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From Hype to Reality

Artificial Intelligence in the Study of Art and Culture

Edited by Eva Cetinić & Darío Negueruela del Castillo



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Contents

7

Eva Cetinić

Introduction

13

Amanda Wasielewski

The Reification of Style in AI Image Generation

23

Nuria Rodríguez-Ortega

Exploring the Concept of Transduction to Interpret AI-Generated Images

31

Bokar Lamine N'Diaye

Stochastic Parrots in the Ancient City?

39

Dejan Grba

Incidental Reverberations: Poetic Similarities in AI Art

47

Arif Kornweitz

Inside the High-Dimensional White Cube

57

Dominik Vrabič Dežman

Interrogating the Deep Blue Sublime: Images of Artificial Intelligence in Public Media

69

Pepe Ballesteros Zapata

Evolving Methodologies: Computation in Art History

75

Valentine Bernasconi

Automated Body Pose Estimation on Painting: A Crisis of Uncertainty

83

Piera Riccio & Nuria Oliver

A Techno-Feminist Perspective on the Algorithmic Censorship of Artistic Nudity

91

Anne-Laure Oberson

Making Sense of AI Generated Images in the Process of Imagination

Abstract

Dominik Vrabič Dežman

Interrogating the Deep Blue Sublime: Images of Artificial Intelligence in Public Media

Keywords | Artificial Intelligence (AI), Visual Culture, Imaginaries, Aesthetics, Politics



Artificial Intelligence (AI) is becoming quickly entangled into the fabric of social life. In its growing scope of implementation, AI has been critiqued for being promoted as an inevitable general-purpose technology, and at other times as “practice-based speculation.” Within the current “AI hype,” deep-blue sci-fi stock images employed to represent AI have flooded the mediasphere, closely accompanying the sensationalized language employed to mediate the technology to the public. In liaison with media outlets, search engines and online stock photography marketplaces form sites of fabrication of the visions that constitute the socio-technical imaginary surrounding AI, torqueing the collective archive of public future visions of AI. In this paper, I build on the normative imperative of studying the “ethics [and] politics of AI images.” I draw on a range of interpretive theories of images to establish a framework for the examination of images of AI as a reciprocal link between aesthetics and politics, and to problematize images of AI as operational, performing active work. In doing so, I engage a range of case studies from art and design to explore what responses have emerged to the dominant clichés in the public images of AI. I extend the claim that image-making is always embedded in a socio-technical context, and that every act of visualizing AI is essentially an artistic gesture. The public image of AI rests on the production and dissemination of media images. The mechanisms through which divergent image-making enters the public eye are becoming increasingly crucial to the study of the mediation of AI to the public.

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1. Introduction

When looking up the term “Artificial Intelligence” (AI) and inspecting the image search results, the mood quickly turns blue (fig. 1). In recent years, sensationalist stock images employed to mediate AI to the general public have pervaded digital media. Search engines serve as windows onto the digital-media image economy, showcasing the ubiquity of futuristic, sci-fi images of AI across leading media outlets and institutional, and governmental websites.¹ The images advance the narrative of AI as a frictionless, weightless, and imminent force, while concealing the fact that the global enterprise of AI is made up of “material resources, human labor, and data.”² Understanding AI as a global resource-intensive material enterprise, it quickly becomes clear that these images are not engaging in a representational relationship: The signifiers (anthropomorphic robots, binary rain, floating sci-fi interfaces, religious iconography, infinite deep-blue space) bear no ‘necessary’ connection to the signified (“AI”). While images of AI have been studied for perpetuating prototypical whiteness,³ racism,⁴ sensationalized religious iconography,⁵ sci-fi tropes and clichés,⁶ fear mongering,⁷ employment of metaphors,⁸ and ethical implications,⁹ theoretically grounded accounts squaring the images’ aesthetic and political dimensions from the perspective of image-making remain largely absent.

In this study I investigate the dominant images employed to represent AI in public digital media, such as those returned when a person looks up the keyword “Artificial Intelligence”

online. If the dominant images do not meaningfully represent AI, it becomes germane to ask: What are these images and what are they doing? And who might be served by these images? *Cui bono*? And furthermore, what could it mean to contest them and ‘do otherwise?’

I advance a framework for considering public images of AI as a link between aesthetics and politics.¹⁰ Following a discussion of the dominant images of AI in public media, I turn to cohere a range of responses from art and design into an account of aesthetic resistance to the hegemonic visual regime. In doing so, I probe the tension between AI’s empirical and normative dimensions and ultimately explores the role of images of AI as both representational and agentic, in service of a broader socio-economic operation. The study seeks to problematize the responsibility of image-makers and all other agents involved in the proliferation and circulation of these images.

2. Images of AI as Matter of Politics

The hegemony of sci-fi images of AI, combined with sensationalist writing and the indiscriminate use of the term in the media,¹¹ ostensibly precludes a more nuanced social relationship with AI innovation: “One can watch thousands of similar images of AI without having to develop any critical reasoning about AI.”¹² I have previously proposed the ‘deep blue sublime’ as a provisional concept to grapple with sensationalist popular media images of emergent technologies such as AI, the cloud, bitcoin, blockchain.¹³ The deep blue sublime picks out both an aesthetic category, defined by

¹ Vrabič Dežman 2023.

² Crawford / Joler 2018, p. 31.

³ Cave / Dihal 2020.

⁴ Mhlambi 2019.

⁵ Singler 2020.

⁶ Steenson 2018.

⁷ Dihal 2020.

⁸ Wallenborn 2022.

⁹ Romele 2022.

¹⁰ Rancière 2013, Lavin 2001, Romele 2022.

¹¹ Devedzic 2022.

¹² Romele 2022, p. 12.

¹³ Vrabič Dežman 2023.

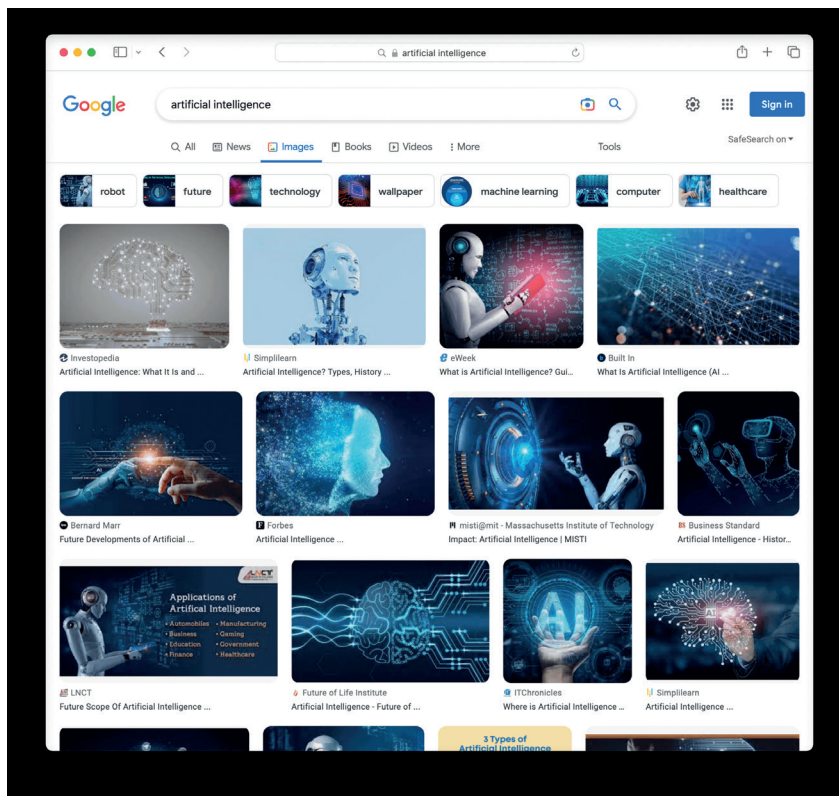


Figure 1. Google Images search results for “Artificial Intelligence”.

The search was conducted on 30 July 2023 from Amsterdam, Netherlands from a newly instantiated Safari browser instance.

oft-blue sci-fi visuals, and an epistemic orientation homologous to the algorithmic sublime, gathered around “‘astonishment, awe, terror, and psychic distance’— feelings once reserved for natural wonders or intense spiritual experiences.”¹⁴ As critical discourse surrounding unchecked industry promises of AI grows,¹⁵ a groundswell of increased scrutiny and familiarity with the technology has largely reduced the sublime hold of AI images to bathos.¹⁶

Employing sci-fi stock images as “[short-cuts] to a common ideal”¹⁷ aids the top-down permeation of a socio-technical and corporate¹⁸ imaginary about AI, imposing ethico-political “collective [future] visions of the good society.”¹⁹ In historical bids to secure funding and further AI development,²⁰ normative visions have represented “conditions of possibility for the existence and development [of AI].”²¹ The dominant images of AI orient our gaze towards an “ever-receding horizon of the future,”²² brought ever closer by AI innovation and development. Rather than mirroring societal hopes

or beliefs surrounding AI, these images illuminate how “few [actors] furnish the collective imaginary on behalf of [the] many.”²³

The status quo of the visibility of AI is fundamentally a matter of politics. Following Rancière, politics revolve “around what is seen and what can be said about it, around who has the ability to see and [...] speak.”²⁴ A central concept for organizing the relationship between ‘aesthetics,’ understood as “configurations of experience that create new modes of sense perception and induce novel forms of political subjectivity,”²⁵ and politics, is the notion of the “distribution of the sensible”: “a set of relations between the perceptible, the thinkable and the doable that defines a common world.”²⁶ The term picks out the dynamic inner organization and interlinkage between our sensory environment, and its link with hegemonic political organization.²⁷ Images of AI in public media, almost exclusively stock images, form the backbone of our ‘public visual world,’²⁸ and gradually torque

¹⁴ Ames 2018, p. 2.

¹⁵ Powles / Nissenbaum 2018, Burrell 2023, Larson 2022, Whittaker / O’Leary 2023, Siegel 2023, Bender 2022.

¹⁶ Craft-Jenkins 2012, p. 4.

¹⁷ Johnson, qtd. in Steenson 2018.

¹⁸ Crawford 2021, p. 47.

¹⁹ Jasanoff / Kim 2015, p. 123, Jasanoff / Kim 2009.

²⁰ Cardon / Cointet / Mazières 2018.

²¹ Romele 2022, p. 2.

²² Burrell 2023.

²³ Vrabčič Dežman 2023.

²⁴ Rancière 2006, p. 13.

²⁵ Rancière 2006, p. 9.

²⁶ Rancière 2013, p. 11.

²⁷ Rancière 2006, p. 40.

²⁸ Aiello 2016.

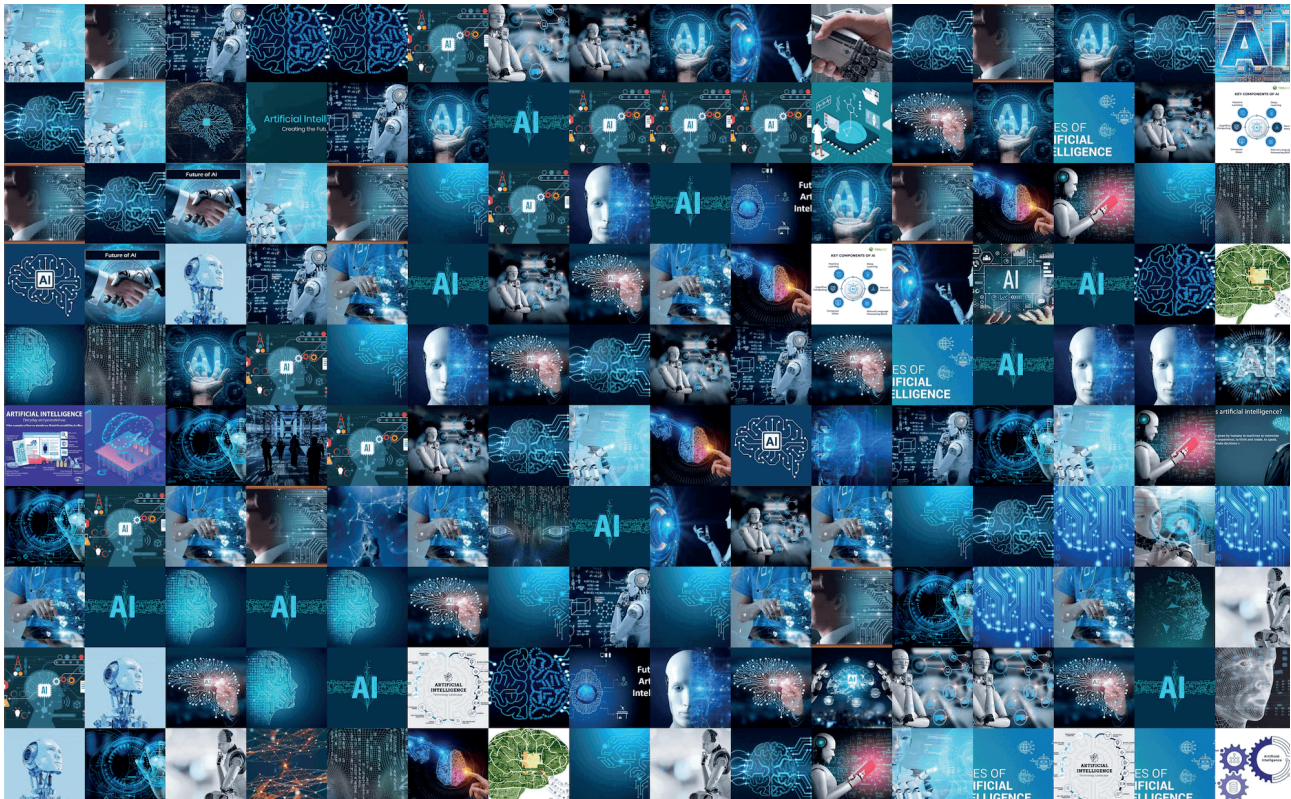


Figure 2. Sample of top-ranking Google Images search results for “Artificial Intelligence”.

July-August 2022, searching from Amsterdam, Netherlands. The figure shows (from top to bottom) the first-ranked search results. The images were cropped to fit into squares. The entire dataset spanning 29 days and 2654 images is archived and may be accessed at <https://perma.cc/8PUN-CHHW>.

the contours of public discourse surrounding emergent tech, by rendering visible certain interpretations of AI while foreclosing other by the same token. The images represent entryways into the examination of the politics of AI.

Jacques Rancière’s political ontology rests on oppositional political organizations of ‘consensus’ and ‘dissensus.’ Consensus is characterized by a general agreement on the distribution of the sensible, limiting the range of possible political action and expression. On the other hand, dissensus challenges the existing distribution of the sensible, creating new possibilities for political action and expression,²⁹ while Rancière mainly elaborates on the radical potential of art to expose “a gap in the sensible.”³⁰ I contend that design *qua* applied art, operating at the frontline of media production, may more directly enact political dissensus. However, in the context of the contemporary production of images used to represent AI,

most image-makers’ political power remains ‘hamstrung’ in the service of corporate incentives.³¹ Hence, the importance of independent artistic production and institutional support and funding becomes central to the potential of design to create spaces of dissensus.

3. Interrogating the Deep Blue Sublime

With few exceptions, public images of AI equate to stock images woven from sci-fi tropes and clichés, employing ‘yesterday’s metaphors to sketch out tomorrow’s technologies’ (fig. 2).³² From a redemptive perspective, the exalted sci-fi visuals might be considered benign, “problematizing human issues through AI as a metaphor.”³³ Considering their circulation and dominance in public media, these images “[promote] forms of consensus about the general hopes and fears about AI,”³⁴ reducing their political power. Through their incessant reproduction and circulation, the currently

²⁹ Rancière 2013, p. 26.

³⁰ Rancière / Corcoran 2010, p. 38.

³¹ Lavin 2001, p. 2, Frosh 2003.

³² Vrabčič Dežman 2023.

³³ Hermann 2020.

³⁴ Romele 2022, p. 13.

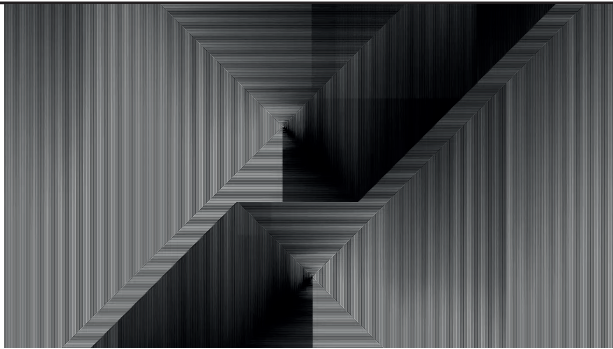
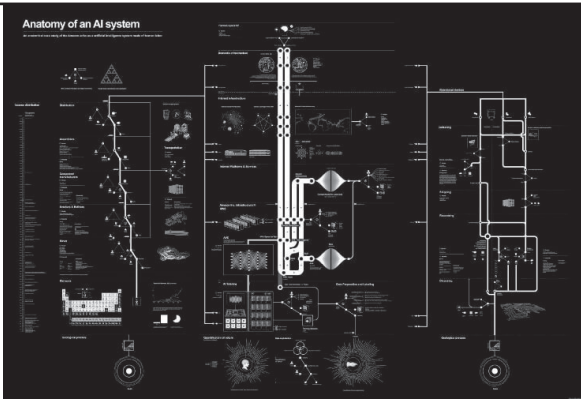
Type of Strategy	Visualization Example
1. Using Symbolic Language Otherwise Science fiction and film (e.g. Interstellar 2014, annihilation 2018) (Kahn 2016, Better Images of AI 2023)	 Adam Ferris, from Kahn 2016.
2. Documentary 'realism' Journalistic outlets (e.g. Yuan 2018) (Better Images of AI 2023)	 Data annotators labeling data. Credits: Nacho Kamenov & Humans in the Loop / Better Images of AI from https://betterimagesofai.org/images?artist=NachoKamenov&title=Dataannotatorslabelingdata. Licenced by CC-BY 4.0.
3. Cognitive Mapping (Pasquinelli / Joler 2020, Crawford / Jowler 2018)	 Crawford, Kate, and Vladan Joler. Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources. 2018. Source: Crawford / Joler 2018, https://anatomyof.ai/img/ai-anatomy-map.pdf.

Table 1. Typology of heterogeneous directions of aesthetic resistance towards dominant tropes in the visualization of AI.

dominant images “anesthetize any form of ‘disagreement’,”³⁵ and foreclose trajectories of looking elsewhere and doing otherwise.

The AI image problem rests on the fact that AI “is difficult to visually represent, but is represented nevertheless.”³⁶ Understood as a scientific discipline or global material enterprise, visualization reveals a part, at best. Showing AI is an artistic gesture, including via photography or critical cartography and their attendant processes of framing and selection. If the dominant images are “unpolitical,” as they “anesthetize any debate and disagreement about AI,”³⁷ and perpetuate the same regime of signification by employing the same metaphors,³⁸ “aesthetic resistance” could be understood as the production of such images of AI that may generate spaces of disagreement or dissensus.³⁹ Such a trajectory might be spearheaded by “pensive” images, which promote political polyvocality by “[bringing] together different regimes of expression without homogenizing them.”⁴⁰ Recent years have seen the production of a range of artistic and design interventions seeking to decrease the stronghold of the deep-blue public visibility of AI (table 1).

First, using symbolic language in innovative ways may dilute the current monolithic visibility while inaugurating avenues to alternative ways of being – and seeing – with AI. In doing so, ‘interesting’ new visions can emerge, encouraging curiosity, discursivity, exchange, and social learning.⁴¹ Here, success might be defined by visualizations that advance visions by means of *poiesis*,⁴² the critical political capacity of artistic production to bring into being something not-yet-seen or done, redispersing social relations in a consequential manner and opening spaces of dissensus, disturbing the distribution of the sensible. Second, drawing attention back to the ‘daily’ materiality of AI draws awareness to its bounded terrestriality, reinforcing the established conception of AI as a global infrastructural enterprise. This

reading foregrounds the relationship between human labor, extractionist industrial processes, and incessant volumes of data required to power the global AI operation.⁴³ Simultaneously, reducing AI to a sum of its planetary infrastructure dissimulates its crucial normative dimension “while the currently prevalent way of showing the infrastructure tends to anonymise the actors involved.”⁴⁴ Third, interventions seeking to map out the machinations of the global AI enterprise orient investigations towards the complex web of material constituents of AI. Such interventions may be prone to a “fantasy of overview,” attempting to produce a “seeing from nowhere,” as if situated outside of historical context and interest.⁴⁵ The value of overview mappings might lie in the ways such interventions underwrite the limitation, if not impossibility, of rendering AI sensible through a discrete image.

Visualizing AI differently and diversely helps to re-sensitize our existing interpretations of AI and opens up onto alternative modalities of social relation, with the potential of diffusing “the monopoly of the forms of description”⁴⁶ of currently hegemonic imagery. Changing one node within the interconnected matrix of the distribution of the sensible also changes the interpretative means by which to perceive others. Although the interventions examined within this study are mostly funded projects—freed from the corporate strictures and market forces binding commercial stock image producers⁴⁷—their power to rework the public visibility of AI remains ‘hamstrung.’ Employing prudence in choosing and using AI imagery⁴⁸ meets resistance as alternative figurations—mostly stemming from small-scale art and design initiatives—remain hidden from view. After being brought into existence, these divergent figurations face a range of hurdles before being seen in the public eye, and possibly torquing the hegemonic visual regime. Media outlets often have exclusive contracting agreements with major stock image platforms, which have

35 Romele 2022, p. 12.

36 Romele 2022, p. 4.

37 Romele 2022, p. 17.

38 Wallenborn 2022.

39 Ranci re 2013, Romele 2022.

40 Romele 2022, p. 15.

41 Ngai 2015.

42 Ziarek 2004.

43 Cf. Crawford / Joler 2018.

44 Demos 2017, p. 11, Romele 2022.

45 Toscano / Kinkle 2015, p. 354, Haraway 1988.

46 Ranci re 2013, p. 27.

47 Lavin 2001, Frosh 2003.

48 Romele 2022, p. 4.



Figure 3. DALL-E image outputs for query “Artificial Intelligence”. July 2023. Prompted by the author.

become the monopolistic provider of digital media imagery.⁴⁹ The stock image platforms’ recommendation and sorting algorithms, and the search engine’s own politics and ranking hierarchies⁵⁰—which tend to ossify the archive of already existing top-ranked images and prioritize already-dominant sources—further hinder the interventions’ public visibility.

The increasing adoption of AI-generated stock imagery represents another affront to the possibility of aesthetic resistance.⁵¹ Generative image synthesis networks are largely trained on online stock imagery, cementing the existing visuals through an operation of recursive aesthetics, in which the inputs become the outputs (fig. 3). A media environment consisting of the automated production and dissemination of AI media imagery earmarks a new visual frontier of algorithmic governmentality.⁵² Furthermore, as future models continue to be trained on existing web stock images, the proliferation of AI-generated stock imagery might lead to generative AI “model collapse”⁵³

threatening further development of the technology. The ontological connection between AI image generation and stock imagery, in which a given image represents an interchangeable semantic unit based on a “visual essence”⁵⁴ merits an independent future study.

4. From Surface to Action

By remaining fixated on the surface, either affectively or analytically through hermeneutic interpretation, one may be diverted from material operations happening behind the scenes of such an image economy. Rather than representing AI per se, the dominant images might be reframed as “rendering visually a set of otherwise invisible forces,”⁵⁵ namely the “economic and algorithmic logic behind stock images [of AI],”⁵⁶ consisting of socio-political operations to fortify public trust and expedite the widespread development and adoption of AI products. Rather than representing “the world out there,”⁵⁷ operational images actively participate in an operation.⁵⁸ The hegemonic

⁴⁹ Frosh 2020.

⁵⁰ Rogers 2018.

⁵¹ Edwards 2022, Attié 2022.

⁵² Celis Bueno 2017, p. 748.

⁵³ Shumailov et al. 2023.

⁵⁴ Crawford / Paglen 2021, Frosh 2020.

⁵⁵ Celis Bueno 2017, p. 744.

⁵⁶ Romele 2022, p. 3.

⁵⁷ Flusser (1983) 2000, p. 15.

⁵⁸ Farocki 2004 cited in Hoel 2018, p. 12, *Photography off the scale* 2021, p. 217.

images of AI seek to decrease technological literacy while carving out space for the unfettered growth and integration of these technologies into the socio-economic fabric of our daily lives.⁵⁹ Another core tenet of operational images is their creation by machines for consumption by other machines.⁶⁰ A reading of the dominant stock images as either human-made or algorithmically-made diminishes the deep entanglement “between algorithms put into practice and the social tactics of users who take them up.”⁶¹ The public (in)visibility of images of AI is deeply intertwined with algorithmic logics, as outlined in the preceding section.

I contend that the sci-fi visuals “respond to a specific need that [other types of images of AI] are unable to address.”⁶² If we treat the contents of the currently dominant images as a window onto the normative dimension of AI, consisting of a historical progression of promises made to a diverse set of stakeholders with material commitments, these images ‘do’ represent AI and, furthermore, index the current status quo of ‘AI hype.’ Under this reading, the deep blue sublime earmarks the main distinction between the imagined, normative dimensions of AI, and the empirical, material operations of machine learning (ML).⁶³ Hence, AI could be reframed as a series of socio-technical and corporate imaginaries,⁶⁴ speculative promises made to a diverse range of stakeholders, while ML might refer to the terrestrial, data-hungry infrastructure of these operations.

5. Conclusion

Ultimately, the question of the production and dissemination of images of AI is a question of political translation, of “what happens to private visions in public forums.”⁶⁵ This emphasizes a reading of politics organized around the control of images: Which private visions become public, who gets to see what, and who has a say in what can be seen.⁶⁶ While it may be tempting

to point towards the dominant images of AI as reflecting societal beliefs, hopes, or fears, it is crucial to read them as the estuary of a longer, value-laden politico-economic flow. They are partially of their makers, mostly stock image producers, and importantly of their consumers: Editorial actors in the media, with attendant commercial ties and imperatives.

I concur that “one cannot develop any comprehensive understanding of AI without taking into account [its imaginaries].”⁶⁷ The question of public images of AI is fundamentally a question of “the production of meaning as a mechanism of social subjection.”⁶⁸ The dominant images serve to persuade rather than comprehend,⁶⁹ and aid the delivery rather than deliberation of AI innovation. Several critical initiatives have responded to the tired blue visuals: Using symbolic language and fiction differently to define new speculative modes of relating to AI; documentary ‘realism,’ an optical reorientation towards the daily, terrestrial, lived reality of AI; and cognitive mapping, attempting to map out the sprawling network of global AI operations. What remains relevant to explore is which kind of images could open up the “possibility of thinking and building a new form of (technological) democracy.”⁷⁰ Every act of visualizing AI, read as normative visions enacted through material infrastructure, is inherently an artistic gesture. Importantly, artistic production does not happen in a socio-historical vacuum. Future research might undertake historical analysis into the origins of the current AI visibility or track ‘AI hype’ over time as this has been expressed in the images used to mediate the technology in public media. At present, strategies of aesthetic resistance are faced with a series of hurdles towards reaching the public eye. Changing the visions means agitating the systems through which these visions become public.

⁵⁹ Vrabčič Dežman 2023.

⁶⁰ Hoel 2018, p. 13, Pantenburg 2016, p. 58.

⁶¹ Gillespie 2014, p. 183.

⁶² Romele 2022, p. 10.

⁶³ As the search query approaches a specific level of ML application, the results lose their sublime qualities. For example, a

search for “Neural Network,” a widespread machine learning architecture, is far less sensationalist than “Artificial Intelligence.”

⁶⁴ Sartori / Bocca 2023.

⁶⁵ Lavin 2001, p. 2.

⁶⁶ Cf. Rancière 2006 Rancière / Corcoran 2010, Rancière 2013.

⁶⁷ Romele 2022, p. 2.

⁶⁸ Celis Bueno 2017, p. 744.

⁶⁹ Romele 2022, p. 8.

⁷⁰ Romele 2022, p. 11.

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