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The dystopian imaginaries of ChatGPT: A designed cycle of fear

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Abstract

The advent of OpenAI's ChatGPT in 2022 catalyzed a wave of excitement and apprehension, but especially fear. This article examines the dystopian narratives that emerged after ChatGPT's release date. Through a critical analysis of media responses, we uncover how dystopian imaginaries discussing ChatGPT become rhetorically constructed in popular, journalistic discourse. The article locates prevalent anxieties surrounding ChatGPT's unprecedented text-generation capabilities, and identifies recurrent fears regarding academic integrity, the proliferation of misinformation, ethical dilemmas in human-AI interaction, and the perpetuation of social biases. Moreover, the article introduces the concept of 'fear cycles' – recurring patterns of dystopian projections in response to emerging technologies. By documenting and dissecting these fear cycles, we offer insights into the underlying rhetorical features that drive societal reactions to technological advancements. The research ultimately contributes to a nuanced understanding of how ChatGPT dystopian imaginaries develop particular futures, while grounding the present in predictable anxieties related to technological innovation.

Keywords

Dystopia, ChatGPT, artificial intelligence, news media, rhetoric, journalism, chatbot

Introduction

A crucial turning point in the evolution of AI was the release of ChatGPT on November 30, 2022. OpenAI's release of this early demo quickly went viral across social media and generative AI

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became instantly accessible to the average Internet user. Within five days, the chatbot attracted over one million users (Marr, 2023). The hype surrounding ChatGPT was matched by a collection of shocked media outlets projecting some of the panic that was felt across the globe from universities and economists to business leaders and labor unions. We heard that AI could lead to a 'significant disruption' of the labor market and the potential automation of up to 300 million jobs (Hatzius et al., 2023); the possibility of ChatGPT mimicking 'human-like cognition' (Browne, 2023); and the rising fear that students could use it to generate convincing essays whose plagiarism would be undetectable with current software (Clarence-Smith, 2023).

Much of the media's response, at least in English-speaking, US centric geographies, depicted a dystopian world, reinforcing these fears in their ChatGPT coverage. Dystopian visions often conflict with the more typical Silicon Valley imaginaries, advocated aggressively by Big Tech companies that promote techno-solutionism, self-regulation, and neoliberalism (Lucia et al., 2023; Marwick, 2015). While such imaginaries portray techno-solutionism as the answer to socio-economic struggles, they effectively mask Big Tech's market power and influence, and the unequal neoliberal capitalism sustained by Silicon Valley (Ferrari, 2020; Popiel, 2018). Web journalism arguably helps sustain technocratic forms of neoliberal power (Andrejevic, 2008), avoids holding AI manufacturers responsible for risks associated with their technologies (Loos and Radicke, 2024), and has grown ideologically closer to Big Tech thanks to the use of digital platforms (Nadler, 2019). But what created the counter-narrative that centered ChatGPT in this dystopian frame?

It is this contradiction between journalistic responses and Big Tech's imaginary that our paper addresses. We recognize the constant attempt to place ChatGPT into this utopian/dystopian dialectic, and how strict adherence to these extremes often obscures the very real and immediate problems associated with AI (Leaver and Sardarov, 2023). However, we also recognize these dark articulations of ChatGPT as visions influencing and co-constructing our relation to emerging technologies, often constructing common themes of technological disruption. By reviewing how futures get created, we can understand the dynamics in emerging technologies and locate the contrasting visions within these discursive communities (Dourish and Bell, 2011; Liao, 2019). Because imaginaries are largely established through communication, they can be empirically observed (Haupt, 2021) and understood as part of the larger discursive struggles related to the production of technology (Bazerman, 1998).

It is this process of negotiating a language for our emerging technologies that directly affects how we process and conceptualize our relationship with technology (Pedersen, 2013). This article seeks to extend this process by interrogating U.S.-based journalists' dystopian representation of AI at the dawn of ChatGPT. We examine certain fears that are often grounded in ChatGPT's unknown, yet surprisingly powerful, capabilities and the ethical implications of that power. Our analysis ultimately finds that anxieties about ChatGPT's ability to generate human-like text challenge normative conceptions of authorship and lead to worries concerning academic integrity and the devaluation of writing skills. Broader societal fears include the unchecked spread of misinformation, ethical dilemmas in human-AI interaction, and the proliferation of social biases and discrimination.

By mapping the most common anxieties that make up ChatGPT's dystopian imaginary, our findings contribute to efforts to document unique fears associated with generative AI, especially as they are represented in US-centered journalistic media. However, we also argue that analyzing current dystopian imaginaries around ChatGPT highlights a deeper understanding of what we term *fear cycles* – recurring responses to emergent technologies characterized by negative predictions, emotions, and narratives. Such fear cycles are not unique to AI but are part of a broader pattern in the discursive reaction to new technologies. Recognizing these cycles can help us better understand the underlying mechanisms driving societal responses to technological advancements. We therefore

propose the following research questions: How does the concept of 'fear cycles' manifest in journalistic discourse surrounding ChatGPT, and what are the recurring patterns of dystopian projections observed in response to this emerging technology?

AI Representation in the news

One of the most significant studies on AI representation in the media was conducted by Brennen et al. (2018), who investigated 760 articles regarding AI in the United Kingdom using a mixed-method analysis. After analyzing eight months of mainstream news, Brennen noticed journalists would often portray AI as a relevant and competent solution to a range of public problems, while providing little acknowledgment of ongoing debates concerning AI's potential effects (Brennen et al., 2018). When articles profiled a new AI startup or a business deal, journalists amplified AI's value and potential (Brennen et al., 2018). The study also argued that while right-leaning media outlets highlighted AI issues concerning economics and geopolitics, and left leaning outlets focused on AI and ethics, discrimination, privacy and algorithmic bias, overall, they found less sensationalized content than expected (Brennen et al., 2018).

However, as AI has become more popular, we have seen the pressure on journalists, scientists and their institutions increase and lead to a mutually beneficial relationship between sensationalism, misrepresentation and subjectivity, prioritizing newsworthiness over integrity (Dempster et al., 2022). The past three years have been exceptional given the explosion of AI into the public consciousness. Before ChatGPT's release, scholars noted that AI representation was relatively fair, yet shallow (Ouchchy et al., 2020), or had even grown more critical in the past decade. Recently, however, Roe and Perkins (2023) conducted an analysis of the discursive representation of AI and ChatGPT in UK news media headlines from January to May 2023, examining 671 headlines using inductive thematic analysis. They found that media representations are often sensationalized and tend to focus on warnings and caution for readers, noting that 'Impending Danger' was the most prevalent category, with 248 headlines, representing 37% of the total collected (Roe and Perkins, 2023). Dandurand et al. (2023), additionally, described what they've seen in Canadian journalism as a 'freezing out of AI's controversiality', whereby the relationships between legacy media, journalists and cited experts create a cold situation surrounding AI which emphasizes only the benefits of this new technology. Such sensationalized or reductive approaches can have negative effects on society and lead to mistrust in AI, establishing a barrier between AI and individual users. It is this mistrust in emerging technologies, such as ChatGPT, that can also lead to ineffective use of AI tools by their adopters (Roe and Perkins, 2023).

Scholars have argued for more nuanced reporting in AI journalism, recognizing that the risks associated with AI seem to be mentioned more frequently within certain frames than others, and that critical literacy in AI reporting requires recognizing various stakeholders and conflicts in each context (Nguyen and Hekman, 2022). AI representation therefore requires a critical examination of issues such as datafication and automation, whereby journalists go beyond sensationalizing and locate the concrete relationships between stakeholders' interests. Such a critical response would be a brave departure from how Big Tech has been allowed to operate thus far in the media. It has long been construed that Big Tech's power is generally presented in the media as a neutral, or even natural component of our digital ecology (Gillespie, 2010). Their communications exist within the elite and public discourses that create the boundaries that both government and corporate actors operate within. This framework allows for a market-centric rationality that depoliticizes the tech industry as a public concern (Browne, 2023). As the monetizing factors shift in journalism, it is imperative to

locate how this sensationalizing or flattening of Big Tech's influence functions within our public discourse, and how it circulates and reinforces its influence for the sake of corporate power.

Dystopia and future imaginaries

Dystopian narratives reinforce a near hopelessness in future projections while still being grounded in present day fact (Potter, 2012). These narratives have been examined within fiction and nonfiction text (Cave and Dihal, 2019), and their emotive responses have been surveyed as well (Sartori and Bocca, 2023; Wang et al., 2023). We define dystopian in the context of AI as threatening, or broadly problematic (Marčetić and Nolin, 2023), while following boyd and Crawford's (2012) depiction of dystopia imaginaries regarding big data and its effects on privacy invasion and decreased civic freedoms. Much like the rise of big data led to the increase of both dystopian and utopian rhetoric (boyd and Crawford, 2012), so too has AI. Dystopias arguably have a dialectic relationship with utopian imaginaries, whereby utopian visions require a critique of the dystopian, and dystopian visions necessitates conceptions of a utopian society (Polizzi, 2023; Shor, 2010). Therefore, how we define 'dystopian' is dynamic and shifting depending on the rhetorical context.

While we recognize the flexible nature of dystopian rhetorics, our assessment of what might be labeled 'dystopian' in journalistic discourse focused on AI follows Stanley Cohen's description of a moral panic, whereby fear is not simply a reaction to an objective threat, but a socially constructed phenomena developed by media and public discourse (Cohen, 2002). Anxieties, or 'moral panics', mean that the 'thing's extent and significance has been exaggerated (a) in itself (compared with other more reliable, valid and objective sources) and/or (b) compared with other, more serious problems' (Cohen, 2002: vii). These panics usually follow predictable patterns, as we'll see in our analysis, and simplify complex social issues into digestible narratives such as good versus evil.

These fears established in journalistic discourse help to generate a particular dystopian imaginary, sustaining itself through rhetorical circulation. By examining their rhetorical features, we can understand the dynamics in emerging technologies and locate the contrasting visions within these discursive communities (Dourish and Bell, 2011; Liao, 2019). For example, previous communication scholarship has examined the discursive construction of Facebook futures, investigating Zuckerberg's speeches over time and noticing strategies in the company forecasting (Haupt, 2021), certain rhetorical moves in the company's core mission (Hoffmann et al., 2018), or recognizing how Meta's rhetoric situates itself into elite discourse (Lucia et al., 2023). Meta is just one example of how Big Tech strategizes through future imaginaries, making 'bids about what the future might be like…in the context of other expectation bids' (Berkhout, 2006: 450). These strategies naturally shape the innovation process and establish patterns of hype and disappointment surrounding a particular technology (Hockenhull and Cohn, 2021).

Technological futures can shape perspectives and attitudes when applied and repurposed in news articles or other media artifacts (Alkemade and Suurs, 2012; Ruef and Markard, 2010). These media projections potentially affect the innovation process, generate economic interest, build momentum, or establish a dominant narrative for a certain emerging technology (Bazerman, 2002; Konrad, 2006). Naturally, these imaginaries are highly contested as they attempt to gain legitimacy (Haupt, 2021).

Therefore, it is our contention that fears cycles – the recurring, fearful responses to emergent technologies – help develop and maintain pessimistic visions of the future we view as dystopian imaginaries. These future imaginaries are interrogated in the results that follow.

Methodology and analysis

This study was designed to examine dystopian imaginaries that emerged in the wake of the release of ChatGPT via targeted corpus creation and analysis. Corpus analysis allows for the identification of usage patterns across multiple texts (Froehlich, 2015) and has been used previously in studies on technological power, sociotechnical imaginaries, and emergent technologies (Lucia et al., 2023; Haupt, 2021; Hoffmann et al., 2018). To build the corpus, the authors engaged two tools: BootCat, which extracts text and creates simple text documents from URLs, and AntConc, which enables corpus creation and quantitative and qualitative analytical functions. To compile the corpus, we specified a five-month timetable immediately following OpenAI's release of ChatGPT, collecting data from an initial start date of November 30, 2022, through the following five months, until April 30, 2023. To avoid search results that might be algorithmically influenced, we used the search engine DuckDuckGO. In the DuckDuckGo browser, we used several negative search terms combined with 'ChatGPT' to identify media artifacts representative of dystopian imaginaries. These included the words and/or phrases, 'announcement', 'negative', 'negative responses', 'negative impacts', 'doomsday', 'apocalyptic', 'bad', 'the end', 'scary', 'very scary', 'horrible', and 'exaggerated', combined with Boolean operators. We selected these search terms deliberately to focus on negative portrayals of ChatGPT in English language, U.S.-based journalism. In selecting web pages and articles to include in the corpus, we chose op-eds, editorials, feature articles, and reaction pieces from a variety of venues. For examples of the types of artifacts chosen, see Table 1. Furthermore, to include paywalled web documents, we performed manual extraction of text rather than relying on BootCat. Our final corpus, which we completed in May 2023, consisted of 115 artifacts (Appendix A) representing various news articles traversing different sectors and contexts (from education, to technology, to business). While these artifacts traverse a diversity of sectors, they are linguistically focused on English outlets whose audiences are primarily in the U.S. Some common venues represented in the corpus included *Slate*, *Fox News*, *Wired*, *Fortune*, *Ars Technica*, and *Chronicle of Higher Education.* With the bibliography complete, we imported the list of URLs into BootCat, which extracts text and builds individual files for each artifact (or web page), and loaded these into AntConc, a 'freeware corpus analysis toolkit for concordancing and text analysis' (Anthony, n.d). The resulting (dystopian) corpus contained 124,578 tokens (or words) and 10,261 unique words.

Table 1. Sample artifact titles and publications in dystopian corpus.

Title	Publication	Date
'ChatGPT's mind-boggling, possibly dystopian impact on the media world'	*Vanity Fair*	26 January 2023
'What are the dangers of AI tools like ChatGPT?'	*Futurity*	14 February 2023
'Yes, ChatGPT is coming for your office job'	*Wired*	9 March 2023
'ChatGPT is the coolest (and most terrifying) new tech of 2022'	*Lifehacker*	9 December 2022
'ChatGPT shows scary implications of AI as insiders fear the robot'	*Forbes*	15 January 2023
'What have humans just unleashed?'	*The Atlantic*	16 March 2023
'Elon Musk, who co-founded firm behind ChatGPT, warns A.I. Is "one of the biggest risks" to civilization'	*CNBC*	15 February 2023

Once we had compiled the corpus, our analytical method followed an inductive process for topic modeling by first identifying the top 100 tokens in the corpus, using the AntConc word list tool, which counts all the words in a corpus and presents them in an ordered list. Out of these 100 most frequent tokens or words, we eliminated conjunctions, prepositions, and other filler words to identify the most salient tokens relevant to our research goal (Table 2) of examining fears and anxieties relevant to ChatGPT.

Table 2. Salient tokens in the top 100 most frequently appearing words.

Order	Type	Rank	Freq	Range	NormFreq	NormRange
1	ChatGPT	10	1287	100	10,330.877	0.87
2	OpenAI	43	361	83	2897.783	0.722
3	Human	48	315	76	2528.536	0.661
4	People	50	306	75	2456.292	0.652
5	Technology	59	254	68	2038.883	0.591
6	Language	65	229	73	1838.206	0.635
7	Chatbot	70	214	75	1717.799	0.652
8	Writing	79	195	57	1565.284	0.496

In completing this previous step, we identified the following five (5) salient tokens: 1) 'Human', 2) 'People', 3) 'Language', 4) 'Technology', and 5) 'Writing', which appear both in the 100 most frequent tokens (out of 10, 261 types and 124,578 total words) and which point towards negative or dystopian reactions to ChatGPT. While words such as 'ChatGPT', 'OpenAI', and 'Chatbot' also represented common tokens, we chose to focus only on those tokens that illustrated some fear or anxiety *surrounding* ChatGPT, according to our research focus. Our approach to the corpus analysis was inductive but based on the frequency of tokens to discover some of the most common fears surrounding ChatGPT. In analyzing the most frequent tokens, we focused on the top three most frequent collocates for each token, those words that most commonly appear alongside the token, which we identified as demonstrating rhetorical emphasis on imagined dystopias (see Appendix B). Finally, we selected quotes that showcase anxiety or fear around AI and ChatGPT specifically, interpreting them within a theoretical framework related to the dystopian imaginaries. Our resulting analysis attends to the discursive power inherent in public reception and reaction to the release of ChatGPT. Specifically, we trace the complex and contested dystopian positions that surface immediately after this historical moment and offer insight into the most effective and common rhetorical choices emerging within journalistic discourse.

Results

Journalistic constructions of fear around AI can affect public perception of these tools as well as influence policy discussions and deliberation related to their development and governance. Exaggerations in journalism, more specifically, may lead to misunderstandings regarding both threats and benefits posed by AI. In the following sections, we focus on how the most common dystopian discourses center on fears related to 1) non-human texts (or the inability to decipher human from non-human texts), 2) bad actors who might use ChatGPT to cause harm and systemic biases in ChatGPT outputs, 3) the rapid and dramatic consequences of technological change, 4) ethical

problems and problematic information resulting from the new generation of large language models, and 5) ChatGPT's threat to writing education. Given that some of these fears are expected and/or common responses to emergent technologies, we also identify recurring fear cycles within the dystopian imaginaries.

Fears related to non-human texts

The 'human' token underscores journalists' invocation of specific fears related to the blurring of human and non-human writing and/or textual artifacts. Table 3 shows the top ten collocates attached to the token 'human'. Most frequent are the terms 'written', 'text', and 'reinforcement'. Reviewing these three collocates highlights the constant comparison between human and non-human texts that journalists manage in their claims about ChatGPT. Both rhetorical moves can help shape a more dystopian view of AI, depending on their framing within the articles.

Table 3. 'Human' collocate data set, top 10 collocates.

Order	Collocate	Rank	Freq (scaled)	FreqLR	FreqL	FreqR	Range	Likelihood	Effect
1	Written	1	980	19	10	9	9	44.783	2.941
2	Text	2	1990	24	10	14	14	37.41	2.256
3	Reinforcement	3	130	8	7	1	7	36.236	4.607
4	Beings	4	100	7	0	7	6	33.501	4.793
5	Writers	5	330	10	1	9	5	31.655	3.585
6	Generated	6	1240	17	4	13	9	30.008	2.441
7	rlhf	7	40	5	1	4	4	29.86	5.63
8	Feedback	8	710	13	1	12	8	29.319	2.859
9	Replace	9	430	10	10	0	8	26.793	3.204
10	Creativity	10	310	8	1	7	8	22.945	3.354

Most artifacts associated with the 'written' collocate contrast the writing performed by ChatGPT with human writing, acknowledging that 'language models like ChatGPT are trained to generate text that is fluent and coherent, but they may not always be able to generate responses that are as nuanced or creative as those written by a human' (CGPT 098). Therefore, the difference between 'a prompt by a human and one written by a large language model is the level of complexity and coherence' (CGPT 098) or noticing that 'prompts written by large language models may include repetitions of unusual combinations of words or phrases' (CGPT 098). Despite these differences, journalists bemoaned the classroom experience for professors who would undoubtedly end up grading writing that ChatGPT rather than their students produced (CGPT 105). At the same time, the second collocate 'text' reveals attempts by journalists to draw connections between AI and human-generated language, using words like 'mimic', 'resembles' or 'indistinguishable'. ChatGPT is 'able to generate text that resembles human language', (CGPT 098), can 'generate text that seemed like a human wrote it' (CGPT 034), or has 'the ability to generate natural language text that is similar to human-written text' (CGPT 024). These similarities raise fears about the future, where '[a]dvocates for the worst-case scenario see a future in which human-generated and computer-generated text are indistinguishable, essay assignments are meaningless, and the very skill of academic writing is lost'

(CGPT 000). Ultimately, the public's apprehension towards AI competing with human skills reflects a nuanced evolution of technological anxieties, highlighting specific concerns about the indistinguishability of AI-generated text from human text. This fear is uniquely tied to AI's capabilities, such as language generation, which blur the boundaries between human and non-human writing.

Fears related to bad actors and systemic biases

At the intersection of the token 'people' and its collocates are fears and concerns related to the manipulation of individuals, massive potential for misinformation, and further perpetuation of social biases that marginalize groups and identities. Table 4 shows the top ten collocates attached to the term 'people': the most frequent tokens being 'who', 'many', and 'groups'. The results reveal a range of social consequences, ethical concerns, and anxieties surrounding the use of ChatGPT, exposing underlying tensions between human agency and AI's growing influence.

Table 4. 'People' collocate data set, top 10 collocates.

Order	Collocate	Rank	Freq (Scaled)	FreqLR	FreqL	FreqR	Range	Likelihood	Effect
1	Who	1	2140	37	1	36	21	81.832	2.818
2	Many	2	1590	20	18	2	15	33.447	2.359
3	Groups	3	140	7	7	0	3	29.234	4.35
4	Are	4	8550	48	13	35	29	25.774	1.195
5	Help	5	1510	17	16	1	11	25.401	2.199
6	How	6	3830	28	15	13	18	24.159	1.576
7	Building	7	250	6	2	4	3	16.725	3.291

The 'people' + 'who' collocate builds certain dystopian imaginaries by conceptualizing a social group or community and how they might use (or be used by) ChatGPT in socially irresponsible, uncritical, or more damaging and manipulative ways. In one artifact (CGPT 083), the writer is surprised by students' optimistic attitudes surrounding the capacities of ChatGPT, and the dangers of how it might be used deceptively or irresponsibly:

> I just did an exercise in class, getting the students to use ChatGPT to create an online dating profile, and was shocked when all the students says [sic] that ChatGPT's description was an accurate representation of themselves! ….That could really help …people who experience communication anxiety or aren't very good at expressing themselves. But for the people who are trying to use those descriptions as signals of what a person is like, our usual process of impression formation breaks down because it wasn't you who came across as very funny, warm, and open – it was a machine doing that for you. We will have a lot of responsibility about how we go about using these tools. (CGPT 083)

In additional artifacts the authors surface anxieties related to ChatGPT users as exploited labor: [ChatGPT is] available for free right now because OpenAI needs data from the real world. The people who are using it right now are their guinea pigs. If you use it… 'You are working for OpenAI

for free' (CGPT 100). In conjunction with this conception of users as free labor, other artifacts noted the ways that people who use programs like ChatGPT will be manipulated and that AI applications are potential conspiracy theory 'breeding ground[s]' (CGPT 091).

In the second most frequent collocate, 'people' + 'many', additional fears related to misinformation, loss of control of the models, and economic displacement characterize the discourse. As one writer acknowledges, 'Many people are worried that A.I. will flood the Internet with misinformation and deep fakes and all manner of convincing bullshit, and I think they're right to worry' (CGPT 090). The models are viewed as functioning beyond the 'intentions of their designers' (CGPT103) and threatening to the average worker. Many people also fear that AI will steal their jobs. According to the Monmouth study, 73% of Americans 'feel that machines with the ability to think for themselves would hurt jobs and the economy' (CGPT 069).

Finally, the collocate 'groups' further illustrates worries attached to ChatGPT as it might impact people, especially as it relates to biases and stereotypes of marginalized peoples and communities. 'Bias', one artifact states, 'can be defined as AI that is systematically unfair to certain groups of people' (CGPT 028). The same artifact continues:

> There's no single cause of bias in AI. Examples of ways it can be introduced include the following: Bias can be caused by groups of people being underrepresented in the training set; it can be caused by historic bias in the training set; Bias can be introduced in data labeling; Bias can be introduced when developers evaluate the effectiveness of a model. (CGPT 028).

An additional artifact attempts to speculate on the ways that misinformation itself is historically contingent, and that even certain outputs of ChatGPT that don't raise alarms in the present could possible do so in the future:

> But it might be just as dangerous for A.I. to perpetuate and amplify commonsense views that nobody in the present would think of as misinformation but that will come to seem atrocious in retrospect. What are some widely held beliefs today that could seem reprehensible to people a hundred years from now?....The ways in which various groups of people are treated differently based on factors such as race, gender, sexual orientation, and economic status may be viewed as unjust. (CGPT 090)

As it relates to 'people', journalism's construction of fear around AI highlights concerns about manipulation, misinformation, and social biases, which can amplify public anxiety and ethical dilemmas. Historically, public fear of new technologies is often rooted in job displacement and loss of control, but AI's unique aspects, such as its potential to perpetuate biases and misinformation, distinguish it from general technological resistance. This fear is not just a general resistance but also includes specific worries about AI's impact on social dynamics and ethical standards.

Fears related to technological change

Some of the most common fears surrounding ChatGPT, like any new technology, are those situated in anxieties related to the unexpected: change itself. Table 5 shows the only two significant collocates associated with the token, 'Technology': 'new' and 'evolves'. Both signal the broader societal implications in a rapidly evolving technological landscape that can generate unintended consequences from job security to geopolitical conflicts.

Table 5. 'Technology' collocate data set, top 3 collocates.

Collocate	POS	Rank	Freq(Scaled)	FreqLR	FreqL	FreqR	Range	Likelihood	Effect
new		1	3350	26	19	7	16	31.427	1.928
This		2	8560	43	38	5	23	26.788	1.301
evolves		3	30	3	0	3	3	17.781	5.616

The collocate, 'new', describes an emerging technology that is not fully secure, tested, or developed for a modern-day workforce; one that highlights fears around uncertainty and risk in emerging technologies especially. Journalists' note that the 'exciting new technology is a surge in scams that promise greater access or new features' (CGPT 107), and the 'new and developing technology can affect the threat landscape, for both good and bad', lowering the 'required entrance bar for low skilled threat actors to run phishing campaigns and to develop malware a report by CheckPoint Research said' (CGPT 047). Larger political concerns surrounding its novelty arose as well, noting that 'other challenges because of the emerging new technology are large-scale job losses and a new-age arms race of AI-powered weaponry' (CGPT 037).

There were only three examples of this collocate in the data, and only one was loosely associated with a dystopian projection of AI. The usage of 'evolves' signals the constant change embedded in emerging technologies, raising the anxieties of readers seeking to stay competitive:

> The use of this technology is certainly something employees and candidates will want to stay current on. Job seekers certainly should add this skill if they have it to their resume, and employers should add it to their list of required or preferred skills if it's something they expect from candidates. As seen throughout history, as technology evolves, workers' skills need to evolve and change as well (CGPT 064).

Ultimately, journalism's construction of fear around AI emphasizes uncertainties and risks, such as scams, job losses, and AI-powered weaponry, which heighten public anxiety. Historically, public fear of new technologies has often involved economic anxieties. What's different about AI is its breadth. Such fears are not isolated to any single concern, but include social, economic, and geopolitical (global conflicts) often in the same piece of journalism.

Fears related to large language models

While statistical language models have existed since at least the 1990s, the powerful capabilities present in large language models (LLMs) such as OpenAI's GPT series generated a fair amount of journalism due to their power and unpredictability. Table 6 shows the top collocates of the token, 'language'. Much of the deployment of the term 'language' references large language models, deep learning algorithms that are trained on massive amounts of data. This is noticeable in the first three collocates: 'large', 'models', and 'model'. LLMs are generally discussed in a shroud of anxiety, where fears of ChatGPT's limitations and advancements are described. The discourse describes a desire for balance between innovation and caution. While LLMs represent significant technological advancements, there is an understanding that unchecked deployment of such technologies could have serious consequences for society. Journalism's dystopian portrayal of AI, in this analysis, often highlights its potential risks and limitations, such as spreading misinformation and aiding cybercriminals.

Table 6. 'Language' collocate data set, top 10 collocates.

Order	Collocate	Rank	Freq(Scaled)	FreqLR	FreqL	FreqR	Range	Likelihood	Effect
1	Large	1	1080	74	73	1	36	398.762	5.221
2	Models	2	1510	78	4	74	33	376.329	4.813
3	Model	3	1640	59	1	58	36	242.338	4.291
4	Natural	4	510	35	34	1	20	188.14	5.223
5	Processing	5	160	15	1	14	11	90.049	5.673
6	Trained	6	940	20	3	17	13	61.929	3.534
7	GPT	7	1930	21	12	9	16	40.088	2.566
8	OpenAI	8	3610	25	4	21	21	29.849	1.914
9	Summarization	9	40	3	1	2	2	16.625	5.351
10	Translation	9	40	3	0	3	2	16.625	5.351

The top collocate, 'large', is significant in our dataset because of the continuous usage within the term, 'large language models' in these artifacts. When depicting a more dystopian view of ChatGPT, we noticed how journalists reference the limitations of LLMs (i.e., 'they cannot be updated' and 'they cannot have personal experience'), or their uncontrollable abilities, like generating disinformation. As stated in one artifact, 'Large language models like ChatGPT do not have personal experiences or knowledge of the world beyond what is contained in the data that they have been trained on. As a result, their responses may be limited' (CGPT 098). In additional articles, LLM chatbots are recognized as 'notorious bullshitters' (CGPT 111) capable of 'aiding in disinformation, grifting and criminality' with no real 'commitment to truth' (CGPT 111). This attention to misinformation is repeated across other artifacts as well, often stated quite plainly: 'ChatGPT and other large language models have the potential to spread misinformation' (CGPT 098).

The second and third most frequent collocations were 'models' and 'model' (respectively), which we consolidated in our analysis. Examining 'models' and 'model' reveals the anxieties surrounding ChatGPT's fundamental architecture, noticing the structural vulnerabilities and power within AI models. Fears related to the uncertainty of LLMs functioning, and ChatGPT's unchecked power to help 'cyber criminals', contribute to a dystopian view of ChatGPT's structural foundation that needs regulations (CGPT055). Large language models such as ChatGPT 'are trained to generate text that is fluent and coherent' but often lacks nuance (CGPT 098) strictly because of their design as 'prediction machines' that 'deal with a certain amount of uncertainty' (CGPT 098). In the wrong hands, AI-powered chatbots can equip and aid criminals 'in their malicious social engineering attack vectors, especially when the world of cybersecurity is rapidly changing' (CGPT 047). While writers acknowledge that AI chatbots have been in the works for some time, they also remark that 'this is the first time that anything this powerful has been released into the wild' (CGPT 090). 'Enthusiasm for ChatGPT', furthermore, is 'misplaced'. While ChatGPT 'may be impressive from a technical standpoint, the idea of relying on a machine to have conversations and generate responses raises serious concerns' (CGPT 106). Other writers, however, do not view these dangers as completely insurmountable, but rather, capable of being regulated, so long as 'AI language models [are used] responsibly and with the appropriate protection in place'. In other words, 'robust data safeguarding and privacy policies must be in place to overcome the biggest dangers of ChatGPT' (CGPT 093).

Fears related to writing

The most frequent collocates associated with the token 'writing' demonstrate how anxieties surrounding academic assessment emerge in news media, which is evidenced in the top three collocates: 'skills', 'students', and 'assignments'. As the most frequent words to appear alongside writing, these tokens demonstrate just how common fears related to student writing in academic contexts were in the months following the emergence of ChatGPT. This will likely come as no surprise to individuals working in higher education, given the daily onslaught of news and opinion on AI during the period in question. But tracing the top three collocates and their contexts also provides us with a more specific model of these fears, which centers on AI's impact on writing skills and practices, student motivation, and the overall integrity of (writing) education (Table 7).

Table 7. 'Writing' collocate data set, top 10 collocates.

Order	Collocate	Rank	Freq(Scaled)	FreqLR	FreqL	FreqR	Range	Likelihood	Effect
1	Skills	1	560	12	3	9	6	40.839	3.775
2	Students	2	1860	16	6	10	6	28.53	2.458
3	Assignments	3	260	7	0	7	4	26.834	4.104
4	Academic	4	390	8	7	1	5	26.558	3.712
5	Tools	5	1370	12	2	10	8	21.739	2.484
6	Creative	6	550	8	6	2	5	21.509	3.216
7	Grammarly	7	70	4	0	4	2	21.228	5.19
8	As	8	8940	33	12	21	15	18.837	1.238
9	Process	9	700	8	1	7	6	18.093	2.868
10	Thinking	10	520	7	4	3	6	17.846	3.104

'Writing' was often located next to the collocate, 'skills' within news articles, emphasizing the use of ChatGPT and other generative AI by students as a shortcut that would have detrimental effects not only on the quality of their writing but their motivation for learning and doing writing without technological aid. 'In fact', as expressed in one artifact, 'the potential for AI undermining both writing skills and motivation to do your own composing has been decades in the making' (CGPT 034). Such discourse surfaces the fear of teachers 'concerned about students using [ChatGPT] as a Wikipedia replacement to complete homework and to write assignments for them, endangering students' willingness to develop skills like writing and researching' (CGPT 010). Beyond damaging students' motivation to write (or learn to write), ChatGPT will also 'lead to a decline in the overall quality of high school and college essays. Since students would no longer have to put in any effort to write their essays, there would be little incentive for them to learn and improve their writing skills. This could have long-term negative effects on their education and future career prospects' (CGPT 007).

The second most frequent collocate, 'students', provides further emphasis on the fears surrounding generative AI in education, including those related to cheating, the loss of motivation for learning and practicing writing as a 'worthwhile skill', and a lack of criticality. As one artifact describes, '[W]ith the widespread availability of AI writing tools, students can now generate "original" written work for free, without the need to involve a human agent who might betray the student's confidence' (CGPT 000). Alongside the assumption that students will use the technology to cheat is a related one that dramatically generalizes the common college student:

> But again, the majority of students do not see writing as a worthwhile skill to cultivate….They have no interest in exploring nuance in tone and rhythm; they will forever roll their eyes at me when I try to communicate the subtle difference, when writing an appositive phrase, between using commas, parentheses, or (the connoisseur's choice) the em dash (CGPT 010).

The portrait of the common student behavior already depicted here is one that is lacking in motivation, prone to cheating, and incapable of criticality in the face of the new technology: 'Students are going to think and use this chatbot as if it is a know-all. That's because it's a technology that is creating these things that sound really legitimate, they are going to assume that it is and take it at face value' (CGPT 107).

With the third most frequent collocate, 'assignments', in addition to discourse surrounding student cheating, further overarching fears emerge surrounding the sustainability of writing education itself. First, 'assignments' is found near 'writing' in an artifact discussing how to prevent students from cheating: 'Scaffold your writing assignments. This is a time-honored technique for combating plagiarism of any kind in academic writing. It will be much harder for a student to submit a final draft generated by AI and get away with it if you have observed that student's thinking and writing process throughout the course' (CGPT 000). The same artifact further describes how 'some faculty and instructors have sought to neutralize ChatGPPT entirely…[by] banning all computers in the classroom; supervising student essay-writing, whether in class or via monitoring software such as Proctorio; or even requiring writing assignments to be handwritten' (CGPT 000).

Perhaps more interesting is the prevalence of discourse related to some of the most dramatic fears surrounding ChatGPT – namely, the end of writing, or at least the teaching of writing, altogether. 'The arrival of OpenAI's ChatGPT', states one artifact, 'may signal the end of writing assignments altogether – and maybe even the end of writing as a gatekeeper, a metric for intelligence, a teachable skill' (CGPT 107). This fear is repeated in another artifact: 'When OpenAI released ChatGPT to the public last week, the first and most common reaction I saw was fear that it would upend education. "You can no longer give take-home exams," Kevin Bryan, a University of Toronto professor, posted on Twitter. "I think chat.openai.com may actually spell the end of writing assignments," wrote Samuel Bagg, a University of South Carolina political scientist. That's the fear' (CGPT 106).

Overall, dystopian views of AI's impact on writing education are not particularly new. In many ways, they echo previous fears related to word processing software, Wikipedia, and other digital resources. However, they do seem more extreme. Unlike previous technologies, AI's ability to mimic human writing so convincingly has led to journalistic opinions that it could fundamentally alter the educational landscape.

Discussion

In our use of the term fear cycle, we do not intend to imply that some fears are more justified, or legitimate than others; rather they represent varying degrees of predictable concerns related to the technology, while contributing to a feedback loop of anxiety and negative perceptions. The fear categories examined in this study (Human, People, Technology, Language, Writing) reveal that journalistic responses and representations of AI often emphasize ingrained dystopian scenarios, portraying the technology as a threat to human autonomy, authorship, employment, and even existential safety. These have proven to be common themes throughout the history of technological upheaval, allowing both humans and technology to create the conditions of possibility that suggest particular futures (Hawk,

2007). However, certain anxieties emerging from the data, such as AI's extreme impact on misinformation and bias, alongside its simultaneous impact on multiple spheres of human activity, seemed unique to AI, distinguishing it from other historical critiques of emerging technologies.

In the corpus analysis, tokens 'human' and 'writing' and their collocates describe journalists' anxieties surrounding the act of writing and non-human texts. AI tools like ChatGPT invite users to question long-standing beliefs surrounding the act of writing such as the customary understandings of plagiarism, authorship, and human agency (Dobrin 36). Journalists can easily target these common concerns to stimulate certain fears the audience might be familiar with. For example, with the token 'Human' we observed journalists consistently comparing and contrasting human-generated and ChatGPT-generated texts. Noting the similarities between AI and human texts ('ChatGPT could generate text that seemed like a human wrote it') could raise anxieties about AI replacing human writing, but also the differences between quality and enhancement ('One of the main differences…is the level of complexity and coherence') could raise these fears as well.

Similarly, discourses surrounding 'writing' reveal a narrative wherein generative AI tools are portrayed as potential shortcuts undermining not only the quality of writing but also students' intrinsic motivation and commitment to the craft. Journalists' focus on these issues reveal wider and more extreme concerns about the sustainability of current practices and theories in writing education, as conversations related to plagiarism and the need for new teaching methods and assignments proliferate. What Leaver and Srdarov (2023) label the 'concomitant panic throughout educational institutions' can be expanded to include specific concerns related to the devaluing of writing, the need for new teaching methods, student motivation, and unethical student behaviors.

Discourses related to the category of technological change emphasized the uncertainties and risks related to AI, often obscuring techno-optimistic promises and exaggeration replacing the crypto and metaverse bubbles (Browne, 2023). Journalists were consistently referencing the rapid progress and emerging essence of ChatGPT when deploying this token, stoking anxieties about ChatGPT's unknown capabilities.

A major concept reinforcing fears of the unknown emerged in analysis of the token, 'language', which was often used in reference to large language models. Journalists located the fears and anxieties surrounding LLMs, ChatGPT's foundational technology, by referencing the tech as 'notorious bullshitters', that 'have the potential to spread misinformation', and 'deal with a certain amount of uncertainty'. Since LLMs are ChatGPT's underlying architecture, it provided a rich context for journalists to raise concerns surrounding the emerging technology. However, the risks purported by 'unknown' technologies can often be argued to be a product of modernization itself, developed through political, reflexive narratives that rely on the expertise of the very institutions that created the technology.

Finally, the token 'people', with its collocates 'who', 'many', and 'groups', exemplified dystopian discourses that imagine ethical quandaries and social anxieties specifically in the context of human users of ChatGPT. The tool's capacity to mimic human interaction raises concerns about authenticity and responsible usage. Furthermore, the portrayal of ChatGPT users as unwitting contributors to model refinement unveils intricate ethical dilemmas regarding ChatGPT's stakeholders, highlighting the blurred boundaries between user agency and exploitation by AI developers. Other artifacts move away from the personal to highlight broader, societal fears, including the proliferation of misinformation, economic upheaval, and the perpetuation of biases against marginalized groups.

Dystopian narratives are potentially unstable and might be political and ethically contested across various stakeholders (Cave and Dihal, 2019). Nevertheless, these narratives forge how actors perceive and understand technology in their daily life, shaping attitudes and emotional responses in public (Saroti and Bocca, 2023). Such negative perceptions can inaccurately increase risk perception among the public while overshadowing possible social benefits (Stone et al., 2022); pessimism can influence regulation

(Saroti and Bocca, 2023) or misdirect attention away from actual issues like AI bias. Therefore, while some of the narratives found in our corpus are more grounded in realistic expectations, others are improbable and distract from likely scenarios.

Limitations

This study has several limitations. The corpus of journalistic articles analyzed, while providing valuable insights into U.S. based, English-language media's portrayal of ChatGPT, is limited in scope as well as number. It focuses primarily on a five-month period immediately following ChatGPT's release, potentially omitting evolving narratives and long-term impacts and includes only 115 artifacts. Also related to this scope limitation, the focus on U.S. based, English-language media outlets also restrict the generalizability of findings to other cultural contexts.

Finally, the ambiguity of the term dystopian itself places unique constraints on this research and its analytical focus given that different interpretations of what constitutes dystopian exist simultaneously across public and academic discourses.

Conclusion

Understanding the contours of future imaginaries provides us a glimpse of the most pressing concerns of the present. In considering how fear cycles manifest in journalistic discourse regarding AI, we noticed that journalists largely rely on common fears to amplify a dystopian narrative while at times developing unique anxieties attributed to artificial intelligence. This understanding further raises awareness of how the public might be predisposed to certain dystopian tropes that consistently circulate within the media, which we label as a fear cycle, while also noticing certain unique features of AI dystopian narratives. In future studies, scholars must continue to interrogate dystopian imaginaries since they not only influence present action items and lead to current reactions from outside stakeholders but can also influence internal policy discussions related to emerging technologies (Oomen et al., 2022). Exaggerations revolving around AI may also lead to misunderstandings of its limitations or other solutions for certain problems in the world (Brennen et al., 2022). As newsrooms become more concentrated and media has become more digitized, scholars should be sensitive to how such future-building surrounding emerging technologies can lead to sensationalism (Dempster et al., 2022) or affect user perceptions of such tools.

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Appendix

Appendix A

https://drive.google.com/file/d/1a4yQAnUn4rHkc8z82L0HPlh5EgYxF2Yt/view

Appendix B

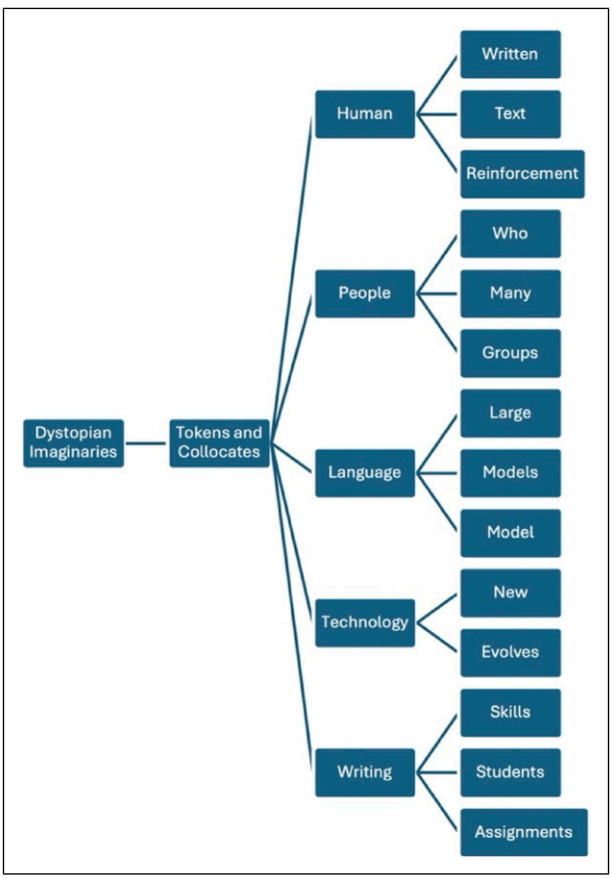

Figure A1. Token and Collocate Concept Indicator Model.