

Artificial Intelligence and Human Perception

Media Discourse and Public Opinion

Edited by
Emma Lupano, Paolo Orrù

METODI E PROSPETTIVE



Metodi e prospettive

Metodi e prospettive è una collana di volumi, monografici o miscellanei, che si articola in due sezioni.

Studi di Linguistica, Filologia, Letteratura si propone di raccogliere e ospitare sia studi linguistici e filologici sia testi letterari e edizioni critiche di opere. Il progetto è basato sul principio metodologico della connessione diretta tra teorie e applicazioni nei campi della linguistica, della filologia e della critica letteraria. In tema di linguistica e filologia, la sezione accoglierà contributi nei diversi ambiti della linguistica funzionale (sincronica, diacronica, storica, descrittiva e applicata), della storia delle lingue e delle tematiche testuali e culturali degli studi filologici. Per la parte di letteratura proporrà, invece, testi di taglio criticamente innovativo e interdisciplinare, con attenzione particolare agli aspetti culturali dei processi letterari, all'ibridazione e alla problematizzazione dei generi, nonché alla edizione di testi inediti o dei quali si proponga una nuova visione critica.

Studi di Storia, Geografia, Antropologia, Comunicazione si propone di raccogliere e ospitare testi riguardanti la storia politica, economico-sociale, istituzionale e culturale, dall'età antica a quella contemporanea, nonché la cura e edizione di testi e documentazione archivistica. Riguardo all'ambito della geografia, la collana accoglierà contributi su temi di geografia umana e regionale, quali la popolazione e i processi migratori, le identità etniche e territoriali, la società urbana e rurale, il paesaggio, il turismo, la geopolitica, l'economia e la sostenibilità ambientale. I contributi riguardanti l'antropologia verteranno su contatti e intrecci fra culture, mutamento culturale, saperi, rappresentazioni e formazioni sociali, beni culturali. Nel campo della musicologia, dell'etnomusicologia, del cinema, della televisione, della fotografia e dei media audiovisivi, la collana accoglierà studi con approcci sia storici che teorico-metodologici, con particolare attenzione all'analisi dei testi, alle pratiche creative e di ricezione in una prospettiva diacronica e sincronica, alle ricerche in archivio, anche con approcci interdisciplinari.

La Collana si avvale di un comitato scientifico internazionale e ogni contributo viene sottoposto a procedura di doppio *peer reviewing* anonimo.

Coordinamento

Ignazio Putzu (Cagliari)
Gabriella Mazzon (Innsbruck)
Francesco Atzeni (Cagliari)

Sezione Studi di Linguistica, Filologia, Letteratura

Massimo Arcangeli, Michela Giordano, Franca Ortù, Antonina Paba, Antonio Piras, Roberto Puggioni, Mariella Ruggerini, Francesco Sedda, Daniela Zizi.

Sezione Studi di Storia, Geografia, Antropologia, Comunicazione

Francesco Atzeni, Raffaele Cattedra, Antico Floris, Luca Lecis, Ignazio Macchiarella, Olivetta Schena, Felice Tiragallo.



OPEN ACCESS la soluzione FrancoAngeli

Il presente volume è pubblicato in open access, ossia il file dell'intero lavoro è liberamente scaricabile dalla piattaforma **FrancoAngeli Open Access** (<http://bit.ly/francoangeli-oa>).

FrancoAngeli Open Access è la piattaforma per pubblicare articoli e monografie, rispettando gli standard etici e qualitativi e la messa a disposizione dei contenuti ad accesso aperto. Oltre a garantire il deposito nei maggiori archivi e repository internazionali OA, la sua integrazione con tutto il ricco catalogo di riviste e collane FrancoAngeli massimizza la visibilità, favorisce facilità di ricerca per l'utente e possibilità di impatto per l'autore.

Per saperne di più: [Pubblica con noi](#)

I lettori che desiderano informarsi sui libri e le riviste da noi pubblicati possono consultare il nostro sito Internet: www.francoangeli.it e iscriversi nella home page al servizio "[Informatemi](#)" per ricevere via e-mail le segnalazioni delle novità.

Artificial Intelligence and Human Perception

Media Discourse and Public Opinion

Edited by

Emma Lupano, Paolo Orrù

FrancoAngeli 

This publication was funded by the European Union - NextGenerationEU (D.M. 737/2021 - Linea d'intervento Iniziative di ricerca interdisciplinare su temi di rilievo trasversale per il PNR) as part of the research project "Artificial Intelligence and Human Perception: Media Discourse and Public Opinion in Italy and China" (CUP: F25F21002720001).

Isbn: 9788835178347

Copyright © 2025 by FrancoAngeli s.r.l., Milano, Italy.

Pubblicato con licenza *Creative Commons
Attribuzione-Non Commerciale-Non opere derivate 4.0 Internazionale*
(CC-BY-NC-ND 4.0).

Sono riservati i diritti per Text and Data Mining (TDM), AI training e tutte le tecnologie simili.

*L'opera, comprese tutte le sue parti, è tutelata dalla legge sul diritto d'autore.
L'Utente nel momento in cui effettua il download dell'opera accetta tutte le condizioni
della licenza d'uso dell'opera previste e comunicate sul sito
<https://creativecommons.org/licenses/by-nc-nd/4.0/deed.it>*

Table of Contents

| | |
|--|--------|
| AI Discourse and Public Opinion in a Global Perspective, by <i>Emma Lupano & Paolo Orrù</i> | pag. 7 |
|--|--------|

Part I Media Discourse

| | |
|---|-------|
| Myths and Symbols in the Artificial Intelligence (AI) Media Discourse. The New Myths of Modernity: AI - An Interpretive Study, by <i>Ionel Barbalau</i> | » 17 |
| Smartness as a New Paradigm for Retail? Sociotechnical Imaginaries of Autonomous Stores in the Media, by <i>Ana Viseu, João Pedro Pereira & Ana Delicado</i> | » 39 |
| The Human-Machine Relationship: Artificial Intelligence and Human Perception in Italian Newspapers, by <i>Paolo Orrù</i> | » 55 |
| Of Pride and Patriotism. The Representation of Artificial Intelligence in Chinese Official and Media Discourse, by <i>Emma Lupano</i> | » 83 |
| Framing the Metaverse and AI: A Comparative Analysis of Media Discourse and Public Perception in China and the West, by <i>Vincenzo De Masi, Qinke Di, Siyi Li & Yuhan Song</i> | » 111 |

Part II

Public opinion

| | |
|--|----------|
| Beyond Awareness: Exploring AI's Impact on Kenyan PR Adoption, Efficiency, and Ethics, by <i>John Maina Karanja</i> | pag. 129 |
| Navigating AI Narratives: Exploring Folk Theories about AI in Brazil, by <i>Maximilian Eder & Anna Luiza Palhano Lhamby</i> | » 145 |
| An overview of AI and science fiction in China through the analysis of <i>Land of Memories</i> , by <i>Gianluigi Negro</i> | » 161 |
| Debating the Future of Chinese Artificial Intelligence on Social media: an Analysis of Zhihu Users' Opinions, by <i>Alessandra Melis</i> | » 177 |
| Images and Imaginaries of Generative AI: Survey-Based Research, by <i>Alessandra Micalizzi</i> | » 201 |
| Threat or Benefit? Unveiling the Political and Personal Factors behind Italian Perceptions of AI, by <i>Stefano Rombi</i> | » 223 |

Navigating AI Narratives: Exploring Folk Theories about AI in Brazil

by Maximilian Eder & Anna Luiza Palhano Lhamby

1. Introduction

Artificial intelligence (AI) has received extensive media attention in recent years, partially focused on the rapidly transforming field of context-sensitive natural language processing and machine learning. While AI and algorithm-based technologies are often framed as either a boon or bane by news media and in political discourse (see, e.g., Köstler & Ossewaarde, 2022; Nguyen & Hekman, 2024), research about peoples' actual perspectives and understanding of them remains limited.

At the same time, accurately assessing how individuals make sense of such narratives and how much individuals know about AI and algorithm-based technologies remains a significant challenge in communication research (Gandini *et al.*, 2022). The concept of algorithmic folk theories is a valuable framework for researching the narratives and debates surrounding such technologies to fully understand how people perceive such influential technologies in their daily lives. Against this background, this study explores how young people in Brazil perceive, understand, and reflect on AI to comprehend what intuitive, informal folk theories they form.

This study defines AI as «an umbrella term for a range of technologies such as automated statistical data analysis, machine learning, and natural language processing» (Deuze & Beckett, 2022: 1914). Such a conceptualisation also includes algorithm-based technologies, as although they are analytically distinct concepts in general, some algorithmic systems can be classified as AI (Latzer & Just, 2020).

Siles *et al.* (2023) and Ytre-Arne and Moe (2021) have highlighted the cultural sensitivity of forming folk theories. At the same time, there is a persistent tendency «to assume that conclusions about the power of

algorithms in the Global North apply unproblematically everywhere else» (Siles *et al.*, 2023: 57; see also Milan & Treré, 2019; Silva, 2019). Against this background, this study follows the argument that cultural influences shape AI narratives, and as such, «[u]nderstanding how AI will develop requires [...] an understanding of the many sites in which its story is unfolding» (Cave & Dihal, 2023: 5).

With this research, the authors also follow the call for a de-Westernisation of communication research (Waisbord & Mellado, 2014) and the inclusion of other cultural perspectives. In general, this study aims to provide insights into the Brazilian discourse on AI and explore the cultural narratives around it.

With the identification of folk theories about AI, this study contributes to the field of human-computer interaction and critical studies about AI in two ways: first, insights are provided into how people make sense of AI and interact with the technology. Second, they contribute to the growing literature on how technology is used and perceived in the Global South with a Brazilian perspective that analyses the issue beyond AI narrative universalism.

2. Literature review

2.1. *Algorithmic folk theories*

The recent rapid growth of cross-disciplinary studies focusing on how people perceive AI and algorithm-based technologies and their knowledge about them has led to somewhat ill-defined and theoretically overlapping concepts. They often focus on social media platforms and search engines (for an overview, see Oeldorf-Hirsch & Neubaum, 2025) rather than the broader topic of AI, most likely due to the opaque nature of the term. However, one concept that has been particularly influential in this specific field of research is folk theories.

Algorithmic folk theories derive from individual experiences, cultural teachings, and social interactions, which help people to intuitively simplify complex issues (Liao & Tyson, 2021; Ytre-Arne & Moe, 2021). The concept originates from so-called intuitive theories, as described by Gelman and Legare (2011). One common element is that intuitive theories well embody cognitive biases that influence perception and behaviour, meaning they «are not neutral or passive snapshots of experience» (Gelman & Legare, 2011: 380). Against this background, algorithmic folk theories are defined as «intuitive, informal theories that individuals develop to

explain the outcomes, effects, or consequences of technological systems, which guide reactions to and behaviour towards said systems» (DeVito *et al.*, 2017: 3165; see also Eslami *et al.*, 2016: 2372).

Situated within this strain of research is also the concept of algorithmic imaginaries (Bucher, 2017), as they both emphasise the interplay of one's perception of AI or algorithms and culture. However, Ytre-Arne and Moe (2021) have argued that, unlike algorithmic imaginaries, «folk theories of how media work are not necessarily abstract, but rooted in everyday experience» (811) and go beyond guiding behaviour. Instead, they include «making sense of experiences, generating inference and steering learning about the world» (*ibid.*).

As this chapter aims at exploring the broader understanding of AI, the concept of folk theories instead of imaginaries will be applied following Siles *et al.* (2020): «[F]olk theories matter [...] because they help to broaden our understanding of how users make sense and relate to datafication processes in daily life» (12). Moreover, folk theories provide a framework to account for individual, potentially contradictory experiences with technology against the background of «the uncertainty and instability inherent in human understandings of complex systems» (DeVito, 2021: 4).

2.2. *Current folk theories about AI and algorithms*

Given that there are signs of an algorithmic divide with disparities in awareness and knowledge about AI and algorithm-based technologies (e.g., Bentley *et al.*, 2024; Wang *et al.*, 2024), it remains difficult for certain socio-demographic groups to make sense of their engagement with AI. Therefore, folk theories are instead formed retrospectively (López *et al.*, 2024) and «sometimes complement each other, sometimes exist in tension with each other, and sometimes contradict each other» (Pohl & Goldkind, 2023: 250). Moreover, there is also a need for more representation of the Global South when it comes to studies on folk theories about AI, with only a few studies being conducted.

Siles *et al.* (2020) explored folk theories among users of the audio streaming platform Spotify in Costa Rica. On the one hand, the platform is anthropomorphised as a social being that provides recommendations. On the other hand, it is viewed as a resource-rich system and computational machine offering personalised content through tailored training on user data.

In a recent study, López *et al.* (2024) explored users' perceptions of AI in algorithm-mediated public services in Chile. Users viewed AI as an

all-knowing entity (i.e., «mighty puppeteer») capable of monitoring actions and interconnecting data sources to make decisions. While they expressed concern about privacy and potential risks, they accepted the inevitability of these technologies with varying levels of trust. This acceptance may be related to privacy fatigue, where users feel helpless and unable to control their data in digitised contexts.

The concept of (algorithmic) folk theories has also been previously applied to studies conducted in the US, Norway, and China.

French and Hancock (2017) identified four primary folk theories about Twitter and Facebook's news feed in the US through a factor analysis of metaphors. Two folk theories are associated with positive sentiments and the belief that the feed's content is prioritised according to their interests. In contrast, two other folk theories are related to negative sentiments. The participants believe that algorithms overstep boundaries by utilising personal data to serve companies' interests and that their operational process is opaque and challenging to regulate.

In a representative survey in Norway, Ytre-Arne and Moe (2021) showed that algorithms are perceived as confining, reductive, intangible, and exploitative. At the same time, they are perceived as an integral part of media experiences and, due to their practicality, impossible to avoid. As such, irritation emerges as a central emotional response to algorithms. Furthermore, the authors have argued that there is no digital resignation in the context of algorithms, as people are still emotionally engaged.

Xu *et al.* (2024) analysed Chinese university students' perceptions of AI and robots through metaphor nomination, factor analysis, and semantic analysis. The findings suggest that people attribute human characteristics to AI and robots, perceiving them similarly to forming impressions of humans. People perceive AI as somewhat uncontrollable, while robots are perceived as something under their control, comparing them to aeroplanes and cars. The findings further imply that social cognitive processes shape a person's perceptions of these technologies.

Other studies have focused on specific aspects of folk theories. Karizat *et al.* (2021) identified folk theories regarding LGBTQ users' identity construction on the social media platform TikTok. These theories mainly highlight attempts of algorithmic resistance, used to counteract the algorithm's perceived suppression of content related to their – among others – LGBTQ identity, political, and social justice group affiliation.

3. The case of Brazil

Brazil, as the largest country in Latin America, a group of countries sharing cultural and linguistic features, poses a particularly relevant case when considering the social realities surrounding the perception of AI and algorithm-based technologies. While Brazil holds about 40% of all AI companies in Latin America (Sanchez-Pi *et al.*, 2021) and internet penetration has notably increased all over the country, with now nearly 80% of Brazilian households having internet access (Regional Center for Studies on the Development of the Information Society, 2023), a first-level digital divide persists regarding limited access to digital technologies and digital literacy (Gabardo *et al.*, 2023; Nishijima *et al.*, 2017; Pedrozo, 2013).

According to a study by Gillespie *et al.* (2023), a majority of Brazilians express positive emotions towards AI and 71 % of the participants believe the benefits of AI outweigh the risks. At the same time, whether AI can be trusted is controversial. Moreover, a recent report by the Brazilian Academy of Sciences (2024) states: «Brazil still lacks comprehensive mastery of this essential technology to analyse the results of the models and their implications, as well as to effectively critique the applications developed using this technology» (29).

4. Research question

As stressed by Chubb *et al.* (2024: 1108), there is a growing interest in academia and beyond in non-anglophone cultural narratives of AI. Given the gap in research on algorithmic folk theories in general and the Global South in particular, the authors aim to explore the cultural narratives of folk theories about AI in Brazil of young people through a qualitative study. With current developments regarding generative AI in mind and against the background of critical algorithmic studies, this study poses the following research question: What are the existing folk theories about AI among young people in Brazil?

5. Method

This study draws upon two group discussions, commonly referred to as focus groups, with ten Brazilian undergraduate students between the ages of 21 and 23 years on two days in May 2024 (Table 1). Such smaller

so-called mini groups (Roller & Lavrakas, 2015: 105) allow for more in-depth information, mainly when conducted online (Lobe & Morgan, 2021). Overall, this research approach fosters participant interactions and is helpful for research involving attitudes, emotions, and experiences (Kühn & Koschel, 2018: 24-25; Roller & Lavrakas, 2015: 112). Therefore, not only is the method fitting to answer the research question but it has also notably been applied to previous studies on folk theories on different issues (i.e., Holvoet *et al.*, 2022; Siles *et al.*, 2020; Wilner *et al.*, 2021). The participants belong to Generation Z, who have grown up in technologically mediated environments and are generally open to technological advancements (Chan & Lee, 2023).

Table 1 - Participants

| | <i>Duration</i> | <i>Participant</i> | <i>Gender</i> | <i>Age</i> |
|---------|-----------------|--------------------|---------------|------------|
| Group 1 | 100 minutes | P1 | Female | 23 |
| | | P2 | Female | 22 |
| | | P3 | Male | 22 |
| | | P4 | Male | 22 |
| | | P5 | Male | 23 |
| Group 2 | 104 minutes | P6 | Female | 22 |
| | | P7 | Female | 22 |
| | | P8 | Female | 22 |
| | | P9 | Male | 23 |
| | | P10 | Male | 21 |

Drawing on the framework for group discussions proposed by Kühn and Koschel (2018), a conversation guide was developed to guide the participants during the discussion. The guide contains four sections, each with different questions to nudge participants into talking about their feelings and thoughts toward AI (Table 2). The questions are deductively derived from previous studies (i.e., DeVito, 2021; Siles *et al.*, 2020; Ytre-Arne & Moe, 2020).

Table 2 - Focus group discussion guide

| | Example questions | Stimulus |
|---|---|--|
| Section 1: Awareness, use, and definitions | <ul style="list-style-type: none"> – What is the first thing that comes to mind when talking about AI? – How would you define it if you were to explain it to a friend? – How do you think it decides to show you something? – How regularly do you think you interact with it? | |
| Section 2: Opinions and feelings | <ul style="list-style-type: none"> – What do you think about those magazine covers? How do they make you feel? – Which one represents more of your personal opinion towards AI? |  |
| Section 3: Bias and ethics | <ul style="list-style-type: none"> – What do you think the author Cathy O'Neil means with this quote: «Algorithms are opinions embedded in mathematics»? – How do you feel about it? | |
| Section 4: The future | <ul style="list-style-type: none"> – Do you see positive or negative consequences in how companies and platforms use AI? | |

The focus groups were held synchronously in the participants' native language on the video conferencing platform Zoom, which provides the advantage of a fast and agile audio and visual data collection process. Following the remarks by Heiselberg and Stępińska (2023), the participants were advised to find themselves a quiet environment with no other visible distractions. Head- and microphones were also suggested to make sure others could clearly hear all participants' voices. Each conversation was transcribed with SmartCAT. Following the approach by Ytre-Arne and Moe (2021), an inductive thematic analysis was conducted with MAXQDA.

6. Findings

After an in-depth analysis of transcripts, five folk theories of AI in Brazil could be identified: (1) AI is a constant duality, (2) AI is explainable, just not in detail, (3) AI is inevitable and inescapable but sometimes unnoticeable, (4) AI is about power, (5) AI is what we make out of it.

6.1. Folk theory 1: AI is a constant duality

The first folk theory is about the constant duality of AI. Overall, the participants mentioned several aspects of AI if asked what first comes to mind when thinking about it, mostly related to specific applications (e.g., Spotify, ChatGPT). The participants stressed the usefulness of AI-based technologies in making life easier and more convenient for themselves and society in general. At the same time, when asked about future perspectives regarding AI, the participants presented many reasons why society should be fearful: job losses and influence on trust in news media to feelings of powerlessness towards AI. One participant explained:

I believe that all innovation comes with areas where a lot of jobs will be created. But unfortunately, a lot of jobs will be lost too, and I think that is where the fear that many people have comes from (P5).

Moreover, participants had strong opinions on how AI has been framed in and by the (news) media. Many participants stated that they not only had noticed a duality in how such technologies are portrayed but were also able to identify attempts at exaggerating the negative aspects of AI and fear-inducing content, as one participant from the first focus group stated:

I think that some of this fear comes from dramatic magazine covers or movies, for example, that “I, Robot” movie, where robots take over everything (P4).

Overall, participants named as many positive as opposing arguments towards advancing AI presence in society. Although they have been aware of the potential downsides of AI and algorithm-based technologies in general, the duality of the issue is instead an occasion-based subject, and they only consider the bigger picture if nudged towards critically reflecting on it.

6.2. Folk theory 2: AI is explainable, just not in detail

The second folk theory is that AI is explainable, just not in detail to the participants. They self-reported to have a basic understanding of what AI-based technologies are and how they function. All participants stated they use social media platforms and streaming services nearly daily (e.g., Spotify, Netflix), making them arguably familiarised with such technologies and algorithms within certain application areas. At the same time, the explanations of how such technologies work are slightly superficial. For example, a participant explained it the following way:

I think that the way most AI works is that, somehow, it trains through a lot of data much quicker and more efficiently than any human being. [...] So, it receives information, a lot of information, processes it somehow, kind of trains based on it, and with that, it gives you the answer that you want (P5).

At the same time, the inner working process of AI-based technologies like data acquisition and processing remains unknown to the participants. Moreover, several of them stated that they perceive their knowledge about such mechanisms as sufficient. For example, one participant stated:

I mean, I am certain I liked something on purpose because I knew I wanted it. I knew that if I interacted with it, it would start giving me more of it. So, I did it and was really aware of it. So, I do try to use it in my favour (P1).

6.3. Folk theory 3: AI is inevitable and inescapable but sometimes unnoticeable

The third folk theory is about AI being viewed as inevitable and inescapable with concerns from the participants about its omnipresence in everyday life. While the participants use AI-based technologies, they stated that this is not necessarily a choice actively made, nor is it apparent during their use. One participant explained her perception as follows:

I think it is inevitable. There is no way you can say: "Oh, we are not going to use it anymore". I think it is impossible to stop it. There is no way. Not even if we wanted to (P6).

However, AI is noticeable for most of the participants when using specific applications they are familiar with (e.g., ChatGPT) and processes occur they do not approve like if advertisements are shown or content is presented, they are not interested in, as stated by one participant:

I think it's striking on Instagram when you stumble upon a post and enter a certain section, and then out of nowhere, a thousand things pop up in relation to that topic, and I'm just not interested. [...] I end up trying to retrain my algorithm to remind him that I do not like it (P6).

Additionally, some participants believed that AI's omnipresence would considerably impact opinions and trust in news media. When asked if helplessness would correctly summarise their perceptions, one participant immediately answered: «Totally» (P8).

6.4. Folk theory 4: AI is about power

The fourth folk theory revolves around the idea that AI is about power. In this context, participants specifically mentioned Meta and Alphabet with their platforms (i.e., Instagram and YouTube). They felt that such companies overlooked their well-being and leveraged AI-based technologies for profit. One male participant explained:

They will try to get you to stay on their platform for as long as possible in order to generate as much money as possible, which is usually the aim of companies, right? Maximise earnings (P5).

The participants also felt an overarching feeling of helplessness as they did not possess the knowledge and power to counteract these companies' decisions. At the same time, they do not shy away from staying connected to social media or using AI. They also did not feel the need to gain more AI-related knowledge.

6.5. Folk theory 5: AI is what we make out of it

The fifth folk theory is that AI only does what it has been programmed to do, and the individual user is responsible for the outcome. At the same time, the participants anthropomorphised AI-based technologies, viewing them as a part of society.

Such a perception became especially apparent when the participants explained what AI is and how it works. One male participant explained it that way:

It is more like a person to me. A person who is learning perhaps very quickly, who is seeing new things and learning very quickly and using and filtering useful information like a brain (P4).

The participants recognised AI and algorithm-based technologies as powerful tools but also as a mirror of society, with biases being inherent to such technologies. Participants knew about this issue, stating they had heard some examples and recognised it as a problem. For example, one participant stated:

I do not think AI is going to strengthen any kind of prejudice. Obviously, if you do not pay attention and [...] let a lot of people create algorithms that are biased, then it might end up leading to greater risks. However, I think it is a thing that's already known today, and people are getting better at it (P2).

7. Discussion

AI has become a powerful tool that has started to shape daily lives. At the same time, the technology remains opaque and ambiguous, surrounded by social and economic promises (Hirsch-Kreinsen & Krokowski, 2024). Against this background, it is imperative to critically reflect upon people's intuitive sense of and affective feelings about them.

Building upon previous studies on algorithmic folk theories from the Global South and beyond, this study explored how young Brazilians make sense of AI and interact with the technology. Five folk theories about AI could be identified through two group discussions.

The first two folk theories relate to established narratives propagated by global popular culture, which have also been identified in previous studies (e.g., DeVito, 2021; French & Hancock, 2017; Sartori & Bocca, 2023). For instance, while the participants tend to express positive views regarding the potential of AI-based technologies, they also talk about potential negative connotations (e.g., job loss or even fear of distrust in news media). Moreover, the participants see a continuing trend regarding certain narratives, including a tendency in news media stories to exaggerate the negative aspects of AI, which «distract the public from understanding the current capabilities of the technology, which, while entertaining, may also be disproportionate and disruptive» (Chubb *et al.*, 2024: 1111). Overall, the group conversation is mainly limited to the topics and views of one dominant narrative. This finding leads to the conclusion that dominant narratives from the West also find their place amongst the folk theories constructed by young people in Brazil.

Although the participants were all digital natives with high levels of digital technology usage, they only showed some awareness of its inner workings. Swart (2021) analysed the relationship between young people

and algorithms with the same observation: «[I]ntuitive and experience-based insights [...] do not automatically enable young people to verbalize these, nor does having knowledge about algorithms necessarily stimulate users to intervene in algorithmic decisions» (1). Considering the importance of understanding AI and algorithm-based technologies to be able to navigate algorithmically driven spaces and successfully receive valid information mindfully (Cotter & Reisdorf, 2020; Gruber & Hargittai, 2023), such reckoning calls for more research into how to increase AI literacy amongst the population.

Comparing these findings with the third and fourth folk theory, the participants seem to perceive AI as an omnipresent force that operates subtly in the background of daily life, reflecting a growing concern about the pervasive nature of AI technologies (e.g., Davidson, 2023). Indeed, despite AI regulation gaining momentum with the Brazilian national AI strategy and parliamentary discussions on an overarching AI law (Belli *et al.*, 2023), participants expressed concerns about the motivations of big tech companies to prioritise profit over users' well-being, leveraging AI to maximise engagement and revenue.

These concerns extend to notions of a loss of control, a frequent AI-related theme (Cave & Dihal, 2023). The participants' feelings of helplessness and lack of agency in the face of these powerful entities highlight AI's ethical challenges, particularly in data privacy and the concentration of power in the hands of a few corporations. Despite recognising their exploitative potential, they continued using AI-driven platforms, which presents a paradox. This finding points to a broader societal dilemma where convenience and connectivity are often prioritised over ethical considerations (Willems *et al.*, 2023).

The final folk theory suggests a perception of AI as both a reflection of human society and a tool that can be shaped by human intentions, following the notion by Bucher (2017): «While algorithms certainly do things to people, people also do things to algorithms» (42). Participants anthropomorphised AI, viewing it as a learning entity akin to a person while recognising that AI systems mirror societal biases. This dual perception aligns with research on AI as a socio-technical system that embodies values and biases (Ferrer *et al.*, 2021; Sartori & Theodorou, 2022).

In sum, the findings from this study indicate familiar narratives in folk theories about AI and algorithms, which are culturally anchored discourses (Cave & Dihal, 2023; Chubb *et al.*, 2024; Ferrari, 2020). Silicon Valley's technological imaginary defines technologies' roles in society and social change. Amongst other things, it «portrays digital technologies

as inherently free, democratic and supportive of personal autonomy» and promotes «the idea that the market, with its endless supply of technology, is the place for the improvement of people's lives – not government» (Ferrari, 2020: 121-122).

Overall, understanding how users engage with algorithmically generated content is crucial for the future: as technology gets increasingly entangled with daily life, people must be prepared to face all the challenges and consequences this may pose. By understanding people's current perspectives and engagement with such technology, policymakers can strategise and empower them to critically reflect upon such technologies.

The study also has some limitations. As with all qualitative studies, the findings are not representative and do not allow general conclusions about a larger population to be drawn. This limitation is especially true given that all participants belong to the same social class, have similar digital literacy levels, and belong to the same generation. Additionally, the discussion about AI in Brazil is related to questions about racial interference (King, 2023). It needs to be stated that the participants all self-identify as white, limiting the conversation to this group's experience with AI exclusively. Following the recommendations by Roller and Lavrakas (2015: 108), the groups have been homogenous as participants might feel more comfortable sharing their experiences with others from similar backgrounds. Lastly, the online setting can make it difficult for the moderator to ask follow-up questions for every participant's response.

References

- Belli, L., Curzi, Y. & Gaspar, W.B. (2023). AI regulation in Brazil: Advancements, Flows, and Need to Learn from the Data Protection Experience. *Computer Law & Security Review*, 48: 1-13.
- Bentley, S.V., Naughtin, C.K., McGrath, M.J., Irons, J.L. & Cooper P.S. (2024). The Digital Divide in Action: How Experiences of Digital Technology Shape Future Relationships with Artificial Intelligence. *AI and Ethics*, 4: 901-915.
- Brazilian Academy of Sciences (2024). Recommendations for the Advancement of Artificial Intelligence in Brazil. In: Regional Center for Studies on the Development of the Information Society (Ed.), *Internet sectoral overview 16 (1): The current scenario of artificial intelligence development in Brazil*. São Paulo: Cetic.
- Bucher, T. (2017). The Algorithmic Imaginary: Exploring the Ordinary affects of Facebook Algorithms. *Information, Communication & Society*, 20.1: 30-44.
- Cave, S. & Dihal, K. (2023). How the World Sees Intelligent Machines: Introduction. In: Cave, S. & Dihal, K. (Eds.), *Imagining AI: How the world sees intelligent machines*. Oxford: Oxford University Press.

- Chan, C.K.Y. & Lee, K.K.W. (2023). The AI Generation Gap: Are Gen Z Students More Interested in Adopting Generative AI such as ChatGPT in Teaching and Learning than their Gen X and Millennial Generation Teachers?. *Smart Learning Environments*, 10: 1-23.
- Chubb, J., Reed, D. & Cowling, P. (2024). Expert Views about Missing AI Narratives: Is there an AI Story Crisis?. *AI & Society*, 39: 1107-1126.
- Cotter, K. & Reisdorf B.C. (2020). Algorithmic Knowledge Gaps: A New Horizon of (Digital) Inequality. *International Journal of Communication*, 14: 745-765.
- Davidson, T. (2023). The danger of runaway AI. *Journal of Democracy*, 34: 132-140.
- Deuze, M. & Beckett C. (2022). Imagination, Algorithms and News: Developing AI Literacy for Journalism. *Digital Journalism*, 10: 1913-1918.
- DeVito, M.A. (2021). Adaptive Folk Theorization as a Path to Algorithmic Literacy on Changing Platforms. *Proceedings of the ACM on Human-Computer Interaction*, 5: 1-38.
- DeVito, M.A., Gergle, D. & Birnholtz, J. (2017). “Algorithms Ruin Everything”: #RIPTwitter, Folk Theories, and Resistance to Algorithmic Change in Social Media. *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 3163-3174.
- Eslami, M., Karahalios, K., Sandvig, C., Vaccaro, K., Rickman, A., Hamilton, K. & Kirlik, A. (2016). First I “Like” it, then I Hide it: Folk Theories of Social Feeds. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. 2371-2382.
- Ferrari, E. (2020). Technocracy Meets Populism: The Dominant Technological Imaginary of Silicon Valley. *Communication, Culture and Critique*, 13: 121-124.
- Ferrer, X., Nuenen, T.V., Such, J.M., Cote, M. & Criado, N. (2021). Bias and Discrimination in AI: A Cross-disciplinary Perspective. *IEEE Technology and Society Magazine*, 40: 72-80.
- French, M. & Hancock, J. (2017). What’s the folk theory? Reasoning about cyber-social systems. *67th Annual Conference of the International Communication Association, San Diego*.
- Gabardo, E., Castregnini de Freitas Firkowski, O.L., Aguilar Viana, A.C. (2023). La brecha digital en Brasil y la accesibilidad como derecho fundamental. *Revista Chilena de Derecho y Tecnología*, 11: 1-26.
- Gandini, A., Gerosa, A., Gobbo, B., Keeling, S., Leonini, L., Mosca, L., Orofino, M., Reviglio, U. & Splendore S. (2022). The algorithmic public opinion: A literature review. *SocArXiv*: 1-33.
- Gelman, S.A., Legare, C.H. (2011). Concepts and folk theories. *Annual Review of Anthropology*, 40: 379-398.
- Gillespie, N., Lockey, S., Curtis, C., Pool, J. & Akbari, A. (2023). *Trust in artificial intelligence: A global study*. The University of Queensland, KPMG Australia, <https://ai.uq.edu.au/project/trust-artificial-intelligence-global-study> (last accessed 25 November 2024).
- Gruber, J. & Hargittai E. (2023). The importance of algorithm skills for informed internet use. *Big Data & Society*, 10.1, <https://journals.sagepub.com/doi/epub/10.1177/20539517231168100> (last accessed 25 November 2024).

- Heiselberg, L. & Stępińska, A. (2023). Transforming qualitative interviewing techniques for video conferencing platforms. *Digital Journalism*, 11: 1353-1364.
- Hirsch-Kreinsen, H. & Krokowski, T. (2024). Promises and myths of artificial intelligence. *Weizenbaum Journal of the Digital Society*, 4.1: 1-8.
- Holvoet, S., Jans, S.D., Wolf, R.D., Hudders, L. & Herrewijn, L. (2022). Exploring teenagers' folk theories and coping strategies regarding commercial data collection and personalized advertising. *Media and Communication*, 10: 317-328.
- Karizat, N., Delmonaco, D., Eslami, M. & Andalibi, N. (2021). Algorithmic folk theories and identity: How TikTok users co-produce knowledge of identity and engage in algorithmic resistance. *Proceedings of the ACM on Human-Computer Interaction*, 5: 1-44.
- King, E. (2023). Afrofuturismo and the aesthetics of resistance to algorithmic racism in Brazil. In: Cave S. & Dihal K. (Eds.), *Imagining AI: How the world sees intelligent machines*. Oxford: Oxford University Press.
- Köstler, L. & Ossewaarde, R. (2022). The making of AI society: AI futures frames in German political and media discourses. *AI & Society*, 37: 249-263.
- Kühn, T. & Kosche, K.-V. (2018). *Gruppendiskussionen: Ein Praxis-Handbuch* (2nd ed.). Wiesbaden: Springer VS.
- Latzer, M. & Just, N. (2020). Governance by and of Algorithms on the Internet: Impact and Consequences. *Oxford Research Encyclopedia of Communication*.
- Liao, T. & Tyson, O. (2021). "Crystal is creepy, but cool": Mapping folk theories and responses to automated personality recognition algorithms. *Social Media + Society*, 7.
- Lobe, B. & Morgan, D.L. (2021). Assessing the effectiveness of video-based interviewing: A systematic comparison of video-conferencing based dyadic interviews and focus groups. *International Journal of Social Research Methodology*, 24: 301-312.
- López, C., Davidoff, A., Luco, F., Humeres, M. & Correa T. (2024). Users' experiences of algorithm-mediated public services: Folk theories, trust, and strategies in the Global South. *International Journal of Human – Computer Interaction*, <https://www.tandfonline.com/doi/full/10.1080/10447318.2024.2356910?scroll=top&needAccess=true> (last accessed 27 November 2024).
- Milan, S. & Treré, E. (2019). Big data from the South(s): Beyond data universalism. *Television & New Media*, 20, 319-335.
- Nguyen, D. & Hekman, E. (2024). The news framing of artificial intelligence: A critical exploration of how media discourses make sense of automation. *AI & Society*, 39, 437-451.
- Nishijima, M., Ivanauskas, T.M. & Sarti, F.M. (2017). Evolution and determinants of digital divide in Brazil (2005-2013). *Telecommunications Policy*, 41: 12-24.
- Oeldorf-Hirsch, A., Neubaum, G. (2023). What do we know about algorithmic literacy? The status quo and a research agenda for a growing field. *New Media & Society*, <https://journals.sagepub.com/doi/abs/10.1177/14614448231182662> (last accessed 19 November 2024).
- Pedrozo, S. (2013). New media use in Brazil: Digital inclusion or digital divide? *Online Journal of Communication and Media Technologies*, 3: 144-162.

- Pohl, B. & Goldkind, L. (2023). AI folk tales: How nontechnical publics make sense of artificial intelligence. In: Nah, S. (Ed.), *Research handbook on artificial intelligence and communication*, Cheltenham: Edward Elgar Publishing. 246-266.
- Regional Center for Studies on the Development of the Information Society (2023). *Executive Summary: ICT Households Survey 2022*, https://cetic.br/media/docs/publicacoes/2/20230825143002/executive_summary_ict_households_2022.pdf (last accessed 19 November 2024).
- Roller, M.R. & Lavrakas, P.J. (2015). *Applied qualitative research design: A total quality framework approach*. New York: The Guilford Press.
- Sanchez-Pi, N., Marti, L., Bicharra Garcia, A.C., Baeza Yates, R., Vallasco, M. & Coello Coello, C.A. (2022). *A roadmap for AI in Latin America*. Global Partnership for AI (GPAI) Summit, Paris, <https://inria.hal.science/hal-03526055> (last accessed 19 November 2024).
- Sartori, L. & Bocca, G. (2023). Minding the gap(s): Public perceptions of AI and socio-technical imaginaries. *AI & Society*, 38: 443-458.
- Sartori, L. & Theodorou, A. (2022). A sociotechnical perspective for the future of AI: Narratives, inequalities, and human control. *Ethics and Information Technology*, 24.4: 1-11.
- Siles I., Gómez-Cruz, E. & Ricaurte, P. (2023). Toward a popular theory of algorithms. *Popular Communication*, 21: 57-70.
- Siles, I., Segura-Castillo, A., Solís, R. & Sancho, M. (2020). Folk theories of algorithmic recommendations on Spotify: Enacting data assemblages in the Global South. *Big Data & Society*, 7: 1-15.
- Silva, G.C. (2019). North perspectives for a better South? Big data and the Global South in big data & society. *Interações: Sociedade e as Novas Modernidades*, 37: 84-107.
- Swart, J. (2021). Experiencing algorithms: How young people understand, feel about, and engage with algorithmic news selection on social media. *Social Media + Society*, 7: 1-11.
- Waisbord, S. & Mellado, C. (2014). De-westernizing communication studies: A reassessment. *Communication Theory*, 24: 361-372.
- Wang, C., Boerman, S.C., Kroon, A.C., Möller, J. & de Vreese, C.H. (2024). The artificial intelligence divide: Who is the most vulnerable? *New Media & Society*, <https://journals.sagepub.com/doi/10.1177/14614448241232345> (last accessed 19 November 2024).
- Willems, J., Schmid, M.J., Vanderelst, D., Vogel, D. & Ebinger F. (2023). AI-driven public services and the privacy paradox: Do citizens really care about their privacy? *Public Management Review*, 25: 2116-2134.
- Wilner, T., Montiel Valle, D.A. & Masullo, G.M. (2021). “To me, there’s always a bias”: Understanding the public’s folk theories about journalism. *Journalism Studies*, 22: 1930-1946.
- Xu, L., Zhang, Y., Yu, F., Ding, X., Wu, J. (2024). Folk beliefs of artificial intelligence and robots. *International Journal of Social Robotics*, 16: 429-446.
- Ytre-Arne, B., Moe, H. (2021). Folk theories of algorithms: Understanding digital irritation. *Media, Culture & Society*, 43: 807-824.