

Principle, Entry, and Reflow: Infinite Generation of Digital Intelligence Artistic Creation Dialogue

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Abstract. Dialogue on Infinite Generation of Art, Digital Intelligence Art Creation is empowered by modern digital intelligence technology, and based on the “memory repository” of all human art, its basic principle is based on the intelligent generation technology of digital encoding program, as well as the in-depth learning and artistic imitation of the full database of inventory samples. Digital intelligence art creation adheres to the art concepts of specific cultural environments, combines rationality and sensibility of art creation, and opens up the way of intelligent art creation through infinite algorithms, pointing to the aesthetic progress of combining sensibility and rationality. The aesthetic reflow of digital intelligence art creation is not only manifested in the shift of the focus of the creation of “focusing on intention and shape” on the level of technical rationality, but it also begins to dissolve the creativity and transcendence of art itself, weakening the power of art creation’s “accidental” interpretation and “extraterritorial” growth. It also begins to dissolve the creativity and transcendence of art itself, weakening the power of “accidental” interpretation and “extraterritorial” growth of artistic creation.

Keywords: Digital Art Creation; Creative Principle; Aesthetic Progression; Artistic Reflow; Infinite Generation

1. Introduction

In April 2023, OPEN AI released Chat GPT 4.0 based on GPT-3.5, marking the breakthrough development of Generative Artificial Intelligence, which is opening the era of mechanization of art creation and other spiritual production practices. From Plato to Alexander Gottlieb Baumgarten, the qualitative understanding of art has gone through the process of peripheral intuition to perceptual intuition, reflecting the philosophical appeal of art to inwardness and humanity. From Charles Bateau to Gilles Deleuze, the cognition of artistic creation has experienced the enrichment of types and the depth of concepts, and art has gone from the “sensual manifestation” to the “eternal return of the will to power” to the sensual repetition in the generation of differences, and the academic research is still unable to define “what is art” exactly. Academic research is still unable to define exactly “what is art” and “what is artistic creation”. From Arthur Danto to Levi-Strauss, Gilles Deleuze to Jacques Rancière, the emergence of readymade art has brought thinking about art theory and artistic creation into an institutionalized stage, where structure and deconstruction, time and space, rationality and sensibility, and difference and generation have been brought to the forefront..... The emergence of new art creation methods reveals that we should constantly open up our aesthetic horizons and break the original art boundaries to establish new ones. In the era of digital intelligence, the emergence of new art forms such as artificial intelligence art, digital art, intelligent generation art, etc., brings new impacts and challenges to art concepts and art creation, and new phenomena emerge in art creation.

2. Qualitative Concept: Digital Art is a limited intuition of infinite generation.

Hegel thinks that “art is the sensual manifestation of the idea”, which explains the sensual intuitive nature of art, and the concept of art itself has “ineffability”, but art creation is still the sensual intuitive expression of the conceptual world. Heidegger put forward the singularity, truth, mystery, and origin of art, and artistic creation shifted from creating an object to imitating the creation of a world. Digital intelligence, i.e. data intelligence, originates from data, which refers to

the information chain of “information” . In terms of the intuitive nature of art and the original nature of creating the world, Digital Intelligence Art as a new form of art can be established, which includes algorithmic generation art, Artificial Intelligence Art (AIGC Art), Digital Art, Intelligent Generation Art, and other non-artificial art created with the help of Digital Intelligence Technology in the digital intelligence era. Qualitatively speaking, digital intelligent art creation refers to the art creation practice based on the “memory repository” of all human art using modern digital intelligent technology, which is characterized by technology, intelligent generation, algorithmic dependence, and non-manual operation.

The emergence of digital art has impacted the solemnity of artistic creation in the form of quiet observation, silent illumination, and detachment, making it a symbolic image recreation in the form of mechanical reproduction, and artistic creation, as an empirical practice, no longer possesses artificial characteristics, but has been replaced by the intelligent generation of data stacking. In traditional art creation, art has a linear and infinite generative nature, which is the infinite imagination and re-creation of the creator, disseminator, and connoisseur of the world of imagery conveyed by art. Calligraphy brushwork, painting techniques, and carving techniques require the aesthetic subject to continuously accumulate experience and enrich the artistic connotation to create, disseminate, and appreciate the art content in a better way. Digital and intellectual art creation breaks the linear mode of traditional art creation experience generation, incorporates the artistic wisdom of all mankind into the bag, extracts the creative experience from the unlimited database, and generates specific limited intuitive sensual works. From this level, digital art creation is a limited intuition of infinite generation.

3. Generation and Imitation: The Basic Principle of Digital-Intelligent Art Creation

At the beginning of the 20th century, the technical exploration of robot participation in art creation began, and the development of artificial intelligence in the 21st century has injected fresh vigor into this exploration, and “artistic” works created by generative artificial intelligence continue to emerge, and digital-intelligent art creation has been formally added to the practice of art creation. Digital Intelligence Art Creation is based on complex computer program technology, which can generate artwork according to instructions at a speed faster than that of manual creation. The basic principle of Digital Intelligent Art Creation is based on the intelligent generation technology of digital coding programs and the artistic imitation of the full database of inventory samples. Digital intelligent art creation not only reflects the technical properties of the media at the physical level, but also reflects the compression of the spacing of art creation practice by intelligent generation, and promotes the behavioral practice and value reproduction of digital intelligent art creation with a more intellectual imitation mechanism.

3.1 Technical Logic: Artistic Imagery Generated by Programs

From the level of technical logic, digital art creation utilizes data programming technology and artificial intelligence technology to programmatically generate artistic imagery. With the change of input instructions, generative AI can dynamically adjust the artistic creation by capturing the keywords of the instructions and searching the matching operation of the database coding program to change the presentation form of the artistic imagery. The program generation used in digital art creation is different from the “creative mind” of artificial art creation, which can only be created through the simulation of the human thought system, which is based on the regularization and mathematical foundation of art creation. For example, our Microsoft Xiaobing writes poems, the “Universal” program writes film and television scripts, Google Deep Dream, the CAN system for painting creation, the Tsinghua Daozi program for art design, and so on.

The numerical intelligence machine becomes the agent subject of art creation, the programmed numerical intelligence technology acts as the artistic heart and mind of the creative subject, the

database acts as the experience accumulation of the creative subject, and the mathematical and scientific creation method acts as the technical path of art creation generation. From the technical body mind, and technical body experience to the creation method, the numerical intelligence art creation has paved a completely mechanized creation path. The program-generated artistic imagery is still based on the knowledge of existing artworks and the real world and is condensed according to the artistic aesthetics and artistic imagination of different cultural environments to generate programmed artworks.

3.2 Deep Mechanism: Emotional Imitation of Art Intellectualization

Digital intelligence art creation relies on AI's deep learning mode and data capturing ability, and in terms of the deep mechanism, it is an artistic imitation of the whole network, the whole program database samples. Generative AI adjusts the presentation of art creation based on the change of instructions and needs to adjust the mechanized idea of art creation based on the existing stock samples, which is anthropomorphic art imitation. The interaction between the artificial input instructions and the intelligent generative machine forms a biomimetic creation feedback mechanism, and the intelligent machine also interacts emotionally with the human subject in the continuous cycle of accepting instructions and imitating creation, and the stock sample imitation of digital intelligence art creation turns to emotional imitation.

In the integration of science and technology and art, the emotional imitation of digital art creation is based on the greater potential development space of digital art, which has begun to become a new technological means, new media materials, and new creative path for expressing artistic imagery, constructing artistic emotions, and intuitively manifesting the truth of art, and which has shown outstanding advantages in terms of the efficiency of the production process and the convenience of the presentation method. This also reflects the development of artistic creation in the age of digital intellectualization, which made the intellectualization of artistic emotion turn. "Art is the generation and occurrence of truth", the emotional performance of artistic creation is no longer limited to the human subject's emotional expression, sensing equipment to give the digital wisdom of artistic creation, carbon based on the subject's perceptual ability outside of the emotional perception, imagery creation, realm generation and other artistic creation activities in the thinking ability and content creation ability.

4. Infinity and Finitude: The Aesthetic Progression of Digital Intelligence Art Creation

Mathematical and intellectual art creation illustrates that art has mathematical rationality and regularity, breaking the absolute sensibility of aesthetic experience and pointing to the aesthetic progression of combining rationality and sensibility. Late art theory and art history research also put forward the concepts of "artistic intelligence" and "image intelligence", which also affirm the existence of aesthetic and artistic intelligence. With the help of infinite algorithmic machines, digital art creation can only generate regular and mathematical artworks, coupling the "limited rationality" of the aesthetic subject with infinite algorithms to create a limited context based on the existing data, which shows the creative idea of copying the context of the existing data by algorithmic mechanism. The aesthetic progression of digital art creation adheres to the art concepts of specific cultural environments, combines the rationality and sensibility of art creation in a dialectical way, and uses infinite algorithms to open up the creative progression of intelligently generated art.

4.1 Infinite Algorithms: The Creative Path of Intelligent Generation

The deep learning model of digital art creation relies on the autonomous learning function of the algorithmic technology, which includes three autonomous learning models: the recursive generation model, the self-attention generation model, and the adversarial learning generation model. The

creation process of Digital Intelligent Art Creation is as follows: recursive art concepts, imitation objects, etc. from the existing database, and then generate creative ideas about the instructions based on the self-attention model, and at the same time, use the adversarial learning model to further correct the invalid instructions, and finally keep the artworks that conform to the current art concepts. The creation of digital art is based on a massive and infinite Internet database, and the algorithmic control of the creation process has an infinite loop, which is a creative process that highlights the differences in art in the infinite generation.

In addition to creation, the dissemination and acceptance of Digital Intelligence art are also calculated by the algorithmic mechanism, and the infinite algorithm plays a role in the whole chain of Digital Intelligence art creation. The creation of digital art evaluates the aesthetic stimulation brought by the work to the viewer according to the “visual dwell time”, and calculates the aesthetic interest of the aesthetic subject, and the sensual aesthetic tendency becomes a mathematical factor that can be calculated, and the dissemination and appreciation of digital art are distributed according to this algorithmic mechanism. Gombrich pointed out in *Art and Illusion* that the understanding of artworks between creators and viewers is biased based on the differences in focus, objective experience, visual processing, and the first point of view. Based on the infinite algorithm of digital art creation, the attention bias between the aesthetic subject is eliminated in the infinite program calculation, and the intelligently generated artwork becomes the intuitive output of the aesthetic subject's experience base.

4.2 Limited Context: Aesthetic Reflection on Machine Reproduction

Context is the imaginary world and realm constructed by artworks, which integrates subjective life experience with objective natural scenery, and is the spiritual realm formed in the interaction between the aesthetic subject and the artworks. Until contemporary times, Chinese theories about art creation still pay attention to the creation of “context”. Zong Baihua put forward “the birth of Chinese art's mood”, Li Zhou believes that “mood is the unity of emotion and reason, form and god”, and Ye Lang’s “mood theory”, Li Zhou believed that mood is the unity of emotion and reason, form and god, Ye Lang’s “mood theory”, “Yuan Qi theory”, and Pu Zhenyuan regarded mood as the sum of artistic image, artistic interest, and artistic association. “Context” is a highly condensed philosophical concept of art, and is the overall goal of artistic creation.

The mood of digital art creation is limited to the algorithmic program, the machine sense of intelligent generation technology, and it is difficult to achieve the transcendental sense of “openness outside the object”, “leisurely in the spiritual realm” and “forgetting words in the desire for discernment”. It is difficult to achieve the transcendent feeling of “being outside things” and “relaxed in the spiritual realm”, and “forgetting words when trying to recognize them”. The limited mood presented by digital art creation is manifested in the “algorithmic learning” and machine copying of existing art concepts. Based on the “algorithmic learning” mode, digital intelligence art creation summarizes the experience, lists formulas, forms art creation schemas, and formulas, and creates a limited context copied by machines. From the external representation of artistic imagery to the internal expression of artistic emotion, the limited context of Digital Intelligent Art Creation is expressed through the adjustment of program parameters, transforming the construction of the perceptual artistic realm into the generation of mathematical algorithmic programs. Digital-intelligent art creation replaces the perceived experience acquisition with program learning and replaces the sense of transcendence with the sense of machine, and the constructed artworks and their inner worlds may have shape, intention, and realm, but the finiteness and sense of machine between the shape and intention, and the realm make it difficult for digital-intelligent art to replicate the uniqueness of the artificial art.

5. Form and Meaning: The Aesthetic Reflow of Digital Intelligence Art Creation

With the help of algorithmic deep learning, big data's "inventory experience" and machine life's intelligent generation, digital and intelligent art creation has become a digitalized and intelligent way of art creation. However, compared with traditional art creation, the machine sense and numerical rationality of Digital Intelligence Art Creation is only the experience accumulation and artistic imitation of "transforming the form into unintentional", but lacks the emotional transcendence and aesthetic perspective of "transforming meaning into intangible".

5.1 Transforming Meaning into Formlessness: The Aesthetic Direction of Artificial Art Creation

Lao Zi said in Tao Te Ching that "the great sound is like the sound of an elephant, and the elephant is like the formless", and this meaning has been adhered to by traditional Chinese art creation, and "transforming meaning into formlessness" has been taken as the aesthetic direction of artificial art creation. Chinese painting theory is directly related to the concept of "transforming meaning into formlessness", taking "formlessness" as the base of the painting, emphasizing "reproduction" and "depiction", and using form and appearance as the basis of painting. It emphasizes "to reproduce" and "to depict", and draws the abundance of meaning with the detachment of form and appearance. The metaphysics of landscape garden design point to the "meaning" generated by the heart, paying attention to heterogeneity and homogeneity, downplaying the framing role of the form, and highlighting the "metaphor", "deconstruction" and "reorganization" of the spatial design. It emphasizes the "metaphor", "deconstruction", "reorganization" and other transcendental values of space design, and expresses the "displacement" of the garden space with "space-time conversion". In addition to the physical art creation, the artificial creation of film and television art creation is also excellent "blank space", "Xisheng" and other "intangible" techniques to enhance the artistry, for example, The "blank aesthetics" and "pause aesthetics" in the creation of movie art, which expresses the plot narrative and characters' emotions through short image blanks or action stops to sublimate the overall mood of the image content and enhance the aesthetic value of the work.

The aesthetic direction of artificial art creation is manifested in the grasp of "nothing" in the technique of "transforming meaning into formlessness", "creating god rather than form, constructing meaning rather than building body", and dissolving the presence and absence, subject and object, etc., in art creation. Absence, subject and object, and other dualistic relations in artistic creation, elevating the aesthetic orientation of artistic creation to the realm of "getting away from the form to get the likeness".

5.2 Form into Unintentionality: The Aesthetic Reflow of Digital Intelligence Art Creation

Digital-intelligent art creation is based on the sample experience of the database, and the intelligent generation of technical means can only imitate the shape, but not the meaning, which simplifies the process of art creation into the process of the proposed construction of the work of procedural learning, and ignores the growth of the meaning of the work of art in the unlimited nature of the generation of the meaning. Digital intelligence art creation extracts the emotional characteristics of portraits from the database of existing artworks, combines traditional creation methods and deep learning, integrates image drawing, voice formation, 3D shape printing, and other processing technologies, builds a splicing system for digital intelligence art creation, and carries out the production of works with formulaic and mathematical creation techniques. The physical parameters generated by digital intelligence technology become the different properties of the shape-constructed artworks, such as the editing of strokes in painting, the pixel adjustment of images, and the transformation of models in garden design, etc. The external and expressive shape

is the only object of digital intelligence art creation, and the meaning mapped behind the artworks is no longer taken as the exclusive point of creation.

The programmed machine creation of digital art creation, which transforms form into unintentionality, causes art creation to undergo aesthetic reflux and return to the original imitation stage. It is only limited to the imitation of the shape of the art samples and the intuitive expression of the meaning of the instructions, ignoring the cultural value of the art creation itself beyond the line and the infinity of the meaning expression. The aesthetic reflow of numerical and intellectual art creation is not only manifested in the shift of creative focus from “focusing on intention and shape” on the level of technical rationality, but it also begins to dissolve the creativity and transcendence of art itself, weakening the accidental explanatory power and extraterritorial growth power of art creation. It also begins to dissolve the creativity and transcendence of art itself, weakening the accidental explanatory power and extraterritorial growth of artistic creation. Art, as the aesthetic subject’s interest, contains transcendental cultural value and personalized emotional expression, which is the essential difference between art creation and other craft creations, and also the most attractive place for art creation. The infinite generation of dialogue art, the technicality, intelligent generation, algorithmic dependence, and numerical rationality of digital art creation make it neglect the ultimate orientation of art creation, and only art creation with incarnate human beings as the main body of creation can realize the value of art creation in transcending the daily life and letting go of the emotions.

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