Producing cross-disciplinary insights for diverse and inclusive design to AI in arts and fashion

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An important subject revolving around the governance of Artificial Intelligence (AI)– from personalised adds suiting an individual's emotions to more sophisticated methods generating virtual models reflecting one's own body shape- is about ensuring the diversity and inclusion of these tools framing individual experiences and producing harmful biases. Artists, fashion designers, and computer scientists increasingly engage with the social and ethical issues of AI techniques and make these apparent through practice, such as using computational models to generate images that reveal issues of gender diversity when the system contains biased training data. What is missing, however, is a conceptual framework guiding this new area of "creative critique of fashion AI" that delivers a set of actionable principles for the accountable and responsible governance of AI. These illuminate on the tensions on how private entities frame notions surrounding accountability, transparency and bias and how artists' work as a countervailing force and playful subversion of it can expose crude conceptions surrounding the benefits and limitation of AI.

Introduction

Situated against the acceleration of Artificial Intelligence (AI) techniques in the fields as diverse as social medial advertising, personalisation and now content-creation, the regulation of algorithms is no longer confined to a single discipline and methodology (Dwivedi et al., 2021, pp. 7–10). With the EU Commission's Regulation on Artificial Intelligence (AI) and the role of standards (EU Artificial Intelligence Act, 2024), multidisciplinary research swings the pendulum of law to deal with the design and deployment of AI systems. At the same time, we witness how new research agendas, practice-based approaches using AI in creative arts and fashion are emerging as a tool for artists, fashion designers and computer scientists to stimulate more engagement with the societal implications of AI (Drew Hemment et al., 2019). By way of illustration, Dinkins work is illustrative of using AI as a tool to stimulate and reveal an ongoing and toxic reality of algorithms' "little more semblance of Black womanhood" (Small, 2023). As noted by Scharff on her collaborative work with Kaleemunsia and Krishna Bathula on expanding the fashion dataset "Fashion MNIST" with textures, shapes and style, as well as popular garments in Senegal, the role of AI is transforming its "incompleteness" for bias mitigation (Johnni Medina, 2023).

However, what is missing is a conceptual framework guiding this new area of "creative critique of fashion AI" that delivers a set of actionable principles for issues surrounding fairness, bias, diversity and inclusivity of AI in creative practice. Artists, fashion designers and computer scientists using practice-based approaches intend to make the 'mechanisms of algorithms vividly apparent' based on human and machine interaction that can reveal harmful biases and content (Drew Hemment et al., 2019, p. 25). This approach is different from a socio-legal analysis of algorithmic bias and fairness in so far as it sheds light on the systematic impact of algorithms as a matter of discourse rather than the tangible outcome of algorithmic decision making. In light of the increasing role of AI to shape narratives based on its different uses and contexts, it is important therefore to examine how the negotiating function of AI in arts promote perspectives for the socio-legal implications of algorithmic bias.

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Research so far is focusing on the negotiating function of practice-based approaches on the one hand, and the legal, ethical, and scientific discourse on algorithmic bias and fairness on the other. Additionally, attention has been directed towards the reflection of AI and creativity from the perspective of co-creation and/or co-existence between human and machine of creative arts (Young, 2019). These insights, whilst useful for highlighting the limitations of AI systems, do not provide a comprehensive picture of how notions of diversity and inclusivity can be operationalised for the governance of these tools and practices. Given the speed of advances in AI techniques, such as entailing Generative Adversarial Networks and Large Language Models for the creation of content, the need for cross-disciplinary insights that delimit harmful and non-harmful uses of technology becomes pressing.

To account for this gap, this project investigates the "extent to which we can use practice-based approaches to AI to facilitate the analysis of socio-legal issues and regulation surrounding AI bias, fairness, diversity and inclusivity?". It will draw from two semi-structured focus groups involving (1) legal scholars, social scientists, and AI ethicists; and (2) artists, fashion designers and computer scientists, to produce a guide for artists, fashion designers, and computer scientists engaging with practice-based approaches using AI. The research question is formulated broadly to allow room for the participants in this study to draw from their own multidisciplinary background on the individuals' engaging with the ethical, legal, and sociotechnical implications of AI in arts on the one hand, and the experience of fashion designers, artists and computer scientists working with practice-based approaches using AI on the other.

The aim of the focus group sessions is to identify the extent practice-based approaches using AI can be utilised to facilitate discourse on the inclusive and diverse design of algorithms. What follows is a conceptual framework that puts the negotiating function at the forefront of defining a set of actionable principles that helps us to define, assess, and critique the socio-legal and ethical implications of advances in AI techniques.

Theoretical underpinnings

Increased attention is given to the practice of artists, designers and creators using AI in their creative work. These practices could illustrate the foundation of a new landscape that touches upon important problems and debates on responsible AI. We describe these as **practice-based approaches to AI** where the artists, creators, fashion designers can demystify the social, ethical and legal considerations surrounding AI (Drew Hemment et al., 2019; School of Informatics University of Edinburgh, 2024).

There are various conceptualisations that qualify this "critical dimension of this emergent field" of practice-based approaches (Hemment et al., 2022). Issues of bias, fairness, diversity and inclusivity are notions where the role of practice-based approaches as a negotiating function between the enablers and constraints of performative AI, is apparent. Take the example where a group of artists called "Dazzle Club" would paint their faces with geometric patterns to subvert the power of automated facial recognition detecting and filtering individuals for law enforcement (Li, 2020). Practice-based approaches are performative towards the seductive power of AI, such as highlighting the subversion of fundamental rights.

This research aims to problematise this dimension apparent in practice-based approaches, and how we should frame it when we think about socio-legal, societal and ethical implications of AI, algorithmic decision-making, as well as more increasingly, Large Generative AI.

Another important aspect of practice-based approaches which is of particular interest for this study is how these can fulfil a countervailing force to the socio-legal concerns of AI techniques for law and society by emphasising the production and mimicry and sometimes fakery over deep creativity, accuracy, or empathy (Theodore Koterwas, 2023). For instance, “anti-surveillance makeup” not only conceals human faces from automated facial recognition technology but challenges artificial symmetry of AI that is intended to recognise a “typical human face” and inherits biases, stereotyping, derogatory associations and narratives (Esther Shein, 2022).

Understanding AI as a socio-technical challenge in creative arts

Practice-based approaches to AI – in which artists, fashion designers, and computer scientists experiment with the inherent limitations of algorithmic reasoning – allow us to reflect on the social experiences mediated by technology. For instance, artists are interrogating AI to explore algorithmic reasoning, such as bias in the training data concerning gender and sexual identity. Another example that illustrates the work of artists’ is Beverly Hood’s and Pauline Goldsmith’s project (Beverly Hood & Pauline Goldsmith, 2022). The artists' work explores the limitations of facial recognition technology, illustrating how algorithmic confusion and unregulated use in law enforcement can subtly impact lives when misused. Hemment and colleagues point out that enhanced collaboration between computer scientists and artists can reveal complex mechanisms, fostering innovative strategies for responsible use and design of AI supporting principles including transparency and trustworthiness (Drew Hemment et al., 2019, p. 25).

Elsewhere it was already argued that focusing on the dynamic between individuals and technology as they create narratives within a creative practice can distil principles that could inform policy (Daria Onitiu, 2023). An important area of concern regarding the design and deployment of AI systems is the role of bias and lack of fairness. Algorithmic bias and fairness are both an active area of research in computer science, ethics, law, as well as an important aspect of policy (Mittelstadt et al., 2023). Key to the discourse of fairness is its multi-varied nature to reduce gaps in performance, systematic impacts of algorithms in disadvantaged groups, as well as promoting diversity (Binns, 2021; Zimmermann & Lee-Stronach, 2022). In this regard, practice-based approaches AI in arts and fashion can shed light on the multidisciplinary perspectives to promote fairness, diversity and inclusivity, including the way algorithms act upon the world and establish narratives that can lead to representational and systematic harm (Kate Crawford, 2017).

The negotiating function of practice-based approaches

The novelty of these practice-based approaches lies in their inclusion of a negotiating function for artists, creators and fashion designers to examine the implications of AI, offering a more creative critique to principles of fairness and bias while ensuring responsible innovation in AI. Their essence flows from several theories that qualify the artists’ relationship with the creative process and technology.

By way of illustration, Benford et al. describe practice-based approaches as fostering "playful relationships" between the artist and the model (Benford et al., 2023, pp. 5–6). Complex mechanisms, such as algorithmic opacity or biases in the training data become “artistic workspaces” for the person to deliberatively shape negative model limitations, such as glitches or noises (Anne Ploin et al., 2022, p. 25; ; Benford et al., 2023, pp. 5–6). Thus, practice-based approaches are characterised by the “lived experiences” of artists and the digital affordances embedded in a socio-cultural context (Cook, 2021).

Increasingly, creative approaches are intended to highlight the wider societal engagement with technology (Drew Hemment et al., 2024). Much of this effort appreciates the artists' work in relation or in collaboration with the AI to make up the components of the sociotechnical system. Indeed, as noted by Burrough and Walgreen, a sociotechnical approach to art "socially engaged" with artists requires the deeper exploration of their voices to ensure responsible usage and innovation of emergent technology (Xtine Burrough & Judy Walgreen, 2022).

However, the embeddedness of technology in a socio-cultural context including its full scope has not been thoroughly explored in the literature with reference to practice-based approaches (Feher & Katona, 2021, p. 2). As noted by Hemment et al, to provide a theoretical framework for practice-based approaches, it is necessary to define "commonalities across a spectrum of existing AI art projects" (Hemment et al., 2022, p. 2). Moreover, we need a conceptual framework to evaluate potential crossovers and identify tensions between the artist and the algorithmic abstraction of creative practices (Bryan-Kinns et al., 2023).

A concrete step towards a conceptual framework is for us to investigate in what way socio-legal and ethical considerations on the lack of fairness and bias of algorithms can feed into a socio-technical framework. This in turn, seeks to problematise the negotiating function within practice-based approaches. In doing so, this research intends to establish a missing link on how issues of fairness, bias, diversity and inclusivity of AI in creative arts can be operationalised based on practice-based approaches.

Concretise socio-technical challenges within the negotiation function of practice-based approaches

While practice-based insights can highlight the limitations of AI systems, it is unclear how important issues of diversity and inclusivity can characterise practice-based approaches. To close this gap, this research focuses on the way the negotiating function of algorithms shaping the individual's perception, social experience, as well as bias questions, facilitates or hinders values and norms for the regulation of emergent technology.

In this regard, it is important to clarify the common themes and tensions related to responsible AI within this new methodological landscape for two reasons.

First, we need to expand on algorithmic narratives of bias, fairness, diversity and inclusivity through a multidisciplinary dialogue on "harmful" and "non-harmful" uses of technology increasingly blurred by the complexity, scale and opacity of algorithms, Machine Learning and increasingly Generative AI. Practice-based approaches, by drawing critical attention to the intricate relationships between technology, law and society in individual's daily experiences, offers a platform for alternative interventions shaping notions of representation and interpretation in policy.

Second, our focus on the negotiating function of practice-based approaches is useful for researchers, practitioners and developers as reflecting on collective responsibilities on the design and use of AI. These can range from questions of control and agency regarding creative choice on and the use of technology, but equally, highlighting the importance of big tech in collaboration with creators of artwork to avoiding top-down approaches to governance of emergent tech.

Methodology

To explore the different connectors, enablers and tensions for responsible AI and practice-based approaches, we conducted focus group interviews that were semi-structured. These focus groups involved (1) legal scholars, social scientists, and AI ethicists; and (2) artists, fashion designers and computer scientists, to explore common, cross-disciplinary

themes for the diverse and inclusive design of AI and include actionable principles for its legal and ethical use in practice-based approaches. Key areas we wanted to investigate were the themes that set the scene, set the tone and directions in how socio-legal issues surrounding bias and fairness in AI can be connected to practice-based approaches.

We have chosen the semi-structured research interview method based on its flexibility to allow respondents to share their perspectives and experiences within these pre-constructed themes. That is, the moderator would pose questions reflecting the key themes, followed by "explanatory" and "clarifying probes" (Robinson, 2023, p. 390). This flexibility enabled us to explore the participants' perspectives, who were able to provide new information we have not previously thought of (Gill et al., 2008, p. 291).

In this regard, we intended to explore sources of agreement and disagreement between participants. We had a group size of ten to twelve participants per focus group session to enable a rich and balanced discussion among participants (Bloor et al., 2001, p. 26). To give breath to the variety of researchers and practitioners' opposing views on this topic, we ran two focus groups with artists, fashion designers and practitioners, as well as researchers in AI ethics, computer science and social science, legal scholars interested in the responsible design and use of AI in creative arts. Each session lasted for about one hour and thirty minutes.

The participants were recruited through contacting multidisciplinary research centres, who directed us to researchers, legal scholars, AI ethicists and practitioners in creative arts. This recruiting strategy allowed us to gather researchers with diverse academic backgrounds who were sharing similar research interests.

From that, we were able to organise two focus group sessions with a total of twenty respondents. The composition of the members illustrated a mix of researchers of different level of seniority, professors and Early Career Researchers. We avoided recruiting participants who had a mentor-mentee relationship, recognising that hierarchical and asymmetric power relationships could undermine individual contributions to the sessions.

An important aspect of the interviews was the largely in-person attendance to the focus groups. This had drawbacks as we could only recruit and fund the travel for participants located within the United Kingdom (Richard et al., 2021, p. 32). Nevertheless, the in-person format ensures a more seamless and rich interaction between participants and the moderator (Jones et al., 2022, p. 8).

The transcripts of the audio recording reflected the focus groups' interactions and contributions to the key themes. We focused on accurately capturing the interactions, discussions and disagreements during the focus group sessions and left out any nonverbal communication and cues during transcription (Halcomb & Davidson, 2006, pp. 39, 41; Oliver et al., 2005, pp. 1273–1274) ensuring an "analytic focus on content" (Halcomb & Davidson, 2006, p. 2; Point & Baruch, 2023, p. 40). Every participant was given a pseudonym, removing participants names and details surrounding the employer and replacing them with categories on the field of research.

We conducted a thematic analysis of the voice recordings after the familiarisation with the data (Byrne, 2022, p. 1392). The coding process was conducted inductively (Terry et al., 2017).

We oriented our thematic data analysis towards our research questions yielding an "essentialist ontological framework" (Terry et al., 2017). That is, we were interested the way socio-legal problems are interpreted and addressed by researchers and practitioners concerning AI in creative arts. Some questions we asked at the first focus-group session included "how do you perceive the impact of AI in creative practice?". Other questions were directed to participants assessing their direct experience of using AI and entailed "how

do you use AI in your own creative practice?".

Findings

The focus groups discussions revealed several connections and links between the socio-legal implications and the negotating functions of practice-based approaches. For socio-legal notions on the issues of bias, fairness, inclusivity, and diversity to feed into the creative discourse on AI, this requires an uncovering a series of **pre-conceptions** important players – the developers, providers, and Big Tech- hold about the impact of AI on creative practice broadly. Understanding these notions is vital to move forward and conceive a socio-technical approach to AI design, use and governance. An important source of disagreement was the role of **agency** between participants which is relevant to policy makers discerning the downstream and interactive effects of (Large) Generative AI.

AI as a marketing term

Most respondents had a difficult time to define the way AI technologies shape creative practice either referring to the distribution of content, or the development of so-called AI art. Take the example of Large Generative AI that contains the functionality for artists as well as consumers to sell and re-use prompts for the creation of new artistic content. Whilst these advanced AI techniques are a "glossy" version of old statistical patterns, their use and scale by a range of actors can produce a different spin to the intersection of art with visual culture. In other words, when respondents were asked how they define the socio-legal implications of AI in creative arts, the tensions evolved around unpacking *pre-conceptions that conflate the consuming of AI with creative practice that as shaped by algorithmic feedback loops and power asymmetries of Big Tech platforms on what is AI and who is empowered and disempowered by technological affordances.*

Hence, the language we chose to adopt *frames* the way artists, as well as researchers and practitioners engage with AI as a tool, and/or source of discourse for responsible AI and policy. To understand AI influence then, it is a matter of setting the tone in how different stakeholders influence the process entailing the generation and creation of content. For instance, how end-users and consumers engage with the presentation of goods and services via personalised advertising, as well as create new narratives through which we "see" invisible structures of creative AI, like engaging with the virtual fashion model, or Big Tech "selling" their crude visions of AI.

Respondents believe that the media attention and hype surrounding technological advancements in AI's role in creative arts focus on a very specific set of concerns related to their social, ethical, and legal impacts. For example, the renewed discourse of the socio-legal challenges of Large Generative AI to protect artists' works and copyright are well-documented. However, as one respondent notes:

> "A lot of the technical questions on AI in arts are boiling down to whose rights are valued and whose rights are devalued; who gets paid and who does not? And these questions seem to have huge ramifications in an Industry like arts that has been systematically defunded by governments .... Then the question also becomes who is even going to be able to afford to make art for a living. All these things, have little to do with the question of whether it is art or not, because there are a lot of uses of AI that are just purely focused on the commercial side."

The impact of AI on creative arts examined from a *specific perspective*, and emphasising technical capabilities is a sentiment that was shared by all respondents. This viewpoint positions AI as a "marketing term" used by Big Tech companies to shape discourse of advanced AI techniques on the commercial side and with a view to design, use and governance of (advanced) AI systems.

Understanding **AI as a marketing term** means that the fear and assumptions about the impact of AI, such as the implications of

Large Generative AI on artists, is a vicious feedback loop on the optimisation of creative content. For example, the filtering algorithms on different social media platforms (Matsakis, 2020) create and distribute of what "artistic content" is.

Respondents mentioned another illustrative example on how stakeholders including Big Tech shape the meanings attached to AI in visual culture and the publics' response to creative art and design. An illustrative example is the fashion brands' By way of illustration, the most recent backlash experienced by a fashion lifestyle company and the Reem AI virtual influencer where the personification as a style editor who joins lunchbreaks and afterwork drinks- showcases the ambiguities has been criticised as an ambiguous use of AI " innovation" and "diversity" by Instagram users (Emily Brown, 2024; see also, Hwang et al., 2024; Sara McCorquodale, 2024).
As noted by a participant:

"It is actually the appearance of diversity which shifts the power and the profit away from the potentially actually diverse range of models who have, to the people making these systems and selling their abilities to create this type of diversity; it is basically moving away whilst giving the impression that you included lots of diverse body types in your photoshoot."

What this example evidently contains of hidden notions, narratives in how private entities are making use of the capabilities of AI streamlined for the consumption of art and fashion. This inadvertently has a socio-economic impact and introduces some biases, from raising questions on who is empowered by technology, how is the work of artists valued, and who is represented within this algorithmic driven landscape.

On the other hand, respondents also see that AI also produces a **playful subversion** of established practices. That is, artists and fashion designers are engaging and/or intervening with the practices of Big Tech. There are communities of artists particularly critical of so-called AI art, and some have come up with the website 'Have I been trained?' (Spawing AI, 2024). On this site, artists can search whether their work has been used in a data set for training generative AI. This can allow to gain a certain knowledge or control. Another tool is "Nightshade", a tool that turns any image into a data sample that is unsuitable for model training (Shan et al., 2024).

Shaping narratives, access, and empowerment

Algorithmic fairness and bias are issues operating along the spectrum of human control and lack thereof. However, *the hype surrounding the general capabilities of AI* actively contributes to social, ethical, and legal debates and inadvertently introduces dangerous narratives concerning representation, diversity, and agency over technological development among various stakeholders.

Respondents were able to provide a holistic voice regarding the question of what these dangerous narratives are. These consist of the way we frame the discourse on the impact of AI on artists, fashion designers and end-users through recognising that **saliency** and **cultural blindsides** are important drivers of this discussion.

Saliency: with de-biasing of training datasets to the use of algorithms in creative arts, we need to think about the stakeholders and how they are salient to the ethical, and legal societal implications of AI-driven processes. For instance, when we think about the risks of deep fakes, we often associate it with common examples of Generative AI fabricating content of celebrities or well-known artists (Ian Youngs, 2024). In this regard, the regulatory position is on how artists exercise control over the input data including the associated rights of the replicated content. However, as noted by one respondent:

"My problem is that with the law it seems that perhaps it does not protect people who are less known. In other words, how can these artists protect their work if it is not copyrighted or trademarked?"

Thus, respondents recognised that the downstream implications and effects of deep fakes including generative AI are aspects often salient and inclusive of all stakeholders. These stakeholders can include the less-known artists who are often not aware of the data curation practices. **Saliency** is also a point that is often underexamined when looking at the "gendered aspect of deepfakes" (Agnes E Venema, 2020), impacting women with diverse socio-economic and cultural background, such as women "discretely engaging in sex-work". Hence, responsible AI should incorporate that notion of saliency both, as a notion of incorporating stakeholders and as a mirror of algorithmic saliency and exclusion in data curation practices.

Cultural blindsides: the developer's mindset on issues of bias and fairness can create blind spots on the responsible design and use of AI throughout the value chain. As noted in the focus group discussion:

"There is this assumption that a model is good when it is going to be used in lots of different contexts. There is clash in thinking style, adding a lot of data as we can and release the model to be used for different contexts… with Generative AI used for marketing purposes they do not want something that is recognisable, and they want to create a replicable identity like the generic queer person or generic drag person for instance".

Tech companies and developers' systems curating and deploying AI systems for a range of purposes but intended to be used for everything inadvertently create a "hyperfocus" on scalable AI solutions that reinforce and create biased representations including patterns of identities.

A hyperfocus only instrumentalises fairness at the cost of diversity and inclusivity. For example, one respondent pointed out that "there are forms of diversity the tech community is aware of, such as broadly formulated conceptions of race and gender. …however, there are forms of diversity, such as ageism that are salient in the tech community". What follows is that, fairness becomes a narrow tool through which diversity is operationalised within the ambit of the training data or through the thinking style of the people designing the model.

The quote above also makes a sharp and deliberate contrast to the role of the negotiating function of practice-based approaches, whereby the artist is conducting directed and deliberate steps to showcase issues of algorithmic bias at a level of specificity. For instance, one respondent referred to the Jake Elwe's Zizi project where the artist used a small number of subjects in the training data to reveal the clashing identities perpetuated by the algorithms (Elwes, Edinburgh Futures Institute, 2020).

Another angle involves artists adapting their own methods, described by respondents as **playful subversion** of creative practices. This can foster a tradition of adding novel elements, leading to surprising outcomes that deviate from the intended use of the technical tool, thereby revealing issues of saliency and cultural blindsides.

Playful subversion and agency

An important aspect of exploring the hurdles and connectors for responsible, fair and diverse design and deployment of AI is recognising the feedback loop of artists and creators, alongside the impact of technology. By way of illustration, algorithms can "filter" different narratives, such as recommending or advertising beauty products which encodes binary conceptions of gender (Buolamwini & Gebru, 2018; Metz, 2019). As noted by the respondents, the flipside of this is that artists, creators and end-users can find novel ways to playfully challenge or disrupt these implicit filters, expectations, or conventions in a creative or artistic context.

For instance, adversarial attacks are a good example for artists to change the objectives of a model. These attacks illustrate a form of hacking, such as poisoning the image data so that models training on them without consent will see their models learn unpredictable behaviours that deviate from expected norms. For instance, and as noted by Shan

et al, “a prompt that asks for an image of a cow flying in space might instead result in an image of a handbag floating in space to protect the artists’ intellectual property rights”(Shan et al., 2024; Shawn Shan et al., 2024). The artist contributes to the distribution of work through the manipulation of the Large Generative Model’s “antagonistic relationship to create output with contrasting objectives”. As noted by one respondent playing with the underlying objectives and nature of technology in artistic practice is “something that artists have always done, which is also in forms like new directions in technology development”.

Hence, playful subversion is an extension that encapsulates traditional forms of using technology as an inherent aspect of their practice. This in turn, creates sources for “infinite” adaptation, creation and storytelling of art using technology and AI (Wiener, 2023). One respondent emphasises that artists themselves, by exercising control over the algorithmic process, can reveal their own expectations about the biases and limits of AI art:

“The artists themselves, who can try to have more agency and purposely using AI to expose their bias. For example, artists not using existing data sets but producing their own data sets that ought to retrain AI towards less biased operations. This is why agency comes to mind here.”

However, conceptualising playful subversion as the artist exercising agency caused a lot of disagreement between participants. Another participant notes:

“We should not exclusively emphasise the agency that we have when we are using a particular tool. Especially in the context of fashion and design, there is a tendency to associate creativity to a single person at the top who gives all the commands, which would then lead to the ‘final creative output’. I think this is a very polarised view, to frame creativity and agency in such a creative process just to a human doing the whole job.”

However, another respondent notes that:

There has always been the danger within the discourse around technologies of putting aside human agency and saying, this will happen anyway. This is a determinist view on technology, that I find particularly negative in many respects, and not helpful, quite frankly…the people who have the power for making data, they want that to happen. It again is not a choice that users or practitioners seem to be able to make. It will happen. So, what do we do? To adapt and adapt. Adaptability. It is not a position of agency, but a position of subservience”.

The adaptability of advanced AI systems poses further difficulty to not conflate agency with subservience considering increased technological capabilities. In this regard, the context through which we capture the contemporary role and impact of technology is important. As noted by one respondent:

“There is a huge job for an artist to show how you can interrogate and explore the implications of these technologies. That could be through using the technologies. It could also be a completely analogue process.

…the first stage is fear, and the second stage is using the tools. The third stage is when we change the role of the designer more profoundly. There is a shift from designer to being more like a supervisor for the AI work because the quality of it is not always that stable, for example when thinking about the image quality. Another example is when it generates a human being, the hands or control over skin are not always accurate. Just like in game design, we supervise an outcome and adjust it if it is not correct. Something I am concerned about is creative autonomy. For example, if you input a prompt to generate an image and it is not what you actually want, sometimes you will let the AI guide your ideas for efficiency reasons. I think this is the core task for design to think about what it means to be a responsible supervisor of AI.”

How then should we quality playful subversion as a notion for artists, creators and fashion designers to engage in critical enquiry of socio-technical and cultural context? Clearly, technical and creative skills should be considered separately to qualify playful subversion as toothless

agency versus meaningful tool for negotiation, interrogation and control. Indeed, creating a final product requires a blend of both skill sets. Discussing creative skills refers to someone who is invested in the narrative and utilises technical skills to effectively bring that story to life. For instance, Linda Dounia's project "Invisible" illustrates the negotiating function to re-train and re-shape narratives on who and how individuals are represented in the algorithmic sphere (Linda Dounia, 2023). However, agency in this context is the power not only limited to AI control and extends to the way the creative community and people interacting with AI promulgate "new avenues for representation and interpretation" (Ed D'Souza & Sunil Manghani, 2023).

Defining the negotiating function

Part of the negotiating function is about taking a different lens on the value of AI, its capabilities, as well as the socio-economic and cultural implications of advanced AI techniques on artists, creators, and end-users. The **negotiating function** emphasises a synergy over subservience with the AI systems' technical capabilities, as well as purports new debates about the saliency and cultural blindsides for responsible AI innovations.

Discussing the main findings of the focus groups, there is a common denominator characterising the debates on the socio-legal and ethical implications of AI bias, lack of fairness, diversity and inclusivity. That is, acknowledging the cultural blindsides of big tech backed into the Generative AI tools and where the data is critical to perpetuate biases, requires (responsible) usage that broadens up this hyperfocus on fairness as a representation of isolated and protected characteristics. In this regard, one statement by one respondent gives a good summary of how artists can contextualise the limitations of AI in a contemporary context:

"For me art needs to be embracing or accomplishing contemporary context. I would want to my work to inspire thought and inspire a certain theme. If you want to unpick what AI is doing, the data is critical, but the AI technique matters too. Data is not related to AI. Data bias and data gaps are inherent to our society and already exist. AI is actually revealing this, as a mirror of our society that encompasses these data gaps and data biases. I would want to explore that because it is a contemporary context, and you want someone to think about what is happening."

The key link between socio-legal and ethical issues and hands-on approaches is the use of AI as *a means to illustrate the broader socio-technical landscape, transcending simplistic views of AI undermining individual agency at a given moment in time*. The negotiating function is also relevant to reveal saliency because of the artists' work producing a thinking style fundamentally different from the approaches employed by developers designing a model for its general applicability. One participant, engaging with the question on how to exhaust the limits of AI diversity through the negotiating function of practice-based approaches highlights that:

"There needs to be a reason for AI to come and work with you. I see it as a tool, but there needs to be reason to invite AI to the table. Why are you collaborating with AI? There needs to be reason to use this tool in the artistic exploration if you are carrying it out….Within art, the story is the most important thing, whether AI comes in or not, whether it generates an output or not, whether it is part of the process or not, there needs to be a reason, and ultimately story, non-regarding of what tools you use."

Hence, the negotiating function proclaims that all art practice is **engrained in a goal and motivation through which the critical inquiry of the artists interrogating a socio-technical system emerges**. This also resolves the tensions surrounding the implications of AI and the rising tensions of using AI as a tool. Whether it is the artwork making biases visible or the act of playful subversion of different narratives, the matching and interpretation of these experiences signifies a rational framework. As noted by

one respondent, “[this] rational framework, whether that may be subjective to a certain point or not and how that can evolve over time and encapsulates in a creative medium”.

This argument on how creative practice purports a rational framework to interrogate and interact with the enablers and limitations in AI is also relevant for developing skills and critical literacy of AI. One respondent shared that:

“Although it looks like AI understands things, it does not understand anything…I guess that is the type of thing your students will come across all the time, right? They will come across limitations. They will try and get their prompts broader or will be stuck. a very specific example would be when some students put a post-apocalyptic fashion scenario, and the content represents a singular narrative, that is depicting particular communities, and does not show any other diverse or alternative scenarios. Especially within the postapocalyptic theme, it picks up on the context of war and armoury, resulting in a particular clothing style of the models. These are some interesting results students can work with the inherent limitations of Large Generative AI.”

A good illustration on the role of critical literacy through which new rational frameworks could emerge for practice-based approaches and responsible use of technology is the project “Beyond the Frame” devised by Ed D’Souza and Sunil Manghani (Ed D’Souza & Sunil Manghani, 2023). This project emphasised the interactive experience of the general publics’ access to a generative AI software re-fining and (re-)creating content based on artworks from the Tate Collection (Ed D’Souza & Sunil Manghani, 2023). The interactive experience is a social discourse of what is represented and which narratives become visible offering new conversations on the technological affordances and constraints for individuals and society (Ed D’Souza & Sunil Manghani, 2023; Manghani, 2024).

Discussion

The focus groups’ results that respondents agree that the socio-legal and ethical implication of AI in creative arts are inextricably correlated with the role of AI as a tool for critical and creative discourse. The conclusions that will be discussed below, allow us to derive a set of actionable principles on how the practice-based approaches’ negotiating function could be formalised in the future within AI governance, to enable the fair, diverse and inclusive design and use of AI in creative arts. **Figure 1** is showcasing three elements for translating creative interrogation of AI into a mode of action for governance of (emergent) technologies in creative practice.

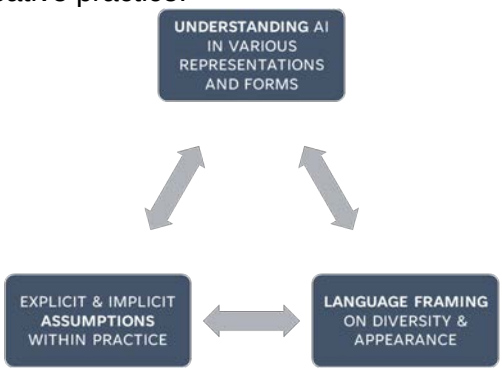

Figure 1- translating creative interrogation of AI into a mode of action for governance

Understanding AI in its various forms and representations: AI is an umbrella term for a series of techniques from advanced in computer vision and neural networks to advances in natural language processing. Crucially, however, is the common thread during the focus group discussion that sheds light on a different definition of AI. The definition is: *understanding AI in its various forms and representations is about what, who and how individuals, their work and their stories are captured within algorithmic patterns*. The negotiating function in practice-based approaches sheds light on the way AI may represent and conceal identities, offering important directions and tensions in AI governance. These include questions on how regulators, providers of general-

purpose models and creators take initiative to act upon these changes.

Current governance approaches act on technical considerations to safeguard against algorithmic complexity. Specifically, the Articles 53 (1) (c) and 53 (1) (d) of the EU AI Act address the use of copyrighted materials in training AI. This entails obligations to include drawing up technical documentation explaining how the model performs and how it should be used, complying with EU copyright law, as well as disseminating "detailed" summaries about the content used for training GPAI including its provenance and curation methods. In addition, it purports to the need of standardised practices and methodologies for copyright holders including artists to opt-out to the large scraping of their work for non-scientific or non-research purposes (Directive on Copyright in the Digital Single Market Directive, art 4). The approach in the EU AI Act comes close to defence mechanisms for artists currently present in current practices, such as the “Have I Been Trained website”. However, the need to include ***meaningful control mechanisms that address power structures*** based on the Big Tech use of training data and copyrighted works is needed (see also, (Epstein et al., 2023, p. 1115).

Another example that highlights the need for meaningful control regarding the discourse on the uncertain relationships on whose data is represented and which narratives are implied under the umbrella of accuracy versus fairness is shown in the recent plans of Meta to train their generative AI models with millions of Facebook users and third-parties to ensure diversity in the training data (Meta, 2024). The broader issues it raises beyond the individuals’ ability to opt-out from large scale training under data protection law, need to concentrate on the values of ensuring the fluidity of identity, expression, and perception encoded and represented once it is in the system of algorithmic patterns (Ashley Belanger, 2024; *Complaint Principle of accuracy- Article 5 (1) (d) GDPR and Access request- Article 15 GDPR*, 2024; Information Commissioner’s Office, 2024; Onitiu, 2022)

Therefore, a key recommendation is the role of copyright and transparency on the training of Large Generative Models to consider feedback loops in the training as well as the distribution of narratives which includes both, art as an expression and visual culture as the distribution of content.

This feedback loop on the visibility and invisibility of data, narratives and voices in the large-scale training and deployment of emergent technologies needs to be operationalised in different ways, from ensuring opt-out mechanisms to establishing mechanisms of accountability and transparency in design. Effectively, this signifies a move from top-down regulation of the scale of advances in AI techniques to meaningful discourse on the values represented and the deployment of generative AI models (Jiang et al., 2023, p. 368).

The explicit and implicit assumptions within practice-based approaches: Indeed, meanings on the explicit and implicit assumptions Big Tech, developers and society hold about fairness, diversity and inclusivity need to include “multiplicity of alternative ways” artists can examine, probe and explore AI (Drew Hemment, 2023). Participants provided an important statement on how there is a lot of leeway to discuss some implicit assumptions based on your own work, such as the “limitations or capabilities of advanced AI-techniques”, the contextual nature of fairness, the role of intersectionality, and/or perhaps certain conceptions about ownership and control that might be outdated or need revision in the age of creative AI’s negotiating function. At the same time; however, we must consider that discourse on the ethical, legal, and socio-cultural challenges led by standard-setting bodies, and Industry can take away peoples’ attention from the

central point being considered (see also, (Axel Meunier et al., 2021).

Therefore, an important recommendation is that the operationalisation of principles of fairness, as well as transparency, accountability and, increasingly safety, will produce clash in thinking styles on the amount of data for the model intended to be used for different contexts. Further and as noted by Pouget on the role of standards in the EU AI Act that it is likely moving “beyond [mere] definitions and descriptive frameworks” (Hadrian Pouget, 2023). The crossovers between the technical standards and assumptions of fairness and the judgements of provider and developers operationalising these standards for compliance require normative discourse. The participants’ account on saliency and cultural blindsides is an important basis to break the hyperfocus on the technical issues of AI and emphasise the need to build up the capacity and nuanced judgement for standardising fairness.

Language framing on diversity and appearance of diversity: the final recommendation on the role of practice-based approaches for AI governance and policy is the role of critical literacy regarding on framing risks and benefits of AI.

The participants agreed that education and critical literacy centralises the power of collective to subvert current practices from within and support alternative conceptions of fairness, diversity and inclusivity of design and use of AI. These strategies coupled with regulation are the avenues to utilise pressure and re-direct language framing on the benefits and risks of AI towards the developers of emergent technologies.

Critical literacy is a skill of refinement of our own values, believes and principles directed and encompasses the education of practitioners, computer science researchers, as well as researcher institutions and Higher Education to evaluate technology continually (Shannon Vallor, 2016, p. 235). For instance, when evaluating the output of a Large Generative AI system, the question is: what are the socio-economic and cultural conditions informing people's evaluations of AI output? Furthermore, how should we understand critical literacy considering new forms of art creation or generation using "prompt engineering"? Participants emphasised the value of critical literacy as a role to inform continuous evaluation of the enablers and technical constraints of technology transcending contemporary contexts and as a tool for constructing rational frameworks regarding the risks and benefits of AI.

While participants disagreed on the role of agency of using AI systems in our own practice, their input clarified how critical literacy can support responsible use of emergent technology. Particularly, critical literacy is not about a paternalistic approach to impose on artists on degrees of “agency”. These are rather intended to strengthen collective responsibilities and empower artists, creators and researchers to showcase a contemporary reality. This, in turn, serves as a conversation starter for technologists and developers to move backwards instead of working from the technological capabilities onward to the risks of technology.

Limitations

There are limitations to this study. While our study intends to explore and interpret patterns across law, ethics, social science, fashion design and arts, the findings are not exhaustive of the multifaceted nature and representativeness of issues surrounding AI bias and fairness in creative practice. This includes gaps in how the social, ethical, and legal risks of AI in the arts are present across disciplines within the arts, such as graphic design or music and considering separations between creative practice and visual culture, the latter being centred around the public's

response and understanding of creative art and design.

The goal of this study was to identify a range of multidisciplinary perspectives on the connectors, enablers, and hurdles in practice-based approaches for policy, while being mindful of recruiting a diverse group of participants required for this work. This goal is reflected in the inclusion criteria which were focused on participants sharing research interests in the study of creative AI or interdisciplinary approaches on the research of creative AI and AI design, as well as, algorithmic bias using law, AI ethics, computer science.

Conclusion

The aim of this study was to identify the extent practice-based approaches using AI can be utilised to facilitate discourse on the inclusive and diverse design of algorithms. We convened two semi-structured focus groups to establish cross-disciplinary insights from the role of bias and lack of fairness and how the negotiation function in practice-based approaches can promote responsible design and use of AI in creative arts. These include unpacking AI as a value-laden term representing different views on the role of technology in creative arts and visual culture and imposing saliency and cultural blindsides on bias, fairness, diversity and inclusivity. Understanding these notions is vital to move forward and conceive a socio-technical approach to AI design, use and governance. Furthermore, understanding critical literacy as a conversation starter to promote discourse and a rational framework is important and should include the way we assess, categorise these risks and limitations and critique the effects, intended and unintended uses of Large Generative AI, alongside policy responses that are developed and are emerging in the future.

Declarations

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References

Agnes E Venema. (2020, November 4). *Deepfakes as a Security Issue: Why Gender Matters—Women In International Security*. Women In International Security. https://wiisglobal.org/deepfakes-as-a-security-issue-why-gender-matters/

Anne Ploin, Rebecca Eynon, Isis Hjorth, & Michael A Osborne. (2022). *AI and the Arts: How Machine Learning is Changing Creative Work*. Oxford Internet Institute. https://www.oii.ox.ac.uk/news-events/reports/ai-the-arts

Ashley Belanger. (2024, June 6). *Meta uses "dark patterns" to thwart AI opt-outs in EU, complaint says*. Ars Technica. https://arstechnica.com/tech-policy/2024/06/meta-to-train-undefined-ai-tech-on-facebook-users-posts-pics-in-eu/

Axel Meunier, Jonathan Gray, & Donato Ricci. (2021, December 16). A New AI Lexicon: Algorithm Trouble. *AI Now Institute*. https://ainowinstitute.org/publication/a-new-ai-lexicon-algorithm-trouble

Benford, S., Hazzard, A., Vear, C., Webb, H., Chamberlain, A., Greenhalgh, C., Ramchurn, R., & Marshall, J. (2023). Five Provocations for a More Creative TAS. *Proceedings of the First International Symposium on Trustworthy Autonomous Systems*, 1–10. https://doi.org/10.1145/3597512.3599709

Beverly Hood, & Pauline Goldsmith. (2022, June). *It's All About the Feelings*. https://www.bhood.co.uk/projects/its-all-about-the-feelings

Binns, R. (2021). *Fairness in Machine Learning: Lessons from Political Philosophy* (arXiv:1712.03586). arXiv. https://doi.org/10.48550/arXiv.1712.03586

Bloor, M., Frankland, J., Thomas, M., & Robson, K. (2001). *Focus Groups in Social Research*. SAGE Publications Ltd. https://doi.org/10.4135/9781849209175

Bryan-Kinns, N., Ford, C., Chamberlain, A., Benford, S. D., Kennedy, H., Li, Z., Qiong, W., Xia, G. G., & Rezwana, J. (2023). Explainable AI for the Arts: XAIxArts. *Proceedings of the 15th Conference on Creativity and Cognition*, 1–7. https://doi.org/10.1145/3591196.3593517

Buolamwini, J., & Gebru, T. (2018). Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification. *Proceedings of the 1st Conference on Fairness, Accountability and Transparency*, 77–91. https://proceedings.mlr.press/v81/buolamwini18a.html

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, *56*(3), 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Complaint Principle of Accuracy- Article 5 (1) (d) GDPR and Access Request- Article 15 GDPR, C-78 (Oesterreichische Datenschutzbehoerde (DSB) 24 April 2024). https://noyb.eu/sites/default/files/2024-04/OpenAI%20Complaint_EN_redacted.pdf

Cook, S. (2021). Afterword to Re@ct: Social Change Art Technology. *Media-N*, *17*(2), Article 2. https://doi.org/10.21900/j.median.v17i2.773

Daria Onitiu. (2023, May 4). Problematising the (deep)fake Self in Fashion for AI Governance. *Rassegna di diritto della moda e delle arti*. https://dirittomodaearti.it/problematising-the-deepfake-self-in-fashion-for-ai-governance/

Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, OJ L 130/92 (2019).

Drew Hemment. (2023). *Generative AI Arts: A Synthetic Future Foretold*. The New Real. https://www.newreal.cc/magazine/generative-ai-arts-editorial

Drew Hemment, Matjaz Vidmar, Miriam Walsh, & Keili Koppel. (2024, January 31). *Towards the Next Generation Intelligent Experiences [Project Report]*. The New Real. https://www.newreal.cc/publications/towards-next-generation-intelligent-experiences

Drew Hemment, Ruth Aylett, Vaishak Belle, Dave Murray- Rust, Ewa Luger, Jane Hillston, Michael Rovatsos, & Frank Broz. (2019). Experiential AI. *AI Matters*, *5*(1), 25–31.

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., … Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, *57*, 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Ed D'Souza, & Sunil Manghani. (2023). *Beyond the Frame* [Graphic]. https://electroniclife.ai/beyond-the-frame/

Elwes, Edinburgh Futures Institute. (2020, March 11). *Zizi—Queering data and explaining AI*. Edinburgh Futures Institute. http://efi.ed.ac.uk/zizi-queering-data-and-explaining-ai/

Emily Brown. (2024, July 18). *SheerLuxe defends use of AI influencer Reem*. BBC News. https://www.bbc.com/news/articles/c3gw720vz3lo

Epstein, Z., Hertzmann, A., Herman, L., Mahari, R., Frank, M. R., Groh, M., Schroeder, H., Smith, A., Akten, M., Fjeld, J., Farid, H., Leach, N., Pentland, A., & Russakovsky, O. (2023). Art and the science of generative AI: A deeper dive. *Science*, *380*(6650), 1110–1111. https://doi.org/10.1126/science.adh4451

Esther Shein. (2022, July 1). Using Makeup to Block Surveillance – Communications of the ACM. *Communications of the ACM*. https://cacm.acm.org/news/using-makeup-to-block-surveillance/

Feher, K., & Katona, A. I. (2021). Fifteen shadows of socio-cultural AI: A systematic review and future perspectives. *Futures*, *132*, 102817. https://doi.org/10.1016/j.futures.2021.102817

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, *204*(6), 291–295. https://doi.org/10.1038/bdj.2008.192

Hadrian Pouget. (2023, April 5). *What will the role of standards be in AI governance?* Ada Lovelace Institute. https://www.adalovelaceinstitute.org/blog/role-of-standards-in-ai-governance/

Halcomb, E. J., & Davidson, P. M. (2006). Is verbatim transcription of interview data always necessary? *Applied Nursing Research*, *19*(1), 38–42. https://doi.org/10.1016/j.apnr.2005.06.001

Hemment, D., Zeilinger, M., Vidmar, M., Elwes, J., Warner, H., Sarmiento, D., & Hill, R. (2022). Towards a heuristic model for experiential AI: Analysing the Zizi show in the new real. *DRS Biennial Conference Series*. https://dl.designresearchsociety.org/drs-conference-papers/drs2022/researchpapers/311

Hwang, S., Zhang, S., Liu, X., & Srinivasan, K. (2024, May 1). Should Your Brand Hire a Virtual Influencer? *Harvard Business Review*. https://hbr.org/2024/05/should-your-brand-hire-a-virtual-influencer

Ian Youngs. (2024, May 1). *FKA Twigs uses AI to create deepfake of herself*. BBC News. https://www.bbc.com/news/articles/c6py33gxk74o

Information Commissioner's Office. (2024, June 14). *Statement in response to Meta's plans to train generative AI with user data*. ICO. https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2024/06/statement-in-response-to-metas-plans-to-train-generative-ai-with-user-data/

Jiang, H. H., Brown, L., Cheng, J., Khan, M., Gupta, A., Workman, D., Hanna, A., Flowers, J., & Gebru, T. (2023). AI Art and its Impact on Artists. *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society*, 363–374. https://doi.org/10.1145/3600211.3604681

Johnni Medina. (2023, July 12). *Using African Fashion to Correct AI Bias*. Pace University New York. https://www.pace.edu/news/using-african-fashion-correct-ai-bias

Jones, J. E., Jones, L. L., Calvert, M. J., Damery, S. L., & Mathers, J. M. (2022). A Literature Review of Studies that Have Compared the Use of Face-To-Face and Online Focus Groups. *International Journal of Qualitative Methods*, *21*, 16094069221142406. https://doi.org/10.1177/16094069221142406

Kate Crawford. (2017). *The Problem with Bias* [Key Note]. https://www.youtube.com/watch?v=fMym_BKWQzk

Li, Y. (2020, August 30). How do artists fight against facial recognition technology? *Life360*. https://cardiffjournalism.co.uk/life360/how-do-artists-fight-against-facial-recognition-technology/

Linda Dounia. (2023). *Experience the In/Visible art exhibition* [Graphic]. https://feralfile.com

Manghani, S. (2024, February 24). Prompt Engineering, Explained. *Electronic Life*. https://medium.com/electronic-life/prompt-engineering-explained-3b83ba347722

Matsakis, L. (2020, June 18). How TikTok's 'For You' Algorithm Actually Works. *Wired*. https://www.wired.com/story/tiktok-finally-explains-for-you-algorithm-works/

Meta. (2024, May 22). Bringing Generative AI Experiences to People in Europe. *Meta*. https://about.fb.com/news/h/bringing-generative-ai-experiences-to-people-in-europe/

Metz, R. (2019, November 21). *AI software defines people as male or female. That's a problem | CNN Business*. CNN. https://www.cnn.com/2019/11/21/tech/ai-gender-recognition-problem/index.html

Mittelstadt, B., Wachter, S., & Russell, C. (2023). *The Unfairness of Fair Machine Learning: Levelling down and strict egalitarianism by default* (arXiv:2302.02404). arXiv. https://doi.org/10.48550/arXiv.2302.02404

Oliver, D. G., Serovich, J. M., & Mason, T. L. (2005). Constraints and Opportunities with Interview Transcription: Towards Reflection in Qualitative Research. *Social Forces*, *84*(2), 1273–1289. https://doi.org/10.1353/sof.2006.0023

Onitiu, D. (2022). Incorporating 'Fashion Identity' Into the Right to Privacy. *Law, Technology and Humans*, *4*(1), Article 1. https://doi.org/10.5204/lthj.2280

Point, S., & Baruch, Y. (2023). (Re)thinking transcription strategies: Current challenges and future research directions. *Scandinavian Journal of Management*, *39*(2), 101272. https://doi.org/10.1016/j.scaman.2023.101272

Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008,

(EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L, 2024/1689 (2024).

Richard, B., Sivo, S. A., Orlowski, M., Ford, R. C., Murphy, J., Boote, D. N., & Witta, E. L. (2021). Qualitative Research via Focus Groups: Will Going Online Affect the Diversity of Your Findings? *Cornell Hospitality Quarterly*, *62*(1), 32–45. https://doi.org/10.1177/1938965520967769

Robinson, O. C. (2023). Probing in qualitative research interviews: Theory and practice. *Qualitative Research in Psychology*, *20*(3), 382–397. https://doi.org/10.1080/14780887.2023.2238625

Sara McCorquodale. (2024, July 17). SheerLuxe and AI influencers: Learnings from the audience backlash to the brand's AI editor Reem. *CORQ*. https://corq.studio/insights/sheerluxe-and-ai-influencers-learnings-from-the-audience-backlash-to-the-brands-ai-editor-reem/

School of Informatics University of Edinburgh. (2024, March 18). *Experiential AI research agenda to bring together scientists and artists*. The University of Edinburgh. https://informatics.ed.ac.uk/news-events/news/news-archive/experiential-ai-research-agenda-to-bring-together

Shan, S., Ding, W., Passananti, J., Wu, S., Zheng, H., & Zhao, B. Y. (2024). *Nightshade: Prompt-Specific Poisoning Attacks on Text-to-Image Generative Models* (arXiv:2310.13828). arXiv. https://doi.org/10.48550/arXiv.2310.13828

Shannon Vallor. (2016). *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting*. Oxford University Press.

Shawn Shan, Wnxin Ding, Jospehine Passananti, Stanley Wu, Heather Zheng, & Ben Zhao. (2024). *What Is Nightshade? Why Does It Work, and Limitations*. https://nightshade.cs.uchicago.edu/whatis.html

Small, Z. (2023, July 4). Black Artists Say A.I. Shows Bias, With Algorithms Erasing Their History. *The New York Times*. https://www.nytimes.com/2023/07/04/arts/design/black-artists-bias-ai.html

Spawing AI. (2024). *Have I been trained?* Spawning.Ai. https://haveibeentrained.com/

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). *The SAGE Handbook of Qualitative Research in Psychology*. SAGE Publications Ltd. https://doi.org/10.4135/9781526405555

Theodore Koterwas. (2023). *THE UNREASONABLE EXPRESSIVENESS OF EMPATHETIC ARTIFICIAL MIMICRY* [Graphic]. https://theodorekoterwas.com/the-unreasonable-expressiveness-of

Wiener, A. (2023, November 13). Holly Herndon's Infinite Art. *The New Yorker*. https://www.newyorker.com/magazine/2023/11/20/holly-herndons-infinite-art

Xtine Burrough, & Judy Walgreen. (2022). *Art as Social Practice: Technologies for Change* (1st Edition). Routledge. https://www.routledge.com/Art-as-Social-Practice-Technologies-for-Change/burrough-Walgren/p/book/9780367758462

Young, D. (2019, September 17). Tabula Rasa: Rethinking the Intelligence of Machine Minds. *Medium*. https://medium.com/@dkyy/tabula-rasa-b5f846e60859

Zimmermann, A., & Lee-Stronach, C. (2022). Proceed with Caution. *Canadian Journal of Philosophy*, *52*(1), 6–25. https://doi.org/10.1017/can.2021.17