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Articulating (Uncertain) AI Futures of Artistic Practice: A Speculative Design and Manifesto Sprint Approach

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ABSTRACT

AI is rapidly becoming enmeshed in our professional and private lives. The ubiquity of such technologies raises a host of ethical questions, value clashes, and unforeseen consequences that must be confronted. Developments such as Ai-Da and DALL-E 2 are exciting in that they present robust new capabilities in AI and creativity. However, the futures such technologies unlock are also unpredictable. Given the speed with which such technologies are emerging and becoming adopted, the need to engage target audiences to weigh in on possible AI futures is critical. Our pilot project, Artistic Process Futures and AI, seeks to explore the role and potential implications of AI technologies with artists. In this paper, we show how participatory speculative design processes might be channeled into a public statement, or manifesto, regarding possible and preferable AI futures for supporting the artistic process, and how our workshop exposed uncertainty at the core of such deliberation.

CCS CONCEPTS

• **Human-centered computing** → *HCI theory, concepts and models*; **Interaction design process and methods**; **Empirical studies in HCI**; **Participatory design**;

KEYWORDS

artistic process and AI, design futures, speculative design, manifesto, public engagement

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1 INTRODUCTION

Artists are designers of their own artistic process. They develop theories, methods, and tools to understand their impulses, conceive and evaluate new ideas, and facilitate steps toward a final work [12]. Artificial intelligence (AI) has the potential to support the artistic process in new and unexpected ways [7]. AI can be used to gather, categorize, generate, and evaluate images and other data in ways that differ from, and in some ways exceed, human capabilities, due to the vast amounts of data these technologies can process [13]. However, the potential of AI for the artistic process also remains ambiguous [5]. Open questions range from what role AI should assume in the artistic process, to how artists can responsibly use purpose-built AI tools, given the political and social reach of the machine-learning approaches upon which such technologies are based.

The fast adoption and widespread availability of a new generation of AI tools capable of generating seemingly high-fidelity textual, visual, and auditory output [2] is unmistakably changing artistic practice [23]. While there could be much to gain by integrating new AI tools into the artistic process [7], its fast rate of development could also come with unforeseen and potentially undesired consequences [5]. In response, many artists are taking action to protect their work, autonomy, and agency from the machine. Initiatives such as "Have I Been Trained?" have already ensured that millions of art works have been opted out of the training sets of future AI models [22]. Digital tools are developed to enable artists to take action themselves, such as by altering digital images of their artworks to disrupt AI training algorithms [21], or to delete concepts from AI models [11]. But this may not be enough. To

safeguard and shape the AI future of the arts (and other sectors), more deliberation is needed with those stakeholders whose working processes and livelihoods stand to be most affected.

Speculative design has a critical role to play here: by offering "tools for questioning" [4] and a means of making "thought experiments" tangible [8], it seeks to provoke dialogue around the possible impacts of emerging technologies, leaving room for ambiguity and resisting the urge to accept easy solutions. Speculative design and related participatory approaches have focused on exploring the possible futures of AI as creativity support tools for artists. [9] explored the use of co-speculation [6] to elicit the needs, values, and ethical perspectives of artists to inform the development of future AI driven creativity support tools. Relatedly, [1] explored how a design fiction about co-creating with an anthropomorphic AI poet stimulated the imagination of future forms of creation, whereas [10] engaged artists and other participants at Arizona State University's Emerge festival in creating low-fidelity future artifacts that were later enacted by improv performers. Co-creating artifacts from imagined futures facilitates a constructive form of deliberation. As [10] argues: "[a]s technology continues to play an essential, and even an existential role in the future of society, it is vital to continue to find ways of critically engaging the public with the ethical and political stakes around these choices."

Articulating workshop outcomes by the participants themselves and communicating the results to a wider public requires an additional step: creating a manifesto, as a concise and lasting record of what such future artifacts mean for the here and now. A manifesto in this context denotes a short, clarifying statement, collectively authored, outlining a "call to attention" [18] with regard to our future path. As well as helping "to articulate ideas for change in a public, accessible form" and "prompt[ing] new ideas by liberating us from the confines of careful speech" [15], manifesto writing has been shown broadly to support efforts to "speak collectively, build consensus, raise awareness, advocate for and accelerate change, speak for and from the margins, disrupt the status quo, unsettle stuck discourse, [and] sidestep conventional modes" [3]. Like speculative designs, manifestos can "help us to resist dominant futures … and imagine new alternatives" [14]. Thus, with the current research, we sought to explore how speculative design processes might be further channeled into a list of demands (or requirements) regarding possible and preferable AI futures of the artistic process, for communication with a wider public.

2 METHOD

To support artists in disambiguating and cultivating a vision of the AI futures of their artistic process we led two separate full-day workshops aimed at guiding artists in: (1) exploring evolving scenarios around the intersection of art and AI; (2) making these scenarios tangible through designing speculative artifacts to enable critical reflection on AI futures of the artistic process; and (3) articulating their vision in the form of a collaborative manifesto, intended for a wider public. Both workshops were approved by the Tilburg University IRB. Here we focus on the second workshop, for which 12 professional artists were recruited through purposive sampling (Table 1, Figure 1).

Table 1: Participants

Sample Characteristic	Descriptives
Age	
18-27	30.8%
28-37	30.8%
38-47	46.2%
48-57	7.7%
Prefer not to say	7.7%
Gender (self-identified)	
Female	53.8%
Male	23.1%
Non-binary Third gender	15.4%
Prefer not to say	7.7%
Education level (highest)	
Bachelor degree	0%
Master degree	100%
Years prof. experience in the arts	M = 13.3, SD = 7.48
Frequency of using AI (1-5)	M = 2.08, SD = 1.38
Attitude towards AI (1-3)	
Positive	M = 2.52, SD = 0.60
Negative	M = 1.77, SD = 0.44
Familiar with speculative design	
Yes	53.8%
No	38.5%
Not sure	7.7%
Familiar with manifesto writing	
Yes	38.5%
No	61.5%
Not sure	0%

Note. Data are means (M), standard deviations (SD), and percentages (%). Scale ranges are presented between parentheses. Frequency of using AI scale (1 = never, 5 = almost every day). Positive and negative attitude towards AI (1 = disagree, 2 = neutral, 3 = agree).

Prior to the workshop, participants were contacted via email and asked to read and sign a consent form and complete an entry survey. Participants were additionally asked to prepare for the workshop by thinking about their current work as related to the artistic process and the potential role of AI for enhancing or threatening this process.

Figure 1: Cloud visualization indicating the different types of art practices among the participants

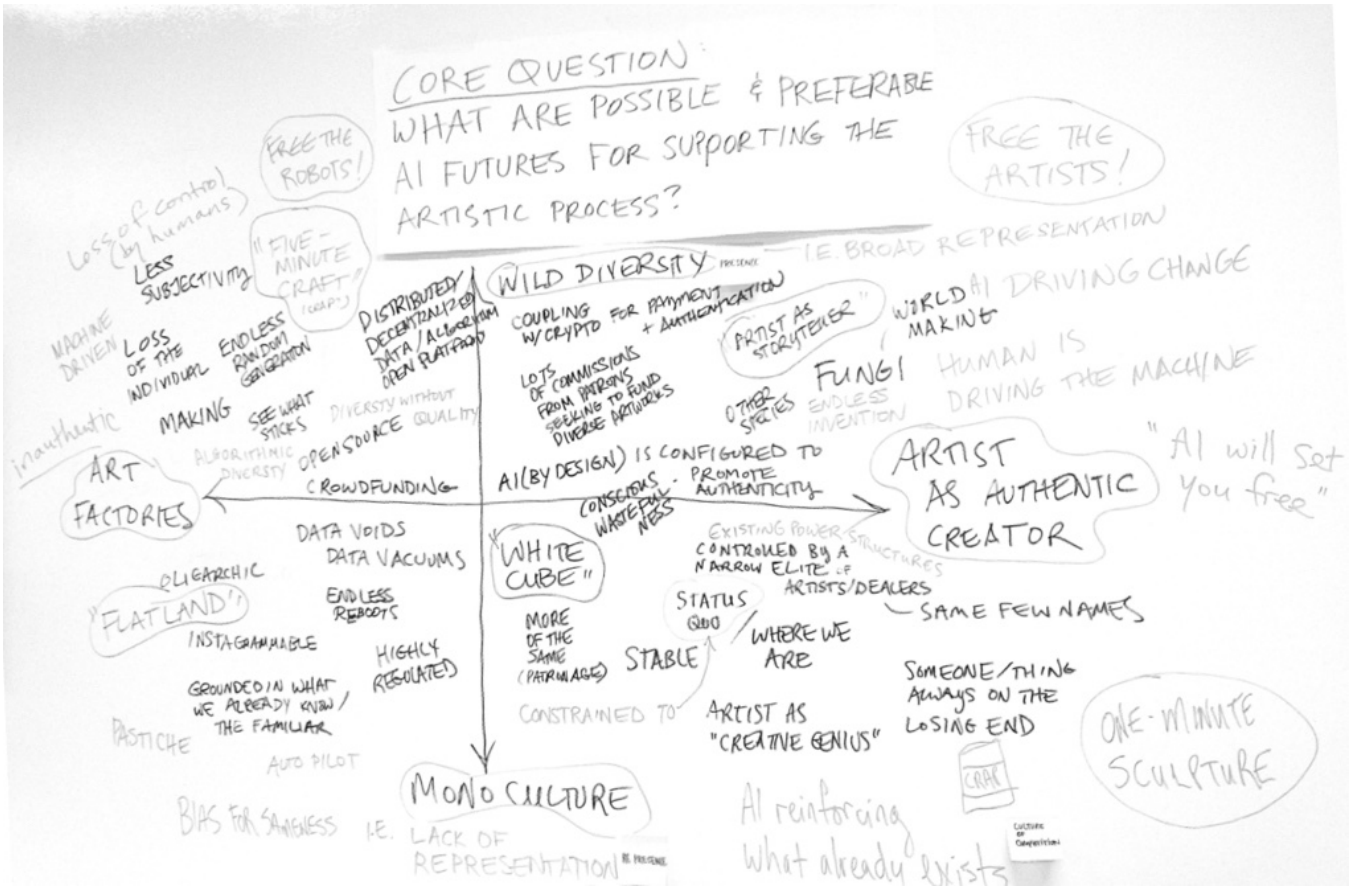

Figure 2: 2D future scenario matrix developed during Stage 1

2.1 Stage 1: Prehearsing the future

The objective of this initial stage of the workshop was to promote and guide discussion for exploring and envisioning possible and preferable AI futures of the artistic process, yielding four different future scenarios. The methods used for building scenarios are based on work by the transdisciplinary collective FoAM [17, 20].

While taking notes on a large whiteboard, the facilitator engaged the group in discussing factors that impact the context in focus. Questions were posed by the facilitator, such as "does it matter where you get ideas from?", "does it matter if AI functions as a black box that you don't understand?", and "what remains unknown about the juncture of art and AI?". The result was a visual mind map of factors (i.e., internal drivers) that emerge when considering how the artistic process intersects with AI technologies.

Participants were then organized into four breakout groups to identify and list key external driving forces likely to influence AI artistic process futures. For this activity, we developed a set of arts and culture driver cards, along with using an existing deck of STEEP category (i.e., social, technological, economic, environmental, and political) cards [16] as prompts (Figures 3, 4).

Later, participants ranked the relative importance and uncertainty of the driving forces concerning the key question (i.e., "what are possible and preferable AI futures for supporting the artistic process?") on a scale (1=least, 10=most). Using sticker voting, participants selected the two most important and two most uncertain drivers, which then served as labels for a two-dimensional scenario matrix (Figure 2). Participants discussed what each of the four corresponding future scenarios might look like, following questions such as "what would have to happen to get from where you are now to the situation in the scenario?" and "how might your own situation change?" [17].

2.2 Stage 2: Co-designing speculative artifacts

The objective of the second stage was making the four future scenarios tangible by designing speculative artifacts [19]. After a short presentation on low-fidelity speculative design artifacts, the same breakout groups were assigned to one of the four future scenarios and asked to sketch and then fabricate a speculative artifact that was representative of that future world. Participant groups made use of a variety of low-fidelity prototyping materials (e.g., paper, post-its, pens, cardboard, string) and other crafting tools for creating their speculative artifact. After one hour, the participants were reassembled and a member of each group was invited to present their results.

Figure 3: Our own arts and culture external driver cards

Figure 4: STEEP category Foresight cards [16]

2.3 Stage 3: Co-authoring a manifesto

The objective of this final stage of the workshop was to elicit a collective vision of artistic process futures and AI, to be published on the project website for a wider public. The facilitator began by describing the objectives of the final manifesto stage, including a short introduction to manifestos and their purpose. To further assist participants with this task, the "Art + AI" edition of the MANIFESTO! card game was introduced, based on the original "tech" edition of the game developed by [3]. This version of the game aims to support artists and other creative people in articulating ideas for change, defining a set of commonly held principles, and creating a sense of community around AI futures and the arts. We incorporated many of the elements from the original open-source card game, while substituting in a set of "Provocation" cards with specific relevance to the theme. Also, unlike the original version, there are just three card types (Opening, Tone, Provocation), with the provision for drawing multiple cards per category.

Over the next 50 minutes, all 12 participants collaborated on a single manifesto, using the cards and a round-robin sprint format. The facilitator was on hand to help participants form their ideas into a coherent statement. They began by voting on a tone for their manifesto, which was: uncertain. This was notable as "uncertain" was not one of the options provided through the cards - it was a new idea added by the group. Working in groups of four across 10-minute intervals, participants gathered at each of the three sprint stations to write the manifesto introduction and two separate lists of principles. As the latter two sprint stations corresponded to the x and y axes of the aforementioned 2D future scenario matrix, these themes were "status of the artist/authenticity" and "diversity", respectively. One person per group was randomly appointed to act as the sprint station patron and remained at the table for the duration. This offered continuity across the successive sprint cycles, so that newly arriving groups did not have to puzzle over what had been discussed already. After 10 minutes, each group rotated to the next station, adding, rewriting and polishing the text that was left by the previous group until each group had visited each of the three stations.

Groups then nominated a spokesperson to co-lead the editing and polishing of the final draft. During this stage (20 minutes), the smaller team combined the different parts of the manifesto (introduction, plus two sets of principles) into one unified manifesto; came up with a title; evened out the tone; and added, edited, or cut elements. In practice, all 12 participants joined in the final editing process to some degree, shouting out ideas and giving "yea" or "nay" answers to proposed amendments. At the end of the session, the whole workshop (including facilitators) read out the manifesto in unison for dramatic effect. Participants were asked to complete a short exit survey before leaving the workshop.

2.4 Analysis

Entry survey responses were analyzed to assess sentiment towards AI with respect to participants' years of experience as artistic practitioners. Two researchers/coders performed an inductive thematic

Figure 5: MANIFESTO! Art + AI edition cards

analysis on the sketchnote diaries from two research assistants, as well as exit survey responses, and the final manifesto.

3 RESULTS AND DISCUSSION

3.1 Entry survey

Somewhat unsurprisingly, the entry survey responses showed that participants with fewer than five years of artistic practice tended to use AI in their practice with relative frequency (once a week or almost every day), while those with between six and 27 years of practice tended to not to use AI at all, or with much less frequency (e.g., once a month). While one-quarter of the participants (3/12) viewed AI as "sinister", most participants (8/12) said they do not see AI as a threat to their professional practice, and sentiment towards AI was largely "neutral". In terms of the methods used, more than half of the participants (7/12) were either somewhat or very familiar with speculative design or design fiction prior to the workshop, and just under half of the participants (5/12) had previous experience writing a manifesto.

3.2 Future scenarios and speculative artifacts

As indicated above, the 2D future scenario matrix was formed through the results of a morning brainstorming session and the identification of two critical uncertainties: the status of the artist / authenticity and diversity. These labels were further broken down into their opposing poles, with "art factories" vs. "artist as authentic creator" spanning the x axis, and "mono culture" vs. "wild diversity" spanning the y axis. These oppositions served in exposing four separate future scenarios, which were further developed through continued group discussion. Starting from the bottom right quadrant and moving clockwise (Figure 2), these "future worlds" were: "White Cube" (AI reinforcing the art world status quo), "Flatland" (highly regulated and familiar artwork generation), "Five-minute Craft" (randomly generated, open-source artworks), and "Artist as Storyteller" (AI assisted but human-driven artworks, i.e. keeping AI in a supporting role).

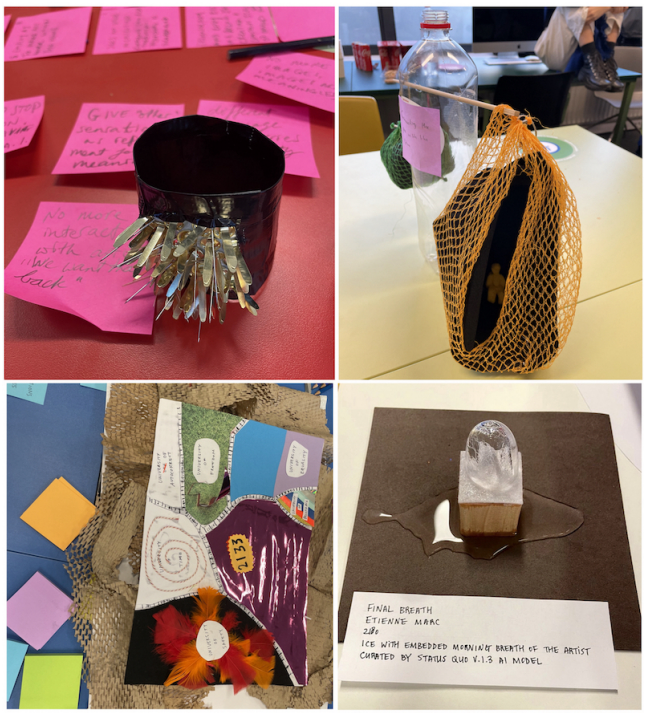

Figure 6: Speculative artifacts (layout corresponds with 2D matrix presented in Figure 2)

Each of the four participant groups created a speculative artifact that they considered to be representative of their assigned story-world. The White Cube was envisioned as "an AI-selected artist", whom this group named "Etienne Marc", creator of the work "Final Breath (2180)", an ice cube melting slowly atop a tiny wooden plinth, described in the placard as "Ice with embedded morning breath of the artist, curated by status quo v.1.3 AI model). Flatland was depicted as a flat map of a highly controlled world in the year 2133, revealing the universities of "Safety", "Time", "Auto-correct", "Freedom", "Equality", and "Belonging". Surrounding this campus-like world was a seeming wasteland, rendered in brown mesh packaging material. Five-minute Craft was envisioned as a series of visceral objects resembling bondage gear (e.g., a spiked bracelet and ball gag), "designed to replace the feelings once afforded by the artistic experience". Artist as Storyteller was depicted as a suspended "3D virtual exhibition space", or "art cave", described as "a democratic art space where you can order your own exhibitions", as an alternative to the ubiquitous white cube-style gallery.

3.3 Manifesto

AI futures for artistic process?!
We, a random group of artists,
sit
write
unite

speak
believe
in knowing or not knowing
We resist the absolute certainty
AI should become more uncertain
Embracing
the toxicity
the auto correct
the autopilot
the reboot

While it is a short text generated in just under an hour, participants expressed surprise at how well the collaborative manifesto reflected their attitudes toward AI with respect to the artistic process ("the manifesto does reflect the group's attitude toward AI"). Although one participant said "I would have liked it to be more radical" and another indicated that the group was quite tired by the end of the workshop ("incredible that we even managed!"), overall participants saw the manifesto as accurately capturing the ambiguity and uncertainty of their feelings towards AI. The manifesto, in keeping with the performative style of the genre, is hopeful in the sense that it states what AI should be (in the words of one participant, "what I want it to be"): that is, "unfinished, ambiguous, uncertain, open-ended". One participant described the final text as "better than I would have been able to express beforehand", suggesting that the workshop was a learning experience; another said it was "good with the given time".

3.4 Thematic Analysis

The following core themes emerged in articulating (uncertain) AI Futures of artistic practice.

Recklessness and danger
Participants viewed recent technological leaps made by AI with a certain wariness and caution, with one person drawing a comparison to early automobiles without seatbelts. At the same time, they questioned whether government regulation could play an effective role in guardrailing such sweeping changes ("has legislation ever solved anything?"). Terms such as "scary", "sinister" and "toxic" were used to describe the more potentially harmful edges of AI. There was also concern for the fallout from Silicon Valley's "move fast and break things" approach. When one person asked, "After the revolution, who will pick up the garbage on Monday morning?", another answered: "I feel like the people picking up the garbage are us, the artists".

It's here
The dominant sentiment was that AI is "already in our system", that it is "interweaved in daily life", and that it might therefore be "best for us to embrace it". That did not mean, however, that the artists took a passive role - simply that they acknowledged it would be an inevitable if ambivalent presence in the (art) world for the foreseeable future. In fact they saw it as important to adapt to AI, whether directly "as a tool" or indirectly by changing artistic practice, for example to "focus on other human senses" such as smell and touch. Finally, there was some hope for the democratizing potential of new open source applications.

Uncertainty
Opaque training data and fuzzy boundaries around the affordances offered by AI tools underpin the difficulty of exploring black box futures. Many questions expressed a need for clarification or frustration with the ambiguity surrounding AI, such as: "who owns it?", "who uses it?" and "where does the data come from?" It was also unclear to participants how AI technology might evolve, which intersected with the theme of recklessness and danger ("we can't predict or comprehend how AI will change the world"; "humans start but don't understand things"). On the other hand, an exit survey comment noted that "AI should be as uncertain as humans", a view that was strongly reflected in the manifesto, where uncertainty was championed as a positive force. "Absolute certainty is BAD - we resist!" as one person noted during the manifesto sprint. In the final manifesto this became the declaration: "AI should become more uncertain."

4 CONCLUSION

This research is part of a multidisciplinary project for encouraging engagement around possible futures of Europe, with the aim of rebuilding the European commons and promoting dialogue on complex societal issues. Here, we focused on creating and combining new methods for engaging artists in discussion and visioning on the topic of AI and artistic process futures. As the Discussion makes clear, this was a productive intervention that leaves room for refinement; although participants embraced uncertainty, in future we would clarify what we mean by AI and lay the groundwork for a more nuanced discussion. Beyond this theme, we aim to facilitate other forms of dialogue under the banner of Futures of Europe, while publishing our workshop toolkit and new editions of MANIFESTO!.

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