



OPEN ACCESS

*CORRESPONDENCE Hannah Andrews, ☑ hannah.andrews@britishcouncil.org

RECEIVED 08 February 2024 ACCEPTED 25 July 2024 PUBLISHED 15 August 2024

CITATION

Andrews H and Hawcroft A (2024), Articulating arts-led AI: artists and technological development in cultural policy. *Eur. J. Cult. Manag. Polic.* 14:12820. doi: 10.3389/ejcmp.2024.12820

COPYRIGHT

© 2024 Andrews and Hawcroft. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Articulating arts-led AI: artists and technological development in cultural policy

Hannah Andrews* and Aurora Hawcroft

British Council, London, United Kingdom

As both artificial intelligence (AI) and creativity are being foregrounded in UK policy agendas, this paper identifies a striking underrepresentation of artists and artistic practice in cultural policy discussing creative innovation. This is despite increasing academic literature, arts-led research, and case studies evidencing a close and dialogic relationship between art and AI. To illustrate this, we first call attention to the impact artistic practice has on AI, against the more common discourse of Al's impact on the arts. We then review UK policy addressing the intersection of the cultural sector, creative industries, and digital sector. Taking this context into account, we argue that artists and artistic practice are currently underrepresented in cultural policy advocating for investment in creative innovation. We suggest this under-acknowledgement is embedded as foundationally as the policy language used to articulate the intersection of arts and technologies, foregrounded by the semantic separation of "Visual arts" and "Artistic creation" from the "Digital Sector" in UK Standard Industrial Classifications. This separation reveals a misalignment of policy and practice that risks underrepresenting the important contribution artists make to the development of AI, and discourse around its role in society. Addressing this misalignment requires a review of policy language used to articulate the intersection of the cultural sector, creative industries, and digital sector in order to more closely align artistic practice with the development of Al. This is an important first step in establishing cultural policy that recognises, prioritises, and invests in artists as the agents of creative innovation that literature and practice evidence them to be.

KEYWORDS

Al artists, Al-generated art, Al policy, artificial intelligence, creative technology

Introduction

In recent years, it has become impossible to ignore the impact of artificial intelligence (AI) on the cultural sector and creative industries. With the impact of AI widely recognised, policymakers are working across sectors to establish frameworks around AI risk, intellectual property, and ethics (Council for Science and Technology, 2023; Culture, Media and Sport Committee, 2023; UK Parliament, 2023), whilst the UK Government has identified the creative industries as an important sector to realise national AI strategic objectives (DCMS and DSIT, 2023).

Against this backdrop, there has been a consistent community of artists practising across disciplines to make and interrogate at the intersection of art and AI. This is not a new phenomenon. In the 1970s Harold Cohen was drawing in collaboration with AARON and its autonomous "turtles" (Garcia, 2016), and Vera Molnár created her computer plotter series Transformations (Tate, 2024). In the decades since, artists have driven both the technological development of AI, and created important spaces for engagement with ethical questions associated with the technology. In the UK, for example, Ginsberg (2024) is algorithmically generating living sculptures for pollinator insects that call into question anthropocentric design biases, Elwes (2023) is exposing underrepresentation of queer communities in AI through deep fake drag cabarets, and Chung (2023) is pioneering humanmachine creative collaboration.

However, despite welcomed and necessary efforts in cultural policy to invest in the creative industries as drivers of AI innovation, artistic practice with AI, such as that of Ginsberg, Elwes, and Chung, and thus artists' impact on the development of AI more broadly, goes largely overlooked in cultural policy.

We shine light on this impact, arguing that the limited recognition of artistic practice in cultural policy designed to support creative innovation, reveals a misalignment of policy and practice that risks underrepresenting artists as important contributors to the development of AI, in both technical and social contexts.

Focusing on the United Kingdom, we ground our argument by bringing attention to the policy language used to define elements of the arts within creative industries and the cultural sector. Then we draw on existing literature to spotlight the impact of artistic practice on AI, against the more common discourse of AI's impact on artistic practice. We follow by outlining current UK policy that engages with AI and the creative industries, before highlighting the underrepresentation of artists and artistic practice in this literature. In addressing this underrepresentation, we invite an interrogation of the policy language being used to articulate the intersection of the cultural sector, creative industries, and digital sector to formalise a closer alignment between art and the development of AI. This is an important first step in developing cultural policy that recognises, prioritises, and invests in artists as important contributors to the technological development of AI and advanced technologies more broadly.

A word on definitions

As this paper makes a case for the reconsideration of language, it is important to recognise the language currently used. UK Standard Industrial Classifications (SIC) are used to categorise and measure the size of the economy with national consistency.

The activity that defines the Department for Culture, Media and Sport (2022)'s core sectors is classified according to the latest SIC, published in 2007. These include the "Creative Industries," 1 defined as, "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (Department for Culture, Media and Sport, 2022) and the "Cultural Sector" defined by "those industries with a cultural object at the centre" (Department for Culture, Media and Sport, 2022). The SIC codes that fall under the "Digital Sector"3 are now the responsibility of the Department of Science, Innovation, and Technology (DSIT), which was transferred from DCMS in 2023 (National Audit Office, 2023). The SIC codes recognise the overlap of the "Creative Industries" and the "Digital Sector" within the subsector of "Film, TV, video, radio and music." Strikingly however, "Visual arts" and "Artistic creation," whilst recognised as part of the "Creative Industries," are not classified to contribute to the "Digital Sector."

As this paper argues that this lack of overlap is inaccurate, we will be both using and critiquing the definitions offered by the SIC. Critique, discussed in part 6, will centre on the classifications' semantic separation of "Visual arts" and "Artistic creation" from the "Digital Sector." While AI activity in the UK is not defined by a formal SIC (Department for Science, Innovation and Technology, 2023), we identify the "Digital Sector" classification as the most relevant space for advanced technology activity at the intersection of creative and cultural industries. Furthermore, in seeking to align art and artists more closely with the "Digital Sector," and thus the development of AI, we will use the term "Artistic practice" as opposed to "Artistic creation" (SIC code 9003) as we feel this is more representative of the iterative process of artists working with AI than "Artistic creation" which is, by definition, bound to the creation of an output.

¹ The nine sub-sectors that fall under "Creative Industries" are; "Advertising and marketing, Architecture, Crafts, Design and designer fashion, Film, TV, video, radio, and photography, IT, software and computer services, Publishing, Museums, galleries, and libraries, Music, performing and visual arts" (DCMS and DSIT, 2023).

² The nine sub-sectors that fall under "Cultural Sector" are; "Arts, Film, TV, and music, Radio, Photography, Crafts, Museums and galleries, Library and archives, Cultural education, Operation of historical sites and similar visitor attractions" (DCMS and DSIT, 2023).

³ The nine sub-sectors that fall under "Digital Sector" are; "Manufacturing of electronics and computers, Wholesale of computers and electronics, Publishing, Software publishing, Film, TV, video, radio and music, Telecommunications, Computer programming, consultancy and related activities, Information service activities, Repair of computers and communication equipment" (DCMS and DSIT, 2023).

Recognising the impact of AI on artistic practice

Before discussing the role of artistic practice in the development of AI, it is important to acknowledge the unavoidable impact that AI is having on the cultural sector and creative industries. The proliferation of generative AI has disrupted prior narratives suggesting creative work is safe from automation (Mahdawi, 2017), and artists now face unanticipated questions on the value of their labour (Epstein et al., 2023; Inie et al., 2023). While proponents emphasise an artist's distinctly human "soul" and their unique ability to express human experience (National Endowment for the Arts, 2021; Anderson, 2023), existing literature posits that advanced technologies are confronting the potential devaluation of artistic skills (Ploin et al., 2022; Vimpari et al., 2023). Research also questions whether emerging AI technologies are having a profound effect on traditional creative processes. Concerns surrounding the impact of AI on problemsolving and adaptability (D&AD and Protein, 2023) are paired with recognition of shifts in creative workflows and artists' embodied experience (Ploin et al., 2022).

Issues also concern copyright material being leveraged in AI datasets, culminating in legal debate around intellectual property and the remuneration of artists who are the authors of original works used for input data (Samuelson, 2023; Geiger and Iaia, 2024). Ethical considerations also surround the biases embedded within datasets and models (Birhane et al., 2021), and the circular impact they have on the cultural landscape.

Shifting the conversation to the impact of artistic practice on Al

There are strong grounds to be concerned about the impact AI will have on the cultural sector and creative industries. However, having recognised these critical considerations, this paper draws attention to a more encouraging narrative. Drawing on a burgeoning body of literature, cross-referenced with case studies, we argue that, whilst the impact of AI on art is undeniable and needs to be addressed, artistic practice also has an important and unique impact on the development of AI. As such, we identify that artists are unique contributors to a cross-disciplinary ecosystem influencing the development of advanced technologies such as AI, with particular focus on the development of AI tools and techniques, legal and economic infrastructure, and socio-technical engagement with critical ethical questions associated with the technology.

Contribution to a crossdisciplinary ecosystem

Practice at the intersection of arts and technology is contingent on strong ecosystems spanning arts, academia, and

industry. The complexity of advanced technologies necessitates deep cross-disciplinary collaboration (Galleries, 2020). Artists bridge disciplinary silos, seen in work such as that of Libby Heaney (2017), who draws on her background in quantum information science and collaborates with games engineers and immersive technologists to create artworks that speak to the entanglement of virtual and personal experience. These forms of collaboration don't just afford interdisciplinary innovation within the arts, they also create spillover effects in other industries (Tom Fleming Creative Consultancy, 2015). The art-adjacent industries of gaming, blockchain, film, and architecture, for example, offer significant commercial, developmental, and civic-engagement opportunities for artists experimenting with advanced technologies (Galleries, 2020). This is evident in the US National Endowment for the Arts (2021) study on artists using technology as a medium, in which among the 66 artists informing the study, 34 entities including artist studios, non-profits, software companies, and other businesses were founded. Practicing across disciplines, artists working with advanced technologies including AI, transcend sector silos and open pathways for collaboration and innovation both within and beyond the arts.

Technical development of AI tools and techniques

Artists have a long history of cross-disciplinary collaboration and innovation leading to progressive technological development. The printing press, camera obscura, and early cinema techniques are often referenced as technological innovations accelerated by arts and creativity. The same is the case for AI where sculptors prototype forms using modelling software, visual artists modify code to remodel AI-generated images, and multi-disciplinary artists produce generative immersive realities (National Endowment for the Arts, 2021; Ploin et al., 2022). British choreographer Wayne McGregor's "Living Archive," for example, in collaboration with Google Arts & Culture, explores dance as code, and vice versa, feeding thousands of archival videos into an artificially intelligent tool for audiences to construct choreographic experiments (McGregor, 2019). Chung (2023), programs and builds drawing robots that mimic her gestures, safeguarding the artist's hand in machine creation. In Chung's words, "the technology we're building helps reshape how I paint, meditate, perform—and that changes the nature of the drawing entirely . . . Allowing that feedback loop really catalyses technical development, but also creative growth as well" (Chung, cited in Chow, 2023).

Social understanding of AI and critical technology discourse

Artist practice also affords a critical space for interrogation of and dialogue about the impact advanced technologies have in

society, what Murphy and Villaespesa (2020) call "critical technology discourse." Art often results in AI being deployed in new and unexpected ways, enabling nuanced and evolving engagement with ethical questions (Stark and Crawford, 2019), and opening up space for user intervention, public scrutiny, and policy debate (Hemment et al., 2023). Furthermore, artists can use their practice to centre underrepresented voices surrounding technologies that are often designed by and for western audiences (Benjamin, 2019; Herman and Arora, 2023). Artist Agrawal (2016), for example, exposes the overrepresentation of Western art in datasets by drawing on Indian art forms to reimagine generative AI with a more diverse, locally-grounded aesthetic. Addressing a different kind of underrepresentation in the design of technologies, Ginsberg (2024) questions humancentric design biases by collaborating with horticulturalists, pollinator experts, and a computer scientist to develop "Pollinator Pathmaker," a living artwork algorithmically optimised for pollinator biodiversity, with an accompanying online tool "pollinator.art." From another perspective, Artists Herndon and Dryhurst (2024) have experimented since 2017 with the concept of digital likeness and active solutions for artists to reclaim agency over their intellectual property and authorship. Alongside founder Jordan Meyer, Herndon and Dryhurst developed "Spawning" in 2023 to allow users to optout of their data used in training sets (Serpentine Galleries, 2024; Spawning, 2024). With Stability AI having integrated "Spawning" into their workflow training AI art models, this work exemplifies how artists are not passively being impacted by AI, but instead setting precedent in this incredibly complex space that is extending to the commercial development of advanced technologies (Heikkilä, 2022). Together, these artists evidence art as a facilitator of not only of critical engagement with AI but also the imagination and design of alternative social, environmental, economic, and legal technological futures (Murphy and Villaespesa, 2020).

UK policy and AI in the creative industries

This artistic practice with AI is taking place against the backdrop of a welcome and important recognition in policy of the value that the creative industries bring as drivers of technological development. As set out in the National AI Strategy, the UK aims to position itself over the next 10 years as the best place to live and work with AI (UK Office for Artificial Intelligence, 2021). UK policy institutions position the creative industries as a core sector to achieve this goal (Department for Digital, Culture, Media and Sport, 2023). The term "CreaTech" has been used to describe the convergence of creative and tech industries and is recognised as generating advances in AI technology (Council for Science and Technology, 2023).

This recognition is reflected in the "Creative Industries Sector Vision" (Department for Digital, Culture, Media and Sport, 2023), which identifies new technologies and the research and development (R&D) behind them as key to future growth. The first goal of the 2030 vision is to grow creative clusters in the UK, adding £50 billion more in gross value added, with immersive and virtual production a clear priority. One initiative, Digital Catapult, the UK's innovation agency for advanced technology, focuses on building the creative sector's capabilities in AI and immersive technology to extend the UKs advanced media production economy (Innovate UK, 2021; Department for Digital, Culture, Media and Sport, 2023) These economic initiatives of the Sector Vision demonstrate an accurate and important recognition of the value of the creative industries, especially when engaging with advanced technologies.

Al, artistic practice, and cultural policy

Underrepresentation of artists

The policy recognition of the creative industries as drivers of technological development reflects the value that creativity brings to technological development. However, across the policy reviewed for this paper there is a clear priority placed on industry as a driver of creative innovation, with a notable under-recognition of artists and non-commercial artistic practice as contributors to the same or similar innovation agendas.⁴ The underrepresentation of artists reveals a misalignment between current cultural policy promoting creative innovation and the creative development of AI in practice.

The work of artists discussed in this paper, and others, drive the creative innovation of AI models, tools, and datasets. Furthermore, the artworks are realised at the intersection of industries and disciplines that span the cultural sector, creative industries, and digital sector. These characteristics, also underscored in literature (Galleries, 2020; National Endowment for the Arts, 2021; Ploin et al., 2022), support the argument that artistic practice with AI has spill-over effects on innovation in art-adjacent industries (Serpentine Galleries, 2020). Returning to the policy recognition that "CreaTech" generates significant financial revenue for the UK, and that gaming, film, live performance, and immersive experiences drive innovation within both creative and non-creative contexts (Council for Science and Technology, 2023;

⁴ A notable exception to this is the Arts Council England-commissioned report "The Impact of Arts & Culture on the wider Creative Economy," which makes a strong case for the ecosystemic feedback loop between the cultural sector and creative industries (Metro Dynamics, 2020).

Department for Digital, Culture, Media and Sport, 2023), there is significant evidence to suggest artistic practice contributes to the same impact.

However, cultural policy appears to overlook this contribution of artists to the same ecosystem of creative innovation it seeks to promote, despite practice and literature evidencing the contrary. This underrepresentation suggests a risk of cultural policy not only leaving behind key contributors to technological development, but also not fully capitalising on the value that artistic practice brings to the development of AI through nuanced critical engagement with the technology.

Increasing focus on artists and artistic practice in the language of cultural policy

Mitigating this risk requires a clear recognition in cultural policy of the value that art and artists bring to the development of AI, allowing artistic practice engaging with AI to be more formally embedded in policy and infrastructure designed to support innovation.

Standardised definitions provide the foundations for much policy, therefore, this recognition needs to start at a foundational level; with a reconsideration of the language being used to discuss the intersection of the cultural sector, creative industries, and advanced technologies. Primarily, accurately capturing the nature of artistic practice with AI requires semantics that move away from disciplinary silos to embrace ecosystems, and foreground process over output.

Articulating arts-led Al

The Standard Industrial Classifications (DCMS and DSIT, 2023) illustrate the semantic separation of art and technology in the language on which much cultural policy is based. Whilst there is a recognition of technology as a sub-sector of the "Creative Industries," represented through "IT, Software, and Computer Services" there is no link between this sub-sector and the arts. Further conveying this separation, the definition of the "Digital Sector" recognises the sub-sector "Film, TV, Video, Radio and Music," but does not recognise "Visual arts." Similarly, whilst the "Cultural Sector" overlaps with the "Digital Sector" and "Creative Industries" in the sub-sector "Film, TV, Music and Radio," both "Arts" (SIC codes 9001–9004) and "Museum activities" (SIC code 9102) do not overlap with the "Digital Sector."

As the above literature, arts-led research, and case studies evidence, artists have a significant influence on the technical development of AI, and social engagement with the technology. However, taking into account the literature and case studies evidencing artists work with AI as cutting across the creative industries, cultural, and digital sector, the SIC context of "Artistic creation" as disconnected from the "Digital Sector" and the lack

of overlap between the "Cultural Sector" and "Digital Sector" around "Visual arts" does not reflect this reality. As a result, artists and artistic practice, do not have an accurate or even articulated place within the SIC codes on which much cultural policy regarding innovation is based. Semantically, this reveals a foundational under-representation of artists and artistic practice within the policy discussing or designed to support creative innovation with advanced technologies.

Furthermore, "Artistic creation" itself suggests a misplaced emphasis on output over process. Across literature there is an emphasis that "creation" at the intersection of arts and AI is based on deep inter-disciplinary interrogation (Serpentine Galleries, 2021), technical trial and error (D&AD and Protein, 2023), and long-term collaboration across individuals and sectors (National Endowment for the Arts, 2021). The act of making is therefore as much an act of creation as an embodied process spanning many years, and often full careers of navigating diverse fields and expertise (National Endowment for the Arts, 2021). As such, "Artistic creation" reductively connotes the "creation" of an end product, whilst "practice" more expansively suggests the process required for creation, and the individual artists' practice honed over the course of a career or lifetime.

This misalignment is likely not the intention of policymakers, and policies such as the much-needed "Creative Industries Sector Vision" (Department for Digital, Culture, Media and Sport, 2023). However, without specifically naming artists as important drivers of technological development in policy documents, the language on which such documents are based subtlety yet formally excludes artists. As policy is, by design, authored to effect actionable change, inevitably this will result not only in an exclusion of artists from policy language and literature alone, but also from valuable opportunities and infrastructural support.

Concluding reflections

These are just two examples of where foundational language informing cultural policy appears misaligned with practice at the intersection of art and AI. Taking this into account, it is perhaps unsurprising that when discussing innovation in AI, the creative industries have been foregrounded whilst artistic practice has gone relatively overlooked.

In practice however, both literature and case studies suggest that artistic practice at the intersection of art and AI is a vital contributor to the same innovation objectives that policies such as the "Creative Industries Sector Vision" articulate.

In this context, we suggest cultural policy needs to continue the welcome and necessary investment in the creative industries. However, alongside this, we invite an interrogation of the current semantics being used to articulate the arts, cultural, and creative ecosystems in the context of AI, to align between arts and

technological development more closely. Being able to confidently articulate artistic practice as innovating AI tools and techniques, contributing to cross-disciplinary creative technology ecosystems, and informing critical technology discourse is a first step in developing cultural policy that recognises, prioritises, and invests in artists, and the cultural institutions that support them, as the agents of technological development they are.

Data availability statement

Publicly available datasets were analyzed in this study. This data can be found here: (DCMS and DSIT, 2023).

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

References

Agrawal, H. (2016). About/updates Harshit agrawal. Available at: https://harshitagrawal.com/about-updates (Accessed January 29, 2024).

Anderson, A. (2023). Will AI replace artists, designers, programmers, and all human jobs? TechReader. Available at: https://techreader.com/tech/ai/will-ai-replace-artists-designers-programmers-all-human-jobs/ (Accessed January 29, 2024).

Benjamin, R. (2019). Race after technology: abolitionist tools for the new jim code. 1st ed. Cambridge, UK; Medford, MA: Polity.

Birhane, A., Prabhu, V. U., and Kahembwe, E. (2021). Multimodal datasets: misogyny, pornography, and malignant stereotypes. *arXiv*. doi:10.48550/arXiv. 2110.01963

Chow, A. (2023). TIME100 AI 2023: Sougwen Chung, time. Available at: https://time.com/collection/time100-ai/6309455/sougwen-chung/ (Accessed February 2, 2024).

Chung, S. (2023). Info—Sougwen Chung (Sujun). Available at: https://sougwen.com/info (Accessed January 29, 2024).

Council for Science and Technology (CST) (2023). Harnessing research and development in the UK creative industries. London: Council for Science and Technology CST. Available at: https://assets.publishing.service.gov.uk/media/652fc7ac92895c0010dcb980/Harnessing_Research_and_Development_in_the_UK_Creative_Industries.pdf (Accessed January 29, 2024).

Culture, Media and Sport Committee (2023). Connected tech: AI and creative technology - culture, media and sport committee. Available at: https://publications.parliament.uk/pa/cm5803/cmselect/cmcumeds/1643/report.html (Accessed: January 23, 2024).

D&AD and Protein (2023). D&AD x Protein: future creatives report. Available at: https://www.dandad.org/en/d-ad-future-creatives-report/ (Accessed January 29, 2024).

Department for Digital, Culture, Media and Sport (DCMS) (2023). Creative industries sector vision. Available at: https://www.gov.uk/government/publications/creative-industries-sector-vision (Accessed January 23, 2024).

Department for Culture, Media and Sport (DCMS) (2022). DCMS sector economic estimates methodology. GOV.UK. Available at: https://www.gov.uk/government/publications/dcms-sectors-economic-estimates-methodology/dcms-sector-economic-estimates-methodology (Accessed January 24, 2024).

Department for Culture, Media & Sport (DCMS) and Department for Science, Innovation and Technology (DSIT) (2023). DCMS and digital economic estimates: business demographics, 2023. GOV.UK. Available at: https://www.gov.uk/

Funding

The authors declare that financial support was received for the research, authorship, and/or publication of this article. The costs of publication are covered by Goldsmiths.

Acknowledgments

With thanks to artists Alexandra Daisy Ginsberg, Harold Cohen, Harshit Agrawal, Holly Herndon & Mat Dryhurst, Jake Elwes, Libby Heaney, Sougwen Chung, Vera Molnár, and Wayne McGregor whose work has greatly informed and inspired the authors in writing this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

government/statistics/dcms-and-digital-economic-estimates-business-demographics-2023 (Accessed April 30, 2024).

Department for Science, Innovation and Technology (DSIT) (2023). Artificial Intelligence sector study 2022. GOV.UK. Available at: https://www.gov.uk/government/publications/artificial-intelligence-sector-study-2022 (Accessed April 29, 2024).

Elwes, J. (2023). Jake Elwes - the zizi show. Available at: https://www.jakeelwes.com/project-zizi-vam.html (Accessed February 2, 2024).

Epstein, Z., Hertzmann, A., Akten, M., Farid, H., Fjeld, J., Frank, M. R., et al. (2023). Art and the science of generative AI. *Science* 380 (6650), 1110–1111. doi:10. 1126/science.adh4451

Galleries, S. (2020). Future Art Ecosystems 1: Art x Advanced Technologies. Available at: https://d37zoqglehb9o7.cloudfront.net/uploads/2020/07/Future-Art-Ecosystems-1-Art-and-Advanced-Technologies_July_2020.pdf (Accessed January 29, 2024).

Garcia, C. (2016). Harold cohen and AARON—a 40-year collaboration, CHM. Available at: https://computerhistory.org/blog/harold-cohen-and-aaron-a-40-year-collaboration/ (Accessed February 2, 2024).

Geiger, C., and Iaia, V. (2024). The forgotten creator: towards a statutory remuneration right for machine learning of generative AI. *Comput. Law Secur. Rev.* 52, 105925. doi:10.1016/j.clsr.2023.105925

Ginsberg, A. D. (2024). Alexandra Daisy Ginsberg. Available at: https://www.daisyginsberg.com/ (Accessed January 29, 2024).

Heikkilä, M. (2022). Artists can now opt out of the next version of Stable Diffusion. *MIT Technol. Rev.* Available at: https://www.technologyreview.com/2022/12/16/1065247/artists-can-now-opt-out-of-the-next-version-of-stable-diffusion/ (Accessed April 19, 2024).

Hemment, D., Currie, M., Bennett, S. J., Elwes, J., Ridler, A., Sinders, C., et al. (2023). AI in the public eye: building public AI literacy through critical AI art, the new real. Available at: https://www.newreal.cc/magazine/ai-in-the-public-eye (Accessed February 2, 2024).

Herman, L., and Arora, P. (2023). "Decolonizing creativity in the digital era," in IASDR Conference Series. Available at: https://dl.designresearchsociety.org/iasdr/iasdr2023/fullpapers/82.

Herndon, H., and Dryhurst, M. (2024). Herndon Dryhurst studio, HH-md. Available at: https://herndondryhurst.studio/ (Accessed April 19, 2024).

Inie, N., Falk, J., and Tanimoto, S. (2023). Designing participatory AI: creative professionals' worries and expectations about generative AI. *arXiv*. doi:10.48550/arXiv.2303.08931

Innovate, UK (2021). Building the future economy: plan for action for UK business innovation. Available at: https://www.ukri.org/publications/innovate-uk-action-plan-for-business-innovation-2021-to-2025/ (Accessed January 29, 2024).

Libby Heaney (2017). Somerset house. Available at: https://www.somersethouse.org.uk/residents/libby-heaney (Accessed January 24, 2024).

Mahdawi, A. (2017) What jobs will still be around in 20 years? Read this to prepare your future, London, United Kingdom: The Guardian, Available at: https://www.theguardian.com/us-news/2017/jun/26/jobs-future-automation-robots-skills-creative-health (Accessed January 29, 2024).

McGregor, S. W. (2019). Living Archive: An AI Performance Experiment, Studio Wayne McGregor. Available at: https://waynemcgregor.com/productions/living-archive (Accessed January 24, 2024).

Metro Dynamics (2020). The impact of arts and culture on the wider creative economy. Manchester, United Kingdom: Arts Council England. Available at: https://www.artscouncil.org.uk/impact-arts-and-culture-wider-creative-economy (Accessed February 5, 2024).

Murphy, O., and Villaespesa, E. (2020). The-Museums-and-AI-Network-Toolkit.pdf. Available at: https://www.bmitpglobalnetwork.org/wp-content/uploads/2022/05/The-Museums-and-AI-Network-Toolkit.pdf (Accessed February 2, 2024).

National Audit Office (2023). Department for science, innovation & technology 2022-23 - NAO overview. London, United Kingdom: National Audit Office NAO. Available at: https://www.nao.org.uk/overviews/department-for-science-innovation-technology-2022-23/ (Accessed April 29, 2024).

National Endowment for the Arts (2021). *Tech as art: supporting artists who use technology as a creative medium.* Washington DC: National Endowment for the Arts. Available at: https://www.arts.gov/impact/research/publications/tech-art-supporting-artists-who-use-technology-creative-medium (Accessed January 29, 2024).

Ploin, A., Eynon, R., Hjorth, I., and Osborne, M. A. (2022). AI and the arts: how machine learning is changing creative work. Oxford: Oxford Internet Institute. Available at: https://www.oii.ox.ac.uk/news-events/reports/ai-the-arts (Accessed January 29, 2024).

Samuelson, P. (2023). Generative AI meets copyright. Science 381 (6654), 158-161. doi:10.1126/science.adi0656

Serpentine Galleries (2021). Future art ecosystems 2: art x metaverse. London, United Kingdom: Serpentine Galleries. Available at: https://d37zoqglehb9o7.cloudfront.net/uploads/2021/06/FAE2_ArtxMetaverse_digital.pdf (Accessed January 29, 2024).

Serpentine Galleries (2024) Future art ecosystems 4: art x public AI. Available at: https://reader.futureartecosystems.org/briefing/fae4 (Accessed April 19, 2024).

Spawning (2024). Spawning, spawning.ai. Available at: https://spawning.ai/ (Accessed April 19, 2024).

Stark, L., and Crawford, K. (2019). The work of art in the age of artificial intelligence: what artists can teach us about the ethics of data practice. *Surveill. Soc.* 17 (3/4), 442–455. doi:10.24908/ss.v17i3/4.10821

Tate (2024). "Transformations 1-21," Vera molnar, 1976 | tate. Available at: https://www.tate.org.uk/art/artworks/molnar-transformations-1-21-t15545 (Accessed February 2, 2024).

Tom Fleming Creative Consultancy (2015). Cultural and creative spillovers in Europe: report on a preliminary evidence review. doi:10.1163/2210-7975_HRD-1957-2015001

UK Office for Artificial Intelligence (2021). National AI Strategy. Available at: https://www.gov.uk/government/publications/national-ai-strategy (Accessed January 29, 2024).

UK Parliament (2023). Abandon artificial intelligence copyright exemption to protect UK creative industries, MPs say - committees - UK Parliament. Available at: https://committees.parliament.uk/committee/378/culture-media-and-sport-committee/news/197222/abandon-artificial-intelligence-copyright-exemption-to-protect-uk-creative-industries-mps-say/ (Accessed April 24, 2024).

Vimpari, V., Kultima, A., Hämäläinen, P., and Guckelsberger, C. (2023). "An adapt-or-die type of situation": perception, adoption, and use of text-to-image-generation AI by game industry professionals. *Proc. ACM Human-Computer Interact.* 7 (CHI PLAY), 131–164. doi:10.1145/3611025