

University of Groningen

CG-art

Arriagada, Leonardo

DOI:
[10.33612/diss.693764937](https://doi.org/10.33612/diss.693764937)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2023

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Arriagada, L. (2023). *CG-art: an aesthetic discussion of the relationship between artistic creativity and computation*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.693764937>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Propositions

Proposition 1: Computer-generated art (CG-art) has traditionally been viewed as lacking aesthetic value, but this dissertation argues for a more nuanced understanding. By examining the autonomy of AI in the creative process and exploring how humans engage with the resulting outputs, this study shed light on the shift from AI being used as a tool for human artists to being recognised as an artist in its own right.

Proposition 2: This research proposes to use the term “AI-generated artwork” to encompass the interdisciplinary elements of Cognitive Science, Aesthetics, and Computer Science in analysing and evaluating the artistic merit of works produced by AI. This term incorporates three key elements: autonomous AI production of new and surprising ideas or artefacts, an internal evaluation mechanism embedded within the AI, and consideration as a candidate for appreciation by a human audience.

Proposition 3: Critics of CG-art have often rejected the creative artistic capability of computers based on an anthropocentric bias, assuming that only humans can create art. However, cognitive science studies have shown that machines can be creative and produce art, and this ability should not be denied based on the assumption of human superiority.

Proposition 4: The denial of the creative artistic capability of machines is based on an incomplete understanding of current technology. Advances in AI and Machine

Learning (ML) have enabled machines to create art in previously unimaginable ways. Therefore, denying this capability is a resistance to progress and innovation.

Proposition 5: Machines have been creating art for decades, as demonstrated by the use of technology in pop music and pop art. This research identifies the three types of aesthetic capabilities of machines (passive, hybrid, and active) to demonstrate and specify core forms of such artistic creation.

Proposition 6: To fully understand the artistic potential of AI-generated art, it is necessary to shift the focus of art theory from reception to production, using the proposed concepts of organic and inorganic aesthetics.

Proposition 7: When presented with abstract art, human audiences tend to prefer those created by AI over those created by humans. Similarly, when presented with figurative art, human audiences tend to prefer those created by humans over those created by AI. This is supported by the results of blind tests, which suggest that people perceive art created by AI as more abstract and art created by humans as more evocative.

Proposition 8: The urge to empathy is always triggered in the recipients of human-made artworks. However, the case of AI-generated artworks is different, and it represents the realisation of a new, genuinely inorganic aesthetic—AIs can deliver artworks created following the urge to abstraction.

Proposition 9: Not all artworks produced with AI are AI-generated artworks, and the use of Generative Adversarial Networks (GANs) is a crucial factor in determining

the ability of an algorithm to have autonomy in its creative process.

Proposition 10: The use of AI vocal embodiment, as demonstrated by the AI Spawn in the LP *PROTO*, holds promise for bringing people closer to accepting AI as a creative agent. This dissertation hints at the potential of this approach to overcome current limitations in achieving a convincing robotic embodiment.