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Who Is Awful? *Black Mirror* and the Dystopian Imaginary of AI Labor

Abstract

The future of labor has become one of the most urgent topics in the current public debate regarding Artificial Intelligence. Related imaginaries, primarily following the emergence of Chat GPT, have gravitated towards blaming the technology for threatening people's livelihoods. However, these visions suffer from "sociotechnical blindness" and overlook the human actors who create and hold the decisive power behind AI. One of the most mediatized examples of this was the strike by Hollywood workers in 2023. Pop culture, notably sci-fi television series, has been an influential source of inspiration for these dystopian visions. Despite that, scholars have overlooked representations of AI labor in the area. This case study responds to that, focusing on representations in *Black Mirror*, a prominent sci-fi television series that has covered topics around AI for over a decade. Specifically, it analyzes the "sociotechnical imaginary" in the episode *Joan is Awful*, reflecting on the concerns of Hollywood workers. Methods of Multimodal Critical Discourse Analyses reveal mutual interactions between human and AI laboring agents. They highlight the interdependence in the labor process and how societies are vulnerable to the power of tech corporations encouraged by digital capitalism. The analysis demonstrates how AI, as an entertaining sci-fi television trope, might critically reflect on the contemporary issue of capitalist alienated labor, emphasizing the inseparability of technology and human actors.

Introduction

Has it not all gone a bit "black mirror"? This already common phrase could summarize media imaginaries of Artificial Intelligence (AI) regarding the future of labor. From politicians to tech elites, the public space is filled with dystopian visions of AI becoming a threat to economies, overcoming human skills, and potentially replacing human workers of various professions.[1] Sci-fi culture, especially television and the cinema, has traditionally inspired these portrayals.[2] It enables the audience to interact entertainingly with the topic of AI, proposing an alternative version (primarily utopian or dystopian) of reality. [3]

Media representations of AI form a "complex causal relationship with the technology itself,"[4] both inspiring it and trying to reflect it. However, a common problem of these representations is "sociotechnical blindness."[5] This tendency to depict AI as separated from its human creators makes the real actors and problems behind the technology invisible and results in misleading thinking about the future. Paradoxically, one of the best examples of such blindness came from the media with the summer 2023 Hollywood strikes. The protestor's slogans, such as "plagiarism machines," "AI is not an art," or "AI has no soul,"[6] have often been directed against the technology. Protestors saw AI as a threat to the television and movie industry, possibly stealing their jobs.

One of the protestors was Charlie Brooker, the creative brain behind Netflix's flagship series, *Black Mirror* (various directors, 2011-present).[7] This anthology is traditionally rich in AI imaginaries, and its sixth season was released during the protests.[8] The episode *Joan*

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1) E.g. Frederik Efferenn, "Call for Interventions and Contributions: Shifting AI Controversies," *HIIG*, October 31, 2023, accessed September 8, 2024, https://www.hiig.de/en/cfc-shifting-ai-controversies/; "Pause Giant AI Experiments: An Open Letter," *Future of Life Institute*, November 27, 2023, accessed August 12, 2024, https://futureoflife.org/open-letter/pause-giant-ai-experiments/; Pranshu Verma and Gerrit De Vynck, "ChatGPT took their jobs: Now they walk dogs and fix air conditioners," *The Washington Post*, June 2, 2023, accessed September 8, 2024, https://www-staging.washingtonpost.com/technology/2023/06/02/ai-taking-jobs/.

2) Stephen Cave and Kanta Dihal, "Hopes and fears for intelligent machines in fiction and reality," *Nature Machine Intelligence* 1, no. 2 (2019), 74–78; Karim Nader et al., "Public understanding of artificial intelligence through entertainment media," *AI & Society* 39, no. 2 (2022), 713–726; Tom Pollard, "Popular Culture's AI Fantasies: Killers and Exploiters or Assistants and Companions?," *Perspectives on Global Development and Technology* 19, no. 1–2 (2020), 97–109.

3) Vickie L. Edwards, "Fifty Years of Science Fiction Television," *Administrative Theory & Praxis* 36, no. 3 (2014), 376.

4) Cave and Dihal, "Hopes and fears for intelligent machines," 77.

5) Deborah G. Johnson and Mario Verdicchio, "Reframing AI Discourse," *Minds and Machines* 27, no. 4 (2017), 587.

6) Dawn Chmielewski and Lisa Richwine, "'Plagiarism machines': Hollywood writers and studios battle over the future of AI," *Reuters*, May 3, 2023, accessed July 22, 2024, https://www.reuters.com/technology/plagiarism-machines-hollywood-writers-studios-battle-over-future-ai-2023-05-03/; Megan Cerullo, "Screenwriters want to stop AI from taking their jobs: Studios want to see what the tech can do," *CBS News*, May 4, 2023, accessed September 7, 2024, https://www.cbsnews.com/news/writers-strike-2023-artificial-intelligence-guardrails/; Tony Maglio, "42% of Film and TV Production Workers Say AI Will 'harm People' in Their Field — Exclusive," *IndieWire*, March 22, 2024, accessed September 8, 2024, https://www.indiewire.com/news/analysis/film-tv-production-workers-say-ai-will-harm-them-exclusive-1234966904/.

7) Alex Cranz, "Black Mirror's 'Joan is Awful' shits all over the future of streaming," *The Verge*, June 17, 2023, accessed November 10, 2023, https://www.theverge.com/23763339/black-mirrors-joan-is-awful-netflix-future-streaming.

8) Joy Press, "*Black Mirror's* Charlie Brooker Keeps Finding New Ways to Freak Us Out," *Vanity Fair*, June 16,

Is Awful (Ally Pankiw, 2023) reacts to the main concerns regarding AI and television/ movie production challenges, such as actors' identity rights being threatened by the deep-fake phenomenon. Despite the dramatic character of the sci-fi television series, this episode demonstrates how AI's interdependence as a technology might be depicted together with other actors, specifically with different tech company representatives on the one hand and users on the other.

Shared cultural imaginaries are not just empty phrases or meaningless images. Scholars of "sociotechnical imaginaries,"[9] the analytical concept used in this article, have shown that the capacity to imagine futures is a crucial constitutive aspect of human societies and their artifacts.[10] These imaginaries have a vital role in inspiring ideas and even the practical development of new technologies.[11] Dystopias might then serve as cautionary imaginaries about how not to design and implement technologies such as AI.[12] Pop culture both forms public opinion and is informed by it, thus serving as vital study material.[13] Still, the current literature[14] has failed to highlight the specifics of sci-fi television and interpret it within broader media representations.[15]

This text provides a case study of the *Joan Is Awful* episode as a significant example of a dystopian portrayal of AI labor, reflecting on shaky public debates around the television and movie industry. It also reflects on the scholarly discussion around ongoing transformation of the medium and sci-fi genre distinctiveness.[16] This research enriches the tradition of studies of AI representations[17] by a critical social theory[18] informed systematic

2023, accessed November 8, 2023, https://www.vanityfair.com/hollywood/2023/06/black-mirror-season-six-charlie-brooker-spoilers.

9)   Sheila Jasanoff and Sang-Hyun Kim, eds., *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power* (Chicago: The University of Chicago Press, 2015); Vanessa Richter, Christian Katzenbach, and Mike S. Schäfer, "Imaginaries of artificial intelligence," in *Handbook of Critical Studies of Artificial Intelligence*, ed. Simon Lindgren (Cheltenham and Northampton: Edward Eltam Publishing, 2023), 209–223.

10) Tadeusz Józef Rudek, "Capturing the invisible: Sociotechnical imaginaries of energy: The critical overview," *Science and Public Policy* 49, no. 2 (2022), 219–245.

11) Cave and Dihal, "Hopes and fears for intelligent machines;" Pollard, "Popular Culture's AI Fantasies."

12) Chintan Ambalal Mahida, "Dystopian future in contemporary science fiction," *Golden Research Thoughts* 1, no. 1 (2011), 2.

13) Nader et al., "Public understanding of artificial intelligence," 715.

14) Cave and Dihal, "Hopes and fears for intelligent machines;" Pollard, "Popular Culture's AI Fantasies;" Fábio Alexandre Silva Bezerra, "Multimodal critical discourse analysis of the cinematic representation of women as social actors," *DELTA: Documentação de Estudos Em Lingüística Teórica e Aplicada* 36, no. 4 (2020).

15) Isabella Hermann, "Artificial intelligence in fiction: between narratives and metaphors," *AI & Society* 38, no. 1 (2023), 321.

16) Andrei Simuț, "Contemporary Representations of Artificial Intelligence in Science Fiction Films, Visual Arts and Literature: A Short Introduction," *Ekphrasis: Images, Cinema, Theory, Media* 17, no. 1 (2017), 5–8; Christopher Noessel, "Untold AI: The survey," *Sci-Fi Interfaces*, June 30, 2020, accessed September 8, 2024, https://scifiinterfaces.com/tag/untold-ai/.

17) Daniel G. Dieter and Elyse C. Gessler, "A preferred reality: Film portrayals of robots and AI in popular science fiction," *Journal of Science & Popular Culture* 4, no. 1 (2021), 59–76; Ilaria Villa, "Humans and Non-Humans: Representation of Diversity and Exclusionary Practices in Twenty-First Century British Science Fiction TV Series" (PhD dissertation, University of Milan, 2020); Noessel, "Untold AI;" Pollard, "Popular Culture's AI Fantasies;" Robert B. Fisher, "AI and cinema–does artificial insanity rule?," in *Twelfth Irish Conference on Artificial Intelligence and Cognitive Science* (Maynooth: National University of Ireland, 2001); Simuț, "Contemporary Representations of Artificial Intelligencesual."

18) Andrea Sau, "On Cultural Political Economy: A Defence and Constructive Critique," *New Political Economy*

case study, using Multimodal Critical Discourse Analysis (MCDA).[19] I focus on the overlooked question of how AI is portrayed as an agent of labor interacting with other human characters in the episode.

Using MCDA, I analyze the sociotechnical imaginary proposed by the episode. The analysis explores (a) social commentary on the current state of AI labor, (b) a vision of its possible dystopian future, and (c) a means to bring this future about.[20] All of these levels emphasize the interaction between agents. This approach reacts to existing research gaps. Firstly, it articulates the significance of the AI labor imaginaries, specifically in transforming sci-fi television, highlighting genre specifics. Informed by critical social theory, it adopts systematic MCDA, which is still a rarely used methodological approach. Also, the case study counters the prevailing issue of technological blindness to AI's media representation. It focuses on the interdependence of human and non-human agents in imagining the labor future.

1. Artificial Intelligence and Shifting Labor

AI has recently become a source of vivid media debates regarding its impacts on labor.[21] Still, in often dystopian media debates,[22] AI stands for an ambiguous, almost omnipotent buzzword. For this study, AI is understood as an umbrella term for "programs (and projects to create programs) capable of autonomous self-improvement and agency."[23] Such a broad definition allows for the inclusion of various AI applications while distinguishing them from other technologies.

The second essential term, labor, has been traditionally defined in (post)Marxist terms as the process through which humans transform nature, producing a use-value of any kind, and conceiving consciousness and agency as critical features that distinguish them from other living beings.[24] A subsequent broader definition, used by English-speaking

26, no. 6 (2021), 1015–1029; Jasanoff and Kim, eds., *Dreamscapes of modernity*; Jernej Markelj and Claudio Celis Bueno, "Machinic agency and datafication: Labour and value after anthropocentrism," *Convergence: The International Journal of Research into New Media Technologies* 30, no. 3 (2023); Richter, Katzenbach, and Schäfer, "Imaginaries of artificial intelligence."

19) Andrea Mayr and David Machin, *How to Do Critical Discourse Analysis: A Multimodal Introduction* (Los Angeles, London, and New Delhi: Sage Publications, 2012); Bezerra, "Multimodal critical discourse analysis;" Gunther R. Kress and Van Theo Leeuwen, *Multimodal Discourse: The Modes and Media of Contemporary Communication* (London: Bloomsbury Academic, 2001); Peter Teo, "'It all begins with a teacher': A multimodal critical discourse analysis of Singapore's teacher recruitment videos," *Discourse & Communication* 15, no. 3 (2021), 330–348; Theo Van Leeuwen, *Discourse and Practice: New Tools for Critical Discourse Analysis* (Oxford: Oxford University Press, 2008).

20) Sau, "On Cultural Political Economy," 10.

21) E.g. Cerullo, "Screenwriters want to stop AI;" Verma and Vynck, "ChatGPT took their jobs;" Maglio, "42% of Film and TV Production Workers."

22) Astrid Mager and Christian Katzenbach, "Future Imaginaries in the Making and Governing of Digital Technology: Multiple, Contested, Commodified," *New Media & Society* 23, no. 2 (2021), 223–236; B.V.E. Hyde, "The Problem with Longtermism," *ETHICS IN PROGRESS* 14, no. 2 (2023), 130–152; "Pause Giant AI Experiments."

23) John Fletcher, "Deepfakes, Artificial Intelligence, and Some Kind of Dystopia: The New Faces of Online Post-Fact Performance," *Theatre Journal* 70, no. 4 (2018), 458–459.

24) Markelj and Bueno, "Machinic agency and datafication," 4.

scholars, describes labor as "human effort which pertains to capitalist relations of production."[25] As such, labor is complementary with work, which emphasizes activities in non-capitalist realms.

In the ongoing debates about data-based "digital capitalism" with AI and network infrastructure dominated by big tech, lacking sufficient public scrutiny, authors highlight the increasing interdependence of society and technologies.[26] As Timo Daum summarizes: "In many areas, AI applications owned by tech corporations are on the brink of mass marketization and becoming everyday phenomena."[27]

Jernej Markelj and Claudio Celis Bueno[28] state that "the current process of datafication calls for a post-anthropocentric understanding of value (creation) and labor." Labor is increasingly performed in interactions, and human factors (consciousness in this context) cannot be perceived as the only measuring criterion. As a result, the value created in post-human labor might be understood as productive connections emerging through encounters between human and non-human actors. In this light, a critical redefinition of the "agency" concept is necessary as a crucial term both for AI and labor.

The traditional human agency describes the ability of actors to act and control their existence within the larger framework of society.[29] In labor terms, agency might also be expressed by the ability to accept or refuse to act.[30] Reflecting on the abovementioned criticism of this anthropocentric view, this article approaches agency in "machinic" terms.[31] It is defined as the capacity to act, produce, and create value as labor output in the interaction of actors (conscious humans and unconscious machines).[32]

A broader debate on agency goes far beyond the scope of this article. However, the machinic agency concept highlights human and non-human actors' interdependence in the labor process, mutually affecting each other.[33] It is an adequate lens through which to analyze the question of labor in the digital capitalism of emerging AI. It also reveals the mutual interactions of actors, which is necessary when analyzing representations of AI as a laborer and focusing on its future visions.[34] Finally, the machinic agency might help to

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25) Susana Narotzky, "Rethinking the concept of labour," *Journal of the Royal Anthropological Institute* 24, no. S1 (2018), 31.

26) See Jathan Sadowski, *Too Smart: How Digital Capitalism is Extracting Data, Controlling Our Lives, and Taking Over the World* (Cambridge: The MIT Press, 2020); Jodi Dean, "Communicative Capitalism: Circulation and the Foreclosure of Politics," in *Digital Media and Democracy: Tactics in Hard Times*, ed. Megan Boler (The MIT Press, 2008), 101–122; Jonathan Pace, "The Concept of Digital Capitalism," *Communication Theory* 28, no. 3 (2018), 254–269; Hank Tucker and Andrea Murphy, "The Global 2000 2023," *Forbes*, 2023, accessed September 8, 2024, https://www.forbes.com/lists/global2000/.

27) Timo Daum, "Artificial Intelligence as the Latest Machine of Digital Capitalism — For Now," in *Marx and the Robots Networked Production, AI and Human Labour*, eds. Florian Butollo and Sabine Nuss (London: Pluto Press, 2022), 242–243.

28) Markelj and Bueno, "Machinic agency and datafication," 15.

29) Sai Dattathrani and Rahul De', "The Concept of Agency in the Era of Artificial Intelligence: Dimensions and Degrees," *Information Systems Frontiers* 25, no. 1 (2022), 40.

30) Markelj and Bueno, "Machinic agency and datafication," 9.

31) Gilles Deleuze, Félix Guattari, and Brian Massumi, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987).

32) Markelj and Bueno, "Machinic agency and datafication," 13.

33) Ibid.

34) Dattathrani and De', "The Concept of Agency;" Markelj and Bueno, "Machinic agency and datafication," 13.

highlight the actors behind the technology who are often overlooked in media representations, as the following chapter explains.

2. Media Imaginaries and Sociotechnical Blindness

Pop-cultural future visions, such as those proposed by influential television series like *Doctor Who* (various directors, 1963–present) *Star Trek: The Next Generation* (various directors, 1987–1994), have reflected the era of their origin and, as such, have provided researchers with study material on the spirit of the time.[35] Media researchers have characterized the context of the contemporary "hyped"[36] debate around AI as tending to extremes, either utopian or dystopian.[37] In the context of labor, they tend to depict AI as a revolutionary tool that will free people from work or make them obsolete.

AI imaginaries are dominated by corporations and technologists promoting the technology, while with the "Chat GPT moment," these actors occupy even the increased public critique.[38] Sometimes, they also raise dystopian warnings about fundamental damage to societies.[39] Researchers found that dystopian representations tend to be more detailed than positive ones, and their short-term character influences media consumers' attitudes more than the long-term.[40] One of the most frequent framings and fears about AI belongs to the area of the economy and labor.[41]

However, AI labor has rarely been studied, with few works confirming the often polarized representations.[42] In his overview,[43] Bueno recognizes three dominant discourses.

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35) Edwards, "Fifty Years of Science Fiction," 373.

36) Jeffrey Funk, "What's behind technological hype?," *Issues in Science and Technology* 36, no. 1 (2019), 38.

37) Ching-Hua Chuan et al., "Framing Artificial Intelligence in American Newspapers," in *Proceedings of the 2019 AAAI/ACM Conference on AI, Ethics, and Society* (New York: Association for Computing Machinery, 2019), 339–344; Lea Köstler and Ringo Ossewaarde, "The making of AI society: AI futures frames in German political and media discourses," *AI & Society* 37, no. 1 (2021), 249–263; Mager and Katzenbach, "Future Imaginaries in the Making;" João Canavilhas and Renato Essenfelder, "Apocalypse or Redemption: How the Portuguese Media Cover Artificial Intelligence," *Total Journalism: Studies in Big Data*, eds. Jorge Vázquez-Herrero, Alba Silva-Rodríguez, María-Cruz Negreira-Rey, Carlos Toural-Bran, and Xosé López-García (Cham: Springer, 2022), 255–270; Sukyoung Choi, "Temporal Framing in Balanced News Coverage of Artificial Intelligence and Public Attitudes," *Mass Communication and Society* 27, no. 2 (2023), 4.

38) Mager and Katzenbach, "Future Imaginaries in the Making."

39) "Pause Giant AI Experiments."

40) Sukyoung Choi, "Temporal Framing in Balanced News Coverage."

41) Chuan et al., "Framing Artificial Intelligence in American Newspapers;" Hannes Cools, Baldwin Van Gorp, and Michael Opgenhaffen, "Where exactly between utopia and dystopia? A framing analysis of AI and automation in US newspapers," *Journalism* 25, no. 1 (2022), 3–21; Köstler and Ossewaarde, "The making of AI society;" Mager and Katzenbach, "Future Imaginaries in the Making;" Canavilhas and Essenfelder, "Apocalypse or Redemption."

42) Boshuo Li, Ni Huang, and Wei Shi, "Media Coverage of Labor Issues and Artificial Intelligence Innovation," *SSRN Electronic Journal*, July 25, 2022, accessed September 8, 2024, https://doi.org/10.2139/ssrn.4165159; Jennifer Rhee, *The Robotic Imaginary the Human and the Price of Dehumanized Labor* (Minneapolis: University of Minnesota Press, 2018); Laila M. Brown, "Gender, race, and the invisible labor of artificial intelligence," in *Handbook of Critical Studies of Artificial Intelligence*, ed. Lindgren, 573–83; Valerio De Stefano, *"Negotiating the algorithm": Automation, artificial intelligence and labour protection* (Geneva: International Labour Office, 2018).

43) Claudio Celis Bueno, "Beyond Automation: Generative AI and the Question of Labour" (Paper presented at

The utopian one depicts AI as liberating human leisure time through full labor automation. In the middle, Bueno posits an industry-related imaginary that could be called "business as usual." It perceives AI as boosting labor productivity, similar to previous technologies. The third one, presenting the dystopian pole, sees AI as a creator of mass unemployment that disrupts industries and steals people's jobs.

The underlying aspect of these discourses is techno-determinism,[44] which sees technology as a crucial independent factor that influences society. Representations tend to be blind towards the human actors behind the AI, i.e., those who design and create the technology. This common issue of the discourses around AI has been described as "sociotechnical blindness."[45] It underlines the tendency to omit human actors and the decisions behind AI systems in representations. In effect, these representations instead attribute misleading human agency to AI as supposedly an independent actor.

Whether intentional or not, the absence of these powerful actors (mainly technological companies and developers) may lead to misunderstanding and fear about the future of the technologies. This eventually applies also to the issue of AI labor, blaming the technology for potentially stealing jobs, while overlooking particular people's decisions behind.[46] It also boosts the hyped and polarized debate around AI, spanning topics and media. Still, sociotechnical blindness is one of the typical patterns of the sci-fi genre due to its entertaining character. This is crucial to highlight in contrast to the often simplified interpretation of sci-fi as a homogenous sub-part of AI media representations.[47]

3. Specifics of Contemporary Sci-fi Television and Black Mirror

Sci-fi provides "dramas" for a human audience; its strong metaphorical elements facilitate a dramatized commentary on social issues.[48] Thus, sociotechnical blindness serves as a sort of simplification, supporting the dramatic character and storytelling upon which sci-fi is primarily based. The classic AI trope in this genre, therefore, is a computer or robot that behaves independently and matches or surpasses human abilities. An example might be the android Data from *Star Trek: The Next Generation,* which reaches human-like agency, and his effort to be recognized as equal to other people. The story completely avoids the context of the actors behind its creation. Other examples might be found in series such as *Doctor Who, Westworld* (various directors, 2016–2022), or *Humans* (various directors, 2015–2018).

The genre emerged with the modernist belief in technological progress, and, as such, brings stories about fictional technology, the "novum" (different from the current state) seen through the prevailing scientific paradigms.[49] This novum serves as a vehicle for dif-

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conference Shifting AI Controversies, Berlin Social Science Center, Germany, January 29, 2024).
44) De Stefano, *"Negotiating the algorithm,"* 16.
45) Johnson and Verdicchio, "Reframing AI Discourse," 587.
46) Julian Posada, "The Future of Work Is Here: Toward a Comprehensive Approach to Artificial Intelligence and Labour," *Ethics of AI in Context*, no. 56 (2020).
47) Hermann, "Artificial intelligence in fiction."
48) Ibid., 319–321; Villa, "Humans and Non-Humans," 22.
49) Hermann, "Artificial intelligence in fiction," 319–321.

ferent "fabulations of social worlds, both utopic and dystopic."[50] Thus the given example of Data from *Star Trek* could be interpreted as a commentary on societal equality. Specifically dystopian sci-fi typically sketches a future in which technology worsens the everyday lives of humans.[51]

AI has been a traditional novum of sci-fi stories prospective in nature.[52] However, in line with Jean Baudrillard's[53] claim, research shows that sci-fi genre transforms with the practical development of AI.[54] Its irreversible implementation into everyday practice blunts the prospectivity of the genre in favor of the tendency to return to the familiar and to reflect on current social issues. Apart from *Black Mirror*, described below, television series like *Humans*, *The Leftovers* (various directors, 2014–2017), and *Westworld* also represent this phenomenon. As a result, the metaphorical and present reflexive aspects of sci-fi play an increased role.[55]

Sci-fi AI embodies a specific genre, representing a background of ideas and expectations that affect how people understand and judge AI.[56] Karim Nader et al.[57] have shown that these portrayals play a significant role in shaping people's beliefs. Also, when it came to respondents' understanding of what AI can do, most of them expressed the belief that AI could "replace human jobs."[58] While an exhaustive overview of its representations in television series goes beyond the scope of the article, a short background on the representations in the genre is necessary.

Most of the existing studies on Western sci-fi AI have researched television and cinema AI representations together. A study[59] of more than 150 shows discovered the prevalence of slightly more negative than positive representations of AI and that these are mostly embodied as a robot (compared to virtual) on the level of general AI (compared to narrow and super ones). Studies[60] describe the average tone of sci-fi AI representations as varying from dystopian (1920-50) to utopian (the 1960s) and towards the ambiguous effort to show the complexity of the technology (starting in the 1980s). Regarding the question of agency, the literature shows[61] that AI is either represented as an agency-less instrument of human will or a dramatized subject exhibiting human-like agency and dangerous behavior. The rare essay on sci-fi (movie) AI labor[62] also criticizes sociotechnically-blind dystopian representations.

Despite being often analyzed together,[63] representations of AI in television series and

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50) Jasanoff and Kim, eds., *Dreamscapes of modernity*, 1.
51) Mahida, "Dystopian future in contemporary science fiction," 2.
52) Simuţ, "Contemporary Representations of Artificial Intelligence," 6.
53) Jean Baudrillard, "Simulacra and Science Fiction," *Science Fiction Studies* 18, no. 3 (1991), 309.
54) Noessel, "Untold AI;" Simuţ, "Contemporary Representations of Artificial," 5–6.
55) Simuţ, "Contemporary Representations of Artificial," 5–6.
56) Cave and Dihal, "Hopes and fears for intelligent machines."
57) Nader et al., "Public understanding of artificial intelligence," 713.
58) Ibid.
59) Noessel, "Untold AI."
60) Dieter and Gessler, "A preferred reality;" Fisher, "AI and cinema;" Noessel, "Untold AI."
61) Cave and Dihal, "Hopes and fears for intelligent machines;" Fisher, "AI and cinema;" Hermann, "Artificial intelligence in fiction;" Pollard, "Popular Culture's AI Fantasies."
62) Rebecca Wanzo, "The Other Replacement Theory," *Film Quarterly* 77, no. 1 (2023), 81–85.
63) Cave and Dihal, "Hopes and fears for intelligent machines;" Fisher, "AI and cinema;" Hermann, "Artificial

movies have significant differences. Traditionally, television series were described as episodic stories that often copied cinematic tropes[64] and were market audience-driven, reflecting primarily on everyday life.[65] However, the rise of cable networks in the 1990s and the later onset of streaming platforms (like Netflix) gradually blurred this difference. Resulting investments bolstered television series with better quality writing and/or technical improvements (lower production costs, simplified editing, shooting, or distribution).[66] They allowed the medium to compete with the cinema and even be consumed within the same streaming platforms, homogenizing the audience experience (on-line availability via platforms).[67]

As a result, the content itself is affected. Streaming platforms are under intense pressure to produce original and distinguishable content. [68] This is realized in various ways, including platform self-criticism, as in the case of *Joan is Awful*. It is an established marketing strategy that helps companies distinguish themselves within the intensified concurrency, raising the interest of consumers while appearing more personable and authentic.[69] The series *Barry* (various directors, 2018–2023) might be another recent example.

Black Mirror is one of the most significant examples of the evolution within sci-fi television. Over a decade, this anthology series has positioned itself as a pop cultural phenomenon associated with the leitmotif of dystopian technological visions that are often close to people's fingertips. Andrei Simuț[70] identifies the series as an embodiment of the described phenomenon of the implosion of prospectivity in favor of dramatized reflexivity of contemporary social issues in current sci-fi. *Black Mirror* has reflected on several emerging issues related to AI, for example, the mass media reality/entertainment industry in *Fifteen Million Merits* (Euros Lyn, 2011), social networks in *Smithereens* (James Hawes, 2019), social credit systems similar to that used by the Chinese in *Nosedive* (Joe Wright, 2016), VR and video games in *Playtest* (Dan Trachtenberg, 2016), autonomous robots in *Metalhead* (David Slade, 2017), and AI surveillance in *Arkangel* (Jodie Foster, 2017).

In 2024, the series consists of six seasons and has piqued scholars' interest, highlighting the ability to elaborate critical reflection on technology in an entertaining format.[71] Some focus on the portrayal of moral and ethical issues[72] or the philosophical reflections

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intelligence in fiction;" Noessel, "Untold AI;" Pollard, "Popular Culture's AI Fantasies;" Pollard, "Popular Culture's AI Fantasies."

64) Villa, "Humans and Non-Humans," 27.

65) Adriano Nazareth, "Cinematography and Television: Differences and Similarites," *Journal of Science and Technology of the Arts* 2, no. 1 (2010), 34–35.

66) Charles Matthau, "How Tech Has Shaped Film Making: The Film vs. Digital Debate Is Put to Rest," *Wired*, August 7, 2015, accessed September 8, 2024, https://www.wired.com/insights/2015/01/how-tech-shaped-film-making/.

67) Johnson Derek, ed., *From Networks to Netflix: A Guide to Changing Channels* (London: Routledge, 2018).

68) Valéry Michaux, "Between television and cinema: New platforms — Which changes with what impact on contents?," *Enjeux Numeriques*, no. 10 (2020).

69) Charles S. Gulas and Marc G. Weinberger, *Humor in Advertising: A Comprehensive Analysis* (Armonk, N.Y: M.E. Sharpe, Inc., 2006), 28.

70) Simuț, "Contemporary Representations of Artificial Intelligence," 6.

71) Donovan Conley and Benjamin Burroughs, "*Black Mirror*, mediated affect and the political," *Culture, Theory and Critique* 60, no. 2 (2019), 139–153.

72) Margaret Gibson and Clarissa Carden, "Introduction: The Moral Uncanny in Netflix's Black Mirror," in *The

of the series.[73] This article derives inspiration from case studies focusing on a particular episode demonstrating specific representations such as crime and punishment,[74] human bodies as commodities,[75] or human-computer interaction.[76]

4. Concepts and Methods of Analysis

This case study approaches the topic of dystopian visions in the *Black Mirror* series with the concept of "sociotechnical imaginary" (SI). SI is one of the most privileged optics focusing on the visions around AI, highlighting the role of the actors involved.[77] Imaginaries are "collectively held, institutionally stabilized, and publicly performed visions" of un/desirable futures attainable through technological development.[78] Although the concept initially focused on a positive vision, later research confirmed its plausibility for dystopias.[79] Richter, Katzenbach, and Schäfer[80] highlight the need for further academic reflection on imaginaries in the sphere of popular culture. This has provided the motivation for this research. However, the existing literature adopting imaginaries is burdened with ambiguity surrounding conceptualization (competing broad concepts) and operationalization (unsystematic research approaches).[81] To escape this vicious circle, I take two steps.

Firstly, I apply Andrea Sau's three-level imaginary analytical concept.[82] I will examine SI while asking for representations of social commentary (1), defined as speculative thought directed at explaining social phenomena in their interconnections (issues, events, or structures), a vision of the future (2) (where a new world is imagined), and the means (3) to bring this future about (social actions broadly conceived).

Secondly, I systematically operationalize the imaginary using qualitative Multimodal Critical Discourse Analysis (MCDA) methods.[83] Since the introduction of SI, the concept has been studied via discourse;[84] multimodal operationalization remains over-

Moral Uncanny in Black Mirror, eds. Margaret Gibson and Clarissa Carden (Cham: Palgrave Macmillan, 2021), 1–18.

73) William Irwin and David Kyle Johnson, eds., *Black Mirror and Philosophy: Dark Reflections* (Hoboken: Wiley-Blackwell**,** 2019).

74) Javier Cigüela and Jorge Martínez-Lucen, "Screen technologies and the imaginary of punishment: A reading of Black Mirror's 'White Bear,'" *Empedocles: European Journal for the Philosophy of Communication* 7, no. 1 (2016), 3–22.

75) Zita Hüsing, "Black Mirror's 'Fifteen Million Merits': Re-Defining Human Bodies with Dystopian Technology," *Messengers from the Stars: On Science Fiction and Fantasy*, no. 5 (2020), 42–56.

76) Georgia de Souza Assumpção, Carolina Maia dos Santos, Raquel Figueira Lopes Cançado Andrade, Mayara Vieira Henriques, and Alexandre de Carvalho Castro Assumpção, "Productive Organizations: The Human-Computer Interaction in Black Mirror," *Bakhtiniana: Revista de Estudos do Discurso* 18, no. 4 (2023).

77) Richter, Katzenbach, and Schäfer, "Imaginaries of artificial intelligence," 3.

78) Jasanoff and Kim, eds., *Dreamscapes of modernity*, 4.

79) Ulrike Felt, "Keeping Technologies out: Sociotechnical Imaginaries and the Formation of Austria's Technopolitical Identity," in *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*, eds. Sheila Jasanoff and Sang-Hyun Kim (Chicago: The University of Chicago Press, 2015).

80) Richter, Katzenbach, and Schäfer, "Imaginaries of artificial intelligence," 13.

81) Rudek, "Capturing the invisible."

82) Sau, "On Cultural Political Economy," 10.

83) Kress and Van Leeuwen, *Multimodal discourse*; Mayr and Machin, *How to Do Critical Discourse Analysis*.

84) Jasanoff and Kim, eds., *Dreamscapes of modernity*, 4.

looked.[85] MCDA is an evolving research branch that combines concepts from CDA[86] and multimodal communication.[87] In MCDA, discourse stands for "socially constructed knowledges of (some aspect of) reality."[88] Discourse as such might be communicated by texts in combination with semiotic modes like language, image, layout, or sound.[89] These modes are seen as tools for creating meaning, each with its own material qualities and capacity for conveying ideas.[90] Therefore, a critical multimodal analysis must approach discourse through these specific modes.

In particular, the study adopts Theo Van Leeuwen's (a leading MCDA scholar) analytic model of the Visual Social Actor Network (VSAN).[91] It focuses on imaginaries of AI labor, highlighting the interdependence of humans and AI agents. In contrast to other multimodal approaches,[92] VSAN is structurally informed by critical social theory. Reflecting on recent television series research, the study uses the extended framework proposed by Fábio Alexandre Bezerra.[93] This approach has proven useful in describing the dynamic image in terms of the tasks agents are (not) represented doing and with whom they interact while (not) doing these things. Considering the specifics of the topic of AI labor, I modified the categories of agents to include humans and non-humans. In addition, to highlight the importance of visual exclusion,[94] I added the eponymous category. This structure guides the interpretation of AI labor imaginary.

In practice, the episode was transcribed into analytical frames focusing on the depiction of AI agents. A frame is a functional unit in data analysis representing a scene where a significant event occurs at a specific location.[95] The analysis is then focused on these particular frames through the VSAN lens, exploring AI in relation to other agents and taking respective notes (see Table 1). Finally, I concentrated on recognized frames, aiming at questions raised by the previously described triadic model of the imaginary.

Due to the limited scope of the study, I selected one representative frame for each imaginary layer. In line with previous work,[96] I eventually recorded the (relevant) modes like background music, camera (shot and angle), lighting, or color that contributed to the overall impression. To underline the visual construction of the relationship of the charac-

85) E.g. Jan-Luuk Hoff, "Unavoidable Futures? How Governments Articulate Sociotechnical Imaginaries of AI and Healthcare Services," *Futures*, no. 148 (2023), 1–13.

86) Norman Fairclough, *Critical Discourse Analysis: The Critical Study of Language* (London: Routledge, 2018).

87) Kress and Van Leeuwen, *Multimodal discourse*.

88) Ibid., 4.

89) Gavin Brookes and Kevin Harvey, "Opening up the NHS to Market," *Journal of Language and Politics* 15, no. 3 (2016), 292.

90) David Machin, "What is multimodal critical discourse studies?," *Critical Discourse Studies* 10, no. 4 (2013), 347–355.

91) Van Leeuwen, *Discourse and Practice*, 147.

92) Andrew Burn, *The kineikonic mode: Towards a multimodal approach to moving image media* in *The Routledge Handbook of Multimodal Analysis*, ed. Carey Jewitt (London: Routledge, 2014); Chenghui Guan, "Multimodal positive discourse analysis of national image publicity video," *Language and Semiotic Studies* 8, no. 3 (2022), 66–85; Xu Bo, "Multimodal Discourse Analysis of the Movie *Argo*," *English Language Teaching* 11, no. 4 (2018), 132.

93) Bezerra, "Multimodal critical discourse analysis."

94) Van Leeuwen, *Discourse and Practice*, 142.

95) Teo, "It All Begins with a Teacher," 335.

96) Hoff, "Unavoidable Futures."

ters to the viewer, the camera work in the selected frames was interpreted through Van Leeuwen's "Representation and Viewer Network."[97] Nonetheless, the analysis requires a brief description of the story in order to introduce the plot.

5. Analyzing the Imaginary of AI Labor in *Joan is Awful*

The plot of the episode *Joan is Awful* centers on the protagonist, Joan Tait (Annie Murphy). She is depicted as an ordinary female middle manager working as a HR consultant for a tech company (resembling the actual tech company Oracle).[98] Her dull routine life with her boyfriend Krish is disrupted when her ex-husband Mac contacts her, recalling memories of their messy yet exciting past together. Despite efforts to maintain a facade of well-being, Joan's inner turmoil becomes evident. It leads her to confront her existential crisis in a therapy session, expressing a lack of agency, saying, "I feel like I'm not the main character in my own life story" (07:15–07:21).

During a quiet evening with her boyfriend Krish watching Streamberry (resembling the actual streaming platform Netflix), the platform suddenly suggests a brand-new show called "Joan is Awful." Joan realizes that it depicts her everyday life in intimate detail and dramatizes some of it (an ironic self-reference to a dramatizing series based on real life, including *Black Mirror*). In the fictional show, the main character, "TV Joan" (Salma Hayek), is trapped in the same situation as Joan Tait: her life is being depicted in detail in the eponymous fictional television series.

In reaction, Joan Tait begins a furious race to protect herself against the show's emergence on Streamberry. During this attempt, she gradually loses both men and realizes that legally, she cannot do anything against the streaming platform that created the fictional series because she agreed to its "terms and conditions." Therefore, she decides to break into the Streamberry company and physically destroy a quantum computer called "Quamputer", which runs the AI deepfake software that creates the fictional show. She succeeds only with the help of Salma Hayek, who portrays her as TV Joan in the series and is ultimately unhappy with how Streamberry has treated her.

However, before Joan Tait can destroy the Quamputer, she discovers she is also not real and is yet another fictional character whose existence and consciousness are generated by the Quamputer. Supposedly, Joan Tait, who up until that moment had been played by Annie Murphy, is eventually just a "first fictive level" character (49:51–49:54). As such, her deepfake "reality" is generated to be sold to the "Source Joan" (Kayla Lorette) existing somewhere in the real world. The ultimate goal of the Streamberry platform, managed by CEO Mona Javadi, is to create perfectly individualized shows for each viewer. In this sense, the Joan is Awful show is only a pilot project that will be followed by an infinite amount of individualized content dramatizing users' flaws.

All of this is enabled by data surveillance through devices, like smartphones and the Quamputer, that can create intricate deepfake universes with protagonists holding com-

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97) Van Leeuwen, *Discourse and Practice*, 141.
98) Johannes Fibiger, "Joan is awesome: Black Mirror set gennem et rystet spejl," *16:9 Filmtidsskrift*, November 7, 2023, accessed September 8, 2024, https://www.16-9.dk/2023/11/joan-is-awesome/.

plex identities and consciousnesses (see Table 1 for the AI agency representations). When the Source Joan physically destroys the Quamputer, she finally reacquires her agency and autonomy. She leaves the alienated corporate labor framework to open her own small business, specifically a café, where she can make decisions.

AGENCY	AGENT	Affecting	Themselves		X
			Others	Human	*mediating communication, recommending content, ordering social network content, using people's data, generating content (deepfakes), creating whole fictional realities*
				Non-human	X
		Unaffecting	Acting		*surveilling, collecting data, analyzing data, creating audiovisual products*
			Behaving		*being in space, shining*
	PATIENT				*being held, being described, being controlled, being protected, being damaged*
EXCLUDED					*providing infrastructure, processing data for content generation, generating deepfakes, generating/creating whole fictional realities, creating value for the corporation*

Tab. 1: Summary of AI's social agency in the analyzed episode[99]

5.1 Social Commentary

The first analyzed frame (11:20–11:36) depicts Joan Tait and Krish in their house, sitting in the center of the scene on a couch immediately following dinner. Everything in the house appears perfect, like in a furniture store (later the plot reveals that these are all just deepfake images). Joan sits on a couch, and when Krish enters the scene, she changes her face suddenly from a concerned and resigned expression to one of pretend satisfaction. Still on the table are plates with the rest of the meal prepared by Krish. Joan's complaints about Krish and his bland cooking (18:33–18:37) are foreshadowed by an almost un-touched meal on her plate compared to Krish's empty plate. The couple discusses what to watch on television. Krish does not care, so Joan suggests, "Let's see what's on Streamber-ry" (11:28–11:30).

There is no background music, just the voices of the speaking characters. The camera shot is up close, deepening the viewer's sense of proximity to the character (see Figure 1).[100] The camera eye's angle represents an equal relationship with the viewer. Lightning is very moderate, based on decorative sources, underlining the intimacy of the moment. Calm colors in dark tones represent nighttime.

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99) Bezerra, "Multimodal critical discourse analysis," 14 (edited).
100)   Van Leeuwen, *Discourse and Practice*, 141.

Fig. 1: Frame of Joan and Krish turning on the Streamberry platform (time 11:28). *Joan is Awful* (Ally Pankiw, 2023), source: Netflix Inc.

Focusing on AI agents, I recognize two representations embodied by the red smartphone lying on the couch between the protagonists and the smart television remote control in Joan's hand. The AI agents differ in how they interact with the human agents (see Table 1). Firstly, an "unaffecting" agent materialized by Joan's phone constantly collects and processes data, enabling surveillance of her and later depiction of all her life details in the television show. The second agent is represented by an AI-driven assistant recommending movies on the streaming platform Streamberry (on the television) when characters do not know what to watch. Unlike the first agent, it is "affecting agent", influencing the characters' choices within the scene.

With regard to the labor representation of the AI agents, the episode depicts them as silent, almost invisible workers that constantly interact against the backdrop of our routine activities, exploiting human interactions for value creation via data. At a glance, the agency-less AI laborers are patients being held (phone) and controlled (controller) by human agents. However, the machinic agency emerges directly in interactions with human users, creating profit for Streamberry. Assuming the importance of what is absent in the imaginary, [101] the episode does not depict any superpower robot bringing immediate destruction from a faraway place (a classic prospective sci-fi trope). Instead, it highlights how, nowadays, AI agents permeate the everyday intimate lives of people.

This is the base of the broader social commentary provided by the episode. It demonstrates how today AI has established itself as people's everyday-life infrastructure (AI-driven software in our devices) or assisting agents (chatbots, copilots, or assistants), powering a larger system of digital capitalism. [102] As the episode shows, large tech corporations, with their enormous power, might easily abuse the data. In this case, the corporation that

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101) Bezerra, "Multimodal critical discourse analysis," 12.
102) Daum, "Artificial Intelligence as the Latest Machine;" Dean, "Communicative Capitalism;" Sadowski, "Too Smart;" Dan Schiller, *Digital Capitalism: Networking the Global Market System* (Cambridge: The MIT Press, 1999).

draws on the data of the infrastructural AI agents, Streamberry, is explicitly named. The AI agents follow the ordinary interactions of human agents, learn from them and, later, create significant value, thus affecting the future behavior of human agents. The frame depicts mutual interdependence and relationships between actors, which goes against both the anthropocentric notion of labor[103] and the sociotechnical blindness criticized by critical scholars.[104]

5.2 Vision of the Future

The second frame (48:49–49:08) captures the situation when Joan Tait (Annie Murphy), assisted by Salma Hayek, physically breaks into the Quamputer area with a big screens equipped interface operated by a nameless IT man (who is stereotypically represented as belonging to a specific social group, the IT profession). After Joan's question about why she sees herself on the big screens (Annie Murphy) and not TV Joan (Salma Hayek), the IT man responds, "That's the variant of Joan Is Awful that the Joan below you sees" (48:56–49:00). He explains that everything around them, including themselves, is just one layer of a fictional multiverse generated by the Quamputer using AI deepfake software.

In the background, noises denote the computing sound of AI-driven machines around them. As the IT operator continues to explain, an electronic sound, reminiscent of a bell ring, appears. It evokes *Black Mirror*'s signature narrative tactic, the so-called "traumatic twist" (a narrative bait-and-switch)[105] together with Joan's final understanding of the situation. The camera work in this situation is specific (see Figure 2), depicting the whole scene from behind the glass that protects the Quamputer from the surroundings. Simulta-

Fig. 2: Frame of Joan, Salma Hayek and IT man in the Streamberry building (time 48:56). *Joan is Awful* (Ally Pankiw, 2023), source: Netflix Inc.

103) Markelj and Bueno, "Machinic agency and datafication."
104) Johnson and Verdicchio, "Reframing AI Discourse," 587.
105) Conley and Burroughs, "*Black Mirror*, mediated affect and the political," 139.

neously, the shining computer's reflection in the glass suggests that the entire scene is generated by it. The shot is taken longer, conveying a sense of separation from the characters, who viewers are just now discovering are fictional.[106] The camera angle is also a bit oblique and high, indicating from the perspective of the Quamputer's reflection distance and a certain power over the characters. The lighting is again very subtle, the mostly grey colors of the environment emphasizing the yellow glow of the Quamputer. This glow follows Hayek's clothing as its deepfake fictional output.

Focusing on the agents represented, I recognize the key shift for the AI agents (see Table 1). When Joan and Hayek break into the Quamputer's area, they face the AI agent who is physically there. By default, it is just an unaffecting agent in space, depicted as a shining machine sheltered behind glass. But simultaneously, it is an affecting agent that uses the data of the main characters and generates deepfake content (the *Joan is Awful* series), which has been fundamentally affecting their lives. However, in conversation with the IT operator, both characters discover that the AI agent does much more than that. It generates whole fictional universes, including their own experienced realities. The human agents are completely dependent on the technology.

Understanding this twist retrospectively reveals another of the AI's agencies (see Table 1): an excluded, visually undepicted but always present super-productive agent, processing and utilizing the data collected by infrastructural AI agents to generate perfectly individualized deepfake series content, and generating profit for the Streamberry. Mona Javadi, the company's CEO, presents this vision in one of the earlier scenes. She says that the goal is to "…launch unique, tailored content to each individual in our database, all 800 million of them, created on the fly by our system. The most relatable content imaginable" (47:07–47:15). The Streamberry audience is no longer just a group of users; based on surveillance of their data, they have also become a source of generative AI deepfakes.

The Quamputer is depicted as an "infinite content creator capable of willing entire multiverses into existence" (46:23–46:30). AI labor here is depicted as an automated generative process that cannot currently be fully grasped but should be supported by further investments and development. In one of the following scenes, Joan is about to destroy the computer, and Javadi tries to stop her by explaining that their (fictional) reality will instantly stop existing. "We barely know how it works, it's basically magic,"[107] she says (51:56–51:59). In the episode's dystopian imaginary future, the AI agent does not have to be fully understood; its potential should be used to increase productivity and profits regardless.

The identity of the nameless IT operator, another human agent, supports this discourse. Joan catches him eating an Asian noodle box when entering the room (48:31). The man, sitting with legs crossed and a mess on his desk, spills noodles everywhere from shock. Instead of appearing as a sophisticated, sceptical tech engineer or visionary (as is the case of Javadi, who resembles a female version of Steve Jobs), he looks more like an innocent nerd who does his work solely for the sake of the company. He has a user interface (represented mainly through the big screens) through which he interacts with the Quam-

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106)   Van Leeuwen, *Discourse and Practice*, 141.
107)   "It" in the quote stands for the Quamputer and the way it works.

puter. Here, the AI is again a patient agent, being controlled, described, and protected by the IT man, a human agent.

The dystopian vision of AI labor is not future-oriented. Instead, it is terrifying in its temporally close instrumentality and moral emptiness. On the example of a video streaming platform, the episode projects how much the emerging network of AI laborers can potentially exploit people's data or work and subsequently abuse them for profit. The vision reacts to ongoing debates about the harmful potential of generative AI and deepfakes on creative rights and the recycling of existing audiovisual libraries.[108] "They have taken 100 years of cinema and diminished it to an app," Hayek glosses in another frame (42:20–42:26). The dystopian overview shows how AI laborers might also exploit the past labor of human agents (Hollywood workers), reusing existing data, such as films, as past labor outputs.

Consequently, AI agents can replace not only regular workers but also have the potential to bypass the whole industry, as is the fear expressed by the massive Hollywood protests.[109] The dystopian imaginary of AI labor is completed by incorporating personal people's data into finished products (series content), generating overwhelming capitalist marketization[110] and creating "unique, tailored content," regardless of manipulating and harming the audience. AI agents are a super-productive workforce that helps tech corporations generate amazing outputs and even greater profits.

5.3 Means

The third frame (28:22–28:45) shows Joan Tait visiting a lawyer to discuss how best to prevent Streamberry from misusing her identity and data. In their conversation, it emerges that Joan is unable to do anything on a practical level about the situation because, from a legal perspective, everything is clear. She agreed to the terms and conditions that allow such abuse and monetization of her confidential data when she signed up to the Streamberry platform. In this particular frame, Joan cannot understand how the platform gathered all the data. The lawyer explains to her AI-driven data surveillance by example, saying, "Well, you know when you got your phone face down on the table, and you're in your kitchen, and you're talking to your friend about, I don't know, shoe deodorizers, and then, you know, you go on your computer and what pops up? A shoe deodorizing ad… you can't escape it" (28:21–28:35).

The urgency and importance of the protagonists' discussion is emphasized by the absence of background music. Their conversation is the focus. With an anxious facial expression, Joan's nervous gestures gradually speed up, in sharp contrast to the smiling lawyer's

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108)   Chidera Okolie, "Artificial Intelligence-Altered Videos (Deepfakes), Image-Based Sexual Abuse, and Data Privacy Concerns," *Journal of International Women's Studies* 25, no. 2 (2023); Felipe Romero Moreno, "Generative AI and deepfakes: a human rights approach to tackling harmful content," *International Review of Law, Computers & Technology*, March 29, 2024, accessed September 8, 2024, 1–30, https://www.tandfonline.com/doi/full/10.1080/13600869.2024.2324540; Katherine Fusco, "Girls Who Can't Say No: Celebrity Resurrections and the Consent of the Dead," in *Incomplete: The Feminist Possibilities of the Unfinished Film*, eds. Alix Beeston and Stefan Solomon (Berkeley: University of California Press, 2023), 300–321.

109)   Cerullo, "Screenwriters want to stop AI;" Chmielewski and Richwine, "'Plagiarism machines.'"

110)   Daum, "Artificial Intelligence as the Latest Machine."

Fig. 3: Frame of Joan and her lawyer in a law office (time 28:33). *Joan is Awful* (Ally Pankiw, 2023), source: Netflix Inc.

formal and composed gestures. This scene evokes in the viewer the frenetic, powerless situation of Joan, who is unable to deal with the formal legal structure in any way. The camera alternates between side (see Figure 3) and close frontal shots. These underline the dramatic nature of the situation. The eye angle, with occasional shots of Joan from above, provides viewers with an equal and empathetic relation to the main character, who becomes helpless during the scene. Once again, the frame is based on intimate lighting, evoking a moment of privacy. The mise-en-scène is full of calm colors that give the lawyer's office a formal (rather dark and cool shades of gray, brown etc.) and welcoming atmosphere. This is supported by objects such as a plate of biscuits placed on the table between the characters, and comfortable-looking chairs.

Both affecting and unaffecting AI agents (see Table 1) are present. Firstly, there is an underlying infrastructure behind private-use devices such as smartphones. In this case, the AI demonstrates the unaffecting ways of acting of other agents, for example, data surveillance, collection, and analysis. However, the frame shows how they transform into affecting agents when the AI-based deepfake-generating machine is filled with processed data. The Quamputer is depicted only verbally through discussions about its outputs (the deepfake series) and is excluded from visual representation.

The lawyer also explains that interactions between AI and human agents occur inside a legal framework that enables the protection of AI, even at the expense of humans. This protection includes mainly the corporation institution behind AI but also privatized source data sets for AI (recycled audiovisual libraries and users' private data). The imaginaries' means to advance this dystopian future thus lie practically in bulletproof legal documents (as demonstrated by the example of Streamberry's terms and conditions) and a broader environment (the role of the state, or more precisely, government), which does not uphold moral values in the first place. As discussed in the critical field,[111] this is all

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111) E.g. Jörg Nowak, "Data labour as alienated or liberated labour? Proposals for radical economic change from the Silicon Valley in the light of technological reification," *Global Political Economy* 1, no. 2 (2022),

made possible by alienated corporate structures (such as the Streamberry), where ordinary workers (such as the IT operator), lose their practical agency.

5.4 Discussion

IMAGINARY	Social commentary	The omnipresence of AI agents in people's everyday interactions. Resulting in the AI infrastructure enabling data surveillance. Tech corporations holding power behind the AI agents.
	Vision of the future	AI agents enable the transformation of users into content via data. AI as a super-productive labor force drawing on AI networks, and generating profits. Most television and movie industry workers rendered obsolete.
	Means	Alienated corporate structure in the labor area. The social environment of legality without morality. Prioritizing tech-industry investments and further development.

Tab. 2: Summary of AI's imaginary in *Joan is Awful*

The MCDA analysis proved to be a suitable methodology for the given research goals. Using the VSAN framework, I explored visual representations of labor-related interactions between AI and human agents (see Table 1). The representations suggest that humans, even when they might be seemingly controlling (patient) AI tools in everyday use, and are surrounded by them in a passive way (unaffecting), are significantly dependent and influenced (affecting, excluded but affecting) by AI in-return. Human agents have become inseparable from AI in everyday activities (communicating with other people, managing media content, remediating reality), including labor environment.

These human interactions are not "just" recorded and analyzed but also co-shaped by the technologies. As the depicted AI laboring Quamputer suggests, the dystopia may grow out of an expanding infrastructural AI network, with the onset of technology being able to process (human agents') data flow, misuse it, and, potentially, make whole industries obsolete. These agents' interrelated representations show mutual interactions and correspond to the concept of machinic agency.[112] They describe value creation enabled via or with technologies, highlighting the interdependence and importance of AI for the future of labor, while neglecting anthropocentrism, as criticized by authors like Markelj and Bueno.[113] The Qamputer running AI deepfake super-software belongs to the most frequent representation of general AI.[114] Unlike traditional sci-fi tropes such as robots, it lacks human-like agency.[115] Instead, it maximizes the machinic agency, depicting human and non-human interdependence.

293–307; Tokos Lauren, "Media Conglomeration, Automation, and Alienation: A Marxist Critique," *Oregon Undergraduate Research Journal* 21, no. 2 (2023); Mike Healy, *Marx and Digital Machines: Alienation, Technology, Capitalism* (London: University of Westminster Press, 2020); Phoebe V. Moore, "Designing Work for Agility and Affect's Measure," in *Marx and the Robots Networked Production, AI and Human Labour*, eds. Florian Butollo and Sabine Nuss (London: Pluto Press, 2022).

112)   Markelj and Bueno, "Machinic agency and datafication."
113)   Ibid., 15.
114)   Noessel, "Untold AI."
115)   Hermann, "Artificial intelligence in fiction."

The Qamputer basically embodies the fears of the Hollywood protestors,[116] that of making their whole industry obsolete. Here, the culturally interesting sector refers to a wider AI dystopia where all workers could be replaced by tech. The example thus illustrates the media debate surrounding the future of labor.[117] AI is "just" a new tool to increase productivity and profits regardless of moral issues, and corporate institutions are protected by bulletproof terms and conditions (maybe corrupt governments preserve this legal state in favor of private interests).

These "business as usual" features, summarized by Bueno,[118] are taken to dystopian ends. Consequently, the imaginary is dystopian but is based on temporal proximity. As a result, the prospective tradition of sci-fi gives way to criticism of current socioeconomic changes that have been characteristic of television series,[119] particularly *Black Mirror*. This confirms Baudrillard's[120] hypothesis supported by recent studies[121] that with the increasing implementation of AI in everyday life, sci-fi tropes transform and become more elaborate and reachable.

In line with the described character of the sci-fi television series,[122] the *Joan is Awful* episode presents dramatized criticism reflecting on discussions about digital capitalism (see Table 2). The AI serves as a trope, the novum, enabling this critique by transforming current reality. The main imaginary of the interconnected network of AI agents boosts the ability to transform human agents via their data into profit-creating commodities for their own consumption (deepfake generated show). The example of the audiovisual industry, with all its privacy rights issues and acquisitions of audiovisual libraries,[123] represents a symptom of the broader big tech hegemony criticism, leaving societies vulnerable to powerful private actors.[124]

This is where the crucial aspect of visual exclusion comes in. In keeping with the mystery of the story, the human protagonists slowly reveal these aspects of AI labor in the story. The peak, the so-called traumatic twist,[125] arrives for an audience who understands that the show itself is an AI supercomputer-generated deepfake. This point underlines and dramatizes the dependence of the human protagonist on AI as absolute, making even their existence AI-generated. Everything can be marketized, privatized and monetized, even intimate details.[126]

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116) Cerullo, "Screenwriters want to stop AI;" Chmielewski and Richwine, "'Plagiarism machines';" Maglio, "42% of Film and TV Production Workers."

117) Efferenn, "Shifting AI Controversies;" "Pause Giant AI Experiments;" Verma and Vynck, "ChatGPT took their jobs."

118) Bueno, "Beyond Automation."

119) Simuț, "Contemporary Representations of Artificial Intelligence," 6.

120) Baudrillard, "Simulacra and Science Fiction," 309.

121) Noessel, "Untold AI;" Simuț, "Contemporary Representations of Artificial Intelligence," 5–6.

122) Hermann, "Artificial intelligence in fiction," 321.

123) Fusco, "Girls Who Can't Say No;" Okolie, "Artificial Intelligence-Altered Videos (Deepfakes), Image-Based Sexual Abuse, and Data Privacy Concerns;" Romero Moreno, "Generative AI and deepfakes."

124) Daum, "Artificial Intelligence as the Latest Machine;" Dean, "Communicative Capitalism;" Sadowski, "Too Smart."

125) Conley and Burroughs, "*Black Mirror*, mediated affect and the political," 139.

126) Daum, "Artificial Intelligence as the Latest Machine."

However, this criticism is not sociotechnically blind.[127] It is not a techno-determined imaginary of the kind "AI will replace them all." As Julian Posada[128] encourages, the episode makes the technologists behind the AI agents (the Streamberry company) visible in an entertaining way. The episode concludes that there will always be particular companies and their interests that are able to disrupt the labor market. It also distinguishes between ordinary workers (the IT operator, and partially Joan) and executive directors (Javadi) of profit-driven corporations, the power holders behind AI agents. The satirical character of the show highlights this distinction. As Hayek labels Javadi: "This is the bad guy" (42:09–42:10). It makes the "ordinary" workers powerless and naive (the IT man), hypocritical (Joan), or both of these (Hayek), while the managers (Javadi) are evil pragmatists.

Thus, the broader imaginary's commentary could sound like this: are not all the agents just "victims" of the big-tech capitalist profit-hunt, embodied in the interests of the company's shareholders? As criticized in literature,[129] the current tech-corporate-dominated form of capitalism, ordinary workers (IT operator) struggle and lack real agency and autonomy over their decisions, just as middle managers (Joan) execute the decisions of the boards of companies, which are directed by the interests of a few owners. AI agents are not blamed despite the obvious use of surveillance technology. Joan only becomes the "main character of her own story" once she starts her own authentic small business in contrast to the alienated tech-corporate environment. However, the problem is not the AI agent itself (Joan, after all, physically destroys it) but more how Streamberry programmed the agent and the system that enables it.

The satiric corporate self-criticism that goes against the Netflix platform (Streamberry), where the anthology is streamed, makes perfect sense in the concurrency of digital platforms as a proven marketing strategy.[130] The pursuit of distinct content also motivates almost real-time reflection on contemporary attitudes towards AI labor that have been accelerated due to developments in audiovisual technique,[131] thus making commentary almost instantaneous. These tendencies add to the hyped critical discourse on AI, which has recently been dominated by private actors in logic: bad advertising is also advertising.[132]

Joan is Awful nevertheless provides a valuable AI labor imaginary in an entertaining form. It reveals existing interactions between human and non-human actors. Also, it points to an increasing mutual dependence, which might be exploited by hegemonic private actors using AI agents. With an example from Hollywood, the episode paints a powerful dystopian future of unregulated and profit-driven digital capitalism based on laboring AI infrastructure. It generates huge profits for tech corporations that prioritize alienation and legality over morality and privacy.

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127) Johnson and Verdicchio, "Reframing AI Discourse," 587.
128) Posada, "The Future of Work Is Here."
129) E.g. Healy, *Marx and Digital Machines*; Moore, "Designing Work;" Nowak, "Data Labour as alienated or liberated labour?;" Tokos, "Media Conglomeration."
130) Gulas and Weinberger, *Humor in advertising*, 28.
131) Matthau, "How Tech Has Shaped Film Making."
132) Efferenn, "Shifting AI Controversies."

Conclusion

Lately, the media has been flooded with techno-deterministic visions of how AI might deprive people of their jobs. Such a sociotechnical blindness,[133] neglecting the human actors behind the technology was inherent, especially in entertainment media formats like science fiction television.[134] This is a fundamental problem since shared imaginaries might inspire and influence the practical development of new technologies.[135] Still, scholars have overlooked cultural representations of AI labor. This case study reacts to that, focusing on the dystopian AI labor imaginary in the influential *Black Mirror* series, the *Joan is Awful* episode. The research based on MCDA methods enriches existing research by providing an example of a sociotechnically aware depiction of AI despite the entertaining format.

The proposed AI labor imaginary highlights that the technology is not the problem; instead, the possibly "awful" human creators and tech companies might make human labor obsolete and harm individuals. Inspired by Hollywood workers' fears that partially incited massive protests in 2023,[136] the episode reflects broader issues. It outlines the increasing mutual dependence of AI and human agents in the labor sphere based on digital data-driven network emphasized in literature.[137] This people's everyday-life infrastructure, permeated by private AI labor agents, poses potential harm not only to audiovisual workers but to society as a whole. A possible dystopia grows out of the roots of profit-driven digital capitalism hegemonized by powerful tech corporations without proper public control.

The results of this case study are not generalizable. Instead, the analysis demonstrate the importance of imaginaries in an understudied cultural sphere.[138] Sci-fi represents a background of ideas and expectations that affect how people understand and judge AI.[139] Unlike prevailing literature, this paper underlines the specifics of the sci-fi genre and television medium. Sci-fi television is, by default, drama, where the technology embodies a vehicle for reflections on social issues.[140] Results propose another example[141] for Baudrillard's hypothesis[142] that contemporary sci-fi becomes more reflexive toward current problems compared to the future-oriented traditional sci-fi, reflecting on the implementation of AI in real life.

Finally, the analysis also proposes the needed[143] systematic conceptualization and operationalization of sociotechnical imaginaries for critical multimodal discourse research.

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133) Johnson and Verdicchio, "Reframing AI Discourse," 587.
134) Hermann, "Artificial intelligence in fiction," 321.
135) Cave and Dihal, "Hopes and Fears for intelligent machines;" Nader et al., "Public understanding of artificial intelligence;" Pollard, "Popular Culture's AI Fantasies."
136) Cerullo, "Screenwriters want to stop AI;" Chmielewski and Richwine, "'Plagiarism Machines.'"
137) Dean, "Communicative Capitalism;" Markelj and Bueno, "Machinic agency and datafication;" Pace, "The Concept of Digital Capitalism;" Sadowski, "Too Smart."
138) Richter, Katzenbach, and Schäfer, "Imaginaries of artificial intelligence," 13.
139) Cave and Dihal, "Hopes and Fears."
140) Hermann, "Artificial intelligence in fiction," 321.
141) For others see Noessel, "Untold AI" or Simuţ, "Contemporary Representations of Artificial Intelligence."
142) Baudrillard, "Simulacra and Science Fiction," 309.
143) Rudek, "Capturing the invisible."

Specifically, Theo Van Leeuwen's VSAN analytical framework exhibited a suitable structure to shed light on the mutual interactions of different actors. Future research might extend the range of cases examined. Also, focusing on interconnections within different arenas where imaginaries occur (like news, culture, and politics) might be beneficial.

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Star Trek: The Next Generation (various directors, 1987–1994)
The Leftovers (various directors, 2014–2017).
Westworld (various directors, 2016–2022).

Biography

Tibor Vocásek is a PhD candidate at the Institute of Sociology, Charles University, Prague, and a research collaborator at the Linguistics Research Centre of NOVA University, Lisbon. He investigates language in social practice, focusing on the discourse of digital technologies in contemporary societies. His project, "Future According to Whom? Corpus-assisted Critical Analysis of the Imaginaries of Digital Economy in Czech Media" is funded by GAUK. He has also organized artistic and educational events for several organizations.