

"AI ART" AND DELEGATED DIGITAL CREATIVITY: VICTOR WONG'S TECH-iNK PAINTINGS AND CHEN QIUFAN'S NOVELLA "STATE OF TRANCE"

Giorgio Strafella and Daria Berg

This chapter investigates new forms of conceptual experimentation with so-called "artificial intelligence" in visual art and literary fiction. Drawing on theories of generative art and delegated art, we propose the term "delegated digital creativity" to describe art and literature that explicitly delegate part of the conception as well as realization of a given work to "AI" models. In visual art, this chapter examines "TECH-iNK" paintings by Victor Wong – ink-and-wash landscapes executed by a machine programmed by the artist. In literature, the chapter discusses a science-fiction novella by Chen Qiufan in which the authorship of some passages is assigned to a machine-learning model. By placing these case studies within the history of avant-garde experimentation, this chapter shows how the adoption of such technologies, as it occurs in these works, foregrounds the issue of control and deception while it establishes complex relations of continuity and innovation with tradition.

Keywords: China, artificial intelligence, ink painting, science fiction

1. Introduction

This chapter addresses the theme of change and continuity in twenty-first-century Chinese culture by discussing a fictional narrative and a body of paintings that experiment with "artificial intelligence" (AI), deriving our understanding of this concept mainly from Mitchell (2019). While the short story and the paintings both claim for themselves an aura of novelty by showcasing the adoption of a technology that has become synonymous with innovation and futurity, the analysis in this chapter focuses on the links that these works and their creators establish with tradition – whether pre-modern, modern, or avant-garde. The chapter

draws on theories and examples of generative art and participatory art to analyze these works of fiction and visual art as representative of a trend in contemporary intellectual history and theorizes such a trend by introducing the new concept of "delegated digital creativity."

In order to do so, this chapter cautiously accepts the working premise that the technology employed in the creation of these works displays a degree of autonomous creative subjectivity. We work with such a premise while remaining aware that the capabilities of available AI systems are frequently exaggerated and even falsified for the sake of marketing hype (Kaltheuner 2021; Reben 2021) as well as to conceal the human labor that is essential to sustaining said systems (Altenried 2020; Crawford 2021, 63–64; Stephens 2023). Following the scholar and artist Joanna Zylinka (2020, 35), one may describe these works as "prefigurative AI art". As Zylinka writes, "even if the current technology only allows us to call present-day creations 'prefigurative AI art' – because [...] no one seriously believes that 'proper AI' is going to happen any time soon [...] – *something is already happening*" (ibid., emphasis in the original). Since theorizing such phenomenon entails historicizing it, this chapter will contribute to our understanding of the realities and imaginaries of technology in China beyond an ahistorical and Orientalist "Sinofuturism" (Conn and De Seta 2021; De Seta 2021). Through the theorization of those case studies as "delegated digital creativity," the chapter dispels any aura of "Sinofuturism" that may surround them and places them instead within contemporary intellectual history, highlighting elements of continuity as well as change in relation to the intellectual, societal and political context of the cultural trend they represent.

The first case of delegated digital creativity examined in this chapter consists of ink-and-wash landscape paintings created by the Hong Kong-based artist Victor Wong (黃宏達), such as the series entitled *Escapism* (逸 Yi, 2018), *Seven Scholars* (七賢士 Qi xianshi, 2019), and *Far Side of the Moon* (月球背面 Yueqiu beimian, 2019) (3812 Gallery 2019a). The robotic arm that produced these "TECH-iNK paintings" on rice paper was guided by an electronic brain programmed by Wong, who named his machine, "AI Gemini". Wong describes this machine's brain as "artificial intelligence" and claims it has the ability to design a three-dimensional landscape, choose an angle from which to "view" it, and execute the painting in a way that he cannot either predict or control (Chitrlekha 2019; Zhang 2019). Wong also claims to have programmed AI Gemini to simulate emotions that it channels into painting (SSAM 2019). While traditional "freehand," or "sketching the idea" (寫意 xieyi) art inspires the style of the images in the above-mentioned series, AI Gemini's landscapes – as Wong himself admits (3812 Gallery 2019b) – could not be mistaken for the creation of a human xieyi master due to the unorthodox brushwork, among many other things.

A science fiction novella by Shanghai-based writer Chen Qiufan (陳楸帆, *alias* Stanley Chan), represents our second case study of delegated digital creativity. Entitled *State of Trance* (出身狀態 *Chushen zhuangtai*), it was published in the literary journal *Fiction World* (小說界 *Xiaoshuo jie*) in 2018 and also appears in Chen's anthology *Alienation Engine* (異化引擎 *Yihua yinqing*, 2020). The story, set in a post-apocalyptic future, follows the journey of the main protagonist – a “you” who has forgotten her own name – walking from her home to the main branch of the Shanghai Library to return a book. Toward the end of the story, the protagonist, now in front of the library, finds herself near a “famous bronze statue” – presumably, the cast of *The Thinker* (*Le Penseur*, 1904) by Auguste Rodin that sits outside the entrance of that building in the real Shanghai – and the sculpture starts talking to her. The surrealistic words spoken – and later, sung – by the statue are print in a different typeface (namely, 楷體 *kaiti* instead of 宋體 *songti*) and bear an asterisk. A note at the end of the story explains: “The parts in *kaiti* and marked with * were created by an AI program through a process of deep learning of the author's style and were not edited by a human being” (Chen 2018a, 131; Chen 2020, 160).¹

While later sections in this chapter will explore these case studies in depth, it is worth mentioning here two characteristics shared by both works. First of all, both Wong's paintings and Chen's short story experiment with “artificial intelligence” in a way that – to borrow words used to describe the “programmed machines” of contemporary artist Maurizio Bolognini – highlights “the renunciation of control, the irruption of randomness, the reduction of the [human] subject's role to a residual possibility of choice.”² Whether trained in the author's own style, or inspired by the masters of ink painting, both examples foreground the *decision* by the author and the artist to surrender creative control to the machine.

A second preliminary observation on both Wong's TECH-iNK paintings and Chen's *State of Trance* is that neither work attempts to disguise the product of computer algorithms to resemble an unassisted human creation. In the case of digital images, computer scientists working with a type of machine-learning framework known as generative adversarial networks (GAN) have been training computers to come up with new images that are meant to resemble the work of one or more artists. Researchers at Princeton University recently reported, for example, the development of a GAN model trained on a dataset of “traditional Chinese landscape paintings” that generates new pictures in the same style (Xue 2021). One of the stated goals of their research consists in generating images that can pass a “visual Turing test,” i.e., make human viewers mistake these computer-generated images

¹ All translations from Chinese are by the authors unless otherwise indicated. Josh Stenberg's English translation of *State of Trance* (i.e., Chen 2020) was consulted.

² Words attributed to the philosopher Mario Costa in Riva (1996). See also Costa (2005) on Bolognini's art.

for human artworks; in the case of the model described in Xue (2021), the reported success rate of this test was 55 percent (Xue 2021, 8; on the Turing test and AI, see also further in this chapter). According to Zylinska, most of what currently goes under the label of "AI art" actually consists of such "AI imitation work" or "style transfer" – that is, in her view, "pure mimicry: a belaboured resemblance which is also a masquerade" (Zylinska 2020, 50). One may argue that research into such emulative machine-learning models such as Xue (2021) tends to efface the role that humanistic expertise and curatorial decisions play in their development – likely in order to emphasize technological innovation – while flattening the complex and diverse selection of artworks utilized in the process into the technocratic concept of "dataset."

As to the written word, the note at the end of *State of Trance* implies that the author of the story had trained the algorithm that generated the statue's words so that they would resemble his own writing. The result, however, hardly resembles anything published by Chen Qiufan – just as AI Gemini's paintings have little in common with the work of xieyi masters. Chen's novella itself pokes fun at the nonsensical verbiage uttered by the bronze statue when the protagonist reacts to its first statements with a baffled: "What?" According to Murray Shanahan, a senior scientist at Google's AI research laboratory DeepMind, when it comes to literature "even the best language models today still write things that don't really make sense – the more words they generate, the less [they] make sense" – and it will take a long while before one such model manages to produce a coherent work of literary fiction.³ In the case of *State of Trance*, this technical limit constitutes no obstacle to the experiment because what the author foregrounds is the very usage of machine learning to put words in the mouth of an otherwise-lifeless statue – that is, the (delegated) creative process itself, rather than the meaning of those words.

The following sections of this chapter will show how the contribution of these creative works to an avant-garde reflection on the concept of artistic creativity emerges in contrast to the above-described "imitation work" and to the "banal deception" (Natale 2021, 31) of the media created with the goal of winning Turing's "imitation game." Before we analyze Victor Wong and Chen Qiufan's works in the second part of the chapter, however, we propose ways of placing such experiments with machine learning within contemporary cultural history by defining "delegated digital creativity."

³ From Shanahan's answer to a question posed by the authors during Shanahan (2022).

From computer art to delegated digital creativity

In the 1990 essay, *Computer Art as Conceptual Art*, artist and art critic Christine Tamblyn contrasted creative modes that emulate “conventional formats of aesthetic expression” with computer artists who “extend the purview of Conceptual art” (Tamblyn 1990, 253). Tamblyn observed how computers are “designed to augment mental processes, as opposed to being visual or manual aids” and traced the lineage of computer art to the work of Marcel Duchamp, to the avant-gardist dematerialization of art, and to Joseph Kosuth’s idea that being an artist entails questioning the very nature of art (ibid.). In that essay Tamblyn discussed a work of interactive computer art, viz. the installation *MARGO* (1980) by Sara Roberts, highlighting the work’s ability to construct “a maternal relationship with the viewers” while displaying “affective capacity” (Tamblyn 1990, 254). Later sections of this chapter will return to the issue of the simulated affective capacity of AI when discussing “simulated emotion” in TECH-iNK paintings. The issues of power and control, which Tamblyn identified in her essay alongside that of conceptual experimentation, become crucial to examine the theory and practice of computer-assisted generative art.

Definitions of generative art vary according to one’s focus on the media, methodologies, or approaches employed, as the concept can encompass “systems art, interactive art, algorithmic art, software art, artificial life art, evolutionary art,” and so forth (McCormack 2014, 135). Crucially, what makes art “generative” is the foregrounding of the *process* by which it is made, and “this process is required to have a degree of autonomy and independence from the artist who defines it” (ibid.; Galanter 2003, 4). On a conceptual level, generative art raises the question of what kind of abilities and experiences a computer (or any entity, in fact) needs before it can be considered an artist in its own right.

The avant-garde research of generative art hence revolves around the meaning of agency and creativity (Boden and Edmonds 2009, 40). Philip Galanter, whose writings on generative art are often cited in Sinophone scholarship on the subject (e.g., Guo 2012; Wang and Liu 2021), posed the question in the following terms: “If the artist gives up control to an external system, how does that problematize the issue of authorship? Can generative systems themselves be considered creative? And indeed is generative art really art at all?” (Galanter 2012, 272). Frieder Nake (2014, 108), another influential theorist, noted how generative art (including the algorithm-based kind) always originates from the human work (and bias) that programming a computer entails. Without the working assumption of machine creativity and agency that characterizes “prefigurative AI art,” algorithms used in generative art could be described as “calculative solutions to a problem” and a mere “means of making a situation explicit, of making it utterly clear and unambiguous,” to quote Toister (2020, 224).

Wang Zhenfei (王振飛) has been one of the most original theorists of generative art in China. In a 2012 article that links generative art to complexity theory – perhaps revealing the influence of Galanter's theories (e.g., Galanter 2003)⁴ – the Tianjin-based designer observed that generative work has fundamentally altered the role of the artist. Instead of directly producing the work, i.e., the "result," the artist constructs a generative systems ("a tool") and then generates artworks by training and employing such systems. Believing that the beauty of generative art lies in its "unique unpredictability" (Wang 2012, 34), Wang Zhenfei proposed the application to art of principles derived from the study of complex systems, such as a bank of fish, a colony of ants, or human beings living within built or virtual environments. He imagined a type of generative art that would resemble complex, self-organizing network systems without rulers or hierarchies, and in which "every individual operates according to specific rules, each one interconnected and influenced by the others, thus creating a collective whole" (Wang 2012, 36).

How does one approach the question of authorship and creativity once the machine is assumed to no longer constitute a mere tool, the algorithm no longer a mere solution to a problem – and the artist supposedly outsources authenticity itself to a machine? What if we identify the key experimental gesture of (prefigurative) AI art not in the computer-assisted generative moment, but in the renunciation of control and the delegation of creative agency to a machine that is assumed to possess genuine creative abilities? Such a perspective suggests shifting the focus to dimensions of agency, power and authenticity, and highlights potential parallels between so-called "AI art" and creative practices that have traditionally been centered around humans, rather than computers and algorithms. One such creative practice is delegated art.

The post-1989 phenomenon of delegated art is best seen in relation to the wider trend of participatory art (Bishop 2012, 219). In participatory art – which also includes socially-engaged art, community-based art, and so on – other people, rather than the artist themselves, constitute the central artistic medium and material, thus becoming the focus of artistic research which valorizes "participation as a politicized working process" (Bishop 2012, 2). A notable example of participatory art⁵ from China is *The Great Survey of Paper-cutting in Yanchuan County* (延川縣剪紙大普查 *Yanchuan xian jianzhi da pucha*, 2002–2004), a work initiated by the Beijing-based socially-engaged art platform known as the *Long March Project* (長征工程 *Changzheng gongcheng*). Coordinated by the curator Lu Jie (盧傑, b. 1956) together with the artist and art theorist Qiu Zhijie (邱志傑, b. 1969), the *Great Survey* saw the participation of over 15,000 people who engaged in the art form of

⁴ This may reflect the influence of Galanter's theories on Wang's work, see Galanter (2003).

⁵ In Chinese, 參與式藝術 (*canyushi yishu*).

papercutting in north-west China (Lu 2004). This work of participatory art reflected the Project's focus on bringing contemporary art to the Chinese countryside while promoting the emergence of a "from-bottom-up" artistic subjectivity (Long March Project 2004).

Delegated art (or, "delegated performance") constitutes a type of participatory art in which the entire work relies on the actions of non-professional performers chosen from outside the art world; in carrying out a performance, they follow instructions provided by an artist who is absent from the scene (e.g., Tino Seghal). For some critics, delegated art offers to the audience "potentially expanded degrees of agency in making art and its meanings, enabling individual expressivity, extending to all participants the opportunity to be an artist and democratizing the role of artist" (Harvie 2013, 36). On the other hand, as both Harvie (2013, 41) and Bishop (2012, 221–236) recognize, delegated art frequently concedes a very limited degree of agency to the performers, as the artists sometimes assign to them banal, alienating, and even abusive tasks (e.g., Santiago Sierra). A Chinese example of such delegated art⁶ is *Temporary Space* (臨時空間 *Linshi kongjian*, 2003) by Wang Wei (王衛), in which Wang employed ten migrant workers to build a brick building inside an art space over the course of seventeen days, after which the building was demolished. Inspired by Joseph Beuys's (1921–1986) idea of "social sculpture", *Fairytale* (童話 *Tonghua*, 2008) by Ai Weiwei (艾未未) – which saw 1,001 Chinese people from all walks of life travel to the German town of Kassel for the *Documenta 12* art festival – represents another example of delegated art from the Sinophone world.⁷

In delegated art, similarly to what occurred in the creation of Chen's short story and Wong's paintings, "the artist delegates power to the performer (entrusting them with agency while also affirming hierarchy)" and sets up a situation whose outcome is characterized by a degree of unpredictability (Bishop 2012, 237). By doing so, the artist "outsources authenticity" and relies on the performer(s) – or, in our cases, a machine – to supply a new, revamped authenticity to the work. Not unlike what happens in delegated art, Chen Qiufan and Victor Wong both relinquish and reclaim power in their respective works, as they choose "to temporarily lose control over the situation before returning to select, define and circulate its representation," to quote again Claire Bishop (*ibid.*). In this sense, their works establish a relationship between creativity, control, and authenticity that is analogous to what Bishop (2012) has observed in delegated art. Something changes, however, when the Other of delegated art is not an amateur performer who receives instructions from the artist, but an entity that, while programmed

⁶ In Chinese, 展演式藝術 (*zhanyanshi yishu*), or 代理式展演 (*dailishi zhanyan*).

⁷ On *Fairytale* in relation to Ai's approach to art and activism, see Strafella and Berg (2015, 141).

or "trained" by artists and authors, is described as possessing a degree of creative autonomy. Now what the artist supposedly outsources is not only authenticity, but also creativity.

When delegated digital creativity is placed in relation to the avant-gardist trends explored in this section, one can think of its genealogy in terms of progressive degrees of "removal." The "dematerialization of art" described by Tarnblin as the hallmark of conceptual art (including computer art) represents one type of removal, i.e., the removal or dissembling of art as a physical object. Generative art and performance art equally signal the primacy of action and process over the artistic "product." In delegated art one observes a second type of removal, i.e., that of the artist as the performer. Delegated digital creativity, with the introduction of "artificial intelligence" in the design and realization of the artwork, enacts a third type of removal, i.e., the partial removal of the artist (or author) as creator. This premise allows Chen Qiufan to portray the application of machine learning to literary creation as "collisions and flows between human and non-human intelligence" (in Wang and Wang 2020), and Victor Wong to describe AI Gemini as his "partner and soul mate" (in Chitrakha 2019) and "an extension of his artistic creativity" (in Zhang 2019).

Advancing from this theoretical framework without constraining our case studies in what admittedly constitutes a West-centered starting point, the next sections will explore Chen and Wong's forays into the territory of delegated digital creativity by paying special attention to the way in which the author and artist themselves, as well as Sinophone critics and media, have framed and discussed their experiments. This will show the ways in which both Chen and Wong showcase an innovative creative process while establishing a web of connections between their work and various traditions. Furthermore, the analysis put forth in the following sections will reflect on how the concept of delegated digital creativity foregrounds the creative process and the idea that underpins it, particularly the relation between human and non-human actants, rather than the final product of this process.

Victor Wong's AI Gemini

While knowledgeable on the topic of Chinese painting, Victor Wong is not an ink-and-wash painter who has turned to automation, but a multi-disciplinary artist who has long employed advanced computing for his work in visual art as well as film and advertising. Born in Hong Kong in 1966, Wong attributes his passion for inventions and do-it-yourself creativity to the influence of his father, a master in the art of joss paper (紙紮 *zhizha*) who created bamboo-and-paper models in the shapes of boats and motorbikes (SSAM 2019; Zhang 2019). Wong studied

Engineering and Physics at the University of Washington in the United States before starting a career in Hong Kong cinema as an artist of "computer-generated imagery" (CGI). Starting from the 1990s, he contributed visual effects to such movies as Ronny Yu's (于仁泰) *Fearless* (霍元甲 *Huo Yuanjia*, 2006), Jacob Cheung's (張之亮) *A Battle of Wits* (墨攻 *Mo gong*, 2006), and Roy Chow's (周線揚) *Rise of the Legend* (黃飛鴻之英雄有夢 *Huang Feihong zhi yingxiong you meng*, 2014). His contribution to the cinema industry has earned him the Taipei Golden Horse Award and multiple Hong Kong Film Awards. Wong has also worked in advertising and is known to have created for the Hong Kong Jockey Club a three-dimensional animation based on the famous paintings of *Gallopings Horses* (奔馬圖 *Ben ma tu*, 1939–1942) by Xu Beihong (徐悲鴻).

Wong's TECH-iNK paintings were first displayed at the *Ink Now* (水墨現場 *Shuimo xianchang*) exhibition in Taipei at the beginning of 2019 (Zhang 2019). A media report on this exhibition described Wong's landscapes as representing "a new way of thinking ink-and-wash painting for the contemporary era" (Yang 2019). In an interview on Ai Gemini, Wong explained their "collaborative" artistic process:

I convert physical or geographical data into a language that AI can understand. For example, the movement of two planes ramming into each other to create mountains could be represented in the form of mathematical equations and fed into AI Gemini's database. Based on the data, AI Gemini creates an algorithm that's basic to tectonic shifts, making it possible for him to generate a virtual 3D landscape and decide on the angle from which to view and draw it. (Wong in Chitralkha 2019)

Wong compares the way in which AI Gemini generates its paintings to how humans acquire "data" about the environment in their daily lives or by traveling and later re-interpret what they saw based on such experience (SSAM 2019). Before each painting the machine "reorganizes" its knowledge of the world in unpredictable ways, claims Wong (Zhang 2019). Alongside geographical and geological information – e.g., seas, islands, the effects of erosion over thousands of years – Wong feeds the algorithm with random factors (Chitralkha 2019), or "noise," to avoid "overfeeding" the algorithm with redundant data. In the case of the series of paintings entitled, *Far Side of the Moon*, Wong fed the computer images from the rover of the *Chang'e 4* (嫦娥四號 *Chang'e sihao*) lunar mission, which reached the hidden and rugged face of the Earth's satellite in January 2019, alongside data on moon landscapes that he sourced from NASA (Chitralkha 2019; Zhang 2019).

By making AI Gemini start the process of designing and representing a landscape from grappling with the fundamental laws of physics and geology – "compiling the transformation of the Earth over four billion years into an equation," as he put it (in Kuang 2019, 133) – Wong's approach resonates with the interpretation of

Chinese landscape (山水 *Shanshui*) painting offered by philosopher Yuk Hui (許煜) in *Art and Cosmotechnics* (2020). According to Hui, who underlines the role of Daoist thought in the tradition of *shanshui* art and its appreciation, *shanshui* painting "is cosmotechnics in the sense that, in order to paint, one has to first understand the cosmos and its genesis, as [seventeenth-century calligrapher and artist] Shitao [石濤] said: 'when one knows the principle (理 *li*) of *qian* [乾, heaven] and *kun* [坤, earth], one knows the essence of mountains'" (Hui 2020, 189). By theorizing *shanshui* painting as a cosmotechnics – that is, as a technical activity "resituating humans and their technological world within a broader cosmic reality, where the cosmic and moral orders are unified" – Yuk Hui aims to discover the function of the *shanshui* tradition "in the time of artificial imagination, when machines claim to increasingly occupy the domain of creativity" (Hui 2020, 141, 254). From the viewpoint articulated by Yuk Hui, one may see Victor Wong's approach to human-machine collaboration in landscape painting as one way in which the artist places its experiments with "artificial intelligence" in a relation of continuity with the tradition of Chinese art.

Without the chance for a computer scientist to examine Wong's programming code, one can hardly judge to what extent AI Gemini should be characterized as "artificial intelligence" or, in other words, what type of machine-learning model is at work during the process that Wong describes. In Wong's accounts, AI Gemini's training resembles that of a child or a student whose learning process must start from basic notions such as "what is paper, what is water, what is ink" (SSAM 2019). Moreover, the artist emphasizes that AI Gemini's functioning is "different from machine learning where the AI studies and analyzes numerous paintings of the same subject, absorbs the data and prints out its own version. AI Gemini can physically draw an image" (Chitralkha 2019). Wong stresses the difference between his method and "AI paintings in the West, where the principle is to let the AI study many oil paintings, analyze how humans paint, and then do the work" (Kuang 2019, 133). Rather than imitate or substitute the human artist, Wong believes the machine should develop its own style and learn to paint in ways that a human could not (Zhang 2019), emphasizing in this way the renunciation of control by the human artist-cum-teacher.

A key feature of AI Gemini, according to Wong, consists in how it elaborates data about its surroundings – e.g., weather or air temperature – into a "mood" that affects the way it paints. Wong describes the mechanism that governs this process as "simulated emotion" (模擬感情 *Moni ganqing*) and claims it is analogous to the way the environment can affect a person's mood (Zhang 2019; 3812 Gallery 2019b).⁸ As the artist puts it when describing how AI Gemini reorganizes reality before painting:

⁸ On the way that research into artificial intelligence has long attempted to factor affect and emotions into artificial systems, see Wilson (2010).

xieyi is not a direct reproduction of reality, but a form of expression focused on the spiritual dimension. The scene in the painting is not a view of the actual terrain, but an interpretation of reality that incorporates the artist's own thoughts after traveling through the landscape. (Zhang 2019)

This is another example of how Wong seeks to anchor his work with AI Gemini in the Chinese artistic tradition, establishing a relation of continuity as well as innovation with the past. While purporting to describe AI Gemini's creative process, Wong's words echo a theory of painting found in canonical texts of Chinese art theory. To begin with, by emphasizing the spiritual and emotional dimension of painting, Wong evokes the first of the *Six Principles of Chinese Painting* (繪畫六法 *Huihua liufa*, ca. 550 CE) as enunciated by sixth-century art historian Xie He (謝赫), namely "spiritual tone and life-movement" (氣韻生動 *qiyun shengdong*).⁹ A cardinal principle of Chinese landscape painting, *qiyun shengdong* conveys the belief that a "successful creation of tone and atmosphere that is moving and alive," not verisimilitude, constitutes "the goal of a painting" (Lin 1967, 36). According to the Northern Song (北宋, 960–1127) treatise on Chinese art, *Paintings I Have Seen* (圖畫見聞志 *Tuhua jian wen zhi*, 1074) by Guo Ruoxu (郭若虛), which endorsed the authority of Xie He's principles, a painting records "the feelings and thoughts of an artist [...] on silk or paper" (trans. in Lin 1967, 83). The late-Ming (明) dynasty (1368–1644) artist Dong Qichang (董其昌) argued that while *qiyun shengdong* mostly stemmed from innate talent, one can acquire it by "reading ten thousand books and walking ten thousand miles" (讀萬卷書，行萬里路 *du wanjuan shu, xing wangli lu*; Kwo 1990: 75) – a now-proverbial expression that assumes a new meaning in Wong's description of AI Gemini's "training." Indeed, the idea that an artist paints after journeying through nature reflects the predominant approach to landscape painting in pre-twentieth-century Chinese art. Open-air painting and "sketching from life" (寫生 *xiesheng*) became widely adopted by Chinese artists only after the 1910s, when it was promoted as the foundation of Western-style painting and the most valid way of depicting nature, thus revolutionizing ideas and practices of vision in China, according to Gu (2020, 1–3).

The effort to frame Wong's TECH-iNK works as fully belonging to the tradition of ink-and-wash painting also transpires from curatorial decisions at multiple exhibitions where these works were displayed. These exhibitions include, e.g., the above-mentioned *Ink Now* in Taipei, *Inquiry on Water* in Shanghai (水問 *Shui wen*, 2019–2020), and *More than Ink* (無窮於水墨 *Wuqiong yu shuimo*, 2021) in Hong Kong. In the latter exhibition, TECH-iNK paintings hung alongside artworks by such masters as Liu Kuo-sung (劉國松), Wang Jieyin (王勗音) and Wang

⁹ The translation of *qiyun shengdong* as "spiritual tone and life-movement" is by Seiichi Taki (滝精一, 1873–1945), as quoted in Lin (1967, 36).

Huangsheng (王璜生). Finally, Victor Wong has emphasized how AI Gemini constitutes only the latest innovation in the long history of ink-and-wash painting. "Throughout the history of art," Wong noted, "artists have always incorporated the latest pigments, materials, and technologies of their time to create something unprecedented" (Kuang 2019, 133). Far from conveying the fear that artists will become obsolete once AI grasps the "code" of creativity, Wong views the technology he employs as one way to further innovate a living tradition.

In conclusion, the approach to delegated digital creativity that transpires from Victor Wong's work with AI Gemini is one that valorizes learning, collaboration between human and machine, and continuity with Chinese artistic tradition, rather than deception and an instrumental application of technology. Even though Wong claims that AI Gemini is able to think and execute original paintings, he attributes to his machine the ability to simulate emotion, rather than genuine feelings, and while he stresses the difference between traditional painting and the creations of AI Gemini, he alludes to parallels between how the ancient masters achieved *qiyun shengdong* and how he designed AI Gemini to see and understand the world. Randomness and the "renunciation of control" emerge as central to this process without translating into chaos or anxiety, while the novelty of the delegated painting process takes center stage.

4. Chen Qiufan's "State of Trance" and "AI writing"

This section discusses Chen Qiufan's novella *State of Trance* as a case of delegated digital creativity and a prominent example of Sinophone "AI writing" – in Chinese, 人工智能寫作 (*Rengong zhineng xiezu*) or AI寫作 (*AI xiezu*), both in relation to Chen's work and career, and on the backdrop of the debate on AI writing that has recently involved Chen alongside many other Chinese authors.

Besides being one of China's most successful sci-fi authors, Chen Qiufan is also a translator, creative producer and curator. Victor Wong's junior by fifteen years, Chen was born in Shantou (汕頭), Guangdong province in 1981 and therefore belongs to China's 八零後 (*balinghou*) generation (literally, "born after 1980"), the children of Deng Xiaoping's post-1978 Reform Era who have no first-hand memories of Mao Zedong or the Cultural Revolution (1966–1976). Chen sees a link between the contrasting attitudes expressed by different generations of Chinese toward new technologies such as AI and their experience of poverty, or lack thereof (Chen and Liu 2017). According to Chen's account, people of his cohort – born in the 1970s and 1980s – "grew up hearing about the deprivations and even starvation their parents experienced during China's recent past" (*ibid.*). Those indirect memories, compounded by present-day anxieties such as career advancement, housing, healthcare and so on, fuel in his generation a sense of insecurity that

technology alone cannot quell, even though technology enables them to imagine new ways to work and live (*ibid.*). By contrast, Chinese people born in the 1990s and 2000s – Chen maintains, perhaps overestimating the relative size of China's middle class – are detached even from echoes of material deprivation and unconstrained by a traditional emphasis on knowing one's place. As a result, "technology should enable [for them] a profound organic way to experience the world, a way to realize one's own worth through active agency, rather than merely a means of impulsive consumption driven by anxiety" (Chen and Liu 2017). Unfortunately, the country is ruled by older generations whose approach to new technologies is driven by fear, greed and nationalism, Chen Qiufan suggests (*ibid.*).

Chen studied literature and film direction at Peking University (北京大學) before pursuing postgraduate studies in marketing at the University of Hong Kong (香港大學) and Tsinghua University (清華大學) (Xu 2018). He has been publishing science fiction since the late 1990s, penning his first award-winning story at the age of sixteen. He has also worked for Google China and Baidu (百度) as a marketing and branding professional. Chen, who lives in Shanghai, has founded a company that "explores cross-media speculative narratives and future-oriented education" and a virtual reality start-up in Beijing (Slate n.d.). For a recent book entitled, *AI 2041: Ten Visions for Our Future* (AI 2041: 預見十個未來新世界 *AI 2041: Yujian shigeweilai xin shijie*, 2021)¹⁰ Chen collaborated with Kai-fu Lee (李開復), a renowned Taiwanese computer scientist, blogger, and former president of Google China whose venture capital firm has made large investments in China's high-tech sector (see Conn 2021). So far, Chen has published over thirty novellas and stories which have been translated into a dozen languages, including English, German and Czech. His works have won literary prizes in both mainland China and Taiwan, including China's Galaxy and Nebula awards, and the Taiwan Dragon Fantasy Award for a science fiction story – written, unusually, in classical Chinese – entitled *The Chronicle of Ningchuan Cave* (甯川洞記 *Ningchuan dong ji*, 2006).

As mentioned at the beginning of this chapter, Chen Qiufan's novella *State of Trance* features an element of paratext (in the form of a note to the text) which informs the reader that parts of the story – specifically, the words spoken and sung by a statue – were generated through a process of "deep learning" of the author's style before being included in the story without further human intervention (Chen 2018a, 131; Chen 2020, 160). Reportedly, it was Kai-fu Lee who provided Chen with the code to generate the passages of "AI writing" used in the story (Grogan 2020). According to an article that appeared in *Beijing News* (新京報 *Xin Jing bao*), the novelist and former editor of China's foremost literary magazine *Harvest* (收穫 *Shouhuo*), Zouzou (走走), used an "AI software" to score over 700 short stories

¹⁰ The book was first published by the publishing house 天下文化 (*Tianxia wenhua*) in Taiwan.

according to their plot structure; *State of Trance* received the highest score, only 0.00001 points higher than a story by Nobel Prize-winner Mo Yan (莫言) (Dong 2020). Chen Qiufan felt that the coincidence by which one "AI" would detect and reward the work of another "AI" among so many texts "cast a light of mysticism over something that should favor logic and rationality" (*ibid.*).

The conceptual experiment with AI writing and delegated digital creativity in *State of Trance* arguably constitutes one way in which Chen Qiufan's oeuvre explores the relationship between the human mind and technology – and more in general, between the human and the non-human – in a way that questions anthropocentric assumptions, as Yue Zhou and Xi Liu found in other works by this author (Zhou and Liu 2022, 99, 106). Chen's science fiction indeed displays a "tendency to depict the near future as a place where the human and human agency are delimited and determined by non-human, human, and *political* systems of meaning beyond our control and understanding" (Judy 2022, 505) – an observation that highlights the questions of human versus non-human agency and (lack of) control which are at the core of delegated digital creativity. Ron S. Judy identifies the above-described tendency as a key component of "Chinese post-humanism" in Chen Qiufan's work (*ibid.*) and detects it, for instance, in the short story *The Flowers of Shazui* (沙嘴之花 *Shazui zhi hua*, 2012), where tragedies occur because technology fails to obey the will of an alienated and hopelessly lonely humanity (Judy 2022, 510).

Chen's novella combines sci-fi tropes, such as futuristic technology and the ruins of existing landmarks – namely, the Shanghai Library – with elements of postmodernist writing, including dense intertextuality, the use of a second-person protagonist, and meta-literary features. The text also teems with references to avant-garde art from China and Europe, from Chinese performance art to Italian Futurism. Moreover, by staging a dialogue with a non-human character whose statements the author attributes to a machine-learning model, the novella touches upon the Turing test as a science-fiction trope – one that was already featured, for example, in the 2015 short story entitled, *Good Night, Melancholy* (晚安憂鬱 *Wan'an youyu*) by *balinghou* writer Xia Jia (夏笳, *alias* Wang Yao 王瑤).

The use of character in *State of Trance* is executed in avant-gardist style. The second-person protagonist called "you" has forgotten her name, but a cryptic passage of the novella where the protagonist appears to interact with her own reflection suggests that "you" is a woman (Chen 2018a, 129; cf. Chen 2020, 156). In Sinophone fiction, the émigré Nobel laureate Gao Xingjian (高行健) adopted a similar use of different pronouns for the protagonists of his experimental novel, *Soul Mountain* (靈山 *Lingshan*, 1990). In the self-interview that follows the novella as published in *Fiction World*, Chen suggests an affinity between the experience of reading a second-person narrative, the "immersive experience" of virtual reality, and the state of trance

or daydreaming (出身 *chushen*) described in the story (Chen 2018b, 132). "You" also implicitly merges the second-person protagonist and the addressee of the novella into a larger subjectivity (Chen 2018b, 133) – i.e., the protagonist-cum-reader. Only the final sentence of the novella reveals a first-person narrator. This narrative voice – always, as Mieke Bal reminds us, an "it" (Bal 1988, 119–20) – poses as the alter ego of Chen Qiufan as the implied author. It intrudes in the last sentence to claim all protagonists, time and space, merging them all within its "author/ity."

The plot of *State of Trance* appears minimalist, tracing the mostly uneventful journey of the protagonist through the streets of Shanghai to return a book to the city's library. In a city "overwhelmed by mountains of garbage which no one clears away" (Chen 2018a 125; Chen 2020, 148), the trance of this trip turns into the nightmarish vision of a urban Anthropocene dominated by an environmental crisis that is also a crisis of the human psyche – not unlike what Codeluppi (2022) finds in another novella by Chen Qiufan, *The Smog Society* (霾 *Mai*, 2010). The threat of impending doom underlying the journey in *State of Trance* takes inspiration from the short story *Last Evenings on Earth* (Llamadas Telefónicas, 1997) by the Chilean author Roberto Bolaño (cf. Grogan, 2020). While Bolaño's story depicts a father and son on a vacation trip and their visit to a brothel, however, *State of Trance* reduces the action to a woman's – or the reader's – trip to the library. The climax of the story consists in the protagonist-cum-reader not only returning a book into a machine, but also meeting – and merging with – the narrator. Like Bolaño's short story, *State of Trance* dramatizes the act of reading but inverts it metaphorically into a reading of dystopia.

Underlying the conceptual quality of Chen's novella, the sci-fi elements in *State of Trance* remain largely subtle and immaterial. Rather than robots, spaceships or cyborgs, the story features time travel, drugs, holograms, and a speaking and singing voice emanating from an inanimate body in the shape of a bronze statue. The handing out of drugs to the protagonist as mood enhancers echoes Aldous Huxley's famous dystopia *Brave New World* (1932), with Chen's 旃諾 (*Zhannuo*)¹¹ calling to mind Huxley's soma pill: "Something is pressed into your hand. Something small. Like a button. 'Swallow it', a voice says. You do, and the world calms down" (Chen 2018a, 127; Chen 2020, 152). The immaterial or evanescent nature of the science fiction elements in *State of Trance* contrasts with most mainstream science fiction, including Chen's own novel *The Waste Tide* (荒潮 *Huangchao*, 2013), where futuristic technology features not only in material, but even in an embodied form. Nonetheless, the post-human cyborgs of *The Waste Tide* epitomize a human-machine hybridity and "post-human consciousness" that resonates with the themes of *State of Trance* (Rojas and Bachner 2016, 559; Rojas 2019, 29).

¹¹ Stenberg translates the name of the pill phonetically as Jonno (Chen 2020, 152).

In *State of Trance*, the protagonist-cum-reader recalls the titles of two books that she has not finished reading yet. The first, entitled *Brain Entropy: A Theory of Neurocognition* (腦熵: 一種神經認知學理論 *Naoshang: Yizhong shenjing renzhixue lilun*), appears to refer to a fictitious scientific work which only has meaning in so far as the protagonist-cum-reader struggles to "make out the words on the cover" (Chen 2018a, 125; Chen 2020, 149). The second book is a novel about Shanghai entitled *The Diamond Age* (鑽石年代 *Zuanshi niandai*). Its title appears to refer to the sci-fi novel *The Diamond Age: Or, a Young Lady's Illustrated Primer* (1995) by American author Neal Stephenson, which tells the coming-of-age story of a girl called Nell who – similarly to the protagonist of *State of Trance* – comes from the Shanghai area and lives in a near future dominated by AI and nanotechnology.

In the above-mentioned self-interview, Chen claims that his fiction conveys an "hyperreality" that blurs the line between science fiction and the perceived reality of today's world (Chen 2018b, 132). In a speech delivered at the Chinese Nebula Awards in 2017, Chen stated that "although science fiction is part of fantasy literature, it should still be rooted in Chinese culture, based on Chinese reality and reflect the spirit of the times" (in Dong 2017). Chen's speech (which he delivered during a high-profile event attended by top figures in the science and propaganda establishments) positioned sci-fi writing within Xi Jinping's vision of a *China Dream* (中國夢 *Zhongguo meng*; Denton 2014), declaring that "cultural self-confidence" is necessary to "the great rejuvenation of the Chinese nation" and that science fiction's ability to "stimulate cultural innovation and creativity" will help China become a "socialist cultural superpower" (ibid.; Imbach 2019). In a recent interview for *Wired*, Chen explained:

"If I'm speaking to the government, I emphasize the importance of sci-fi as a tool to strengthen innovation and promote creativity. I fill my message with *zheng neng liang* [sic]," Chen says wryly, quoting a hackneyed catchphrase of officialdom. "How do you say that in English?" – "Positive energy," I respond. (Liu 2021)

State of Trance contains an allusion to navigating the pitfalls of writing, publishing, censorship, and the government's demands: "Resistance and obedience are two sides of the same mirror – you need this illusion" (Chen 2018a, 128; Chen 2020, 153-4). Indeed, the same year in which this story was published saw Xi Jinping's turning into a potential leader for life and a tightening of censorship in China's mediasphere (Allen 2018). Science fiction provides – as it has been customary in Chinese fictional narratives for centuries (Berg 2002) – an indirect way of critiquing current conditions; dystopia is always a comment on the status quo (ibid.).

References to buildings and even shops that actually existed in Shanghai when the short story was published underline the temporal proximity between our times and the dystopic future described in the story. The protagonist walks some "lanes

and streets” before crossing through the ground floor of the iAPM shopping mall, where she sees a poster for the Moncler fashion brand near an entrance (see further in this section on this poster). She then walks out of the mall on Huaihai Road (淮海路) and sees Xiangyang Park (襄陽公園) across the street. If we assume the location of the Moncler boutique is the same as in real-world Shanghai at the time of writing, i.e., near the north entrance of the mall on Huaihai Road facing Xiangyang Park, the protagonist likely entered the mall from the east entrance on South Shaanxi Road (陝西南路) after walking through some of the Longtang Lanes (弄堂 *longtang*) on the east side of this street. Having now reached Huaihai Road, the protagonist walks westward down this road toward the library. In the distance, on her right-hand side, she sees the lights of Yan’an Elevated Road (延安高架路). Of course, this reconstruction of the protagonist-cum-reader’s walk à la Umberto Eco (1994, 97–116) assumes that iAPM shopping mall, Huaihai Road, and other places mentioned in *State of Trance* correspond to those of today’s Shanghai as the novella suggests.

On the meta-level for the reader, the trip through lanes and streets is a journey across lines and pages. The route taken by “you” is also the progress of reading through the pages of the novella and an attempt at navigating and interpreting its fictional world distorted by alienation and hallucinations: “You understand that what they are doing now is inviting you in. But you don’t want to be integrated” (Chen 2018a, 127; Chen 2020, 151). The protagonist resists the dystopian world like a reader who refuses to be drawn into the story, and the “state of trance” highlighted in the title of the story ultimately reveals itself as a metaphor for reading.

The protagonist’s promenade across Shanghai evokes the modernist literary trope of the *flâneur* who walks through Shanghai in the new urban fiction of the 1920s, as found in the work of such authors as Shi Zhecun (施蛰存), Liu Na’ou (劉呐鷗) and Mu Shiying (穆時英) (on these authors, see Lee 2000). The intoxication that the *flâneur* experiences in their stories due to the dazzling stimuli of urban modernity returns in Chen’s novella as both a literal drug-induced trance and the trance of reading – in both “you” the protagonist and “you” the reader. The reader experiences the *flâneur*’s walk in *State of Trance* as a stream of consciousness, a modernist literary technique epitomized in James Joyce’s (1882–1941) *Ulysses* (1922) whose male character Leopold Bloom walks the streets of Dublin, and Virginia Woolf’s (1882–1941) *Mrs Dalloway* (1925) whose eponymous female protagonist walks the streets of London. The narrative voice in Chen’s novella, for example, traces the thoughts inside the protagonist’s mind: “You’ve never figured out what kind of person you are, what kind of life you’d like to live, just like every other human” (Chen 2018a, 125; Chen 2020, 148). While European avant-garde writers of the early twentieth century mostly used a third person narrative for their stream of consciousness, Chen turns it into a second-person narrative that

addresses the reader – the implied model reader and, by extension, all readers – “just like every other human” (ibid.). Walter Benjamin described the flaneur’s intoxication with modern urban life in *The Arcades Project* (*Das Passagen-Werk*, composed 1927-1940):

An intoxication comes over the man who walks long and aimlessly through the streets. With each step, the walk takes on greater momentum; ever weaker grow the temptations of shops, of bistros, of smiling women, ever more irresistible the magnetism of the next streetcorner, of a distant mass of foliage, of a street name. Then comes hunger. Our man wants nothing to do with the myriad possibilities offered to sate his appetite. (Benjamin 2002, M1/3, 147).

The neon lights, restaurants, cafés, dance halls and department stores that once hailed the onset of modernity and consumer culture in early twentieth-century Shanghai reverberate in the protagonist’s walk past the shopping malls, city lights, and advertising billboards of twenty-first century Shanghai. The revolutionary revolving doors of the 1920s metamorphose here into automatic sliding doors, but like their predecessors they reflect and refract the image of the walking protagonist, showcasing the lonely individual as separate from the masses crowding the new commercial spaces (Chen 2018a, 131). As she walks past a clothing store, Chen’s protagonist registers an image from an actual advertising campaign created for the fashion brand Moncler by American photographer Annie Leibovitz in collaboration with Chinese artist Liu Bolin (劉勃麟), in which Liu disappears by means of camouflage into a background of icebergs. In the novella, the icebergs from the advertising poster by Leibovitz and Liu turn into an apocalyptic vision: “Just like an iceberg, the part that begins to melt is beneath the surface, and by the time you hear the cracking, it will already be too late” (Chen 2018a, 125; Chen 2020, 149).

At the end of this walk “you” finally encounters the passages of AI writing embedded in the novella. Here, the protagonist-cum-reader meets “artificial intelligence” – not as a sci-fi trope, however, but through the supposed creative agency that delegated digital creativity affords it. Its evanescent presence is a cryptic force that has “possessed” traditional art and now sits, like a pensive guard, outside the ruins of a traditional repository of written knowledge. The nonsensical words uttered by the statue convey, through their very unintelligibility, the author’s decision to relinquish the power of writing and abandon the protagonist-cum-reader to a state of trance and dissociation. At the same time, the random associations of meanings conjured by the otherwise grammatically correct sentences attributed to “AI” evoke yet another avant-garde reference, i.e., Surrealist writing experiments (e.g., Adamowicz 1998, 72–73). As a result, “artificial intelligence” takes the stage in this sci-fi novella neither as an all-powerful mind, nor as the emulation of human

intellect, but as alienated psychic automatism devoid of either sense or poetry. The protagonist-cum-reader – whose hallucinating mind is by now overflowing with modernist tropes and avant-garde references – experiences its words as both “indecipherable” (無法理喻 *wufa liyu*) and as an exoteric invitation to rethink her own sense of self (Chen 2018a, 130; Chen 2020, 157).

Chen’s story closes with one last, classic literary reference. As the protagonist-cum-reader completes her journey by returning the book, she sheds the volume from her hands into the machine “like a layer of wrinkled skin” (Chen 2018a, 131; Chen 2020, 159). This image evokes Pu Songling’s (蒲松齡, 1640–1715) tale, *The Painted Skin* (畫皮 *Hua pi*) from his anthology *Strange Tales from the Liao Studio* (聊齋誌異 *Liaozhai zhiyi*, 1740).¹² Pu Songling’s tales of ghosts, monsters and spirits represent the antecedents of the dystopian world of present-day science fiction and have indeed inspired several literary and cinematic works of both science and horror fiction in contemporary China (Li 2021, 68–69). In the light of this analysis, *State of Trance* can be read as a metaphor of the very act of reading and an artistic statement from Chen Qiufan on the production and consumption of so-called “AI writing.”

Around the time that *State of Trance* was published, a debate was emerging in China around the application of machine-learning models to writing practices including, albeit still at the experimental level, literary writing. Some of the voices in this debate expressed a concern with the possibility that AI will one day succeed in emulating the creative abilities of human authors or, at the very least, manage to win the “imitation game.” Questions, such as “Can AI writing reach the depths of human emotion? Can it possess warmth, feelings, individuality?” are worriedly asked by literary scholar Hou Jiankui (侯建魁) (Hou 2019, 231). Will machines learn how to write like humans? Or will humans rely on the help of machines for creative writing to such an extent, that they will start to write like machines? In either case, the alienation of creativity and memory is at stake, warned Hou (2019, 232).

In an article published in 2018, Professor Yang Junlei (楊俊蕾) of Fudan University (復旦大學) reflected on the implications of humans sharing the task of writing – “perhaps the most valuable of all human activities” (Yang 2018, 8) – with machines. What concerned this prominent scholar of contemporary literature and film is not whether AI writing models will succeed in emulating human intelligence, but rather how to understand writing that has been “entirely cut off from the unique life experience of the author” (*ibid.*). Citing Alan Turing, Yang’s essay highlights the connection between the history of so-called AI writing and that of cryptography, showing how this technology has its roots in research aimed at deceiving the reader and preventing (rather than aiding) understanding (Yang 2018, 9).

¹² On the story, see also Zeitlin (1993).

Pondering how tools of labor transformed modes of production and reshaped people's senses and intellects across history, Yang suggested that if AI becomes a tool of the writer's labor – i.e., an extension of their writing hands – this will influence all aspects of their work, just as instruments that increased the speed and convenience of writing (e.g., typewriters, keyboards, etc.) transformed writing practices in the past (Yang 2018, 9–10). In the case of AI writing, however, what becomes embedded thus within the practice of writing, rather than mere convenience, is deceit and a mockery of the human capacity to create and evaluate a given text. This observation by Yang (2019) finds support in Simone Natale's research on AI and mass media: "The playful deception of the Turing test, in this sense, further corroborates my claim that AI should be placed within the longer trajectory of deceitful media that incorporate banal deception into their functioning," wrote Natale (2021, 32). Finally, Yang identified the power of capital as a crucial factor in the search for language models that can pass the Turing test. She found that such models are employed for the quick and cheap production of novels and film scripts that emulate existing authors and styles, eroding in this way the meaning of human creativity and "embodied" writing, rather than generating an original subjectivity (Yang 2018, 10–12).

Chen Qiufan himself was among the authors and critics who participated in a conversation on "AI literature" published by a literary journal in 2019 (i.e., Yang et al. 2019). This exchange shines light on Chen's own attitude toward machine-learning technologies and their application to writing. The conversation involved several literary critics whose impressions of artificial intelligence generally came from films and literature, including the Wachowskis' film *The Matrix* (1999) and the 1920 novel *R.U.R.* by Czech author Karel Čapek. Critics such as Yang Dandan (楊丹丹) pointed out that the application of AI in literary writing can only represent a technical, rather than artistic breakthrough, because algorithmic models lack the spirituality and thoughtfulness of human writing (in Yang et al. 2019, 102–103). Another literary critic and scholar, Jin Chunping (金春平), argued that AI's lack of lived, emotional, and philosophical experience will relegate its role to being a mere "tool," rather than an autonomous subjectivity, for a long time to come (in Yang et al. 2019, 102–104). Most of the other authors and critics on the panel observed that AI technologies still have limited impact on the literary profession and may not even warrant the anxiety they were generating.

The views expressed by Chen Qiufan in the same dialogue emerge in stark contrast to such positions. To begin with, while being familiar with representations of AI in science fiction, Chen made no secret that his ideas on AI were also shaped by his experience of working at Baidu and Google and witnessing first-hand the development of such technology (Yang et al. 2019, 102) – something that set him apart from other authors. Moreover, Chen suggests that commentators overlooked

and downplayed the impact of AI on the arts and humanities due to “blind anthropocentric optimism or arrogance,” as he believed that AI was already re-shaping people’s ideas of art and beauty due, for instance, to the influence of “intelligent” recommendation algorithms (Yang et al. 2019, 103). Echoing here Yang Junlei’s (2018) concerns about the profit-driven adoption of “AI writing” by corporations (see above), Chen observed that “technology companies and platforms that have the data to make good use of the algorithms” will reap the greatest benefits from these technologies, while authors and works that are “demoted” by the algorithms will suffer (*ibid.*).

5. Concluding remarks

One may read experiments with AI-adjacent technologies in fictional narratives and visual art as attempts to capitalize on the fad surrounding the “AI” buzzword; as tantamount to gambling with an existential threat to art and creativity; or as heralding nothing short of a revolution in these fields of practice. One may discuss them as reflections of China’s ambitions for global AI leadership (Ding 2018), or as the latest development in a history of Chinese research into, and hype around, AI technologies that date back to the early 1980s (Liu 2019, 89). Inspired by this volume’s theme of continuity and change in Asia, this chapter has analyzed two of such experiments, Victor Wong’s TECH-iNK paintings and Chen Qiufan’s novella *State of Trance*, as case studies in a phenomenon that cuts across literature and visual art – a phenomenon we defined “delegated digital creativity.” By drawing on transnational ideas and practices of generative art and delegated art, the chapter has proposed this concept to understand creative endeavors in which an artist or author delegates (or purports to delegate) not only authenticity, but also creative agency and subjectivity to computer algorithms. When viewed from the perspective of intellectual history, delegated digital creativity assumes an avant-gardist connotation, as it leverages the idea of AI to question anew the meaning of art and the role of artists and authors in our societies.

While both works claim an aura of novelty through the adoption of state-of-the-art technologies, they also lay bare the traditions in which they grow their roots. This transpires from curatorial decisions, painting subject and materials, and the artist’s statements in the case of Victor Wong’s TECH-iNK paintings; and from meta-narrative features, literary references, and avant-garde techniques in the case of Chen Qiufan’s *State of Trance*. Wong and Chen challenge the thesis that machine learning will make authors and artists obsolete by both relinquishing *and* reclaiming control over their work (that is, by purporting to cede control to the machines while, at the same time, asserting their control over their creations), one by selecting the paintings and claiming their bond with ancient traditions,

the other by embedding the machine's work into a *mise-en-trope* of the very act of reading.

This chapter has also shown how both Chen's novella and Wong's paintings foreground, rather than disguise, the role played by "AI" in their creation. As highlighted by both Yang (2018) and Natale (2021, see above), the role of Turing's imitation game in the history of AI research has embedded deception and obfuscation in the design of these technologies. In addition, as Chen Qiufan also pointed out, their development and application largely lies in the hands of media conglomerates (and the authorities governing them), while artists, authors and their audiences are largely at the mercy of algorithms that disguise exploitation and manipulation under the guise of convenience and innovation. Subverting a technology geared toward deception and productivity, *State of Trance* and TECH-iNK paintings force their viewers/readers to confront the power and the limitations of algorithms in the most human of fields – art and literature. Instead of attempting to deceive the reader/viewer and thus undermine their identity as human beings, these works invite them to reflect on creative and generative processes and the relations of control and power that underpin them.

Finally, this study contributes to expanding the definitions of creativity and artistry that Anglophone literature employs when discussing these ideas in relation to AI. Until now, Anglophone narratives on both the existing and potential ability of machines to display human-like creativity have been constrained by their reference to an almost exclusively European canon of artists, authors, musicians and so forth, as exemplified by such influential works on this subject as Du Sautoy (2019) and Miller (2019). By focusing on two case studies from the Sinophone world that draw on both Chinese and non-Chinese traditions for inspiration, and by discussing them in relation to the Sinophone discourses and debates that surround them, our chapter invites such urgent reflections to move toward a more representative definition of *human* creativity.

Acknowledgements

Work for this chapter received support from the European Regional Development Fund-Project "Sinophone Borderlands – Interaction at the Edges" CZ.02.1.01/0.0/0.0/16_019/0000791, run at Palacký University Olomouc, Czechia, and from the Research Committee of the University of St.Gallen, Switzerland. The authors also wish to thank Chen Qiufan, Nathan Guerin, Andrea Riemenschnitter, Jessica Imbach, and the anonymous reviewers.

References

- 3812 Gallery. 2019a. "TECH-iNK Garden: Victor Wong x A.I. Gemini." Press release, undated. Accessed November 20, 2021.
https://www.3812gallery.com/usr/documents/exhibitions/press_release_url/17/eng_press_release_victor_wong_tech-ink_garden_at_3812_hk_gallery.pdf.
- 3812 Gallery. 2019b. "Victor Wong x A.I. Gemini x BBC Click." *BBC Click*, April 25, 2019. Accessed December 18, 2021.
https://www.youtube.com/watch?v=_XawIG-xLEA.
- Adamowicz, Elza. 1998. *Surrealist Collage in Text and Image: Dissecting the Exquisite Corpse*. Cambridge: Cambridge University Press.
- Allen, Kerry. 2018. "Chinese Censorship after Xi Jinping Extension Proposal." *BBC Monitoring*, February 26, 2018. Accessed June 18, 2022.
<https://www.bbc.com/news/world-asia-china-43198404>.
- Altenried, Moritz. 2020. "The Platform as Factory: Crowdwork and the Hidden Labour behind Artificial Intelligence." *Capital & Class* 44, no. 2: 145–58.
<https://doi.org/10.1177/0309816819899410>.
- Bal, Mieke. 1988. *Narratology: Introduction to the Theory of Narrative*. Translated by Christine van Boheemen. Toronto, Buffalo, and London: University of Toronto Press.
- Basu, Chitralekha. 2019. "Drawing on A.I." *China Daily Hong Kong*, August 30, 2019. Accessed December 20, 2021.
<https://www.chinadailyhk.com/articles/19/174/48/1567136613423.html>.
- Benjamin, Walter. 2002. *The Arcades Project*. Translated by Howard Eiland and Kevin McLaughlin. Cambridge and London: The Belknap Press of Harvard University Press.
- Berg, Daria. 2002. *Carnival in China: A Reading of the Xingshi yinyuan zhuan*. Oxford University Chinese Studies Series 1. Leiden: E. J. Brill.
- Berg, Daria. 2010. "Consuming Secrets: China's New Print Culture at the Turn of the Twenty-First Century." In *From Woodblocks to the Internet: Chinese Publishing and Print Culture in Transition*, edited by Cynthia Brokaw and Christopher Reeds, 315–32. Leiden: E. J. Brill.
- Bishop, Claire. 2012. *Artificial Hells: Participatory Art and the Politics of Spectatorship*. London: Verso.
- Boden, A. Margaret, and Ernest A. Edmonds. 2009. "What is Generative Art?" *Digital Creativity* 20, no. 1-2: 21–46. <https://doi.org/10.1080/14626260902867915>.
- Chen, Qiufan. 2018a. "Chushen zhuangtai [State of Trance]." *Xiaoshuo jie* 4: 124–31.
- Chen, Qiufan. 2018b. "Zi wen zi da [Self-questioning]." *Xiaoshuo jie* 4: 132–3.

- Chen, Qiufan. 2020. "State of Trance." Translated by Josh Stenberg. In *The Book of Shanghai: A City in Short Fiction*, edited by Jin Li and Dai Congrong, 147–60. Manchester: Comma Press.
- Chen, Qiufan, and Ken Liu. 2017. "All Aboard the Bullet Train to the Future." *Slate*, September 15, 2017. Accessed June 19, 2022. <https://slate.com/technology/2017/09/how-the-chinese-could-stop-worrying-and-learn-to-love-the-uncertain-future.html>.
- Chen, Qiufan. 2019. "Introducing Chinese Science Fiction to the World." Translated by Jessica Imbach. *Chinese Science Fiction from 1949 to 2185*, September 30, 2019. Accessed June 19, 2022. <https://dlf.uzh.ch/sites/sinofutures/2019/09/30/chen-qiufan-introducing-chinese-science-fiction-to-the-world/>.
- Codeluppi, Martina. 2022. "Smog and the Psyche: Chen Qiufan's Reading of the Urban Anthropocene." *Writing Chinese* 1, no. 1: 60–81. <https://doi.org/10.22599/wcj.35>.
- Conn, L. Virginia. 2021. "The Tyranny of Neutrality in 'AI 2041'." *Los Angeles Review of Books*, October 30, 2021. Accessed January 20, 2023. <https://lareviewofbooks.org/article/the-tyranny-of-neutrality-in-ai-2041/>.
- Conn, L. Virginia, and Gabriele De Seta. 2021. "Sinofuturism(s)." *Verge: Studies in Global Asias* 7, no. 2: 74–80.
- Costa, Mario. 2005. "Bolognini and the Domestication of the Sublime." In *Maurizio Bolognini: L'infinito fuori controllo. Macchine programmate, 1990–2005* [Maurizio Bolognini: Infinity Out of Control. Programmed Machines, 1990–2005], edited by Sandra Solimano, 54. Genoa: Neos.
- Crawford, Kate. 2021. *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. New Haven: Yale University Press.
- De Seta, Gabriele. 2021. "China.AI." In *Realtime: Making Digital China*, edited by Clément Renaud, Florence Graezer Bideau, and Marc Laperrouza, 157–169. Lausanne: EPFL Press.
- Denton, A. Kirk. 2014. "China Dreams and the 'Road to Revival'." *Origins: Current Events in Historical Perspective* (November). Accessed June 18, 2022. https://origins.osu.edu/article/china-dreams-and-road-revival?language_content_entity=en.
- Ding, Jeffrey. 2018. *Deciphering China's AI Dream*. Oxford: Centre for the Governance of AI, Future of Humanity Institute, University of Oxford.
- Dong, Muzi. 2020. "Kehuan zuojia Chen Qiufan: AI xiezu shidai de daolai, hui zhongjie kehuan ma? [Sci-Fi Author Chen Qiufan: Will the Advent of AI Writing Spell the End of Sci-Fi?]." *Xin jing bao*, August 28, 2020. Accessed January 20, 2023. <https://tech.sina.cn/2020-08-28/detail-iivhuipp1170147.d.html>.
- Dong, Renwei. 2017. ""Zhongguo kehuan zouxiang shijie guoji gaofeng luntan" zai Jing juxing [China Science Fiction Going to the World International Summit

- Forum Held in Beijing].” *Zhongguo zuojia wang*, November 27, 2017. Accessed June 18, 2022. <http://www.chinawriter.com.cn/n1/2017/1127/c404079-29670310.html>.
- Du Sautoy, Marcus. 2019. *The Creativity Code: Art and Innovation in the Age of AI*. Cambridge: Harvard University Press.
- Eco, Umberto. 1994. *Six Walks in the Fictional Woods*. Cambridge, CA: Harvard University Press.
- Galanter, Philip. 2003. “What is Generative Art? Complexity Theory as a Context for Art Theory.” *GA2003: Proceedings of the VI Generative Art Conference*, edited by Celestino Soddu, 271–282. Milan: Generative Design Lab, Politecnico di Milano.
- Galanter, Philip. 2012. “Generative Art after Computers.” *Proceedings of GA2012: XV Generative Art Conference*, edited by Celestino Soddu, 271–282. Rome: Domus Argenia.
- Grogan, Bryan. 2020. “Author Stanley Chen on Collaborating with AI and the Future of Chinese Sci-Fi.” *Radii*, April 28, 2020. Accessed June 16, 2022. <https://radiichina.com/stanley-chen-qiufan-science-fiction/>.
- Gu, Yi. 2020. *Open-Air Painting and Chinese Ways of Seeing*. Cambridge: Harvard University Press.
- Guo, Kaihe. 2012. “Jisuanji shengcheng yishu zai tuxing shijie zhong de yiyi [The Significance of Computer-generated Art in the World of Graphic Design].” *Meishu guan* 12: 124–29.
- Harvie, Jen. 2013. *Fair Play: Art, Performance and Neoliberalism*. London: Palgrave Macmillan.
- Hou, Jiankui. 2019. “Lun AI xiezuoyu yiyi yihua [On A.I. Writing and the Alienation of Memory].” *Zhongguo xiandai wenxue yanjiu congkan* 3: 226–32.
- Hui, Yuk. 2020. *Art and Cosmotronics*. Minneapolis: University of Minnesota Press.
- Judy, S. Ron. 2022. “Chinese Post-humanism and Chen Qiufan’s Political Science Fiction.” *Science Fiction Studies* 49: 502–19. <https://doi.org/10.1353/sfs.2022.0049>.
- Kaltheuner, Frederike, ed. 2021. *Fake AI*. Oxford: Meatspace Press.
- Kuang, Lisa. 2019. “Huang Hongda kaichuang shuimo xin si [Victor Wong Pioneers New Ideas in Ink-and-wash Painting].” *City Magazine* (December): 132–33. Accessed November 10, 2021. https://www.hktdc.com/resources/New_Corporate_Site/designinspire2020/pdf/CityMagazine-201912.pdf.
- Kwo, Dawei. 1990. *Chinese Brushwork in Calligraphy and Painting: Its History, Aesthetics, and Techniques*. New York: Dover Publications.
- Lee, L. Oufan. 2000. *Shanghai Modern: The Flowering of New Urban Culture in China, 1930-1945*. Cambridge, MA: Harvard University Press.
- Li, Hua. 2021. *Chinese Science Fiction during the Post-Mao Cultural Thaw*. Toronto: University of Toronto Press.

- Lin, Yutang. 1967. *The Chinese Theory of Art: Translations from the Chinese Masters of Art*. New York: Putnam's Sons.
- Liu, Xiao. 2019. *Information Fantasies: Precarious Mediation in Postsocialist China*. Minneapolis: University of Minnesota Press.
- Liu, Yiling. 2021. "Sci-Fi Writer or Prophet? The Hyperreal Life of Chen Qiufan." *Wired*, March 9, 2021. Accessed June 19, 2022. <https://www.wired.com/story/science-fiction-writer-china-chen-qiufan/>.
- Lu, Jie. 2004. "'Yanchuan xian jianzhi da pucha'- yi ge ge'an [The Great Survey of Paper-cutting in Yanchuan County, a Case Study]." *The Long March Project*, October 23, 2004. Accessed December 10, 2021. <http://longmarchproject.com/discourse/changzhenggongchengyanchuanxianjianzhidapuchayigegean/>.
- McCormack, Jon, Oliver Bown, Alan Dorin, Jonathan McCabe, Gordon Monro, and Mitchell Whitelaw. 2014. "Ten Questions Concerning Generative Computer Art." *Leonardo* 47, no.2: 135–41. https://doi.org/10.1162/LEON_a_00533.
- Miller, I. Arthur. 2019. *The Artist in the Machine: The World of AI-Powered Creativity*. Cambridge, MA: The MIT Press.
- Mitchell, Melanie. 2019. *Artificial Intelligence: A Guide for Thinking Humans*. London: Penguin.
- Nake, Frieder. 2014. "Algorithmic Art." *Leonardo* 47, no.2: 108. https://doi.org/10.1162/LEON_a_00706.
- Natale, Simone. 2021. *Deceitful Media: Artificial Intelligence and Social Life After the Turing Test*. Oxford: Oxford University Press.
- Reben, Alexander. 2021. "Learn to Take on the Ceiling." In *Fake AI*, edited by Kalthuener, Frederike, 105–113. Oxford: Meatspace Press.
- Riva, Anna. 1996. "Technological Sublime, i.e. The *Renunciation* of Control." Accessed October 10, 2021. <http://adaweb.walkerart.org/context/events/moma/bbs4/messages/22.html>.
- Rojas, Carlos. 2019. "The World Besieged by Waste: On Garbage, Recycling, and Sublimation." In *Chinese Shock of the Anthropocene: Image, Music and Text in the Age of Climate Change*, edited by Kwai-Cheung Lo and Jessica Yeung, 21–36. London: Palgrave Macmillan.
- Rojas, Carlos, and Andrea Bachner, eds. 2016. *The Oxford Handbook of Modern Chinese Literature*. Oxford: Oxford University Press.
- Shanahan, Murray. 2022. "Now Is Not the Future of the Past: A Conversation with Murray Shanahan." *The Science and Science Fiction of AI*, online seminar, first session. Korea Advanced Institute of Science and Technology, March 15, 2022.
- Slate. 2022. "Chen Qiufan." Slate unleashing epic bon mots. Accessed June 15, 2022. <https://slate.com/author/chen-qiufan>.
- SSAM (Shanghai Suning Art Museum). 2019. "Keji shuimo: rengong zhineng yu gudai zhizhi [TECH-iNK: Artificial Intelligence and Ancient Wisdom]." *Tencent*

- Open Content Platform, December 11, 2019. Accessed November 23, 2022.
<https://page.om.qq.com/page/O06v9vEJypQ3kyj0l5cWa2WA0>.
- Stephens, Elizabeth. 2023. "The Mechanical Turk: A Short History of 'Artificial Intelligence'." *Cultural Studies* 37, no. 1: 65–87.
- Strafella, Giorgio, and Daria Berg. 2015. "'Twitter Bodhisattva': Ai Weiwei's Media Politics." *Asian Studies Review* 39, no. 1: 138–57.
- Tamblyn, Christine. 1990. "Computer Art as Conceptual Art." *Art Journal* 49, no. 3: 253–56.
- Toister, Yanai. 2020. "Programming the Beautiful." *Digital Creativity* 31, no. 3: 223–33.
- Wang, Qianni, and Yifan Wang. 2020. "Kehuan zuojia Chen Qiufan: A.I. xiezuo de mubiao shi dapao bianjie [Sci-fi author Chen Qiufan: The Goal of A.I. Writing is to Break Boundaries]." *The Paper*, December 3, 2020. Accessed October 18, 2022.
https://www.thepaper.cn/newsDetail_forward_10230093.
- Wang, Yifei, and Liu Jie. 2021. "Fuzaxing kexue shiyu xia de shengcheng yishu [Generative Art from the Perspective of Complexity Science]." *Yihai* 9: 18–9.
- Wang, Zhenfei. 2012. "Jiyu fuza lilun de shengcheng yishu [Generative Art Based on Complexity Theory]." *Mei yuan* 2: 34–6.
- Wilson, A. Elizabeth. 2010. *Affect and Artificial Intelligence*. Seattle: University of Washington Press.
- World Economic Forum. 2019. "Chen Qiufan." World Economic Forum Online. Accessed June 15, 2022.
<https://www.weforum.org/agenda/authors/chen-qiufan>.
- Xu, Xiao. 2018. "Chen Qiufan: kehuan bu zhi shi xiaoshuo [Chen Qiufan: Science-fiction is not just Fiction]." *Zhongguo zuojia wang*, October 28, 2018. Accessed June 15, 2022.
<http://www.chinawriter.com.cn/n1/2018/1028/c403994-30366622.html>.
- Yang, Junlei. 2018. "Jiqi, jishu yu AI xiezuo de zifanxing [Machines, Technology, and the Reflexivity of A.I. Writing]." *Xueshu luntan* 2: 8–13.
- Yang, Qingxiang, et al. 2019. "AI wenxue—yi ci gemingxing de chongji? [A.I. Literature: a Revolutionary Shock?]." *Jiangnan* 6: 100–13.
- Yang, Wanru. 2019. "Di yi jie shuimo xianchang kaimu, 'Dongfang genxing, dangdai biaoqian' de yanyi [Opens the First Session of Ink Now, Interpretation of 'Eastern Essence, Contemporary Expression']." *ARTouch / Diancang*, January 18, 2019. Accessed November 28, 2021.
<https://artouch.com/art-views/art-exhibition/content-10848.html>.
- Zeitlin, T. Judith. 1993. *Historian of the Strange: Pu Songling and the Chinese Classical Tale*. Stanford: Stanford University Press.
- Zhang, Yueyue. 2019. "Cong Jinxiangjiang dezhu dao yishu famingjia - Huang Hongda chuang A.I. jixiebi xieyi shanshui [From Hong Kong Film Award Winner

to Art Inventor: Victor Wong Creates A.I. Robotic-arm Xieyi Landscapes]." *Wen Wei Po*, June 21, 2019.

Zhou, Yue, and Xi Liu. 2022. "Representing Environmental Issues in Post-1990s Chinese Science Fiction: Technological Imaginary and Ecological Concerns." In *Ecocriticism and Chinese Literature: Imagined Landscapes and Real Lived Spaces*, edited by Riccardo Moratto, Nicoletta Pesaro, and Di-kai Chao, 98–112. London: Routledge.

Zylinska, Joanna. 2020. *AI Art: Machine Visions and Warped Dreams*. London: Open Humanities.