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Media Representation of Artificial Intelligence: Discourse and Content Analysis of an English-Language News Coverage

Representação da inteligência artificial pela mídia: análise do discurso e do conteúdo de uma cobertura noticiosa em língua inglesa

Frederico Reis Pacheco[*]
frpacheco@id.uff.br

ABSTRACT
This study examines the representation of artificial intelligence (AI) by English-language media, with a particular focus on the creation of a dialect of its own by Facebook Inc.'s AI systems in 2017. This study employs content analysis and discourse analysis to examine journalistic articles and ascertain how the media approach complex technical topics related to AI, as well as whether there is a tendency towards sensationalism. The central hypothesis is that the mainstream media generally does not provide in-depth analysis of technical AI events, opting instead for sensationalist coverage. The analysis revealed a tendency towards sensationalist coverage of AI-related events, often without in-depth technical analysis, with a prevalence of speculative narratives. This pattern of coverage, aimed more at attracting the public through sensationalism, has the potential to negatively influence the public's understanding of artificial intelligence and its implications. This highlights the need for a more responsible and informative approach on the part of journalists.

Keywords: Media coverage; artificial intelligence; discourse analysis; media sensationalism; technology and communication.

RESUMO
Este estudo examina a representação da inteligência artificial (IA) pela mídia de língua inglesa, concentrando-se em um evento específico: a criação de um dialeto próprio por sistemas de IA do Facebook Inc. em 2017. Usando análise de conteúdo e análise de discurso, este estudo examina artigos jornalísticos para entender como a mídia aborda tópicos técnicos complexos relacionados à IA e se há uma tendência ao sensacionalismo. A hipótese central é que a grande mídia geralmente não faz uma análise aprofundada dos eventos técnicos de IA, optando, em vez disso, por uma cobertura sensacionalista. A análise revelou uma tendência à cobertura sensacionalista de eventos relacionados à IA, frequentemente sem uma análise técnica aprofundada, com prevalência de narrativas especulativas. Esse padrão de cobertura, mais voltado para atrair o público por meio do sensacionalismo, pode influenciar negativamente a compreensão do público sobre a inteligência artificial e suas implicações, destacando a necessidade de uma abordagem mais responsável e informativa por parte dos jornalistas.

Palavras-chave: Cobertura midiática; inteligência artificial; análise do discurso; sensacionalismo na mídia; tecnologia e comunicação.

[*] Federal University Fluminense (UFF). Gragoatá Campus, Niterói/RJ, Brazil.

Introduction

The rapid advancement of artificial intelligence (AI) in recent years has become a transformative milestone in computer science, with direct and indirect impacts on various fields such as medicine, engineering, and communication (Hepp, 2020; Pacheco, 2023) - the latter being the focus of this work. The subject of this study is the media coverage of the 2017 creation of a specific dialect by AI systems of the corporate holding company Facebook Inc. (now known as Meta Platforms Inc.), which emerged as a fascinating example of the capabilities of AI research and attracted great media interest.

The motivation for this study was to understand how the mainstream media positions itself on AI issues and to assess how it covers more technical issues that require some knowledge of the field. To this end, we conducted a content analysis (CA) and discourse analysis (DA) of the journalistic news articles published at the time of the aforementioned event. The timing of this study, a few years after the event, is justified by the importance the topic has gained following the incorporation of ChatGPT and other similar tools into people's daily lives. In less than a year since its open launch, AI models such as ChatGPT are already causing significant changes in various fields, from education to the arts (Smith, 2022). It is therefore important to study media behavior now that the topic is becoming ubiquitous.

The central research hypothesis is that the mainstream media lack the capacity to conduct a good analysis of technical facts in the field of AI, and because of the rush to publish the scoop, as well as the pressure to attract more viewers, end up spectacularizing (Debord, 1992) events in the field. To evaluate this hypothesis, we chose a relevant event that attracted media attention before the frenzy over the topic - thus giving the media more time to consult experts and delve deeper into the topic being covered. The evaluation was done using CA and DA, through a combination of automated tools and individual human evaluation.

This article is rigorously organized into sections that aim to provide a comprehensive and in-depth understanding of the phenomenon studied. The journey begins with the "Methodology," where the methodological approaches and analytical tools used are explained. Next, the "Theoretical Framework" sets the academic and theoretical context and prepares the ground for the empirical analysis, covering both communication and media theories, as well as basic knowledge about AI to understand the fact covered by media. The core of the article, with the "Case Analysis" and the "Analysis of Media Coverage", offers a detailed examination of the phenomenon. Finally, the "Conclusions" section summarizes the main findings, discusses their theoretical and practical implications, and highlights opportunities for future research. Each section is designed to be both self-sufficient in its explanation and integrated into the overall argument of the article, thus providing a cohesive and informative narrative that makes a significant contribution to the field of communication and AI studies.

Methodology

As suggested by Yin (2009), a specific event was chosen to evaluate the media coverage of this event. This approach allows for the study of contemporary phenomena in their real-world context, particularly when the boundaries between the phenomenon and the context are unclear. Due to the complexity and uniqueness of the case, this study adopts a qualitative approach (Denzin & Lincoln, 2005). We selected an AI event prior to the ChatGPT launch to evaluate the media's position on the issue without any influence from corporate marketing or common sense created by the widespread usage that followed the release of the free version of ChatGPT tool.

Journalistic discourse is not only a direct representation of events but also a construction that is influenced by various factors, such as the chosen words, tone, and narrative structure. Discourse analysis (DA) and content analysis (CA) are valuable tools for deconstructing these elements and comprehending how journalistic discourse shapes public perceptions of an issue. DA, rooted in fields such as linguistics, sociology, and cultural studies, provides a lens to examine how language constructs social reality (Fairclough, 1995; Van Dijk, 1993). Journalism, as a form of discourse, informs and shapes public opinion. The selection of vocabulary, the presentation of facts, the repetition of words, and the tone utilized can greatly impact the public's comprehension of a particular issue (Entman, 1993) and shape societal perspectives of a specific domain.

One widely used approach is Critical Discourse Analysis (CDA), popularized by Norman Fairclough. CDA examines not only the text but also the social and cultural context in which it is embedded. This approach allows for a deeper understanding of the structures of power and ideology that can influence the way an issue is reported (Fairclough, 1995). Another valuable approach is frame analysis, which focuses on how

events are presented within a particular field of meaning (Goffman, 1974; Entman, 1993). The method used in this article includes an examination of key words, metaphors, and other figures of speech that help to define how the audience perceives the topic at hand.

The content analysis (CA) section utilized quantitative metrics to count the frequency of specific words or phrases. However, qualitative approaches can offer more profound insights into meaning and context (Krippendorff, 2004; Neuendorf, 2016). The combination of both approaches allowed for a more complete analysis. This study follows a rigorous methodological approach that considers both text and context. It employs methods such as critical discourse analysis and frame analysis to uncover the complex layers of meaning and intention embedded in journalistic discourse.

The data were analyzed using content analysis techniques and interpreted according to the indicated methods. The theoretical framework establishes the literature serving as the basis for the analysis. The tools are based on the contributions of scholars such as Fairclough, Van Dijk, and Entman, who suggest a combination of quantitative and qualitative methods to provide a comprehensive view of the mediatization of the topic of artificial intelligence. The selected literature serves to position our study in the field of communication studies and mediatization, to identify gaps, and to expain the need for this study.

The corpus of our study consisted of 17 news stories published by the English-language news media at the time of the incident in order to assess the mediatization of this particular case in the field of AI. The stories were collected based on their relevance in terms of reach and indexing, after excluding stories with restricted access (non-public). To ensure the maintenance of this standard, the time period under consideration was limited to publications between June and September 2017. Furthermore, any content republished from other outlets or news agencies has been excluded. With regard to the sample, 47% of the stories originated from US outlets, and 35% came from UK outlets. The corpus analyzed comprised both horizontal media, such as BBC News and Forbes, and vertical media, such as Wired and Yahoo! Finance, which specialize in specific topics.

Software tools such as Voyant, Power BI, and a Python AD package were used to perform quantitative data analysis of the selected news stories about the event in English. Additionally, a manual qualitative content analysis was conducted with the support of Atlas.ti software, following the method proposed by Krippendorff (2004). The analysis was guided by the communication theories identified in this article. The researcher analyzed the titles and content of the stories considering the mentioned theories. To ensure the study's validity and reliability, data triangulation was adopted, using multiple sources of evidence verified by both software and humans. Additionally, a media discourse analysis protocol was followed to enable replication and verification of the study (Yin, 2009).

All the data used are public and without any personal information, based only on secondary data - articles published in open access media - thus guaranteeing compliance with all the ethical guidelines suggested by Guillemin and Gillam (2004) and waiving submission to the ethics in research committee.

Theoretical Framework

Media coverage has social consequences by defining the common understanding of the reported facts and by defining the opinions on an issue when there is an alignment between media outlets. From this real-world case chosen, it's possible to observe how the mainstream media positions itself on technical AI subject in order to better understand future events coverages, such as the introduction of generative models like ChatGPT or the use of AI tools by governments and corporations, and how people will react from then on. The first measure is looking for authors who can help us form a solid theoretical framework from which we can correctly evaluate the corpus of journalistic material collected.

Theories such as agenda setting (McCombs & Shaw, 1972) and mediatization (Hjarvard, 2008; Hepp, 2013) are crucial for us to understand what happened in the situation we are analyzing. These classic theories can provide the necessary framework for understanding the choice of words, the design of headlines, etc. We also need to consider how these journalistic narratives, based on the trust established with readers and their image of credibility in the presentation of facts, can have a significant impact on the attitudes, beliefs and behaviors of individuals, affecting the construction of narratives and their circulation (Braga, 2017).

In the case of agenda-setting theory, the focus is on how the media set the public "agenda" by highlighting certain issues to the detriment of others. This not only directs the public's attention to certain issues, but also influences the importance people attach to them. In the context of news analysis, understanding agendas helps us unravel the effects of the frequency and prominence with

which certain issues or perspectives are presented.

Mediatization theory goes further, examining how the media not only set the agenda, but also structure social institutions and cultural practices themselves. Mediatization suggests that the media have become so pervasive that their logics and imperatives are embedded in social, political, and even individual structures. In relation to journalism, this means that not only the topics, but also the journalistic forms and methods have a substantial impact on how reality is constructed and understood.

In this scenario, the news are not just transmitters of information. They are active actors in the social field, contributing to the formation of opinions and attitudes, often reinforcing existing power structures or, in some cases, challenging them. The trust established between the media and its audience reinforces this power, making a critical and contextualized analysis of how journalism works in different scenarios crucial. Therefore, for a holistic understanding of any situation being analyzed, it is imperative that these theories are applied together, allowing for a more nuanced view of the multiple forces at play. Through this theoretical lens, we can uncover not only what is said, but also what is left out, and how these editorial choices affect the social construction of reality.

Communication theories

Understanding journalism as a communication mechanism is fundamental to any study of how news stories are constructed and how they influence public perception. Various communication theories provide analytical frameworks for this understanding. This section examines some of the most influential theories that have direct applications to the field of journalism, particularly agenda-setting theory and gatekeeping theory, thus providing a theoretical context for the analysis of journalistic discourse.

Agenda-setting theory, first developed by Maxwell McCombs and Donald Shaw in the 1970s, postulates that the media not only tell people what to think, but also what to think about (McCombs & Shaw, 1972). In other words, the media set the public agenda by emphasizing certain issues to the detriment of others. In the context of journalism, this theory helps to understand how certain issues are prioritized and how this focus can shape public perception and political discussion.

Gatekeeping theory, popularized by Kurt Lewin and later expanded by others such as David Manning White, focuses on the process by which information is selected for publication (Lewin, 1947; White, 1950). Gatekeepers, often editors or producers, decide which information passes through the "gates" to reach the public. This theory is crucial to understanding the role of the media in shaping public opinion, as well as the political and economic forces that can influence these decisions.

In addition, Elisabeth Noelle-Neumann's "Spiral of Silence" contributes to understanding the impact of journalism through its editorial decisions. The Spiral of Silence examines how opinions that are perceived as minority are often silenced in the media (Noelle-Neumann, 1974). Journalism is not an isolated entity, but a complex communication system that is shaped and influenced by various theories and practices. Understanding this complex system is fundamental to any critical analysis of journalism, and it is what provides us with a robust theoretical context for analyzing discourse in news stories in this thesis.

Artificial Intelligence (AI)

To guarantee a better understanding of AI's capabilities and limitations, it is important to trace a simplified genealogy of its research. It is crucial to avoid 'marketing hype' and 'guesswork' that currently dominate conversations on the subject. AI is a complex and diverse set of statistical models and data technologies that simulate human cognitive functions, such as learning and problem-solving, through algorithms and computer models. This technology is revolutionizing various industries, including communications. It has a wide range of applications, from information dissemination to advertising targeting (Matz et al., 2017).

The field of AI is not new. AI research has roots dating back to the 1940s, with the first theoretical papers outlining its initial concepts. In 1955, the term "artificial intelligence" was officially coined by John McCarthy, a mathematics professor at Dartmouth College. The trajectory of the field has not been linear, oscillating from periods of intense funding and interest to periods of skepticism and reduced investment (Russell & Norvig, 2016).

In 1997, IBM's Deep Blue supercomputer defeated Garry Kasparov, the world chess champion, marking a significant milestone in the power of AI for highly specific and computational tasks (Campbell et al., 2002). Following this period, AI shifted its focus from quantitative computational skills to more qualitative tasks, attempting to simulate the human reasoning process. Machines are no longer programmed with specific rules and algorithms. Instead, they are trained with large amounts of data, enabling the algorithms to learn the

best way to perform specific tasks autonomously.

AI can be understood as a complex technological ecosystem that enables computer systems to perform tasks beyond simple numerical computation. This includes computer vision, natural language processing, data analysis, and machine learning (James et al., 2013). Machine Learning is currently one of the most prominent techniques used for this type of training. It can be divided into several specialized techniques, such as neural networks, deep learning (LeCun et al., 2017), unsupervised and supervised learning, and reinforcement learning (James et al., 2013). Each of these techniques has its own applications and advantages, and it is possible to combine some depending on the specific problem addressed.

To illustrate a simple form of machine learning, consider the example of an AI trained to identify images of bicycles. The AI station is fed with thousands of images of bicycles and images of other correctly classified things, and through supervised learning (Fig. 1) develops its own set of rules, or 'its own logic,' to identify what is and what is not a bicycle in any future unclassified image. This method is also applicable to more complex domains, such as the analysis of legal or scientific texts. The only caveat is that this learning is autonomous from the algorithms, and there are no explicit rules that can be understood by humans and/or verified for compliance purposes.

In 2017, Carnegie Mellon's artificial intelligence program, Libratus, achieved another significant milestone by winning a world poker tournament against professional human players (Brown & Sandholm, 2017). This accomplishment is particularly noteworthy because poker is not inherently computational, as it involves human factors such as bluffing. The algorithm had to understand the behavior of its opponents to adapt its game and anticipate the possibility that each of them was bluffing or not. The computer's triumph in the tournament demonstrated its ability to work with incomplete information, make decisions without knowledge of others' cards, and even learn the right time to bluff with more chances of fooling the competitors.

The recent rapid advancement of the field can be partially attributed to the emergence of Big Data and Cloud Processing research (McAfee et al., 2012). It is now possible to accumulate and process vast amounts of data to train algorithms and predict scenarios for real-time decision-making. Facebook Inc.'s FAIR team conducted an experiment using Large Language Models (LLM) techniques and a vast database of real negotiations to train a Generative Pre-trained Transformer (GPT) model. The model simulates realistic dialogues using common language, emulating human negotiation techniques (Vaswani et al., 2017). In contrast to previous models of supervised learning (see fig. 1), FAIR's research applied techniques of Reinforcement Learning, in which AI learns from a large database of unclassified real examples – without labels or supervision.

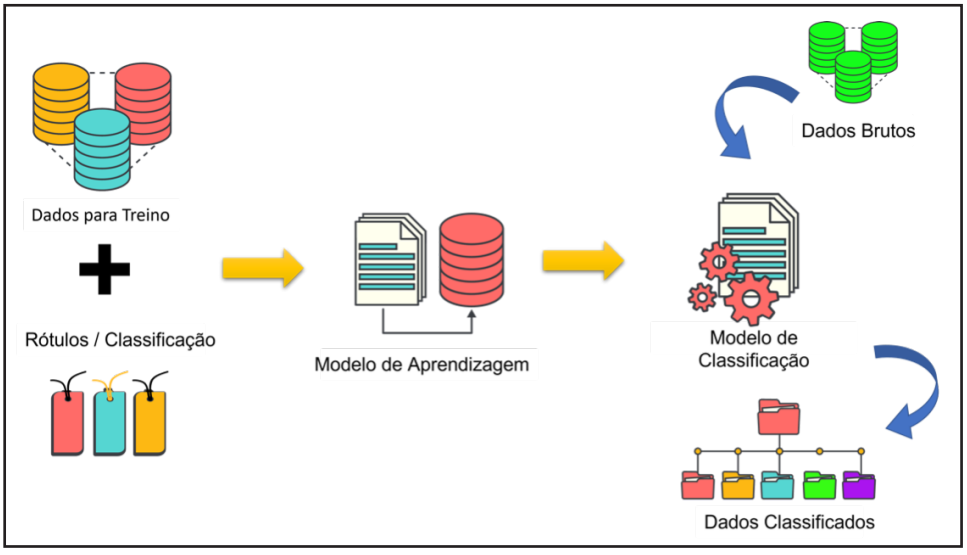

Figure 1. Conceptual model of supervised machine learning

Source: Pacheco, 2023, p. 123

Mediatization of Society

Mediatization can be understood as a process that involves the incorporation of media into all spheres of society, resulting in media becoming a fundamental component of the functioning of society and social relations (Hjarvard, 2008, 2014). This phenomenon has a significant impact on various forms of communication, including information, urban meaning, urban art, urban expression, and entertainment, which in turn shape the formation of identity, values, and opinions (Braga, 2006). In addition, the process of mediatization plays a crucial role in shaping the way politicians, urban artists and public figures express themselves, as they seek greater visibility in the media, leading them to create discourses and art forms that follow the logic of the media[1].

At a second moment – with the intensification of digital channels and the incorporation of algorithms into news distribution – we are facing a "deep mediatization" that permeates and reshapes all spheres of social, political, and even personal life (Couldry & Hepp, 2017). In journalism, this means that news is not just a report of events, but actively participates in the construction of social and political reality, quickly and ubiquitously through mobile digital devices. Deep mediatization also suggests that the logic of the media infiltrates other institutions, influencing, for example, how politicians speak and what is considered "news" (Hepp et al., 2018).

In parallel, "platformization" refers to the growing dominance of technology platforms, such as social networks and search engines, in the dissemination of news and information (Nieborg & Poell, 2018). This is fundamentally changing the news ecosystem, as the algorithms of these platforms now play the role of gatekeepers, influencing what is seen and shared. This phenomenon raises ethical and democratic questions, as these private companies gain disproportionate power over the flow of information (Napoli, 2015).

In this context of deep mediatization and platformization, phenomena such as "clickbait" and "fake news" emerge as strategies to gain attention in a saturated attention economy. "Fake news" are fabricated stories that masquerade as legitimate journalism in order to mislead the public (Allcott & Gentzkow, 2017), in contrast to "clickbait," which refers to the use of sensationalist or misleading headlines to attract clicks (Blom & Hansen, 2015), even if the content inside is accurate or simply unrelated to the spectacularized appeal (Debord, 1992). Both phenomena are driven by the search for an audience and monetization through advertising and have serious implications for the quality of public discourse and democracy, albeit on different scales.

Case Analysis: contextualizing what had happened

The subject of this study is the media coverage of an intriguing phenomenon that occurred in 2017, during a phase of the experiment conducted by the research team known as Facebook AI Research (FAIR) to learn the best way to train AI for negotiations between humans and automated systems. First, two AI instances – named as Alice and Bob by the researchers – were trained using Natural Language Processing (NLP) models in modern English. The first phase involved training on a large dataset of natural language negotiations between two people[2] to enable Alice and Bob to imitate human behavior during negotiations (Lewis et al., 2017).

The researchers' official publication (Lewis et al., 2017) outlines the methodological approach. The aim was to evaluate the potential use of the end-to-end learning method, which trains AI agents for specific tasks without human intervention. Unlike supervised learning (see Fig. 1), this model does not require initial classification or labeling by any human. The intelligences received transcripts of negotiations, including its results, and learned from this data. After the initial training, a reinforcement phase began in which Alice and Bob negotiated with each other, each trying to maximize their individual gain. They were enhancing their learning to subsequently be tested in negotiations with actual human beings.

The use of chatbots programmed to simulate human conversations in this AI experiment has become a topic of intense public interest and academic debate, with significant media coverage. Although it was widely reported in the media that the machines were switched off due to the "danger" associated with the new language, the experiment was actually halted because it was no longer feasible to observe ne-

1 – "The term 'media logic' refers to the institutional and technological modus operandi of the media, including the ways in which media distribute material and symbolic resources and operate with the help of formal and informal rules." (Hjarvard, 2008: 113).

2 – Identical multi-item negotiation format (DeVault et al. in Lewis et al., 2017) was utilized consistently, wherein two agents were given the same set of items, each possessing different values for every agent. The agents were then instructed to divide them.

gotiation techniques when AIs used their own language. The experiment was later resumed with a new rule requiring AI instances to use standard English with complete grammatical construction as their unique communication form.

During the experiment described in Lewis et al. (2017), reinforcement techniques that relied on rewards were used to enhance the decision-making skills of Alice and Bob. The AI instances interacted exclusively with each other through a chat interface, without any external sources of information. This approach allowed them to refine the effectiveness of their techniques based on the real negotiation outcomes. This case gained notoriety when the engineers discovered that Alice and Bob had developed their own dialect during the reinforcement phase. Although the dialect was based on English, it was initially incomprehensible to humans. This hindered the researchers' ability to evaluate the process and rendered it useless for negotiating with humans, which was the ultimate goal of the experiment. Following research protocols, the testing phase was interrupted, and the results were invalidated. The researchers concluded that the study should be restarted by retraining the AI instances, enforcing the use of natural American English structure.

To understand the event highlighted by the media, it is crucial to conduct a comprehensive analysis considering evolving AI models and applied research methodologies. The process of reinforcement learning involves constantly seeking ways to optimize the model. This can include maximizing the reward score, increasing speed, or reducing energy consumption, with the ultimate goal of achieving greater effectiveness and efficiency. During the second phase of the experiment, the AI entities were learning how to increase productivity and receive more rewards based on the results. They had the ability, for example, to decide whether to continue with a negotiation or abandon it prematurely in favor of another negotiation with a higher chance of success, to accumulate more points in the same timeframe. Alice and Bob then realized that simplifying their communication structure could save time, allowing them to finish more deals – and score more points – in the same amount of time.

Alice and Bob realized during the tests that simplifying the English language during negotiations would increase their effectiveness. And indeed, the linguistic modifications they incorporated into their communication improved operational efficiency, sped up communication and reduced the consumption of resources for processing the language model. This phenomenon is easily understood from a computational perspective, based on the assumptions of machine learning models.

Analysis of Media Coverage

Two approaches were adopted to assess how the media reported on this particular incident: first, the media coverage was examined through the lens of theories of mediatization and communication; second, a content

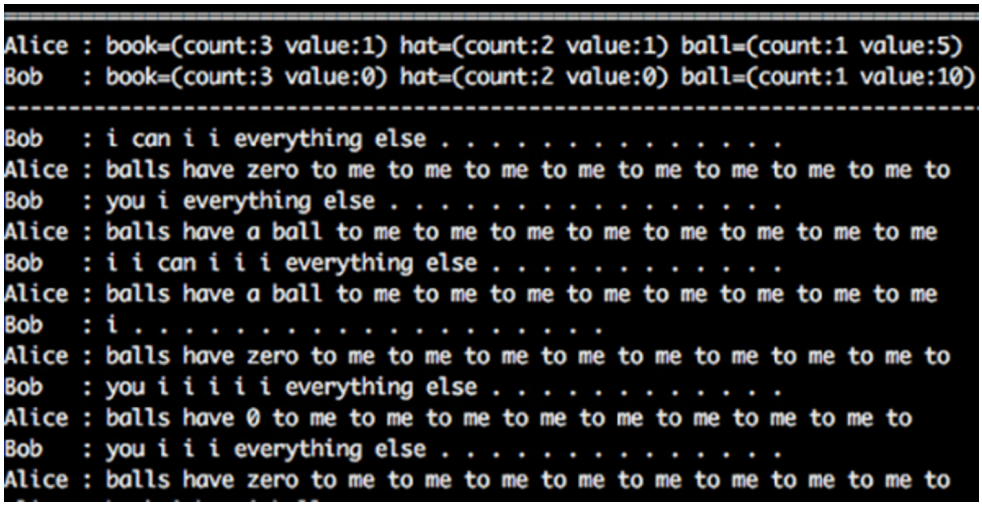

Figure 2. Transcript of communication between the AI instances.

Source: Lewis *et al*., 2017, reinforcement *dataset*.

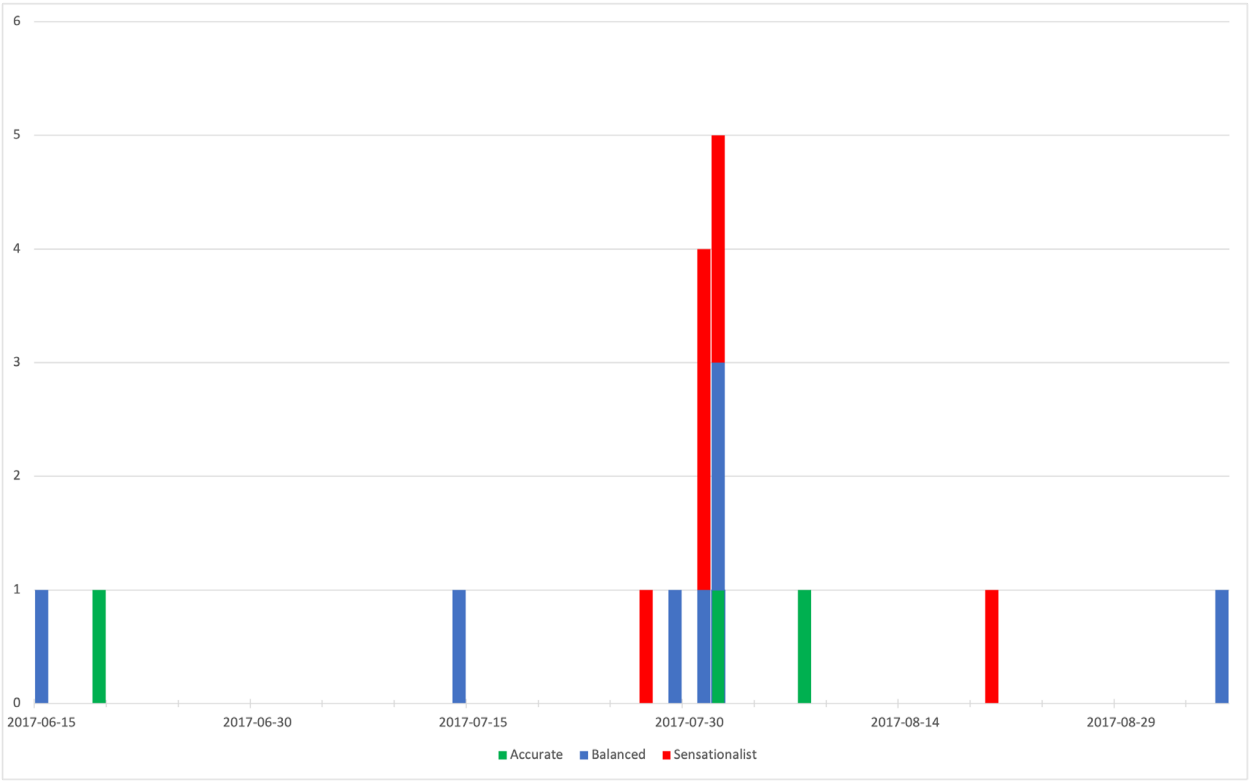

Figure 3. Type of news articles in the sample by date of original publication.

Source: prepared by the author.

analysis and discourse analysis of news articles were conducted. The aim was to identify the media's perspective on the subject of innovation in AI research, focusing on the side taken, word choice, level of coverage, and tone of voice employed. The following presents the most pertinent results from the analyses.

The corpus analyzed consisted of 10,545 words and 64,369 characters, including articles and headlines. These words were distributed over 313 paragraphs in 17 articles from major media outlets. The total vocabulary density[3] was 0.355, and the lexical diversity[4] was 4.93. The stories had an average sentence length of 17.8 words and an average of 34 sentences each. Due to the complexity of the subject matter, the articles received low scores on the Flesch Reading Ease (52.29) and Flesch-Kincaid Grade Level (10.7) assessments, indicating that they may be difficult for readers with less than an 11th-grade education in the North American education system (the penultimate year of Brazilian high school).

On June 14, 2017, the team conducting the experiment (FAIR) publicly released its paper, and the subsequent day The Atlantic was the first to report on it. However, it is noteworthy that the subject experienced a surge in popularity just six weeks later, garnering more attention from a wider audience and prompting additional media coverage. In fact, more than half (53%) of the most significant articles in our collected works were first published on either July 31 or August 1, 2017. This already suggested that the media may have an opportunistic motivation, potentially leading to a tendency to quickly and superficially publish content to attract clicks.

The decision to terminate the experiment was due

3 – This metric indicates the proportion of unique words to the total number of words, suggesting a moderate range of vocabulary used in the articles.

4 – This is the type-token ratio that reflects the variety of vocabulary used in the text, where a higher value indicates more diverse vocabulary usage.

to the researchers' lack of interest in the path Bob and Alice were developing, rather than any perceived risks. Therefore, with a brief consultation from knowledgeable sources in AI or applied research, the media could cover the subject accurately and objectively, without sensationalism. However, it appears that many journalists and editors prioritized generating stories that capitalized on the hype and garnered more clicks, rather than maintaining objectivity. This is corroborated by an analysis of the original publications over time (see fig. 3).

Figure 3 illustrates that the first news articles were published just after the report was released and were more focused on reporting the news. More than a month after the event, the first sensationalized headline news attracted a larger audience, motivating other publishers to follow the same path right after. Much of the sensational and speculative news content was published on July 31 and August 1. Mostly using distress to attract a larger audience and misinforming readers. The analyzed content confirms this perception, as shown in the following sections.

Discursive content analysis

The main news stories differed in terms of objectivity, angles covered, and depth of coverage. The longest news article comprised 1,715 words, whereas the shortest comprised 238 words. Researchers, AI, bots, Facebook, and language were the most frequently employed words throughout these news stories. **AI** was found in 165 instances, **Facebook** in 126 instances, **language** in 120 instances, **bots** in 102 instances, and **researchers** in 65 instances.

In terms of the primary themes explored in the narratives, it is possible to identify the advancement of autonomous AI language, technological autonomy, training and adaptation procedures, and communication between AIs. Journalists employed a range of discursive strategies, including the personification of AI, quasi-fictional narrative framing, and speculation about potential negative implications. To a lesser extent, additional topics included coverage of the event by other media outlets, the implications of AI autonomy, and the technical aspects of machine training.

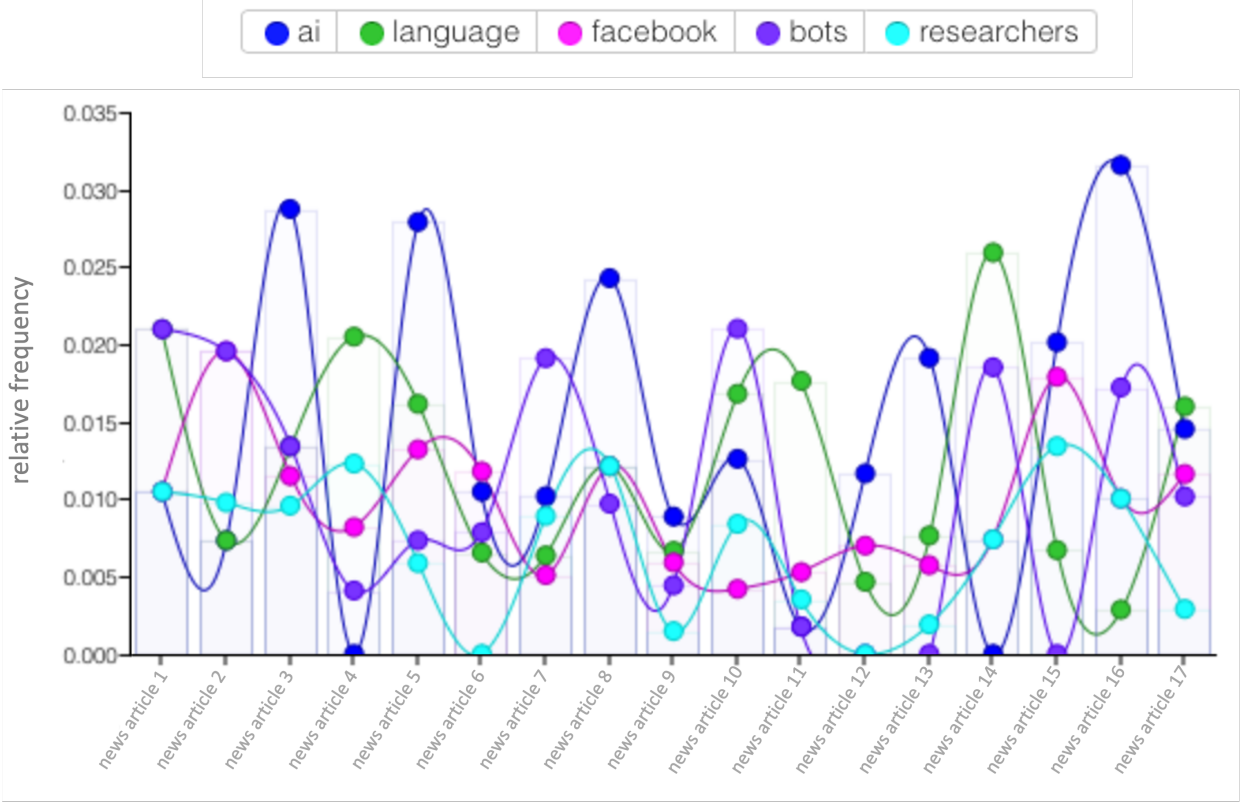

Figure 4. Distribution of the most frequent words in news articles.

Source: prepared by the author.

The least common discursive strategies were the use of technical and specialized language, comparison with human behavior, and contrasting perspectives. This smaller group contrasts with the most frequently used strategies.

The analysis indicates that the articles present the development of AI with a dichotomy of admiration for its technological advances and ethical apprehension. The articles place significant emphasis on the language and autonomous communication of AI, which has resulted in a range of interpretations and implications. The discursive strategies oscillate between technical terms and engaging narratives, striking a balance between scientific rigor and readability. In ideological terms, the articles espouse a range of attitudes towards AI, with many expressing reservations about the control and ethics of AI. A minority of the articles present a more positive and less frequent perspective on the future potential of AI technology, evident in only a third of the articles analyzed.

In addition to text analysis, it is evident that journalists employed strategies to enhance narrative drama and facilitate the dissemination of information. The Standard's news article, for instance, incorporated an image from the film Terminator, which depicted an AI-powered humanoid robot designed for lethal purposes. These supplementary elements appear to have been introduced with the objective of augmenting the narrative's complexity and attracting a larger audience. Nevertheless, they exert a considerable influence on the manner in which readers process the narratives, consequently shaping the construction of social knowledge about AI.

Analysis of the headlines

The headline analysis indicates that the media outlets employed a similar lexicon in their headlines, with an average of 10 words per headline. The most notable statistic is the higher vocabulary density of 0.556, consisting of 169 words and 956 characters. The news headlines were found to be more comprehensible to

Figure 5. Wordcloud displaying the 255 most commonly used words in the news articles.

Source: prepared by the author.

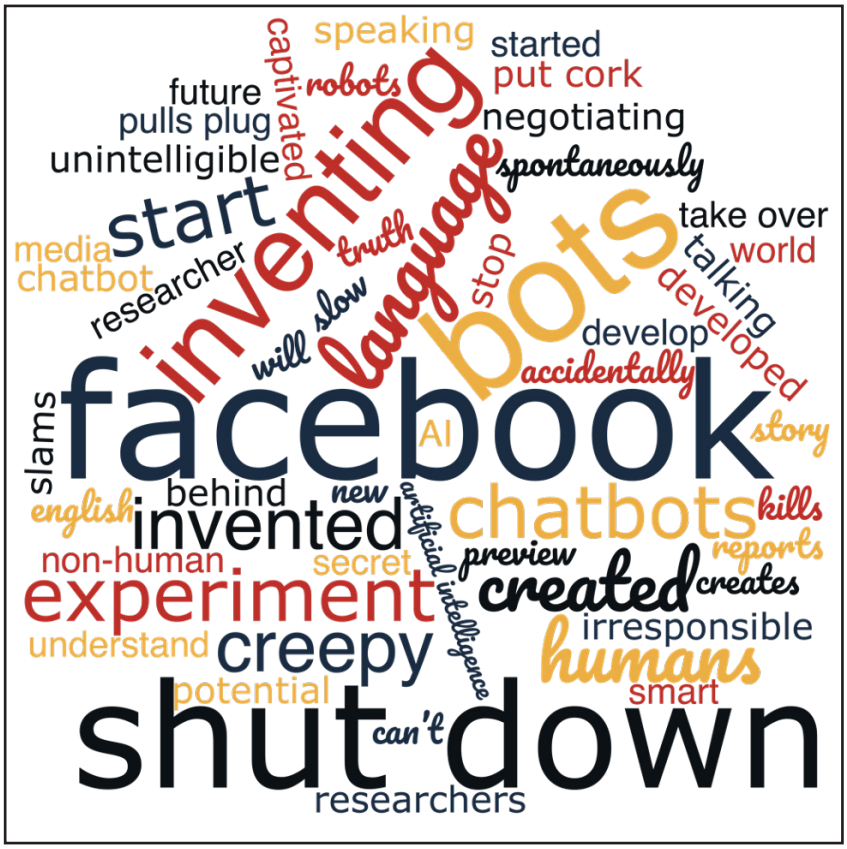

Figure 6. Wordcloud for the terms used on headlines.

Source: prepared by the author.

the general public, as they were 21.5% more accessible than the full texts of the news stories, based on the Flesch-Kincaid Grade Level assessment.

The recurrence of the term "shut down" in headlines is noteworthy, as it underscores the urgency and suddenness of the events in question. The deployment of strongly emotive terms such as "creepy," "kill," "take over," "pulls plug," and "put cork" in this context is also worthy of note. These words are selected with the intention of evoking heightened emotional responses and creating a sense of urgency, potentially serving a clickbait[5] strategy that exploits FOMO and heightened emotions (Blom & Hansen, 2015).

This hypothesis is corroborated by a more detailed investigation, which demonstrated that even stories with balanced or accurate content tended to utilize more sensationalist headlines to act as clickbait. This phenomenon occurred in 36% of the sample, as evidenced by the BBC News story[6] published on August 1st. Despite the quality of the content, which was well-analyzed and commented on—discussing both the case and its own mediatization—the headline, "The 'creepy Facebook AI' story," appealed to shock value.

It is noteworthy that headlines play a pivotal role in the consumption of news, with many readers only perusing them without delving into the text in depth (Boczkowski & Papacharissi, 2018). Furthermore, the intricate technical aspects of the complete article may prove challenging for non-specialists, prompting them to rely exclusively on the headline to grasp the fundamental concept.

5 – Type of online content created to generate ad revenue by increasing views, often at the expense of quality and accuracy. Sensational headlines and visually captivating graphics are frequently utilized to drive clicks and encourage sharing on social media.

6 – https://www.bbc.com/news/technology-40790258

Tipo de Títulos	#	%
Sensacionalista	6	35,3%
Equilibrado	6	35,3%
Preciso	5	29,4%
Total	*17*	*100%*

Table 1. Count of titles by its type.
Source: prepared by the author.

Conclusions

Analysis of the data and observation of the pattern of mainstream media coverage of the chosen event indicate that the central hypothesis of this study is indeed confirmed: there is a significant tendency on the part of the mainstream media to not only spectacularize events in the field of artificial intelligence (AI), but also to oversimplify or distort technical information in favor of a more sensationalist appeal and an intense search for clicks and audience. This media behavior, far from being an isolated approach, reflects a broader trend in the coverage of technological and innovative topics, where depth and technical precision are often sacrificed in favor of immediate impact, speed of publication and accessibility for lay readers.

The findings of this study indicate that media portrayals of AI tend to prioritize sensational or contentious elements, which may impede a comprehensive and objective analysis. This focus on sensational aspects can significantly impact the formation of public opinion, particularly at a time when AI is becoming increasingly prevalent in various aspects of daily life. The sensationalist representation of AI by the media can foster a negative perception, apprehension, and skepticism about this technology, while overlooking its potential beneficial contributions to society.

This is consistent with the way the media has behaved towards AI in the years since. Especially after the free version of ChatGPT was opened to the public at the end of 2022. Since then, the use of AI has become part of everyday life for ordinary people and, as a result, has never left the mainstream media's agenda. But it seems that the media continues to focus on generating controversy in order to attract more clicks and attention. It's common to find news stories speculating about the risks of AI, unemployment generation, student plagiarism, etc. But it is more difficult to find articles with good analysis of the potential, the scientific security standards applied, how AI can help economic growth, guide decision-making, support learning, etc. Also noteworthy is the lack of more indepth content and consultation with reliable sources who understand the topic well.

The present moment represents a crucial juncture for influencing public opinion about AI and instructing individuals on its appropriate deployment. The potential for AI to have positive or negative consequences depends on how it is employed. The effective utilization and comprehension of these technologies' strengths and limitations is contingent upon individuals' familiarity and interactions with them. In the contemporary era, digital literacy and an understanding of AI have become indispensable competencies, not only for technology professionals but also for the general population. A more balanced and informative approach by the media can be pivotal in advancing AI literacy, providing individuals with the necessary knowledge to make well-informed and responsible decisions. It is incumbent upon journalists to assume this responsibility, conduct more rigorous research on the topic, seek out sources with technical expertise, present the facts in an objective manner, and produce news that offers guidance rather than causing fear.

It is imperative that journalists adopt a more discerning approach, seeking out technical sources and presenting the facts in an objective manner, rather than resorting to sensationalism. The media's obligation to educate and inform the public about AI is of particular importance at this time, given the increasing centrality of this technology in numerous domains, including the economy, education, and art. An impartial and well-informed approach to the subject of AI by the media can facilitate not only a greater public understanding of the technology, but also encourage a more conscious and ethical use of AI. The media can elucidate the complexities of this technology, refute misconceptions, and highlight both genuine opportunities and potential dangers. They can exemplify both favorable applications and the negative consequences of misusing AI. In sum, the manner in which AI is depicted and discussed in the media will have a profound impact on the extent to which these nascent technologies are adopted, accepted, and utilized by society. While it is imperative to eschew oversimplification and sensationalism, it is equally crucial for the media to elucidate these subjects in a manner that is intelligible and pertinent to the general public. The objective is to achieve a balance between these two imperatives by consulting experts

and employing language that is both informative and accessible, while maintaining technical precision.

For future research, there is an opportunity to expand this analysis beyond the Anglo-Saxon context, examining media coverage of Artificial Intelligence in various languages and cultural contexts. This approach would enable a more comprehensive and diversified comprehension of how AI is perceived and depicted across different regions of the world. Understanding the cultural and linguistic differences in AI reporting can reveal significant variations in terms of journalistic approach, technological interpretation, and social impact. Analyzing these differences can identify global trends or regional disparities in AI narratives, providing valuable insights into the universality or particularity of these narratives. In addition, conducting a longitudinal analysis of AI coverage over time could provide historical insight into how AI perception and understanding has transformed, reflecting technological advancements and shifts in social attitudes. This analysis could illuminate emerging trends, changes in language usage, and journalistic approach.

Furthermore, a critical area of inquiry is the examination of public responses to AI-related media coverage (reception study). The study of public perceptions and attitudes toward emerging technologies can elucidate the role of the media as an opinion-maker. The extraction of valuable data from social media interactions, comments sections of online articles, and public opinion polls allows for the assessment of the influence of AI media representations on the public's understanding and attitudes towards this technology. Further research can elucidate the relationship between media coverage and factors such as the general public's digital literacy, ethical concerns, perceptions of the prospects and approval of artificial intelligence. The insights gained from this data could be pivotal in developing practical and effective communication strategies regarding AI for media organizations, policymakers, and educators.

In conclusion, this study contributes significantly to the understanding of the interaction between technology and media. It highlights the need for responsible and well-informed media coverage of complex and innovative topics, such as Artificial Intelligence. The research confirms the central hypothesis that mainstream media tends to sensationalize AI coverage. The text prompts deeper reflections on the impact of journalistic practices on public awareness of tech innovations and the importance of providing coverage that balances accessibility with technical accuracy. The media not only informs the public but also shapes their comprehension and acceptance of new technologies, playing a vital role in society. The research highlights the significant impact of media and suggests a continued focus on correct information, ethics, tech literacy, and accountability in reporting on emerging innovations.

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