

Illuminating the New Real: Art and critical AI literacies

*A taster summary of a report
for Resilience in the New Real,
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**Even before the explosion of
Generative AI in 2022 and 2023,
the landscape of artistic uses of
AI technologies in the creation,
curation and consumption of digital
and hybrid experiences was already
dynamic and diverse.**

Over the decade leading to 2022, a rapidly growing field of AI art practice had taken shape. Machine learning algorithms served digital content to us online, and were used to increase the efficiency of production workflows. Cultural and artistic applications of AI encompassed novel forms of art objects, event formats, collaboration tools and value exchange. The large number of exhibitions dealing directly or obliquely with AI and machine learning are a strong indicator of the increasing focus placed on AI technologies among artists, curators, and audiences alike.

In arts settings, AI technologies found many different uses, with artists often building their own tools and datasets. Over this period, IT giants such as Google started to offer open-source access to advanced machine learning systems such as BigGAN, and many smaller-scale neural network architectures and models also became available. Creative coding communities could adjust machine learning protocols, pre-trained



*Image: Circadian Bloom by Anna Ridler.
FutureEverything, 2021 © Stelios Tzetzias*

systems, and publicly available datasets (e.g. ImageNet) to their individual needs, and begin to incorporate them into their creative methodologies.

During this time a community of critical artists emerged – and is still growing today – who work with AI technologies and data both as a medium and as a theme, both as a tool and as a topic. We found in this community artists who intentionally design digital experiences to simultaneously delight and inform audiences.

Works by this community illuminate the operations and consequences of emerging technologies and help us to negotiate controversies that arise with AI-fuelled and data-driven experiences.

Looking to the present day and the rapidly evolving landscape of generative AI, it is ever more vital to equip cultural practitioners, managers and funders to understand what excellence looks like when art is made in collaboration with AI, and also to negotiate political, licensing, security, ethical and environmental controversies and challenges in the generative AI domain. Difficult questions can arise for curators, marketers, and technicians, all the way through to senior managers and creative directors. Companies and artists require swift acquisition of new concepts and skills, the adoption of new tools and technologies, and access to new networks and resources. This transition goes beyond the simple adoption of new tools and includes far-

reaching changes at cultural, organisational, economic, and infrastructural levels. This is what we call 'the New Real,' and to understand what it means for the arts, we need to look to the profound ways in which AI and other new technologies are reshaping society.

We learn from these projects the ways systems make use of our data, and how truth and experience are constructed online.

Artworks from the decade leading to 2022 reveal the extraordinary potential of artificially intelligent technologies used in creative and artistic contexts and can help to increase public and professional understanding of the underlying tensions and dilemmas in the New Real. We gain insights into intractable controversies and problems in the digital economy, and ethical, political and environmental concerns relating to the widespread implementation of AI and data systems across all sectors of society. These include the multi-dimensional challenges surrounding safety, privacy, transparency, and misinformation that can arise in distributed, data-driven systems. Core problems that come with the transition to a data-driven culture concern online security, underlying management of IP, and the handling of personal data on underpinning platforms. A new platform or programme may be found to be unviable, and trust and acceptance of emerging formats can quickly evaporate.

These creative works can enhance our capacity to critically reason about the functions and functioning of a system, to make judgements about whether systems and platforms are safe and ethical, and to make the sector overall more resilient in the face of future system failures.

In developing our report, we have looked at works and practices that engage with emerging AI technologies in the new media art tradition and publicly engaged technologically-mediated art more widely. This is a broad area that can encompass work in visual arts, performing arts, games, publishing, film/TV, and hybrid/online festival events. We focused on innovative forms of artistic production and commissioning, looked in particular at five individual art projects, and two exhibitions in which AI is the curatorial topic. These were Learning To See

by Memo Akten (2017), Asunder by Tega Brain (2018), ImageNet Roulette by Trevor Paglen and Kate Crawford (2019), The Zizi Project by Jake Elwes (2019, ongoing) and Wekinator by Rebecca Fiebrink (2009, ongoing), AI: More than Human at The Barbican (2019), and You and AI: Through the Algorithmic Lens by FutureEverything and Onassis foundation (2021). All of these cases involve creative experimentation with and exploration of relevant AI techniques and tools, and also engagement in societal and ethical themes related to the consequences of these emerging technologies.

These diverse practices represent a field of critical art practice, where AI technologies provide both the medium in which the artworks are executed and the theme for the project and the inquiry that surrounds it. In other words, these are data-driven and algorithmic creative practices and art forms in which the data used bears conceptually on the aesthetic and cultural experience created, and which feature a literacy aspect relating to the underlying technologies.

We name this critical AI art.

Our research leads us to conclude that critical arts can:

- demonstrate capabilities/limits of the technology;
- aid in rethinking key elements of computational art and generative practices that can otherwise be difficult to grasp for audiences;
- illuminate or challenge the social factors and implications of emerging technologies, such as bias and inherent power structures;
- engage users/audience such that their input forms a key part of the aesthetic experience, and sometimes also becomes a key critical literacy element;
- foreground the significance of the datasets underlying AI-driven and generative artworks (from artist-created custom datasets to the anonymous labour of machine learning 'click workers')
- call for new curatorial approaches that can accommodate works in which 'creative' elements are 'blackboxed' in algorithmic systems and not immediately evident in the experience as such;

We conclude that this practice can help to equip cultural organisations, practitioners, audiences and funders to negotiate the complex challenges and controversies we face following the generative turn. In particular, the study, commissioning, presentation, evaluation and preservation of such work is a curatorial practice for the New Real, that can address a range of multi-dimensional challenges:

- **expand artistic uses of AI and to explore new creative applications of AI**
- **nurture the human and machine agency to flourish in the face of transformative change today.**
- **leverage the power of the arts to strengthen societal resilience through this and future crises.**

Our report was prompted by the wider adoption of digital ways of working during COVID-19, but its lasting legacy can be in equipping cultural professionals to negotiate the longer-lasting impact of the generative turn. We see critical arts as a niche field that helps us to surface and understand radical strategies for transitioning towards data-driven, networked cultural models. We find that artistic practice can be deepened and enhanced through engagement in these critical issues as well as by access to significant science and technology. Resilience will be strengthened by new cultural, social, and economic models that are artistically novel and also viable, sustainable and fair.

We invite you to join us in exploring how these strategies can reveal culturally and economically viable experiences, formats and models for the arts to flourish in a more-than-human world.



To learn more, read the full *Illuminating the New Real* [report here](#)

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