

## Al Imaginaries and Narratives in the Italian Public Discourse: The Impact of ChatGPT

Stefano Spillare stefano.spillare2@unibo.it University of Bologna Michele Bonazzi michele.bonazzi@unife.it University of Ferrara



Piergiorgio Degli Esposti

pg.degliesposti@unibo.it University of Bologna

## Abstract

Recent advancements in artificial intelligence (AI) have sparked renewed interest and debate, particularly with the introduction of innovative "generative" AI systems such as OpenAI's ChatGPT. This innovation has reignited discussions about AI's implications in today's digital societies, often polarizing opinions between optimistic views and tragic risks, frequently fueled by sci-fi or sensationalist narratives. This study aims to investigate the imaginaries and narratives of AI in leading Italian

newspapers, specifically evaluating the impact of ChatGPT on public discourse.

## **Keywords**

Artificial intelligence | ChatGPT | Imaginaries | Narratives | Media coverage



The key to artificial intelligence has always been the representation.

Jeff Hawkins (2023)

Since the legendary Dartmouth workshop in 1956, the development and study of AI have experienced several "springs", systematically followed by cold "winters" (Mitchell, 2019). Recently, we seem to have witnessed a renewed "spring" of AI development, driven by advancements in "neural networks" and propelled by increasing computational and memory capabilities, alongside the emergence of the Internet and the vast availability of data (Mitchell 2019; Cristianini 2023). Thanks to the trainability of neural networks for specific objectives, AI algorithms can perform defined tasks, such as image recognition, natural language processing, and pattern analysis. This training method is known as "machine learning" (or "deep learning"<sup>1</sup>), and it allows for the exploitation of AI's potential across various domains, including communication and human-like relational activities.

One of the most evident manifestations of these capabilities was the launch of ChatGPT on November 30, 2022—an unprecedented chatbot based on the so-called "Large Language Model" (LLM)—to the mass public. In simple terms, an LLM is a machine learning system applied to billions of written texts, enabling the software to statistically predict the most suitable sequence of words based on a query known as a "prompt" (Floridi 2019; Cristianini 2024). The result is a tool capable of "naturally" interacting with humans in unexpected ways.

These types of AI tools are often referred to as "generative" because they can "generate" something new, such as texts, voices, music, images, or videos, in a relatively "creative" manner, starting from the raw material on which they were trained. ChatGPT is not the first of these systems; similar tools include digital assistants like Apple's Siri, Amazon's Alexa, and Google's suggestion systems. However, none of these previous systems could interact with humans while "keeping in mind" the entire sequence of dialogue, responding in a pertinent and accurate manner (Cristianini 2024). In a certain sense, ChatGPT seems to have surpassed the limits defined by Alan Turing in his "imitation game", fueling increasing speculation about how far the horizon of "general AI" could extend (Cristianini 2024).

In summary, it represents what is often referred to in discussions of innovation as a "disruptive innovation"—an innovation that promises to trigger a renewed technological surge, boost competitiveness, and potentially create yet another financial bubble, akin to the advent of the Internet or social networking sites.

Despite these premises (and promises) regarding ChatGPT, the manner of its launch is significant. ChatGPT was developed by OpenAI, one of Silicon Valley's most promising "unicorns" in the AI field, initially a non-profit organization, with the







<sup>&</sup>lt;sup>1</sup> The adjective "deep" in machine learning methods refers to the number of layers in a neural network (Mitchell 2019).

declared purpose of disseminating AI innovation to the public to familiarize people with this technology and stimulate public debate around it.<sup>2</sup> Five days after ChatGPT's official release, over one million people had subscribed to the site.<sup>3</sup>

The web exploded with comments, examples of questions posed to and answers provided by ChatGPT, and thousands of newspaper articles discussing this new tool, as well as the potentialities and risks of AI development and application in the near future. As early as 2020, anticipating the launch of OpenAI's chatbot, The *Guardian* provocatively titled an article "A robot wrote this entire article. Are you scared yet, human?" <sup>4</sup> In December 2022, it relaunched with the explicit headline: "What is the AI chatbot phenomenon ChatGPT and could it replace humans?"<sup>5</sup> Similar headlines appeared in every newspaper, often emphasizing excessively utopian perspectives or, conversely, describing apocalyptic and dystopian scenarios (Ouchchy et al. 2020; Cools et al. 2022; Bartolomew, Mehta 2023), frequently drawing upon AI imaginaries already rooted in popular culture (Cave, Dihal 2019).



133

The examination of these narratives holds particular significance not only for the public's perception of this innovation but also because this perception largely influences— in sociotechnical terms—further developments, applications, policies, and regulations of AI (Cave et al. 2018; Cave, Dihal 2019; Lindgren, Holmstrom 2020; Sartori, Bocca 2022). This research thus aims to contribute to the analysis of Al-related sociotechnical imaginaries and narratives within the context of the Italian news landscape, particularly focusing on the impact of ChatGPT.

The hypothesis is that this tool could be viewed as a watershed in the debate about AI and an accelerator of the social dynamics associated with it.

To achieve this, after a brief introduction to the concept of AI, its opportunities and risks, as well as the relevance of related imaginaries and narratives, the main results of a content analysis of selected Italian news articles—before and after the turning point represented by ChatGPT—will be presented.

# 1. The rise and risks of AI and the relevance of related imaginaries and narratives

Despite the widespread use of the term, the meaning of AI has not yet been definitively clarified, and its impact on society remains largely to be investigated. Drawing from various dictionaries, Rezaev and Tregubova (2018) highlighted how the

<sup>4</sup>See *theguradian.com* at the following weblink: *https://www.theguardian.com/commentisfree/2020/sep/08/robot-wrote-this-article-gpt-3* (8/5/2024).





<sup>&</sup>lt;sup>2</sup> Information on the company's mission and vision can be found at the following link: *https://openai.com/about/*.

However, it is likely that commercial and technical factors have also contributed to this choice, not at least the opportunity of exploiting users to improve its performance.

<sup>&</sup>lt;sup>3</sup>As of December 4, 2023, ChatGPT had reached 1.7 billion users: https://tg24.sky.it/tecnologia/2023/12/04/chat-gpt-utenti-storia#07 (16/5/2024).

<sup>&</sup>lt;sup>5</sup> See theguardian.com at the following weblink: https://www.theguardian.com/technology/2022/dec/05/whatis-ai-chatbot-phenomenon-chatgpt-and-could-it-replace-humans (8/5/2024).

concept of AI is essentially treated in two different ways: on the one hand, it is understood in terms of research on specific types of performance of computational machines; on the other hand, it is considered a performance in itself. In the first case, Russell and Norvig (1995, cited in Jungherr, Schroeder 2023: 1) defined AI as "the study and construction of agents that do the right thing". In the second case, it can be understood as "the ability of machines to pursue specific tasks of varying difficulty in appropriate ways or, more broadly, the ability to set goals autonomously, reason, and adapt to unexpected circumstances" (Jungherr, Schroeder 2023: 1).

More generally, Floridi (2022) succinctly defines it as "a reserve of ability to act at hand" (53). The definitive element is linked to the ability to perform tasks or imitate behaviors commonly associated with human (or animal) intelligence, such as visual perception, speech recognition, decision-making, linguistic translation, and making of generalizations. As AI algorithms increasingly attain these human-like capabilities, they are better equipped to interact with humans and engage in the entire set of social processes. As adaptive entities capable of effectively executing tasks while learning from their environment, these agents cannot be merely considered mathematical equations, but rather as "teleological (goal-driven) agents" (Cristianini et al. 2023), whose role is growing in proportion to the increasing technological mediation of our societies.

Technology, along with mass media, has always been intertwined with society (DeFleur, Ball-Rokeach 1989). However, since the advent of the current "network society" (Castells 1996), "information" has essentially become the fundamental element of every social process, and the so-called "infosphere" (Floridi 2009) has come to encompass every moment of our social lives, creating an inextricable relationship between our daily existence and its technological dimension. Social sciences must therefore study these agents in interaction, considering the broader social context (Lindgren, Holmstrom 2020) and highlighting both opportunities and, especially, risks. From this perspective, some of the main recurring concerns are related to the data we produce and these agents may use to adapt our performances to their objectives, emphasizing the risk of the automatic, rapid, and uncontrolled spread of renewed forms of "surveillance" (Zuboff 2019), social control, or manipulation (Beer 2009; Fuchs et al. 2024); or even the potential errors or biases that seem to affect them due to their training (Noble 2018), increasing risks of discrimination and social injustice, impacting various levels of social dynamics, from school admissions to employment, to democratic matters (Lindgren, Holmstrom 2020; Boccia Artieri 2020; Sartori, Theodorou 2022). Thanks to their ability to interact effectively within all sorts of technologically mediated social processes, AI agents may also interfere with information access (Simon 2022) or be used to exacerbate already existing dangerous phenomena, such as infodemia and fake news (Floridi, Chiaritti 2020; Jungherr, Schroeder 2023).

Particularly, the newest "generative" agents, such as ChatGPT, may indeed be considered "communication agents" (Esposito 2022), capable of interacting directly with us as "true" social agents (Bennato 2023). Addressing these challenges, Floridi and Chiaritti (2020) stated:





A better digital culture will be required to make current and future citizens, users, and consumers aware [...] and hence able to understand and leverage the huge advantages offered by advanced digital solutions such as GPT-3, while avoiding or minimizing their shortcomings (692–693).

#### **1.1** The relevance of AI imaginaries and narratives

In terms of digital culture, one of the most important starting points is likely the cultural representations we have of, and are constructing about, AI and its role in society. This point is specifically related to the social construction of AI and its relevance as a socio-technical phenomenon. In fact, the development of a new technology (especially those considered "disruptive") has always impacted the collective imaginary. However, its implementations and applications depend on the social context, its historical dynamics and power relations, as well as the social representations of that same technology. These representations include implicit or explicit assumptions, knowledge, expectations, etc., and can be expressed through verbal language or images, take specific narrative forms, or spread through metaphors. In any case, they represent the shared symbolic meanings of a given technology and contribute to determining its development, acceptance, and purposes (Cave et al. 2018; Lindgren, Holmstrom 2020). The Internet offers a relatively recent example of these dynamics, considering how the academic-scientific and hacker cultures of the early developments contributed to the Californian utopia, characterizing the Internet as an intrinsically libertarian technology (Sartori, Bocca 2022).

In brief, it is possible to state that if the intrinsic power relations of the social context (e.g., the economic interests related to the development of a certain technology) contribute to defining a technology as a "social object", the interpretative frames and narratives used to refer to, describe, and illustrate it allow us to also consider it as a "cultural object" (Griswold 2012).

From this perspective, Sartori and Bocca (2022) specifically distinguished between "sociotechnical imaginaries" and "narratives". Sociotechnical imaginaries can be defined as "collectively held, institutionally stabilized, and publicly represented visions of desirable futures, animated by shared understandings of forms of social life and social order achievable through and in support of advances in science and technology" (Jasanoff 2015, cited in Sartori, Bocca 2022: 445). Narratives, on the other hand, can be considered "building blocks" in the construction of the aforementioned imaginaries and, therefore, as a sort of "organizing visions" (or "frames") of society (Sartori, Bocca 2022). Both imaginaries and related narratives often derive from literature or movies and, in general, from popular culture, including the information system.

These imaginaries can be traced throughout the entire history of technological and scientific development and can be defined in terms of "hope" and "fear", "utopian" versus "dystopian" views (Sartori, Bocca 2022), "hype and hope" versus





"gloom and doom" representations (Ouchchy et al. 2020), or even in terms of "solutionist" versus "critical" perspectives (Boccia Artieri 2020), always split into two large opposing dimensions that reflect Eco's famous dichotomy between the "apocalyptic" and the "integrated" (Eco 1994).

Imaginaries												
Positive/Utopian	Negative/Dystopian											
<i>Immortality/Gate to Heaven</i> Al is seen as a vector for human enhancement, better health, and longevity.	<i>Dehumanization/Conflict</i> Al is viewed as a pathway to the loss of human specificities.											
Freedom/Social progress and economic development Al allows for improved freedom, e.g., by reducing time and effort in routine tasks.	<i>Obsolescence/Kasparov syndrome</i> Al is perceived from a Luddite perspective as a threat of employment substitution.											
<i>Gratification/Helping hand</i> Al is a source of gratification that enhances the human experience.	<i>Alienation/Shortcomings</i> Al is viewed as a source of new anxieties, stress, etc.											
Domination/Public accountability Al is controlled by humans and serves them, particularly to better manage and accelerate social processes.	Uprising/Frankenstein monster Al is viewed in the context of uprisings where humans are controlled by machines or through them in authoritarian ways.											
TAB. 1 – Utopian-Dystopian taxonomy of AI imaginaries (adapted from Cave and Dihal 2019												
and Cools et al. 2022)												

Starting from this dichotomy, Cave and Dihal (2019) identified at least four additional categories for each area. These categories are presented and explained in Tab. 1 and are associated with similar categories defined by Cools et al. (2022), who analyzed AI-related newspaper articles over a period of almost forty years.<sup>6</sup>

#### 1.2 AI media coverage and the impact of ChatGPT

The media coverage of AI appears to replicate the aforementioned dichotomy between positive/utopian and negative/dystopian perspectives (Ouchchy et al. 2020; Cools et al. 2022; Bartolomew, Mehta 2023), while also providing an opportunity to actualize the relationship between AI development and the broader social context.

Through the investigation of media coverage, we obtain a current representation of themes and evolving frames and narratives associated with AI, sometimes focusing on specific aspects, such as ethics (Ouchchy et al. 2020).

Numerous investigations and reports on this topic are often conducted by journalistic organizations, media observatories, NGOs, etc. One such report was



ISSN: 2281-8138



<sup>&</sup>lt;sup>6</sup> These categories are alternatively referred to as narratives or imaginaries. Here, the term "imaginaries" is used, while the term "narratives" is limited to the specific storytelling of each article, which may or may not match with a specific sociotechnical imaginary.

carried out by the *Reuters Institute for the Study of Journalism*, which analyzed UK media coverage of AI in 2018.

Some of the main conclusions of the report highlighted that nearly 60% of the articles centered on new industrial products, announcements, and initiatives related to AI. The channels considered regularly covered industrial promotional events, startups, acquisitions, investments, and conferences. One-third (33%) of the coverage was based on industry sources, primarily CEOs or senior executives—six times more than the number of articles based on government sources and double those based on academic sources. Twelve percent of the articles cited Tesla and SpaceX entrepreneur Elon Musk, while AI-related products were often described as optimal solutions to various collective problems, such as cancer or renewable energy.

Potential negative effects were rarely discussed, and media coverage was at least partially politicized: sources referring to a conservative political universe emphasized geopolitical or economic issues, while sources with a progressive slant focused more on ethical aspects, such as potential discriminatory biases or privacy (Brenner et al. 2018). A more recent study on Al media coverage by a team of international researchers has highlighted similar conclusions. In particular, they noted that said media coverage substantially reflected economic and governmental interests, praising AI's potential while underestimating the power dynamics underlying these interests. The most cited critical voice was physicist Stephen Hawking. However, he was cited very infrequently, and the views of social scientists seemed conspicuously absent (Dandurand et al. 2023). However, as previously mentioned, the launch of ChatGPT has been described as a "disruptive" event in the development of AI and in the public discussion surrounding it. Recent research specifically focused on the media coverage of ChatGPT in the US context highlighted how narratives, in this case, are often led by the companies involved and the CEO of OpenAI, who widely uses social media to promote his creation, while journalists utilize the same social media as a source of information (Bartolomew, Mehta 2023).

Moreover, researchers noted that television networks and news programs largely referred to imagery linked to science fiction, triggering a "Hollywoodification" process ranging from the "end of work" to the "destruction of humanity", translating uncertainty into fear rather than fostering understanding (Bartolomew, Mehta 2023).

They suggested that this attitude stems from the need for journalists and publishers to cover this topic, which has garnered more attention than other technological innovations, likely because it directly involves the journalistic profession and, in the long term, the very structure of the public arena.

Similarly, we observe such dynamics in Italy, with increasing media coverage of Alrelated topics (Degli Esposti, Tirabassi 2024). However, the Italian context suffers from a lack of systematic analysis of this media coverage. Nonetheless, an interesting attempt in this direction was made by the Pavia Observatory, which investigated coverage of said topics between 2018 and 2020 in the prime-time news programs of major national (private and public) networks (Sarani, Cobianchi 2021). In this case, some frames partially emerged from the semantic analysis of the most frequently used terms, summarized in dichotomies such as "*machine* vs *human*", *highlighting* 





aspects of increasing interaction (and sometimes conflict), "future vs present", emphasizing the momentum toward progress but also uncertainty, and "first vs last", highlighting aspects of stratification and competition (both between human-machine and different skill levels). However, it is not yet possible to evaluate the quality of information and debate in this fundamental field or trace the related imaginaries and narratives shaping the adoption and implementation of AI.

This investigation aims to contribute to filling this gap, with a specific focus on the impact of ChatGPT. Specifically, the analysis seeks to answer the following research questions:

RQ1) How did mainstream media in Italy represent the phenomenon of AI, particularly in terms of narratives and imaginaries?

RQ2) What was the specific impact of ChatGPT on the Italian public debate regarding artificial intelligence?

#### 2. Methodology

To address the aforementioned research questions, a sample of news articles from the most relevant Italian newspapers was extracted online using the "Media Cloud" platform. The newspapers were selected based on the following criteria: *a*) national and generalist coverage, *b*) circulation<sup>7</sup>, and *c*) political orientation<sup>8</sup>.

The sample was constructed considering two periods: a six-month period before and after ChatGPT's launch on November 30, 2022. Fig. 1 represents a concise scheme of the sample construction.

The first sample was collected using the following keywords: "*intelligenza artificiale*", "*artificial intelligence*", "*IA*", and "*chatbot*" (the term "AI" could not be used because it was interpreted in the Italian language as a preposition). The initial sample comprised 699 items (matching content=0.4%), which was subsequently reduced to 101 items by including only those that had the keywords in their title.

The second sample was collected by including the keywords "*ChatGPT*" and "*OpenAl*", resulting in a sample of 1884 items (matching content=0.82%). These were subsequently reduced to 519 items, again excluding those that did not have the keywords in their title. The final sample comprised 620 items. However, due to the tools used, the sampling was not uniformly distributed across the considered newspapers. "La Repubblica" and "Il Sole 24 Ore" were overrepresented, while others were not represented at all. For this reason, "Avvenire" and "La Verità" were excluded





<sup>&</sup>lt;sup>7</sup> Source: Italian Federation of the Newspaper Editors: www.fieg.it (8/12/2023).

<sup>&</sup>lt;sup>8</sup> The selected newspapers were categorized into three groups: a) *Conservative*: II Giornale, Libero, La Verità, Avvenire; b) *Progressive*: La Repubblica, II Fatto Quotidiano; and c) *Equilibrated*: II Corriere della Sera, La Stampa, II Messaggero, II Sole 24 Ore. This categorization was developed using different sources, notably the Pew Research Center's report titled "*News Media and Political Attitudes in Italy*" (2018), available at: *https://www.pewresearch.org/global/fact-sheet/news-media-and-political-attitudes-in-italy*.

from the sample, while some additional items from other sources were unavailable due to paywalls. The definitive total sample was thus equal to N=534 items (sample 1=99; sample 2=435), analyzed using the computer-assisted content analysis methodology (with the software N-Vivo 2020)<sup>9</sup>.

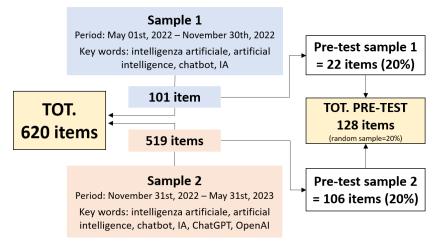


FIG. 1 – A basic representation of the sampling scheme

The items were originally classified by "*newspaper*" and "*period*" (*pre-/post-ChatGPT*) and progressively cataloged according to further attributes, such as "Category/column", "*Month*" and "Year", "Scope", "*Political orientation"*, and "*Focus on ChatGPT*" (or not).

A pretest was conducted in advance on a representative and randomly selected sub-sample of 128 items (corresponding to 20% of the entire sample).

The coding was implemented in an inductive-deductive manner (Fereday, Muir-Cochrane 2006), initially considering evidence from the literature review and the specific research objectives, and subsequently implementing further nodes during the pretest analysis. Particularly, according to Tab. 1, the coding retained the distinction between "*Utopian*" and "*Dystopian*" categories (and their respective subcategories), adding the nodes "*Generic danger*" or "*Generic benefit*" for generic content that did not fit the already defined categories, "*Balanced*" for narratives that were relatively balanced between *Utopian* and *Dystopian* views, and "*Human-like intelligence*" for content primarily focused on the topic of "general AI".

A specific node was dedicated to "Imaginaries", considered as references to popular imaginaries explicitly cited in the article, such as the super-intelligent computer HAL 9000 in "2001: A Space Odyssey", the android T-800 in "Terminator", the Frankenstein monster by Mary Shelley, etc.





<sup>&</sup>lt;sup>9</sup> At the current level of regulation there is no way to verify whether some of the selected articles (or parts of them) have been written by a human or a chatbot. Surely, we can confidently declare that this scientific paper contains 100% human-written content.

N	Newspaper	San	nple 1	San	nple 2	тот	TOT def.	%	
71	Newspuper	ltems Pretest		ltems	ltems Pretest		TOT dej.	70	
1	CORRIERE DELLA SERA	0	0	14	3	14	13	2%	
2	REPUBBLICA (LA)	29	8	193	93 33		186	35%	
3	SOLE 24 ORE (IL)	22	4	105	22	127	126	24%	
4	STAMPA (LA)	1	1	17	4	18	17	3%	
5	MESSAGGERO (IL)	6	1	20	4	26	25	5%	
6	FATTO QUOTIDIANO (IL)	3	1	36	7	39	35	7%	
7	GIORNALE (IL)	4	1	24	5	28	28	5%	
8	LIBERO	24	5	85	16	109	104	19%	
	ΤΟΤ	101	22	519	106	620	534	100%	

**TAB. 2** – Distribution of the total and pretest sample



Some nodes considered content such as "Ethics", "Responsibility", "*Regulatory*" aspects, explicit "*Reference to ChatGPT*" (in articles that were not focused on it), "*ICT*" for merely technical content, or even "*Learning opportunity*" (when the article offered the opportunity to increase knowledge and awareness about AI).

Further nodes were also established to trace the source type. They were categorized as "*Independent*" if not directly related to the development of AI systems or associated products and services, and as "*Integrated*" if economically linked to AI developers and/or implementers. Moreover, the analysis also considered the articles' headlines, evaluating their "*Consistency*" or "*Inconsistency*" with their contents and potential "Alarmism or sensationalism."

In terms of inter-rater reliability, researchers conducted the pretest coding phase together, consistently exchanging and controlling information while revising the coding and data interpretation. They maintained a close relationship and continuous communication throughout the entire analysis of sources.

#### 3. The main results and the pre-/post- ChatGPT confrontation

Considering the analyzed sample and initially focusing on the Utopian/Dystopian/Balanced categories (Tab. 3), it was evident that narratives referring to Utopian imaginaries represented the majority, at 50%, while those representing Dystopian imaginaries accounted for a quarter of the sample (26%). "Balanced" items represented 20% of the sample.<sup>10</sup> The Utopian subcategories appeared to be well-distributed, with a prevalence of those defined as "Generic benefits" (12%) and, particularly, "Dominance" (14%). The less represented subcategories were "Immortality" (6%) and "Gratification" (8%).





<sup>&</sup>lt;sup>10</sup> The total percentage does not add up to 100% because some articles do not fit into any of these categories.

Coding			N	ewsp	apers*	-	Tot. sample		Tot. pre- ChatGPT		Tot. post- ChatGPT			
-	а	b	с	d	е	f	g	h	ΤΟΤ	%	тот	%	тот	%
Utopian	2	91	60	6	19	19	10	60	267	50%	60	61%	191	44%
Generic benefit	1	24	12	1	3	6	1	16	64	12%	3	3%	61	14%
Immortality	0	16	1	0	3	2	2	8	32	6%	10	10%	17	4%
Freedom	0	17	8	3	4	5	3	13	53	10%	8	8%	44	10%
Gratification	0	14	16	1	4	2	0	6	43	8%	10	10%	30	7%
Dominance	1	20	23	1	5	4	4	17	75	14%	29	29%	39	9%
Dystopian	8	60	23	8	12	14	9	5	139	26%	18	18%	109	25%
Generic danger	1	34	13	1	5	2	2	1	59	11%	9	9%	44	10%
Dehumanization	0	3	1	0	1	0	0	0	5	1%	1	1%	9	2%
Obsolescence	4	16	6	4	3	5	3	2	43	8%	5	5%	30	7%
Alienation	0	2	2	0	2	4	1	0	11	2%	1	1%	9	2%
Uprising	3	5	1	3	1	3	3	2	21	4%	2	2%	17	4%
Balanced	2	50	16	2	5	10	3	19	107	20%	12	12%	126	29%

Conversely, in the Dystopian subcategories, there was a prevalence of "Generic danger" (11%) and a clear emphasis on "Obsolescence" (8%), while the less represented subcategories were "Dehumanization" (1%) and "Alienation" (2%).

**Tab. 3** – Coding Utopian/Dystopian/Balanced categories: whole and pre-/post-ChatGPT sample (\*a=II Corriere della Sera; b=La Repubblica; c=II Sole 24 Ore; d=La Stampa; e=II Messaggero; f=II Fatto Quotidiano; g=II Giornale; h=Libero).

As for the remaining categories (Tab. 4), articles characterized by a tone of "Criticism"—often providing in-depth analyses of AI implications and social impacts without any particular narrative—remained a minority (7%), as did those that offered "Learning opportunities" or insights (13%). Explicit references to well-established AI imaginaries, used as a sort of stock from which images were drawn as needed, were limited to 8%. Only 5% discussed the topic of "Human-like intelligence".

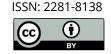
Other content categories such as "Ethics", "Regulation", and "Responsibility" were rated at 20%, 18%, and 12%, respectively. ChatGPT was explicitly cited in 51% of the items, even in articles not focused on it.

Regarding sources, "Independent" ones slightly outnumbered "Integrated" ones (at 39% and 37%, respectively), while the headlines exhibited a high "Consistency" rate (91%), with 30% exhibiting "Alarmism/Sensationalism".

Finally, by aggregating the percentages of the different newspapers according to political orientation, we can derive further interesting insights. For example, newspapers leaning toward the progressive area exhibited a high percentage of both positive and negative narratives (averaging 60% and 53%, respectively). These type of newspapers also had the highest percentage of "Balanced" items (28% versus 13% for balanced newspapers and 15% for conservative ones).

Progressive and balanced newspapers particularly emphasized the theme of work ("Obsolescence" reached an average of 17% and 20%, respectively, with 8% for

N. 23 – Year XIII / July 2024 pp. 131-147 imagojournal.it



conservatives) and provided more opportunities for critical contributions or learning about AI.

Conversely, conservative newspapers exhibited a lower rate of dystopian perspectives (34%, compared to 53% and 50% for progressive and balanced newspapers, respectively), while also offering more integrated sources (41% versus 32% and 24% for progressive and balanced newspapers, respectively), although they appeared to be less sensationalistic (23% versus 36% for progressive newspapers and 38% for balanced newspapers).

Coding	Newspapers									Tot. sample		Tot. pre- ChatGPT		Tot. post- ChatGPT	
-	а	b	С	d	е	f	g	h	ΤΟΤ	%	тот	%	тот	%	
Human-like intell.		13	2	1	1	4	2	3	26	5%	2	2%	24	6%	
Criticism	4	10	7	0	5	3	2	5	36	7%	1	1%	35	8%	
Responsibility	4	14	22	4	2	7	6	3	62	12%	7	7%	55	13%	
Regulation	2	39	22	6	3	6	10	8	96	18%	10	10%	86	20%	
Ethics	2	48	17	2	3	4	11	18	105	20%	10	10%	95	22%	
ICT	1	33	14	3	4	9	8	23	95	18%	12	12%	83	19%	
Learning opp.	1	34	7	8	5	6	5	5	71	13%	7	7%	64	15%	
Imaginaries	2	19	2	4	2	7	5	1	42	8%	7	7%	35	8%	
Ref. to ChatGPT	6	102	51	8	8	19	12	20	226	42%	4	4%	222	51%	
Sources															
Independent	6	84	24	9	13	18	14	37	205	38%	23	23%	183	42%	
Integrated	1	66	46	5	6	10	9	52	195	37%	38	38%	157	36%	
Headlines															
Consistency	12	179	119	15	23	32	27	79	486	91%	72	73%	412	95%	
Inconsistency	1	7	7	2	2	3	1	25	48	9%	26	27%	22	5%	
Alarmism/Sens.m	8	54	49	4	7	15	9	14	160	30%	29	29%	131	30%	

Tab. 4 - Coding of the rest of the categories: whole and pre-/post-ChatGPT samples.

#### 3.1 The pre- and post-ChatGPT confrontation analysis

A further step of the analysis involved comparing the situation before and after the advent of ChatGPT. Prior to that advent, narratives aligned with "Utopian" imaginaries were the highest (63%), with a decisive prevalence of "Dominance" (29%). Conversely, "Dystopian" perspectives were limited to 18%, primarily narrated in terms of "Generic danger" (9%) and "Obsolescence" (5%). "Balanced" items accounted for 12% (Tab. 3).

Newspaper articles that offered "Learning opportunities" and insights were limited to 7%, while "Criticism" was practically nonexistent (1%). Explicitly cited (pop) "Imaginaries" were also limited (7%), and "Ethics" and "Regulation" both reached 10%, while "Responsibility" was only 7%. "Integrated" sources were prevalent (38% versus 23% for "Independent" ones), as were consistent headlines (73%). However,



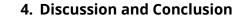


26% of the headlines appeared "inconsistent", and 29% were alarmist or sensationalistic.

In contrast, in the post-ChatGPT sample, "Utopian" perspectives declined to 44%, while "Dystopian" ones increased to 25%. The main utopian perspectives shifted toward "Generic benefits" (14%) and "Freedom" (10%), while the dystopian narratives remained aligned with "Generic danger" (10%) and "Obsolescence" (7%). "Balanced" items more than doubled, reaching 29%.

"Learning opportunities" also doubled (15%), while "Criticism" and arguments such as "Ethics", "Regulation", and "Responsibility" increased significantly, reaching 8%, 22%, 20%, and 13%, respectively. "Imaginaries", however, remained stable at 8%.

Finally, the items in this sample showed a prevalence of "Independent" sources, reaching 42% compared to 36% for "Integrated" ones. Regarding the headlines, "Consistency" surged to 95%, but the tendency toward "Alarmism/Sensationalism" remained stable at 30%.



The primary aim of this paper was to analyze the content of a significant sample of Al-related articles from Italian newspapers to trace and highlight Al imaginaries and narratives, especially in the wake of the launch of ChatGPT.

To achieve this, a series of narratives were considered, along with references to well-established imaginaries from popular culture and literature. Other features were also considered, such as learning opportunities and/or insights to enhance readers' awareness, ethics-related issues, regulation and responsibility matters, as well as the quality of headlines and sources.

The analysis confirms that Italian news media tend to discuss AI in terms of a utopian-dystopian dichotomy. However, positive/utopian narratives seem to prevail, particularly those promising dominance over social and economic processes, enhancing well-being, security, and (especially) productivity.

Conversely, the most emphasized dangers relate to the role of humans in these processes, particularly highlighting the neo-Luddite risks of substitution and obsolescence, with consequences for jobs and employment. This is partially a consequence of the ChatGPT turning point, where we observe an increase in these potential negative aspects (especially in progressive and balanced newspapers), partially countered by an emphasis on AI's potential for freedom (especially in conservative newspapers).

Despite the increasing number of dystopian narratives, alarmism and sensationalism remained limited to 30% (and did not increase as a result of ChatGPT's impact), while the risk of "Hollywoodification" seems to have been mitigated. Conversely, balanced articles, learning opportunities, attention to "independent" sources, and discussions on regulation and responsibility have significantly increased. This could be interpreted as a result of journalists'





professional efforts, reflecting an expansion of the debate beyond just professionals to a wider range of social actors.

In conclusion, the growing number of news stories devoted to AI and their pervasive reference to ChatGPT, following its launch, support the initial hypothesis regarding ChatGPT's role and impact on public debate. Moreover, the data suggest that ChatGPT also influenced AI narratives, increasing attention to themes such as AI regulation or ethics and providing further learning opportunities for the public.

However, these latter changes cannot be precisely attributed to the mere hype surrounding the launch of ChatGPT. Additionally, various economic or political variables cannot be definitively excluded.





### Bibliography

- Bartolomew J., Mehta D. (2023), "How the media is covering ChatGPT", *Columbia Journalism Review*, Retrieved on 10 May 2024 from https://www.cjr.org/tow\_center/media-coverage-chatgpt.php.
- Beer, D. (2009), "Power through the algorithm? Participatory web cultures and the technological Unconscious", *New Media & Society*, 11(6): 985-1002.
- Bennato D. (2024), *La società del XXI secolo. Persone, dati, tecnologie*, Roma-Bari, Laterza.
- Boccia Artieri, G. (2020), "Fare sociologia attraverso l'algoritmo: potere, cultura e agency", *Sociologia Italiana*, 15: 137-148.
- Brenner J.S., Howard P.N., Nielsen R.K. (2018), "An Industry-Led Debate: How UK Media Cover Artificial Intelligence (Factsheet)", *Reuters Institute for the Study of Journalism*, Retrieved on 10 May 2024 from: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-12/Brennen\_UK\_Media\_Coverage\_of\_AI\_FINAL.pdf.
- Castells M. (1996), *The information age: economy, society and culture. Volume 1: The rise of the network society*, Cambridge (MA, US), Blackwell.
- Cave S., Craig C., Dihal K., Dillon S., Montgomery J., Singler B., Taylor L. (2018), *Portrayals and perceptions of AI and why they matter*, London, The Royal Society.
- Cave S., Dihal K. (2019), "Hopes and fears for intelligent machines in fiction and reality", *Nat Mach Intell*, 1:74-78.
- Cools H., Baldwin V.G., Opgenhaffen M. (2022), "Where exactly between utopia and dystopia? A framing analysis of AI and automation in US newspapers", *Journalism* 0(0): 1-19.
- Cristianini, N. (2023), *The shortcut: why intelligent machines do not think like us*, Boca Raton (FL, US), CRC Press.
- Cristianini N. (2024), Machina sapiens. L'algoritmo che ci ha rubato il segreto della conoscenza, Bologna, Il Mulino.
- Dandurand, G., McKelvey, F., & Roberge, J. (2023), "Freezing out: Legacy media's shaping of AI as a cold controversy", *Big Data & Society*, 10(2): 1-13.

ISSN: 2281-8138





- DeFleur M., Ball-Rokeach S. (1989), "Media system dependency theory", in DeFleur M, Ball-Rokeach S (ed.) *Theories of mass communication*, New York Longman, 292-327.
- Degli Esposti P., Tirabassi L. (2024), "The Human-algorithmic Entanglement in the News Realm", *Problemi dell'informazione*, 1: 41-64.
- Esposito E. (2022), *Artificial communication. How algorithms produce social intelligence*, Boston (US), Mit Press.
- Fereday, J., Muir-Cochrane E. (2006), "Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development", *International journal of qualitative methods*, 5(1): 80-92.
- Floridi L. (2009), *Infosfera. Filosofia e Etica dell'informazione*, Torino, Giappichelli Editore.
- Floridi L., Chiriatti M. (2020), "GPT-3: Its Nature, Scope, Limits, and Consequences", *Minds and Machines*, 30: 681-694.
- Fuchs C., Can Arslan S., Allmer T. (2024) "Critical Perspectives on Digital Capitalism: Theories and Praxis. Introduction to the Special Issue", *tripleC* 22 (1): 140-147.
- Griswold, W. (2012), *Cultures and societies in a changing world*, London, Sage.
- Lindgren S., Holmstrom J. (2020), "A Social Science perspective on Artificial Intelligence: building blocks for a research agenda", *Journal of Digital Social Research*, 2(3): 1-15.
- Mitchell M. (2019), *Artificial Intelligence: A Guide for Thinking Humans*, London (UK), Penguin.
- Noble S. (2018), *Algorithms of Oppression: How Search Engines Reinforce Racism*, New York, New York University Press.
- Ouchchy L., Coin A., Dubljević V. (2020), "AI in the headlines: the portrayal of the ethical issues of artificial intelligence in the media", *AI & Society*, 35: 927-936.
- Jungherr A., Schroeder R. (2023), "Artificial intelligence and the public arena", *Communication Theory*, 33(2-3): 164-173.
- Sarani G., Cobianchi V. (2021), "L'intelligenza 'media' artificiale", *Osservatorio di Pavia*, 16 febbraio 2021, Retrieved on 10 May 2024 from: https://www.osservatorio.it/lintelligenza-media-artificiale.







- Sartori L., Theodorou A. (2022), "A sociotechnical perspective for the future of Al: narratives, inequalities, and human control", *Ethics and Information Technology*, 24(4): 1-11.
- Sartori L., Bocca G. (2022), "Minding the gap(s): public perceptions of and sociotechnical imaginaries", *Al & Soc*, 38: 443-458.
- Simon M.F. (2022), "Uneasy Bedfellows: AI in the News, Platform Companies and the Issue of Journalistic Autonomy", *Digital Journalism*, 10(10): 1832-1854.



