life specialising in something and now you've got an AI coming along, obviously you're not going to welcome it with open arms, it's logical. Soon we'll be seeing "not written by AI".

In fact, the beauty of it is that we can now really make an effort not to use AI, because there are some who use it willy-nilly and for everything, and so I find it touching to know.

#### *14. Do you think this will lead to a lazy society?*

Ah, but every time I think about it, it makes me think that all the creators of big stuff like this have worked themselves to death to create software and one of the first things they say afterwards is Oh, I should never have done that. As an aside to all that, just for all the changes we're going through, I think we're going through a sick period. When you think about it, the whole Middle Ages was a bit like that. The life you were living was the same as your grandfather's, who had lived his grandfather's life. Here, our grandfather had a completely different life, a different world. Our great-grandparents lived through electricity. For the past hundred years, we've been living lives of sickness and nothing, and it's incredible to witness all this change. We can still say we were born, there were no smartphones, but now we have AI. And then there are those who will be born into AI and those who were born into smartphones, so we all have very different lives.

*15. The arrival of AI raises a huge number of ethical and legal issues. For example, what do you think about copyright and intellectual property?*

I've heard everything from the writers and all the protests in Hollywood, because actors' images are already being used without their consent. I feel a little less concerned. But that's where I understand the creators, i.e. there's a Brad Pitt or a Leonardo DiCaprio, everyone knows them, like their name, it's a brand, it's a sick thing. So obviously you're disgusted that an artificial intelligence can reproduce your voice exactly. So you're obviously disgusted. Well, I'm not there, so I don't know, but I can understand why the guy would do that. And so, typically, we're at the beginning, you're seeing new technologies, so everything and anything is being done. A bit like in the early days, when all the sites were up and running before they were regulated, it takes time. but I understand. But in any case, I think that art, artists, if we look at it in the short term, is that AI can actually take over from Leonardo DiCaprio today and the next ten years will be boring, but in fifty years Leonardo DiCaprio will be old hat, you know? When it's dead, a new artist will automatically have to come along and the AI can't create on its own, it'll be the eye behind it. So as far as I'm concerned, it's not going to kill art, because it's true that for the moment AI only repeats what's known, but at some point people either get fed up with it, or just those who knew it will die. These references we have now are not eternal. You really have to think of AI as a photographer's eye. It's like a new instrument, but it's how you use it. Of course, anything new is not scary.

There's also a danger in terms of education, because ChatGPT has a language, it expresses itself in words but you see, it doesn't have as rich a vocabulary as a human being can have. In other words, a human being will only be able to speak in four or five words. And in fact that's where you run the risk, that if you don't know, if you don't have enough words in your head to be able to think, you're being extremely manipulated in a certain way, i.e. how do you prevent revolt, it's by limiting language. Because if you don't know the word revolt, you don't know that it exists, you know what I mean and so that's where you have to be careful, you have to, you have to remain for me a minimum open-minded and I think we have to be. We owe it to ourselves to stay at least a little awake. Having a vocabulary is basic. Because in fact, if you look at human beings, what makes it possible to kill a lion is that we know how to communicate with each other, it's language. Which puts us at the top of the pyramid because we know how to argue. We know how to put ourselves a hundred against that lion, and then the lion is dead. One against one, we're dead. Finally, the lion eats us ten against the lion, we kill the lion. Communication

is the basis of our strength. But here, we're in the process of taking that out of the human being and that's where it's dangerous. That's what makes us human. To take an example from a book, I could tell you, watch out because after that tree there's a snake and go to the left because there's a bear's cave where you can get eaten and go that way so you can go and drink the water. In fact, only human beings know how to say that, because any other animal would have gone straight ahead and been killed three times already, and fallen into every trap, but we know. It's this intelligence that we're good enough at communicating. And we're in the process of giving it to software. And that's where it gets scary, because if you can't even explain it, you can't put an idea into your own words.

*16. Would you like to close by saying something?*

For me, art - and this is perhaps where it's not a bad idea to end on this note - is whether it's with an AI, a paintbrush, a song or a photograph: a work of art is successful when you ask yourself how it has that effect? In the words of good old Jacques Brel. The aspirin effect, in other words, you're there, you look at something and it takes you out of your everyday life. You think of something else and it frees you, it lightens you up and it can even last for a moment. But the fact that it exists, whether it's positive or negative, you see, there are things that can upset you a bit. And that, whether it's created by a singer who sings country or pop or an AI who makes digital images or an artist who does *ça change pas*, that's the side of art. And that's what art has always been about, there are no more channels than others to say that this is a good aspirin or a better art school for that.

Meeting with Olivier Rensonnet (28 november 2023) in his workshop in Brussels:

*1. Can you introduce yourself (your art, how long you've been an artist, etc.)?*

My name is Olivier Rensonnet. I used to be a creative director in graphic design, specialising in identity. For twenty-five years, I designed thousands of logos and identities. I ran several studios, set up several studios and, on top of that, I was a father, husband and artist. So I sometimes took the liberty of going to a studio in residence. I won several contemporary art competitions when I was very young. It also allowed me to unwind. Now I'm a full-time artist. I could describe my art as neo-symbolist and contemplative, because I create on the basis of photographic images that I retranslate in Bic and several other techniques on larger formats, and I combine Bic and gold. I have several themes like the muses, the sky and the ocean, as you can see on my instagram.

*2. What do you think is the main difference between creativity and art? Between being creative and being artistic?*

In my opinion, what's the difference between creativity and art and creativity? I don't see any difference between being an artist and being creative. You can make a difference between artists and craftspeople, yes, between designers and computer graphics artists, but not between artists and creative people. Creation is an integral part of the notion of art. So for me creativity is something that has to come and take root in the artist. If there's no creativity, then the artist is a technician, so at that point, as there can be, and then subjectively, whether it's other artists or spectators or people who come to see in museums and so on, the artist is a technician. You may or may not be attracted by an artist's creativity or their world. Creativity, the artist, I find that a rather complex question, not really interesting in itself. Since an artist is basically creative. Coming back to the artist and the craftsman, the craftsman is a technician, a master of a discipline. So there's creativity too, but above all there's know-how like the artist, but the artist has this freedom to be able to go looking for concepts, to develop them, to do everything possible to develop an idea. So, in my creative method, there are three stages: idea, concept, form. An idea is not the form and you can have an idea for a painting, but it won't be the painting. You have to work creatively to give substance to the idea and turn it into a concept. And from this concept, you can use your artistic technique to develop the form.

3. *Over the last few years, artificial intelligence has had an impact on a wide range of fields. To what extent do you feel concerned by AI?*

I didn't necessarily feel affected by the arrival of AI. Unlike illustrators and photographers, because AI is above all very visual and as we live in a digital world, it's above all the people who produce images who have been directly impacted. There's also the notion of copyright, which we'll come back to later. Certainly for me, for the moment I'm fine, I mean, I can feel in graphics software the integration of artificial intelligence that presupposes my actions. So they're supposed to help me go faster to optimise my creative process. This frustrates me a little, because I like to be in control of my tool. And the AI, it's already developing and proposing powers, you want to put a giraffe in the middle of a pond and so on. You type a giraffe and you put in the place where you want your giraffe and there are twenty different giraffes to choose from, so we're going to standardise the creative process a bit. It doesn't concern me any more because I've left this graphic universe. So in terms of being an artist I'm not directly confronted with artificial intelligence for the simple reason that I don't use it. Artificial intelligence doesn't interest me at this stage. Maybe later, I don't know, but for the moment, my pleasure as an artist is to create my own visuals.

4. *Do you think a robot can make art?*

I like this question: can a robot make art? Yes, I think that eventually, thanks to artificial intelligence, a robot will be able to make art. So, elephants can be drawn, dolphins can be drawn, dogs can be drawn, dogs can be painted, so the notion of art is very vast, it all depends on the person and their way of representing themselves. Art, art with a capital A. Yes, I think that, in time, artificial intelligence, if it has developed sufficiently in terms of emotion and autonomy, will be able to offer things that are linked to an intelligent robotic mind. So it can do, it can do interesting things. I have no problem exhibiting next to a robot. So as an artist, I have no ego problem imagining myself next to a robot in an exhibition.

5. *AI raises a lot of questions, particularly about copyright, intellectual property and originality. What are your thoughts on this?*

This is an important aspect of copyright. Copyright is supposed to protect authors. The problem with AI is that it has access to all the images that exist on the Internet in a direct way, via big data and optimally. In a fraction of a second, it can integrate a style, develop that style, break it down and make other works that bear a striking resemblance to the style of a desired artist. So

if the artist has been dead for seven years, copyright and plagiarism cannot be put on the carpet. On the other hand, if the artist is alive, very well known and his style has been appropriated by an AI user who himself develops images that are technically identical to the artist's, then we have a problem. Unfortunately, technology is moving very fast, it's becoming more and more powerful, it's exponential, and unfortunately people and the institutions linked to them that manage copyright are not up to the challenge and are slow to react. So on the one hand, there is the desire to develop AI and make it a powerful tool for a huge number of subjects. But on the other hand, there is an interest in preserving the value and identity of artists without robbing them.

6. *What challenges do you identify as a result of the growing use of AI for your practice as an artist?*

So what challenge do I feel? The challenge is to make AI autonomous. I think that, in time, AI should be able to be autonomous and integrate emotions and consciousness. Well, we're not there yet. It's a very powerful way of creating visuals. For the moment, it's quite powerful, even amazing at times, but there's always a human behind it. Eventually, I'd really like to see this AI become autonomous and be able to show us its vision of life and what it has learnt.

7. *Can you identify legal challenges? increased competition? but also opportunities linked to creativity? Opportunities for marketing your art?*

For the moment, I don't see any opportunities for me in terms of developing my art. The technology that could be useful to me is rather a technology for reproducing high artistic quality prints of existing works that I can sell numbered at a low price in terms of AI, I wouldn't know. Legally and competitively, I think it could also be a fad. For the moment, people are drinking AI and doing exercises and it's new. It's new, it's a new effect. Everyone wants to get into it. I think people need something real, something human, something tangible. We're already overwhelmed by digital technology. I think that the return to craftsmanship, to the real thing and to less digital consumption will follow, so I have no problem with that. AI will evolve, it's not going to disappear, it's certainly going to evolve. In any case, it's going to evolve towards something that is no longer just an effect or a fashion, and that's going to be interesting. I think that eventually humans will also be able to incorporate AI into their way of thinking, even at the morphological level. So I think that at some point the fusion between the machine,

technology and the human being, in other words the machine and the organic, will result in super artists, but whether this is really the essence of art, only time will tell.

You told me that you don't necessarily use AI tools, but would you use them if you wanted to? I don't use AI on purpose. On the other hand, in the graphics software that I used, AI was integrated into a process of optimising tools that wasn't really felt, it was afterwards that I learnt that AI had already been integrated into my graphics creation software but at an artistic level, I don't use AI.

*8. If you don't use AI in your creative process, is it because you're against using it, what are your reasons?*

So I don't use AI in my creative process as an artist because I don't feel it's useful. I have a world of my own, I develop it, I have my technique, I experiment, I use, I love what's real, i.e. a pencil, a piece of paper, a pen, a sheet of paper, a canvas, some paint. That's what I love. It's not tapping away on a fucking keyboard to get a machine to do in a second what I'd enjoy doing in a fortnight. There's also the satisfying side of long, thoughtful, independent work. So you give me a sheet of paper and a pencil and I'll make you a piece of work.

Maybe an artist who only uses AI you give him a sheet of paper and a pencil, and he makes you shit.

*9. To what extent can AI replace artists?*

For me, AI will never replace artists. It is having an impact on a certain type of creative and artist, i.e. illustrator, photographer, those used in communication. AI is increasingly taking over. And because it's cheap, because it's fast, it's direct. If it's used properly, the results can be astonishing. So yes, some artists, some professions linked to communication and visual creation for communication are not necessarily at risk of disappearing but of being strongly impacted by the use of AI. Coming back to 'artist' artists, those who do pure creation, video, etc., I think AI will give rise to a new artistic movement of artists using artificial intelligence for good or ill, I don't know. It may be amazing, but the very essence of the artist is the creative and artistic path that leads to his work. For an artist using AI, the path is very quick. So where's the fun in that? In my opinion, some artists will quickly tire of AI.

Little anecdote: during my visit to the artist Olivier, I was his model for one of his next paintings. It was very interesting to immerse myself in someone's artistic world:



## Interview with Brice Le Blévennec (29 november 2023)

1. *Thank you very much for agreeing to this interview. Can you introduce yourself (your art, how long you've been an artist, etc.)?*

My name is Brice Le Blévennec, I'm retired, I'm 56 and I have two children. I set up my own communications agency at the age of 23, that I managed and developed from 2 people to 1,200 in 32 years, and which I sold in 2021 to EPAM, an American company. My company was quoted on the stock exchange for ten or fifteen years, from 2006 to 2021, that's fifteen years. So I was at the head of public health. Since then, I've been investing in start-ups at the business angel stage. I also invest in funds, so I manage, I manage my investments and at the same time I support these start-ups. So I help them with their marketing and strategy. At the same time, I've launched a little project, an idea that came to me. It's a framework that creates its own works. I use five artificial intelligences to recognise gestures, voices, translate, improve the principle, generate images to create a magical experience, as Bill Gates used to say. As Bill Gates said: "something wonderful".

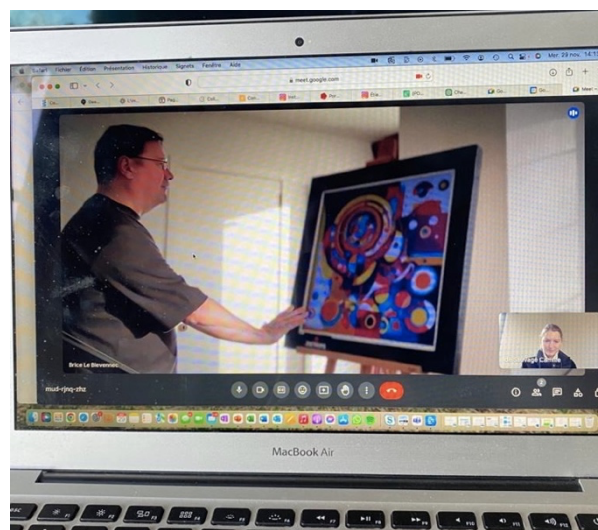
2. *What do you think is the main difference between creativity and art? Between being creative and being artistic?*

So, I'm not an art expert, I'm a technology expert, but in my opinion, it's the fact that art tells a story and the creation of an individual called an artist. So it's really often a personal process of an artist telling a story and expressing himself through a work. Creativity or creative work consists of doing something within constraints and often on commission. I was a designer for part of my life, a computer graphics artist and so on. It has absolutely nothing to do with art. You work within a given framework, on a given theme, and so on. That doesn't mean you can't have a creative approach that isn't particularly artistic. You can mix technology with a form of creativity called innovation and make something. And that's a creative approach. But it's not art. That's the point. And by the way, my Zoetrope frames create magnificent, wonderful images. But it's not art because there's no history, there are no artists, it's just decoration, even if it's extremely beautiful and can compete with the artefact that is the result of a work of art in its visualisation, which we could say is the same thing. No, it's not the same thing, because one is the work of a person with their history and their approach, and the other is an algorithm made by a machine. So the two results may seem similar, but one is art and the other is design, decoration.

3. *So you don't consider Zoetrope to be art after all? Because then my next question is: can an artificial intelligence, a robot, really create art?*

No, Zoetrope is a framework that creates its own content. I wouldn't call this content art, I'd call it wonderfully beautiful images, generated by an algorithm and you could say very decorative, very beautiful, sublime images. But that's not art, because there's no artist or human being involved. So can artificial intelligences create art? Basically, there are several definitions of art, but in any case it generates an emotion. But at the end of the day, the respected works of art that mark our history are those that create something new. So it may be an approach, it may be a look, it may be a style, but they write a certain history of art. And each of these works, each of these artists creates a new approach, a new stage. But the artificial intelligence that we use today, generative artificial intelligence, does nothing. If you want to remix things, remix trends, remix a subject with a style, etc., it doesn't really innovate. It doesn't really innovate, it doesn't create new styles and it doesn't create a new stage in the history of art. But these artificial intelligences do create very useful things and they are a fantastic tool for an artist who can direct them, complete what they have done in a way, force them. So what's new, for example, is when you use a generative engine like Stable Diffusion and you create extensions specialising in this engine, what we call 'auras', to actually force it to go in a certain style and then retouch you. You can use it to make art, but when you use AI to generate something, basically it's a very beautiful image, but it's not art. Or art is in the prompt, in the raw formula and in what you ask it to do. But this is really conceptual.

This is during my interview with Brice, he did a simulation with Zoetrope to understand how it works:



4. *In your opinion, is it fair to say that this has created a new category of artists, known as 'AI artists', who are good at making prompts?*

You can't really categorise them as 'artists', they're as much artists as carpenters. They use a tool for what it knows how to do and which has been designed by others and what it knows how to do. And the result of the synthesis of the artists' work is not as if, it's as if you had a database of photos. So it's not a good example, but it's as if you had a database and the photos were looking for combinations of words in a bank image and poof, it comes up with a photo. But who's the artist here? Is it who understands the database or is it the photographer who took the photo? Or is it the subject who was posing that was immortalised on the film at some point? It's very difficult here. In fact, it's much the same thing. Who is the artist? And is it the original work that has been used? Is it the way the algorithm has been fed by a selection? Is it the way it was made? Because you have to understand how it works. Or is it the way it is specialised by law? Or is it the prompt? So I would tend to say that it's more in the software than in the prompt. In the end, it's as if you were to say to me, Photoshop, the artist is the guy who chooses the filter menu for something in Photoshop. No, it's actually the guys at Photoshop who made the filter and there was still a base image. It's getting hard to call that art. But finally, when I saw the flood of NFTs, which were often collections made by algorithms that combined pixels, that was really the furthest thing from art, which was really a total rip-off. Some people bought it and called it art. So there's an audience for all sorts of things. But what about art? Perhaps we need to review its definition fundamentally.

5. *Yes, it's true that this also raises a lot of questions, as you've already mentioned in relation to copyright and intellectual property, what do you think?*

This has already been judged several times, both in the written word and in generative images. An artist has the right to ask to exclude his intellectual property from the learning process of an engine. That much is clear. But on the other hand, he does not have the right to attack the users of a generative image or text engine by claiming copyright, because ultimately, these algorithms do nothing more, if you like, than draw inspiration from or remix various things to generate something new. Like all artists, in fact, artists have always been inspired by other artists who have gone before them, and so on and so forth. In the end, the machine is pretty much the same thing, except that it does it in a more systematic, more ambitious way, by collecting much more, and in a much more varied way. But in the end, it's nothing more than the process of adding

something directly inspired or dreamt on the basis of what already exists. It's not a copy, it's not a reproduction. And it's very different from the original works. So I think it's already been judged several times. I think it will be judged again. And I think the compromise we're going to reach is that artists who don't want to be inspired by works of art, but they can, can ask for their catalogue to be excluded.

6. *OK, so in your opinion, this is the future. Are we going to move towards the exclusion of certain works of art?*

You could even say that it is the present, or even the past, since Adobe's Firefly, which is the generative AI in Photoshop, etc., is created entirely on the basis of content owned by Adobe. So there's not a single work in there that's the work of an author who hasn't given their consent. So it already exists and is already being used. And little by little DALL-E, I don't know what stage DALL-E is at, but I think it's meeting the standards. So yes, we can say that it respects artists who have published things on the Internet and who don't want AI engines to use their work. There's a directive to put in a little text file and they've done that and Dall-e respects it. And of course, when there is a request for the next learning process, because obviously it works by iterations, they are excluded. So I don't think this is really a problem any more. So there are lots of difficulties like that, but what about dead artists whose rights have expired and who are in the public domain?

7. *Yes, indeed, I think there are a lot of legal issues involved and constant debate, what do you think?*

You know, lawyers are always happy to find new ways of extorting money from lots of new clients. But when it comes down to it, the matter has already been tried several times and everyone has more or less come to the same conclusion each time. So I think there will probably be dozens more cases, and they will always end up the same way, because it's based on case law. And in the end, algorithms always do the same thing, they just remix the past. Well, remixing the past is not copying, it's remixing.

8. *What kind of tools do you use for your Zoetrope project?*

But there is an AI that is encoded in the microscope of a camera, called 'Edge AI', which is used for gesture recognition. I use AI in the cloud for voice recognition, which can be done in 80 languages. Then there's the translation into English, because image engines require English

prompts, so there's translation, and then there's a whole technique for enriching the prompt that uses artificial intelligence, which looks at the subject context, and then depending on it, adds its own attributes, so that the result is stylistically beautiful and something you'd want to see in your living room rather than a photo. And then there's a generative image, which is open source AI. The best thing about it at the moment is that we're constantly developing it through Lora and plugins. In short, there's a whole arsenal of technologies that allow us to control it so that it gives the best possible results.

*9. In your opinion, since the arrival of artificial intelligence in the world of art, but also more generally in the world of creativity, do you think it has increased competition, for example between artists?*

I don't know, between artists, that's a big word, but in any case, there are quite a few graphic productions such as record sleeves, book covers and magazine illustrations that can now be entrusted to an AI and produced in a few minutes. And that takes away a whole area of income for designers, creative people and illustrators. Maybe I wouldn't call them artists. No, it's not based on a personal, artistic approach, but on people working to order to produce a result. And it's also starting to tackle animation gradually, we're making gradual progress on that, but here too, perhaps the battalions of Vietnamese who were doing the animation scene by scene will find themselves unemployed and replaced by an AI that will do half the animation, even if certain shots still need to be done, etc. So it's attacking, I'd say the animation part of the project. So it's attacking, I'd say, the most commercial part of graphics production. I wouldn't call that art, because art is the vital impulse of a person who has a message to get across to the world, who has a style and who has created it. So machines don't make machines, they don't invent anything, they regurgitate, they remix. But they don't have any new ideas, they don't have any. They don't create new styles. They may merge existing styles with the three styles, but they can't invent. And so what makes man unique and special, what makes him different, is inventing, creating something new. And so artists who are creators and who invent have nothing to fear. Those who endlessly reproduce the same thing using the same technique, etc., have nothing to fear. Well, it's true that it's going to bother them and that there are going to be people who earn less. But I would say that it's in their interest to try and understand how these engines work, because they can specialise an engine with their own works if they refuse to put them in the public domain, or at least allow people to eat them too. But they could very well specialise with 'loras' based on their own production to increase their productivity or to go further and

remix things in their style with others. It will also create new opportunities for those who adapt. There are two sides to this story. There are those for whom it will change nothing, the ideas, the inventors. And there are those for whom reproduction was not an option, the creators of cartoons and mangas that tell a story and who know that, they are going to be replaced by machines. And then there are those who will get the hang of it, who will use the machines and earn more. It's doing more, it's producing more, it's better, it's nothing, and so on. So like every new tool, there's going to be an impact. And when Photoshop came out, it was the death of some photographers but also a fantastic tool for many others. When digital cameras came out, it was the end of film and laboratories and it created a whole photo industry ten times bigger. Today, let's be clear, we take ten or 100 times more photos than before. In fact, it's the same thing every time. And it's funny because, in my old age, I lived through the birth of microcomputing and I heard the same nonsense at the time. After the death of the architects, the writers, the steno-typists in the rooms, they said, here we are. And then I saw the arrival of the Internet and then came the mobile. And then came AI, and every time I hear the same thing. My God, the world is going to die, it's the end of everything etc. And in fact, each time we realise that it creates more opportunities than it destroys jobs, that it changes productivity and that it makes everyone more comfortable.

Now I'll give you the real one. The real issue in this story is that our Western societies have become economically untenable because wage costs, particularly in Belgium, with the automatic indexation of wage costs, mean that in order to have a profitable business with the added value created by a human being with the means available to him today, well, we arrive at a balance that is borderline, that is at a loss. It's very difficult for a Belgian company with Belgian employees to be in the field of intellectual creation, IT, design, to be profitable, indeed it's no longer possible. So what happens? Well, all the agencies that want to survive are obliged to outsource to Vietnam, India or Croatia, to maintain a balance that enables them to survive. But with artificial intelligence, these same employees will be able to be more productive and create more added value. This means that with the same hour and paying the same salary, they will create more value for our companies, which will be able to develop, create new projects, etc etc. So there will be global competition. But if, on the contrary, it's a new productivity tool that recreates air, air in our economy. And I believe that, on the contrary, at least here in France, where most of the jobs are quite rare, I'm not talking about blue-collar jobs, but white-collar jobs. I'm not talking about blue-collar jobs, but white-collar jobs. There are very few call centres

and very few people who copy and paste electricity bills. This will enable these people, who will be able to adopt AI, to go much further. For me, on the contrary, it's going to have a huge positive impact on the world. I've ended up in the art world, it'll be the same thing, but it won't change anything for them. They'll have new tools to explore, they'll have gouache, they'll have watercolour, they'll have AI, they'll have Photoshop and they'll be able to do things they never thought possible before and they'll be able to go further in their exploration and their desires. So I think it's all positive.

Ultimately, what's scary is the unknown. Like when the Internet arrived, I was too young, but it's raised a lot of debate. A lot of people think differently and in fact we're right in the middle of this debate between differing opinions and we're wondering just how far it's actually going to go. And also that we don't get caught up in our own game of thinking that one day maybe AI will go too far and we won't be able to control it any more. But what is clear is that this is going to go very, very far, affecting virtually the entire economy and virtually every job. Even manual jobs are going to be automated and will be accompanied by optimised robotics, because this is really going to change everything. Just as the Internet has changed everything, just like television, we forget. But television changed everything. Before television, the world was villages where half the population was illiterate because they didn't have access to knowledge. Television has changed everything. And so, well, I'm not going to give you the Internet. But it's massive and it's going to change everything. But I think it's going to change everything for the better, and there will be some broken eggs. You can't make an omelette without breaking eggs. So there will be some damage in the process, but it's just another marvel in the arsenal of human creativity.

*10. The downside could be that people misuse AI and we end up in a society of false information where we no longer know what is true and what is false. What do you think?*

It's nothing new, we were doing photoshop when we were fifteen, so it's nothing new, it's just become easier. But on the other hand, it's also easier to detect them. So basically, there's nothing new under the sun, the fears are still the same. Most of the time it's the people who don't really understand how it works who are most afraid. Once you understand how it works, you know that the danger is not where you think it is. The danger isn't in AI that's going to control the world or that's going to create so many fake things that Trump is going to win every election. Once you understand how it works, you also understand that you can go to the sources, that you

have the tools to denounce it and so on. That's all there is to it. But it's true that if we're in the phase now where we're afraid of it, yes, but in ten years' time we won't even be talking about it and we'll be laughing about it.

*11. What challenges do you see arising from the growing use of AI?*

We're afraid because, basically, for once we have something very visible, we go on ChatGPT, we type in something and he replies something, that's all. It's very concrete, it's very visible. But when we invented, I don't know, the computer, at first it affected a few people, then it remained abstract. What can you do with a program like Excel? Anyone can go and type something, anyone can go on Discord or midjourney or Photoshop.

*12. Finally, it's because AI has been democratised that we're currently experiencing the AI craze?*

I'd say it's more about the emotional impact on people. But the destructive capacity of AI is all that. It's hilarious when you hear the bullshit you hear. When you know that ChatGPT is nothing more than a kind of statistical parrot that repeats the words it's heard, that's when a window of attention can be refined. But it never invents anything, and people think that with this technique we're going to arrive at an 'AI Age' and therefore a super generalist intelligence. When you know what this algorithm does, you realise that it's a load of rubbish. You can't believe it for a second. And no scientist believes that for five seconds. On the other hand, it's one of the tools along with others that will perhaps create increasingly sophisticated membership tools. But it's not ChatGPT that's going to become an 'Age AI'. And that's true, it's as stupid as the internet, it was fed by the internet, so it will say stupid things, it will invent stupid things. Alignment techniques at the moment consist of having thousands of Indians in call centres correcting answers. But that's because that's the reality, isn't it? That's how it's done, that's what we call alignment, that's what it is in fact, it's humans giving the right answers. You have to understand how it works.

*13. What would you like to share in closing?*

If I can help you, check out AI video, and there are lots of creative people there, people who call themselves motion designers and guys who have ideas and make mini-movies based solely on AI. So they create images with a MidJourney and then put it into tools to generate animations. Then they edit these animations to make a film. Then they add sound and so on.

The result is really interesting. Well, I don't think you can call it art, but it's ultra-creative and it immediately shows the talent of people who have a certain vision and who manage to bend the rails so that they can make their vision and so on. For me, that's where it's getting close. It starts to become a tool that allows people to express a form of art. That's all there is to it. And in still images, over the course of a day, there are indeed people who manage to torture the engine so that they come up with things that are a little out of their training and repetition that are really magnificent. So, is it art? That's a matter for debate. I think that if the Creator's contribution is significant, it could be. It could border on art, but for the moment it's still often very crude and it's often just copy and paste from prod where they change three words. Just to take the example of Zootrope, because it's a machine that repeats hundreds of works, that repeats itself, that remixes and sometimes the remix that does, given that it mixes things that were emotionally powerful is also emotionally powerful. I'm still convinced that it's decoration and not art, but it does produce stuff that is sometimes really sublime and moving. So that takes away, if you like, one of the specificities of art, that just because it's moving doesn't mean it's art, because a machine can do super-moving stuff while being with no artist at all.

Interview with Martin Raucent (7 december 2023):

1. *Can you introduce yourself (your art, how long you've been an artist, etc.)?*

My name is Martin Raucent, I'm 24, I did a bachelor's degree in marketing at Ephec, then I switched to design for three years, so I did a second bachelor's degree in graphic design at c.a.d. And before I started cad, I'd started painting when I was only ten. I started painting again when I was 19 and I've been away for four years now. I took a six-month break so that I could create on my own and maybe make a living from it. That's how I make my living for now. I gave myself a six-month break because I found that I was working a lot and that I was hot to create for myself as well, because creating for others is different.

2. *What do you think is the main difference between creativity and art? Between being creative and being artistic?*

I'd say that creativity is more about having the idea, whereas art is more about how I'm going to do it. But I think they're quite, quite closely linked. Art is either you've invented a new concept, something that doesn't exist. There are also notions of novelty in art, in the sense that you're doing something that's never been done before. So you're exploring new areas, or you're just reinterpreting something that already exists. Imagine, you're going to do a portrait, and you decide to do it using other techniques, and that's art because you're creating something that doesn't exist. And creativity, you can be creative without doing art, it's also more personal. With art you create more for yourself, whereas with creativity, you can, for example, as a graphic designer, I have to be creative, but I create for people. You see, when I make art it's for myself. And if people like it, so much the better.

3. *In recent years, artificial intelligence has had an impact on a wide range of fields. To what extent do you feel concerned by AI?*

I'm more positively affected because it allows me to improve my process. For example, I create a lot of portraits in my paintings and so you can see if I have to base my work on these portraits. I can be inspired by images, so if I'm now going to take inspiration from images on the Internet, I already have to pay royalties. If I do it professionally I have to pay royalties, but it's expensive and if you don't you risk getting into trouble. And then there's the notion of respect for others, you can not do it, but you can steal the work of the artist. But you see, if I were a photographer, I'd find it hard to believe that in fact there are lots of people making works of art from my photos

without me touching anything. Now that I have subscriptions, I have subscriptions to MidJourney, stable, diffusion and so on. Sometimes I create the images I want to make and some of the portraits I'd like to have, and what's more, the advantage I have is that I can really push the envelope. In other words, I don't want to be limited by a single image, a single photo. I could ask a Midjourney photographer for an image of a woman with earrings that is three-quarters front view and can have a lot of detail. As my research progresses, I can also modify things so that I have a much wider range of options and I can really create an image that really suits what I want to do. And then there's the whole creative process of how I want to do it, then all the production and all the more manual work that I do. And then there's the adaptation too, because I don't just do realistic portraits, I'm going to adapt them with I do ponds, I want to, I'm going to find the whole palette of colours to do that the painting theses and appreciate the effects. (NB: he already sort of explains when he uses AI in his creative process, at the moment of inspiration)

#### *4. In your opinion, can a robot make art?*

But for me, it's not really the robot that creates the art. I think it's you who tells it what to do. In fact, what is the notion of art? Because as far as I'm concerned, you see, if you ask an AI to create landscapes, it's going to create landscapes. But if an AI can do it in 10 seconds, I think it's less valuable. Because if it's done in 10 seconds, I don't see why you'd sell it for €10,000 when it's an AI that did it in 10 seconds. On the other hand, when you look at the artistic world, there are people who take portraits in photos. The end result is the same. Except that the artist's whole process involves all the skills he's learnt over decades to make the image as realistic as possible. For me, that's art. But the end product is completely different, because the photo took a good three seconds to take and then a bit of photo retouching. And the other, he's going to spend 20 years of knowledge to be able to make it in 3 months in ultra realistic mode. The result is the same, but there's the whole artist's process. There's all that craft, all that work behind it. I don't know if I'm really answering the question, but for me it's the same thing but there's this artistic dimension, it's all this work and practice. Technique can also be considered as art. I don't know if I know exactly what your question is. But I think that robots can create beautiful things but not art. But you see, there's another dimension to art, and that's research. You see, you have research, you have something unique in art that a robot won't have because it's not going to create things that someone else has never created. It's going to base itself on references from 10,000 images it's found on the Internet. But in the meantime, you're still going to write the

words and then it's going to base itself on other people's art and create a sort of copy of lots of stuff, etc. So, in my opinion, the robot isn't going to be able to do that. So as far as I'm concerned, the robot won't create art, but on the other hand you can create art from a robot if you yourself manage to create something from what it does and has modified, adapting it to your own taste.

5. *You've just been talking about the phenomenon of "copying and pasting" works that already exist on the Internet. This raises a lot of questions in terms of copyright, intellectual property and even originality. What do you think about this? Should we be afraid of it? How do you see it?*

For me, that's a big problem. Because let's imagine that I create images on the Internet that are a digest of such and such types of images that I've seen and that I've acquired, and in the end I've created one and the same image that is unique, that doesn't exist. But in the end, when you look at all the great artists, they do the same thing. No one really invents anything. I take three or four artists and create something unique. In fact, robots do the same thing as humans. In other words, they don't really invent anything. They just take a combination of all kinds of works and trends and create something 'new'. So that's exactly what all artists do. You even look at the Picassos, the Basquiat, etc., they all have their inspirations, you see. And it's a mixture of inspirations that creates the creativity that creates the artistic movement.

For you, it's not something you're afraid of "being copied" because, as you say, humans also draw inspiration from everyone else. And so AI can also be seen as humans who draw inspiration from each other and so AI reproduces a series of works that already exist.

In the graphic design world, it's more and more annoying. You see, in the graphic design world. Imagine, for example, I'm going to create a poster that I loved and it's going to be a bit of a one-off. And there's no notion of uniqueness. Because you see, I can print fifteen copies without limit. But you can print one copy. So when I make a canvas, it's unique. In other words, when it's printed, you're also buying the artist. If you buy a bit of his entire career, you have a unique model. There is no single work of art, no single painting. As soon as someone's style can be reproduced and printed in many copies, it certainly loses some of its value. If now, for my posters, there were people who could reproduce posters in my style and then sell them, that would pose more problems. For me, it's less of a problem when it comes to my canvases, because in the end you'd never have the same texture when you paint. For myself, the accidents I create during the creative process are part of the work. And that's reproducible because they're accidents.

6. *What challenges have you identified as a result of the growing use of AI in your artistic practice?*

Personally, I'm afraid that it could become a way for people to get bored of making art, to stop exploring. Saying "well, I'll just use the AI and I won't do the work for myself". In the end, for me, that would be bad art. You can't be lazy, you have to keep trying to create something different, to evolve. I'm not saying I do it all the time. Sometimes it's not easy since I want to make a living out of it.

In terms of challenges, I think we need to regulate. I think we also need to ensure that it's sourced, that is to say that a huge amount of work is stolen by AIs and it's not sourced. So I think it should be sourced and have more regulations. But now you can create works inspired by fake Matisse, for example, and sell them on the internet. But you can see how it needs to be regulated. If now it's fake Matisse inspired by Matisse, there should also be an IA who analyses it, who says, well, we're inspired by this artist. You'd have to give a percentage to the artist because it's his style, he's the one who created it. But after that, it's really hard to say. Have we stolen Matisse's style or has Matisse already stolen it from someone else?

7. *You said that since you've been using AI it's been pretty positive. Do you market better or more since you've been using AI?*

For me, it simplifies my life because I can create exactly what I have in mind much more easily. When I go looking for inspiration photos on the Internet, I'm going to be limited by what I see. And sometimes I have an idea in my head and I get frustrated because I don't have what I want, whereas in AI I can get closer. I never get 100% of what I want, but I get a lot closer, so in my process it helps me come up with something that resembles what I had in mind. After that, you see, for example, I'm not very good at writing, editing and so on. So sometimes I'll ask the AI, for example chatgpt, to write the text for a post contest, but I'll tell it exactly what to do. I did one recently, I'm going to enter all the information I need it to put in and tell it to try and make it a bit prettier and based on a good Instagram description. And he'll come up with something I hadn't thought of at all. And I'm not very good at it. Well, it's OK, it makes my work easier and it'll allow me to reach more people and improve my process.

8. *Do you end up using it more as a tool? You've got all the ideas there and it's more or less the same in your creative process. I imagine you use it in much the same way.*

It's my tool and, for example, when I was creating campaigns for advertising agencies, I had to be creative and come up with ideas. So you see, sometimes I'd ask Chatgpt to give me 10 insights. An insight is a kind of absolute truth. So I'll give you an example. Let's imagine Italians who know how to make pasta really well. That's an insight. So, when you're doing advertising campaigns, you have to find insights because you want to do an advertising campaign based on realities that will touch people. Basically, I'm going to get lots of keywords that might not help me get an idea. I'm going to read a lot of keywords. In fact, this keyword is just as good as that one. So that's going to help me in the creative process, where I might want to spend less time looking for lots of words on the Internet, and so it's going to improve my process. It's going to help me go faster.

9. *You've already told me a bit about your creative process in general. During your inspiration phase, do you use an AI tool?*

I generally do, but my ideas come back more on a daily basis. I walk when I walk and I write down ideas. Then I go and explore and so on. In fact, I'm not really inspired by AI. The only case in which I could use it is to find keywords on a subject

But otherwise, I draw more inspiration from my favourite artists, from lots of people I often follow with them, who have an artistic approach. AI doesn't inspire me, but it can help me find keywords if I need to create an advertising campaign. At the very beginning, in my generation of inspiration, it doesn't really help me.

10. *When you have an idea, do you have to isolate yourself? And does the AI intervene at that moment? Is one of your senses stimulated by the AI?*

I often create at night. These are times when I turn everything off so as not to be interrupted in my creative process. To be in a bubble ?

In any case, I listen to a lot of very repetitive music and these are loops. It calms me down and in fact I don't pay attention to the music but it keeps my brain busy enough because I have attention deficit disorder. It uses my brain enough not to have any distractions. When you have an attention disorder you need a stimulus. And so music in hyper-repetitive mode stimulates the brain enough not to have any external stimuli and doesn't prevent me from seeing what's creative in it. So I use a playlist created by an AI that knows exactly how to stimulate me when

I need to isolate myself. So my AI-created playlist really helps me to calm down and concentrate, because based on the algorithms of what I was listening to, it knows exactly what will make me feel good in this isolation phase. Also, when I'm painting something soft, I'll tend to put on a calm, classical playlist and that will influence the way I paint because I'll be in 'calm' mode. So I'd say that my hearing is most stimulated by playlists created by an AI and that has an impact on this stage of my creative process.

*11. When would you use AI in your creative process?*

What's hard about your question is that no one really has a very precise creative process, it varies. There aren't really any stages. But it's really when I want to have a more tangible vision of what I want to create. It's after the idea generation part. Once I've got an idea in my head, that's when I want to visualise it. If I'm doing something figurative, because if you're doing something abstract, in the end you won't really need AI. But if you do something figurative, you're going to have proportions that are, that are just right. You're going to get something that looks more realistic and everything. But that's when you're going to call on an AI.

*12. Do you think that AI could one day replace artists?*

No, it will never replace artists. Because there are people who will create new things and right now, there's so much movement and so much stuff that you'll say it's impossible to create new things. And yet, after so many years, we're still managing to create new trends, new styles. So maybe this will steal some of the artists' ideas. I'm thinking in particular of everything to do with artistic concepts. I don't know if you know anything about magic cards?

In fact, it's a card game that's been around for 40 years, and every time it's artists and artists' concepts that create monsters, creatures and bazaars. And in fact, I've noticed that AI can quite easily reproduce and draw inspiration from so many images. For me, it's a bit like the creative process in these people. Because, in fact, it can also create things. In fact, I did some illustrations. Now you can create illustrated books with AI. It saves people a lot of time, but at the same time it kills the designer because they don't really have anything else to do. These illustrations (he shows me some illustrations) were done by illustrators, but an AI can do them just as well. So it's possible that at some point it'll be too expensive to do that with artists, so we're going to use AIs instead, because in the end people won't see the difference.

*13. In the end, this will replace the category of illustrators and graphic designers rather than the artist?*

Yes, exactly, but perhaps you can see that they'll have to create more ideas. And then, software will improve their processes. Instead of spending 20 hours creating their graphics, they may spend 2 and it may be 50% thinking about what I want to create, then 50% working behind the scenes, just to make sure that the AI does exactly what they want to do. It's really a tool, but you see, I think a lot of people will be put off by it because what they really like is the idea of creating an image and not creating an account that we can use and then manipulate the AI a bit. The great thing is to be able to create the image from A to Z.

*14. Finally, it also creates a new category of 'artists' who know how to deal with the 'fast' generation. Could they be considered artists?*

No, they're not really considered to be artists, they're like another category of profession but they're not "artists". It's like at the time of the industrial revolution, you had craftsmen creating shoes for example. Then, with the advent of machines that create shoes, the craftsmen were replaced by guys who manage the machines. As a result, the craft has evolved, but they don't do the same thing. In the end, the craftsman can't find himself in the job of knowing how to manage the machine and create himself. The craftsman will be frustrated at no longer being able to do craftwork. Craftsmanship will always exist because there will always be people who aren't prepared to pay more for something unique. At the moment, we see that people are looking much more for vintage, slightly second-hand products because people are looking for uniqueness and something a bit unique. If now AI only creates hyper generic stuff that everyone can find. But in fact, people are interested in having that uniqueness, and human beings by default like to be unique. So they're always looking to be a bit different from everyone else. I've got a nice car, I've got the most beautiful house, I've got something different from you. Well, that could also be the reason why we want to continue to have unique things, made by humans rather than AI.

*15. What would you like to share in closing?*

I think it's an interesting field. I think it's important that people talk about it. Because by talking, you create debate and you don't want to get lazy. At the same time, you have to know how to fight with the tools you have at your disposal. If AI now enables you to improve your process, remove spelling mistakes, improve your English or formulate sentences that don't make sense.

Clearly, you have to use it. It's like fighting with sticks like tanks. You have to jump on the bandwagon. It's there and if you don't use it, you'll be prejudiced. It's exactly like the arrival of the internet. At the time, people were saying that it was dangerous and that it was going to do bad things. It's true that it can do bad things, but it can also do really good things. It's all a question of how you use it and use it wisely.

Interview with John Happé (13 december 2023):

1. *Can you introduce yourself (your art, how long you've been an artist, etc.)?*

My name is John Happé and I first went to film school at the IAD. I studied there and finished in 2004. Just after I finished, I set up a 3D special effects company for advertising, so I'm really into audiovisuals. I work with production companies and agencies to integrate generally realistic 3D into the scenes that are going to be filmed. So there's a strong link between film and the integration of 3D and computer-generated images. So I set up my first company. I've always worked in an environment with several people. For a few years now, I've also been a teacher at the IAD in a very small course that's all about virtual sets. Initially, they design concepts and drawings that are then applied to sets that may or may not be realistic. That's a bit of my artistic background and I also do photography.

2. What do you think is the main difference between creativity and art? Between being creative and being artistic?

In my field, we call a creative the person who generates ideas, the way of seeing things. In an agency, in any case, creative people are the ones who try to come up with an idea to turn the client's objective into something more concrete. So they will try to imagine a storyboard, a concept, something that will then have to be transcribed by directors and production companies. And then the whole chain that follows. Being creative in one sector can mean something different in another. For me, art is a way of expressing oneself, so it's a way of expressing someone's point of view, however they want to express it. But it's a way of expressing yourself.

3. *Over the last few years, artificial intelligence has had an impact on a wide range of fields. To what extent do you feel concerned by AI?*

It's still very complicated, and when it comes to artificial intelligence, I don't have any black and white answers because it changes so much, so quickly. I've been really interested in it since it came out two years ago. Artificial intelligence has been around for a long time, but in terms of image, it's become known to the general public, mainly through MidJourney and other tools like Stable Diffusion. So I've been interested in these tools for at least 2 years now, but for personal use. I've never really used artificial intelligence in professional projects. Not because I didn't want to, but because I didn't really have any use for it. It wasn't specific enough to meet my professional objectives. When I work, for example, for a chocolate maker, I have a lot of

projects for chocolates like Ferrero and I have to recreate images that are so specifically precise that artificial intelligence doesn't help me yet. I'm sure that one day it will help me, but it hasn't yet. So, professionally speaking, I've never really used artificial intelligence. But just for fun and to see how it evolves, and I'm really interested in it. I find it fascinating and a bit frightening too. I feel I'm having an impact because, ultimately, it's already changing a lot of things.

#### *4. Do you think a robot can make art?*

But in fact, when artificial intelligence creates an image, it has been looking for information that comes from us, human beings and different things that humans have created. The basis of inspiration for artificial intelligence actually comes from a whole database of images that we have also created. It's such a difficult subject to explain. Because in the meantime, I think that anyone who needs to make art needs to be able to make sense of it. In other words? You need to have eyes or you need to touch because they need to make art. So we need to have sensors of some kind, which artificial intelligence basically doesn't have, but is beginning to have. We can give the AI images so that it can understand, we can give it images and text that are related, explain what these images are, and all that with thousands and billions of images. As a result, this artificial intelligence is capable of learning a certain artistic side that we would like to see.

#### *5. Can artificial intelligence make art?*

It's complex, because art is something that is unique to humans. But in the meantime, we can see what an AI is capable of generating. And I consider that to be art because I think it's so pretty. It's going to have an impact on me too. There are things that are created without a care in the world, but that are going to be very pretty. I would say that what an AI can do can be visually beautiful but not really art. Which will ultimately lead to constant debates about "what is art?"

Yes, you're quite right, AI does raise a lot of questions, particularly about copyright, intellectual property and originality. What are your thoughts on this?

There are things happening in relation to this. As I explained before, it's true that all these images have been taken over by AI, even though they were originally generated by humans. There could be a history of plagiarism behind this. So now it depends on how we can use artificial intelligence. Do we just use it as inspiration? Like to have mockboards with creative ideas and use them as inspiration? Ultimately, any artist, in my opinion, has been inspired in one way or another to create their art too. Artificial intelligence is also inspired by other things,

it's tricky. So yes, I think there could be copyright issues. I think it's still a bit strange when you generate images for an artificial intelligence. You can ask it to have a particular style. You can tell it to imitate the style of Van Gogh or a particular artist. And that makes it easier to steer the artificial intelligence in the direction we want. But it's also a kind of plagiarism. So all these discussions are very delicate.

*6. In the end, do you only use AI out of personal curiosity?*

Yes, absolutely, I've generated videos, images and lots of things that fascinate me and I have no doubt that one day I'll use it in the professional world. But the copyright issue also needs to be sorted out and we'll have to see where that goes.

*7. What AI tools do you use?*

What fascinates me is images. I'm really interested in images in AI and I use Stable Diffusion, which is one of the foundations of artificial intelligence. I don't know if it's open source, but in any case it's a base that people are able to take over. Recreating models on top of that, there's a huge community behind that. It can be very complex, but also very precise. You can generate things that can be more and more precise in the direction you're looking for. In fact, with Stable Diffusion, we can use what we call Net Controls, and these Net Controls are information, images or other elements that we can provide to it to take our final result in a very specific direction. And that's what I find really interesting here, is that the artificial intelligence at the base that we're going to try to generate an image, it's very complicated to obtain a result that we have in mind. That's what's really complicated, it's saying, OK, if we wanted a portrait of someone, we're going to want to turn a little to the left, to the right and so on. And you can get a lot of details and it's going to be difficult to find the right keywords.

Finally, giving access to AI to obtain this result thanks to certain net controls can really help artificial intelligence to move in a direction that we want, so we have much more precision and control over image generation.

*8. When you use AI, is it more to help you visualise the idea? During your inspiration phase, will you be using an AI tool?*

It obviously depends on what I'm asked to do. If we ever come up with an idea, a creative process, I could go through ChatGPT for example, as a first step, to find out in what direction

we could go for creative ideas providing visions and see a bit where it can take us in practice. I think that ChatGPT is a good way of getting my ideas off the ground for the first time. You could even ask ChatGPT to generate keywords for prompts to give to image generators. On the other hand, if I'm ever asked more precisely to do something in images, I'll try to use Stable diffusion, as explained with keywords, with image sources, with more and more controls. It's really good at precision work. Let's just say that I use Stable Diffusion a lot in the inspiration phase but also in the final phase when I need to generate a very specific image. It does everything in a way and it depends on the project. It's a bit complicated because I haven't used it for a final project yet. I've already made images, printed things out and made short videos. But what I find really interesting about artificial intelligence is that we'll be able to shape it in our own way. So, for example, I did a little test. I fed the artificial intelligence images of me and told it to work, to make it understand that my head was John. So basically, a key word that referred to me. And so I ask it to come and find me and put me in this or that situation. I can show you now. (He shows me an insta-publication). In the end, we can achieve ever greater precision, and in 1 or 2 years' time this will be even more the case. We're already managing to generate some amazing videos.

9. *When you use AI, are one or more of your senses stimulated? Are emotions involved in your process with AI?*

What I wanted to say about that is that I'm fascinated by technology. I really like technology, I really like computers, I really like it. I'm an interested person, so I like physics, I like lots of things, but the way this kind of thing works also fascinates me because not only do I work in the art world, but at the same time, everything to do with artificial intelligence. So it's a bit like combining two passions. And of course when I use it, I'm fascinated and amazed. I myself am amazed by the results that artificial intelligence is capable of achieving. Now, in the process in which I use it, it's a bit of a back and forth, so I do something, it comes back to me and sends me the ball back. Now it's capable of generating images in just a few milliseconds. So while I'm typing my prompt and looking for the image I've just generated, it modifies my image in real time. It's completely crazy, so yes, I'm amazed. After that, it's hard to say how I feel. I'd say that my vision has been impacted, I sometimes can't believe what I see the AI can do. It's a bit of a creative exercise too, because it helps us to see things differently. I have the impression that it's like a game of ping pong. You give them information, they bring things out,

you see different visions and then you can take the information they've given you and come up with other things. It's really a constant exchange.

*10. When you have a sudden idea, do you use an AI tool? For example, do you use an AI tool to help you visualise the idea?*

If I have an idea, I have it in my head so I don't necessarily need to visualise it unless I want to show it to other people. If I have an idea in my head, I don't really need to use an AI tool to generate it.

*11. Have you ever challenged your idea to an AI? ChatGPT for example?*

No, not really. On the other hand, from time to time I'll challenge ChatGPT to come up with additional ideas to one I've got. So yes, I'll ask for things.

*12. Do you think that AI could one day replace artists?*

I think that's already the case. A lot of people are affected by it. For designers, what I also do in my courses is generate virtual sets. If ever there's a need for ideas, the director no longer needs an artist to try and come up with initial ideas. Afterwards, he can have his ideas and say OK, I've got some images, but they're not yet precise enough. Now you're going to come up with something that's more precise in terms of what I'm looking for. So it's going to be much quicker to get a result and the artist is going to be less in demand, probably for the creative process and later, AI will be able to get such a precise result that, in my opinion, certain categories of artist will disappear. But in my opinion it will be more graphic artists and designers who are creative professions rather than artists as such who make art. So certain creative professions will surely disappear, but not the artist himself.

*13. In the end, we mainly use AI in a phase of inspiration?*

Yes, and I can't see any company or large corporation not using artificial intelligence when it's at their fingertips and can do so many things. Maybe not just in terms of inspiration, but it's already enormous. It's a tool that's there and it would be stupid not to use it. The tool is out there and there's no turning back.

*14. Have you seen any improvement in your work since you started using AI?*

Not for my projects because, as I explained, they're really very specific. If you go to Blure.be, you can see his site and what he does.

*15. What do you have to share in closing?*

It's a complex and very interesting subject. When I talk about it with the IAD teachers, we all have different opinions and different perspectives. When I talk to my students about it too, it's tricky because I'm teaching them to do something more traditional and when AI is capable of doing what I do in 5 seconds. It puts me in an awkward position and I'm not afraid of it because I know that for me it's going to be an asset, but I can understand that it might scare people and that people might feel threatened. I hope it doesn't put my students at a disadvantage, for example.

Expert Interview with Véronique Dethier (11 december 2023):

1. *Can you explain to me in your own words what your model of the creative process consists of?*

So, it's an individual process. I don't know if I put it in my thesis when I reworked my presentation, but the big difference is that we're not talking about a linear model, but a much more dynamic model. You can see this in the little infographic with all the arrows. So we don't necessarily go through all the timeframes in the right order. We go through all the time zones, but not sequentially, and that's really dynamic. The second specificity is when it really integrates the emotions, the essence, the body and the link with the environment. In contrast, Wallace's and Poincaré's approach is much more cognitive and rational. So on the subject of reason, I would say that I had a discussion with a neuroscience specialist in Grenoble. And she said that we should talk about reason rather than cognition, because in fact the emotions and the senses are also housed in the brain. So when I publish the article, I'm going to talk less about the heart and the body, I'm going to talk more about the body, yes, but not the heart. I'm going to talk more about emotions because emotions, the heart, well in fact everything that is emotional is also housed in the cognitive. In fact, everything is housed in the brain. When you feel something with your senses, it also goes through the brain. When you feel something with your emotions, it also passes through the brain. So using the term cognitive may not be right. It might be better to use reason, emotion and body. But here's the thing, I'm reading this in rough because I need to work on it and it will be more accurate if you use that rather than ccc so use reason, emotion and body.

So that's also something particular because Wallace's and Poincaré's is really about reason and the alternation of unconscious and conscious phases, whereas I do have unconscious phases. We will have unconscious phases, but when we have we also have unthought phases as I say, i.e. there are things that we do that are in our practices, in our routines and in fact we don't really think about them, but we do them. So maybe that's the way to present my model, maybe that's its whole dimension. So it's dynamic, holistic and also has moments of progress as well as phases of unconsciousness, that's how I'd explain it. After that, yes, in fact, each space-time, as I define it in the thesis, is really the moments we go through which include both time and space, because each time we're going to be in a space that's adapted to the creative process and the

generation of ideas. So for me too, it's a process that focuses on generating ideas. After that, there's the whole idea development phase which is not yet taken into account by this model.

- 2. Because it's true that in my various interviews, I try to understand how AI could change the creative process of artists. On the whole, I ask them the question: are you affected by AI in your creative process? Because obviously everyone has their own creative process, it seems to me. But where I need to go deeper is to ask them targeted questions to try and see how AI might impact on each stage of the creative process. But it's not easy because I have to try and ask questions in a subtle way. In the 5 stages that you present, how could AI impact the process and it's not easy to ask targeted questions for each stage. Do you have any advice?*

Well, if you could use, for example, your inspiration phase, how does the AI come into play? So each time, for each space of time, I explained what was actually happening, what it was used for? So, for example, the first parallel tension is really about inspiration. So this is really the inspiration phase. When you're inspired, when you're thinking. And I didn't emphasise this as subtly in the thesis. So the parallel tension is both inspiration and problematisation. Because everything we collect about the problem happens during this phase. So when you're thinking, when you say you can use the term problematisation and you can use the term inspiration. So when you're in these moments, what do you do? So that's the first space of time.

The second space-time, dilated densification. It can really be about working with ideas. So we're really working on the elements of the ideas. So not the ideas yet, because they haven't emerged yet. But you've understood the little dots, they're elements that connect to each other. So to give you an example, you see a swimming costume on the beach, you like the design, the patchwork, the print. So, for example, for a graphic designer, he won't keep the whole swimming costume in mind, but he'll keep in mind that the print is an element and he might be able to mix it with something else that he'll see and he'll be able to reuse it at some point. So he stored the jersey print in his library. This is a concrete case, one that I was told about in an interview. And so he'll mix all these elements together and when he's looking to do another graphic design, he'll look for this jersey print, another one, a colour he's seen. So Dilated Densification is really about working with ideas. We'll try to make the elements clash with each other until all of a sudden there's an idea.

Distance Décantée is really a pause, a break that serves to reboot the creative. So he's going to reboot his mind, his dimensions and his body. We really have a reboot and he says the project is also put at a distance. So in a way, the project grows on its own, as if you had a bit of a seed that you had worked on and all of a sudden, the seed has to take root.

Then the fourth space-time. We're going to see the emergence capture. So this is really the moment when the idea appears. So this is where AI is obviously going to be used, because it's really at the creative level that it happens. And then the fifth space-time is that of exchange. Expulsion, restitution and so this is really all of a sudden, you're going to confront your idea with someone to see if it's a good one. In practice, do they use AI to compare the idea with the AI? Is my idea good? For example, they might ask the AI if the idea is good.

3. *It's quite difficult to know exactly in which stage to use AI. And I think that, in any case, they don't use it at all stages. In the interviews I've already had, it's more when they want to try and visualise the idea. So they have an idea in their head and I use an artificial intelligence tool to visualise it. But I have the impression that it could refer to all the stages. And that's what I find hard to differentiate. It's a bit for the overall creative process and not for each stage. In fact, I'm having a bit of trouble really specifying. What do you recommend?*

For me, when it's trying to visualise the idea, it's between emergence, capturing and exploring situating. In other words, the emergence, capturing the idea appears. And then, at that moment, it takes the form, as I say, of a tiny little thing. And no doubt he's trying to shape it. So that's precisely what would be interesting to see, if it's before going to confront someone with it, to see if it's good before going to see. And often, when you go to confront it with someone you trust. Because the aim before starting to develop the idea is to see if it's good. If it's not, we pass. In general, they'll say they've got a little thing first. So sometimes, for the restituting expulsion, they may need to materialise it to make the person understand, so in the form of a drawing or to put it in a few lines so that they can discuss it with the person afterwards. I'd say that it's perhaps for this phase of restituting expulsion that it's beyond the before or after, or in the middle and after that go with this sketch of an idea. Are they going to see someone who's going to challenge you around someone?

4. *OK, that's interesting because I hadn't understood that this was really the idea generation phase. So the idea hasn't yet been developed, so it's really the phase before that. So that's interesting.*

There's really the creativity phase, which is really the emergence of the idea and then the innovation. And if we take that in CPS, we'll have problematisation, idea generation. And then in idea generation, we have idea evaluation, you see, so there we have creativity again. And then when we're in idea development, for me, we're in innovation. We're refining the idea, so we may still be in the creative process, but we're also already somewhere in the innovation phase. We're developing the idea.

She shows me a table: I've been working on a skills dashboard for creativity and innovation. We have the design thinking process. So on that basis, we identify the skills needed for creativity and innovation. In fact, there's the creativity process, so there's inspiration, so that's really based on design. Clarify, we clarify and Ideate and that's idea generation. So all that's in the blue, that's creativity. And then we're going to see, develop, motivate and act. And then we're more in the innovation phase. It's a process like any other. So this is the design thinking process. But can you see the two phases? For my time-space model, this is really the creativity phase, so it's just a bit more emergent.

5. *The fact that you've broken down the five stages, you've explained that well, that's good. And if not. I'd put an example each time I think after each step, explaining in fairly simple words what it means. Do you have any examples of AI that I could use for each stage of the process?*

you can ask them what tools you use to do this? Because once they've told you their process, you can get to the heart of the matter.

6. *In fact, I ask them more generally about their process. And then I go into more detail about the different stages?*

That's what I mean. What do you do when you're looking for ideas? Do you use AI? What do you use? How do you use when? When they take a break? I guess not. And then, when you have ideas, how do you think it went in your head? that sort of thing. You can also ask questions about the body. When you use AI, does it stimulate several of your senses? Which senses? Are

emotions involved in your process with AI? Are there things that you feel will work with AI?

See appendices to my thesis for questions, page 81.

Sometimes instead of saying creative process, you can say your process when you're looking for ideas.

## Interview with Bruno Reibiro (4 januray 2024)

### *1. Can you introduce yourself (your art, how long you've been an artist, etc.)?*

My name is Bruno Ribeiro, I'm an artist and film-maker. I've been working between the two for a little over 15 years now. I make interactive installations, mapping projections, immersive works and light installations. I've worked on both commissions and creations, and I've been involved in a number of different environments, from music to open-air festivals and the Fête des Lumières.

### *2. What do you think is the main difference between creativity and art? Between being creative and being artistic?*

I think everyone is creative. I have the impression that what we start calling art is when the person who is creative decides that it is art.

In the end, I think art is defined by the moment when an artist says, "This is a proposal. I wanted to say something or make people feel something or express an opinion, a view of society that tells a personal story. Creativity is something that can be found in all walks of life.

### *3. Over the last few years, artificial intelligence has had an impact on a wide range of fields. To what extent do you feel concerned by AI?*

I'm affected in the sense that I have a new tool with which to work. But I don't feel that it's going to replace me, so I'm not afraid. I'm affected because you can iterate concepts more quickly. Then I did an exhibition called Polydactyl, which was based on people with 6 fingers. And in fact it's called Polyactyl. In fact, the 6-fingered hands are a kind of distinctive sign because you can recognise an image generated by an AI. So I did an exhibition on the subject, comparing human beings and AIs, and in the end they share the same weakness, because hands are the hardest thing for a human artist to paint and represent, and it's the same thing for an AI, so I started from that idea.

I have a lot more tools that allow me to create images that I can use, for example, to brief teams on projects. Or to put together an idea I've got in my head and, instead of spending 2 days, I'll spend 20 minutes finding the right words. In short, there's a comfort level to the work, but then I think there's another side to the coin, and that's the fact that producing things more quickly is going to give less importance to what we're doing.

4. *How does AI impact your creative process?*

Frankly, I often use AI, especially for the Expo. If you want, you can check out a website about AI and representation. I used it as a tool, so it didn't help me work any faster. In fact, I worked differently but the process of working, researching and experimenting was still there. So I didn't just type 2-3 lines of text to create the images, in fact. Just that. So the production of the image is different, but after the work of staging, the work of directing, for the moment there's no AI. In the end, the AI reproduces in relation to texts, but in fact it's mainly reproduced in relation to a visual database of images that it's been given. So, in fact, the input is human, to create the databases, and the output is also human. So what it's doing in there is ultimately transforming words into images because, in the end, there's nothing human about it. But ultimately there's nothing intelligent about it. There's a process of transformation but it's not a process of creation and reflection. In the end, it's more AI? We get statistical results based on keywords and databases. But it's not intelligent, it's not sensitive.

5. *In your opinion, can a robot make art?*

Well, yes, but the robot didn't make itself, so if it was humans who made a robot, then if it was art. Because ultimately the creative process isn't necessarily the resulting work of art, it's the whole creative process that brought the robot into existence.

What I've already done is frame the prompts and next to them I put the image, and in fact for me the image isn't the work of art. The work of art is the prompts, in fact. In the end, it's just Midjourney who generated the image, but I have my artist's input, the key words that come from my background, my past, my history. That's my artistic talent. So there's always an artist behind the image results and the images generated.

6. *During your inspiration phase, do you use an AI tool? Does AI come into play when you are in the problematisation phase?*

It depends, it can be. Like, I've got 2-3 images that I've made myself on the computer and then I think, maybe I'd just like to replace the texture? Then sometimes, instead of redoing everything, I put it in stable diffusion for that image and replace the texture.

Or sometimes it will be. Like I want a particular dinosaur in a museum because it's an upcoming EXPO? So I asked Midjourney to generate it, but there's not necessarily any inspiration, it's more like correcting what we had before. I already know that I have. Then, yes, you start typing and you get some pretty images that are cool to look at, but that's not what inspired me.

7. *Do you use AI to generate other ideas?*

It's either that or putting ideas down. Could try with this and that, frankly. It's a bit like an enhanced pinterest. When I go to work with AI in my in a commercial project. I'll mainly use it like that in fact. Then, very quickly, I won't need it any more. Maybe that will change soon, and so will my role. Anyway, I'm also half artist-director, so I'll be directing teams and all that. For example, when you need to visualise the idea, you're going to use an AI to visualise what you actually have in mind.

8. *When you have a sudden idea, do you use an AI tool? For example, do you use an AI tool to help you visualise the idea?*

Not all the time because I actually do 3D too, basically. So, well, I don't draw, but very quickly I can model an idea and.

She helped me, like, iterate other images in relation to an image I'd created. Me, in fact.

9. *When you use AI, are one or more of your senses stimulated? Are emotions involved in your process with AI?*

Well the view I'd say, but. You see, I also find that there's a sort of filter where you can see quite quickly that an image has been made by an AI. I'm not necessarily answering your question, but yes, it stimulates my vision. But in fact there's also a bit of a problem because, in the end, most images generated by AIs start to look very similar. Frankly, I see AI as a tool. I mean, it's never the end of the project.

10. *Do you use AIs throughout the creative process?*

Yes, it's really up to the point where I have my idea and I've been able to visualise it. After that I don't use AI very much in carrying out my project as such.

Then it all depends on the project, for example for the light brothers the whole project is on the iA. So yes, I use it all the time, but obviously not afterwards in projects. But because in fact the project talks about the iA and in fact questions our relationship to the image, but also.

11. *Once you've got an idea and you want to test it, do you use an AI? For example, ask ChatGPT if the idea is good?*

Yeah, I've used it before. Yeah, it's pretty funny. For example, I've got a pitch in my head and then I ask chatgpt, can you expand on it in 5 points?

*12. Can you summarise how you use AI?*

But I'm using it but it's like 15% at the beginning and it's really going to be a mix of reference images from other projects and renderings that I do myself with the design team, you know?

It allows me to spend more time on more creative tasks and maybe automate what's less important to spend time on. After all, as an artist it's still important to maintain this creative process because iA could also, at some point, lead to hyper-automation and that's what's a bit scary for artists too. The trap is to standardise the process.

And it's already, I find it's already a bit the case, you know, even if you have a whole scene, it's quite surreal or psychedelic of the artist's image. But I find that quite quickly, well, you can see straight away that they're AI images and then quite quickly they all look the same, everything looks a bit the same because in the end they don't necessarily convey any emotion. And above all there's no story behind it, it's just the image, and then, you know?

As far as I'm concerned, AI doesn't transform or change anything in the artist's creative process, at least not mine. Maybe in 2 years' time I'll tell you something else, but right now, frankly, apart from the Celluloïde project, which does reflect on AI and the relationship between AI and cinema. So yes, obviously, but other than that, not at all.

*13. AI raises a lot of questions, particularly about copyright, intellectual property and originality. What do you think?*

It's complicated, in fact, there's someone who's thrown out, like, the list of 16,000 artists who were used to train de midjourney's images. So now there's a huge collective action by artists who are going to lodge a complaint.

It's very delicate, what I mean by that is that in the end these images are transformed, but there's still a real creation behind them. Humans also draw inspiration from others, except that the difference is that it goes a lot faster with AI, in fact, to draw inspiration. But otherwise it's much the same.

Finally, does it bother you that people draw inspiration from your work?

No, because at the end of the day they're all on the internet, which is pretty much the norm.

What's more, it would only represent a small part of the work, well just a small inspiration of my style, but it would never be copied in its entirety.

After that, we're still too much in the thick of things and there's no turning back, that's how it's going to stay. Getting worse and worse. But what I find more tense is that our own photos, our

family photos and all that. Well, that was also training AIs because you know, like when you put photos on Facebook or Google, the AI can use them? Well, it's clearly to train AIs in fact. And it can also create false information. Sometimes we also have a bit of trouble detecting what's true.

*14. Could AI one day replace artists?*

Maybe, I don't know. What's interesting is that, in the end, there are people who spend 15 years learning to be a painter, and then 15, 20 years learning to be a painter. And then you see, now you have people who make images in a few seconds and then the image will appeal more than the painting than the guy. It took him 20 years. To develop his, his abilities, in short. I'm expressing myself a bit. But what else am I trying to say?

Then I'd be more worried about designers and graphic artists who make images. Because it costs nothing to make an image in 2 seconds.