An Analysis of the Social and Linguistic Construction of Artificial Intelligence

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The purpose of this research is to highlight the important role that language and discourse play in the business world with regard to shaping society. We want to show that the way we use language to communicate can have a significant impact on societal development. We start from the premise that language is a central tool in the construction of social reality, and therefore the discourse used by companies plays a key role in shaping perceptions and values. Given the rise of AI across various domains, our exploration focuses specifically on the economic discourse within the so-called "fourth revolution" – the AI revolution. Throughout the paper, we hope to stimulate the interest of researchers from different disciplines to pay attention to the often overlooked category of language.

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1   Introduction

Language is, despite its importance, often overlooked in research outside the linguistic disciplines. This lack of attention is precisely what we wish to address in this article. Focusing on language and economic discourse, we can define language as a "social construction, which allows communication between members within a social group, and connects separate groups into a unified whole" (Pogorelec, 2024, p. 75). Even so its effects as a social construct can be hard to quantify, particularly because language use is frequently considered trivial. This is perhaps most applicable to speech itself which in the context of conversation often serves the purpose of talk, "simply for the sake of talking itself" (Eggins & Slade, 1997; p. 6 in Young, 2004, p. 15). We should be careful however, not to conflate the triviality of the act of talking with the triviality of the language used. This is because "speech conveys much more than the words that talker chooses to utter" (Hagoort, 2019, p. 24).

So why does language play such an important role in our social lives and how can this approach be used to help us expand our understanding of the influence that Artificial Intelligence (AI) has on our society? In response, we aim to provide an overview of potential research avenues at the intersection of artificial intelligence and sociolinguistic studies.

2   Theoretical background / literature review

Language is not a rigid structure but like all social constructs, it is shaped by the specific time and place in which it is used. As explained by Pogorelec (2024, p. 59) "communicating, understanding, responding in a common language develops over time and changes slowly." This change is still bound and curtailed in some ways. Most prominently, we can turn to the uniformitarian principle (Labov 1994, in De Busser, 2015, p. 133), from which "we can suppose that language structures in the past were subject to the same constraints as language structures now in the present."

"Because language is as a social and, therefore, also a historical creation – a heritage that is passed on, altered and supplemented from generation to generation – it is the responsibility of all of us who speak it, write it and thus pass it on." (Pogorelec, 2024, p. 59) Adding to this, Gumperz & Levinson (1996, p. 1 in De Busser, 2015, p. 1)

state: "culture, through language, affects the way we think, especially perhaps our classification of the experienced world."

It could even be argued that this relationship can be inverted, as "most of our culture clearly depends on the human ability to communicate ideas and construct artifacts with the help of natural language" (Hagoort, 2019, p. 1). Pogorelc (2024, p. 59) expands on this, stating that "language enables thought /…/ therefore, thinking is not possible without it." The influence of language on culture construction is also incredibly subtle, as "speakers very often aren't even aware of the linguistic phenomena and characteristics of their speech" (Bitenc, Stabej in Žejn, 2021, p. 36).

In this way, the relationship between language and culture can be seen as serving a very specific function: maintaining types of thought that support existing power structures, or as stated by Howlett & Raglon (2001, p. 246 in Fill and Mühlhäusler): "/T/he ideological legitimation of social relations is embedded in the structures and discourses of each and every society and extend from the largest to the smallest social relations and institutions."

Language is a complex phenomenon, its use and form affected by multiple variables. On an institutional level, it is affected by "social structure and the general organization of society" – things which, as stated by De Busser (2015, p. 13), are "typically outside the conscious control of individual members of that society" – along with "cultural factors, which are the result of beliefs and ritualized behaviors" (De Busser, 2015, p. 13).

As proposed by van Dijk (1997, p. 2), we can constrain the understanding of discourses to three main dimensions: the use of specific forms of language, the communication of beliefs, and the interaction in social situations. It is especially important to address language in the sphere of economics. This is because language is both influenced by and consequently constructs economics as a field (De Busser, 2015, p. 13-14 in Weinrich, 2001, p. 91-92).

As stated by Grimm (1819 in Fill and Mühlhäusler, 2001, p. 91): "Language is economical everywhere. It employs minute inconspicuous means and nevertheless achieves great ends." From common expressions to turns of phrase, economic language constantly informs our understanding of the world. As stated by Weinrich

(2001, p. 92 in Fill and Mühlhäusler): "Anyone who prefers a full purse to an empty one will agree that a language that is rich in words is preferable to one that is poor in words."

This is significant when we consider the dominating effect of language and its relationship to power. Domination is not enacted only through direct action, but also "through our habits of language as well, encoded linguistic biases of which we are often unaware" (Kahn, 2001, p. 241). This plays an important role in enshrining structural power (Machin & Mayr, 2012), through "linguistic strategies which diffuse ethical questioning and maintain the ideologies and agendas of those in power" (Kahn, 2001, pg. 243 in Fill and Mühlhäusler).

This is especially relevant in the sphere of economics, including in fields such as green advertising (Howlett & Raglon, 2001, p. 245-253 in Fill and Mühlhäusler), where companies aim to "create corporate images which are environmentally friendly or benign" (Howlett & Raglon, 2001, p. 245 in in Fill and Mühlhäusler). Another strategy pointed out by Bloor & Bloor (2007, p. 107) is topic control, which encompasses "control over turn-taking and hence over the content of discussion."

Looking at Fairhurst & Putnam (2004, in Allen, Walker & Brady, 2012), we can identify a specific approach to organizations as discursive formations that can prove to be very helpful in our understanding. As Allen, Walker, & Brady (2012) elaborate, this is the grounded-in-action orientation, one in which the organization and discourse are separate forces that both influence each other.

We have already touched on some aspects of critical linguistics, particularly in exploring "how language and grammar can be used as ideological instruments" (Machin & Mayr, 2012). Expanding on this, Machin & Mayr (2012) explain that "humans do not live in an objective world, but rather that this world is shaped for them by the language that has become the medium of expression in their society."

Corporations can play a vital role in the construction of the language used to create this world and often find benefit in 'adjusting' the discourse to fit their needs (Howlett & Raglon, 2001, p. 245-253 in Fill & Mühlhäusler), and none are perhaps more predisposed to do so than corporations involved in technological development. As Bloor & Bloor (2007, p. 139) elaborate: "When discussing major

changes in society in the past half-century or so, there is a tendency to emphasize technological progress, particularly in the fields of computing and communications," continuing later, in relation to the rapid growth of commercialization, that "this is closely bound up with the technological advances which have extended and improved the channels and modes of discourse, /…/ providing not only improved means for accessing markets but also new products to sell there."

Artificial intelligence (AI) is increasingly entering the discussion as the catalyst of a fourth industrial revolution (Forstnerič-Hajnšek, 2023; Nemorin, Vlachidis, Ayerakwa & Andriotis, 2023, p. 38). As Rakowski & Kowaliková (2024, p. 2) elaborate, "we are currently living in a time of digital transformation often referred to as digital turn or rise of artificial intelligence." It is undeniable that "the number of tools based on artificial intelligence (AI) designed to assist human decisions has increased in many professional fields" (Vicente & Matute, 2023).

In recent times, we have seen a staunch rise in the use of AI technologies inside the labor market (Liu, Chen & Lyu, 2024), with the technology quickly proving itself to be the "driving force behind a new technological revolution" (Liu, Chen & Lyu, 2024, p. 2).

Artificial intelligence has proven especially impactful, as it affects not only the field of industry but also exerts powerful and immediate consequences for society at large (Rakowski & Kowaliková, 2024). However, this also means, that "the integration of technology, AI, people and data presents new ethical and political challenges and dilemmas in its implementation" (Rakowski & Kowaliková, 2024, p. 2).

For this reason, it is imperative to understand what AI is, and what people perceive it to be. On that point, AI has redefined the very way that consumers act within the marketplace (Jain & Kumar, 2024). As Brewer, Bingaman, Paintsil, Wilson & Dawson (2022, p. 560) explain, there are three domains in which people's perceptions of AI are influenced: "news coverage, science fiction, and interpersonal discussion" – all rooted in communication. In general, "people are more likely to talk about AI /…/ when they communicate with others" (Dong, Jiang, Li, Chen, Gan, Xia & Qin, 2024). These all provide certain 'frames', through which AI can be understood. While the word is not directly stated, we can still draw a connection

between these and the construction of different discourses – ways of describing AI that prescribe it with different meanings.

In general, most of the language surrounding AI can be categorized into two broad, opposing discourses: one where AI is seen as a progressive force that improves society (Engster & Moore, 2020; Ferràs-Hernández, Nylund & Brem, 2023; Shen & Zhang, 2024; Zhang & Peng, 2024), and one where AI is framed as a dysfunctional force, often a detriment to social progress (He, 2024; Kieslich, Keller & Starke, 2022; Yi, Goenka & Pandelaere, 2024).

Let us tackle the first of the two discourses. Concerning the pro-AI position, a few sub-discourses arise. The first and most obvious is the conception of AI as a new technology (Shen & Zhang, 2024). The focus here is placed specifically on the innovative aspect of AI, and especially on its ability to 'think'. Personalization of large language models can also be seen as part of this discourse, as they are ascribed with a certain level of sentience (Gomes, Lopes & Nogueira, 2025).

Perhaps the most common approach, particularly in the economic sphere, is AI as a tool for greater economic productivity (Ferràs-Hernández, Nylund & Brem, 2023; Shen & Zhang, 2024; Zhang & Peng, 2024). As Engster & Moore (2020, p. 202) put it: "Artificial intelligence (AI) is being touted as a new wave of machinic processing and productive potential." As Shen & Zhang (2024, p. 5) add, AI is a useful tool for economic growth as it "reduces the demand for coded jobs in enterprises while increasing the demand for nonprogrammed complex labour, /…/ deepened and refined the division of labour, /…/ advanced productive forces, /…/ improving their job satisfaction and employment quality, /and/ reduces the distance between countries in both time and space, promotes the transnational flow of production factors, and deepens the international division of labour."

On the opposite side of the spectrum, an aspect of the anti-AI discourse that is worth going over, though it seldom sees mention within the economic sphere is the environmental cost of AI (Delort, Riou & Srivastava, 2023; Kieslich, Keller & Starke, 2022, p. 2). Here, emphasis is often placed on AI as a drain on resources, rather than a resource saving tool, centering not on AI's capabilities, but on the material expenses required for its operation.

Lastly, we can mention AI's cultural homogenization (Ferrara, 2023; He, 2024; Singh & Ramakrishnan, 2023; Yi, Goenka & Pandelaere, 2024). This discourse concerns several spheres, from culture to religion and emphasizes the influence of power and norms on AI as a product of societal forces (Ferrara, 2023) and how biased preconceptions can lead to bias within AI. He (2024, pp. 2-3), for example, focuses on religion and stresses that AI can provide a stifling effect that devalues traditional and religious beliefs. Additionally, it has been shown that "biased recommendations made by AI systems can adversely impact human decisions in professional fields such as healthcare" (Vicente & Matute, 2023).

3   Discussion and conclusions

As we have already outlined throughout this paper, to some authors, AI appears to be the herald of the fourth industrial revolution. Whether this is true remains to be seen, but one thing is certain: through AI we can observe an expansion of the power of the economic sphere. If AI is to be at the spearhead of the fourth wave of industrial development, then its ability to pierce into nearly every domain of social existence, to play a role, however slight, in everything from culture to art to menial labor, means that its power is near guaranteed.

So, if AI is the herald of a new age, what can we say about the discourses surrounding it? As we have outlined, there is a dualism in understanding, a divergence within the discourse, creating two diametrically opposed constructions that are, nonetheless, similar in their focus on AI's power and it near-universal influence. The pro-AI discourse promotes AI both as a technological and economic achievement capable of revolutionizing nearly every field of study, work, or leisure. However, the anti-AI discourse also emphasizes this all-encompassing nature, framing AI not as a force of liberation and revolution, but as one of control and stagnation, through discourses focusing on repression and homogenization and its destructive potential through ecological discourses.

A significant obstacle to this research can be found in the clear lack of writing on the subject of discourses and language use relating to Artificial Intelligence. Most of the existing material on AI looks at it from a materialist perspective, focusing on AI's transformative potential for economic growth or the dangers of its power consumption. Perhaps the closest are critiques of AI as a tool that entrenches power

relations. Put more simply, most writing about AI is very much still concerned with its effects, while not really delving into what AI is, or what people see it to be. This is perhaps unsurprising – AI is itself quite a modern phenomenon – but that leaves a largely unexplored field of study, a field that can expand our understanding of AI in a different direction than the equally valuable research concerned with AI's effect.

Lastly it is worthwhile to touch upon the fact that language is extremely specific, with structures and use cases varying wildly even among related languages. As Hagoort (2019, p. 21) tells us, "In order to use language, people must learn the specific ways in which their language expresses meaning and recruit this knowledge when expressing the meanings they wish to convey or when retrieving those of others." In practice, this means we must be especially mindful of ascribing broad cross-cultural meanings to concepts and should refrain from the simple adoption of foreign discourses, as there are great differences in the way that different languages and, consequently, different cultures construct and think of seemingly similar concepts.

These are still undoubtedly useful, as with the growing interconnectedness of the world, some discursive elements are bound to overlap, but they should serve to inform research, not substitute it, since substitution would result in less precise explanations and a poorer understanding of AI. This is doubly true for small languages such as Slovenian, which constantly adopt many meanings and important phrases from more dominant languages. From this perspective, it becomes even more important to analyze language use within these smaller languages because this higher level of melding can cause us to better understand how meaning is transferred and adapted between languages.

A significant limitation also emerges from this cultural specificity, as most linguistic analysis – limited as it already is – is also focused largely on western European languages. Therefore, the understandings that have been produced in this field tend to stem from these languages, which then often become the basis for discourse in other language groups as well. For this reason, from a more socially conscious standpoint, more attention should be directed towards the study of language relating to AI, specifically within smaller languages, in order to attempt to preserve their cultural autonomy in whatever way possible.

It is important to mention that there are also certain aspects of the discourse which were omitted from this paper simply due to the lack of both relevant materials and expertise, given the multidisciplinary nature of AI-related issues. In this respect, we encourage further study from different fields – from cultural to judicial – to expand our understanding of the subject.

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