

# Uncovering Politically Driven AI Algorithms in Italian Grammar Education: An Ideological Outcome-Based Study

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## ABSTRACT

The advent of artificial intelligence (AI) is reshaping many facets of daily life, including education. As AI technologies become more advanced and accessible, their application in teaching and learning processes has accelerated. However, AI systems are frequently designed with politically influenced algorithms that may impact educational content and outcomes. This study examines the influence of a specific AI system on the teaching and learning of Italian grammar. Through a qualitative approach, it investigates whether AI can deliver standard Italian grammar in its authentic form or if its outputs are significantly altered by these underlying algorithms. This research focuses on MAIA, the first generative and personalized AI system entirely developed in Italy, assessing its capacity to accurately distinguish between masculine and feminine forms in Italian nouns and adjectives. Findings indicate that MAIA's algorithms modify traditional gender distinctions by implementing "inclusive" grammar rules that lack endorsement from prominent linguistic authorities. By disregarding conventional gender differences and proposing new grammar rules aligned with a left-leaning, progressive societal perspective, the MAIA AI system affects both linguistic proficiency and the cultural development of learners, ultimately challenging foundational grammatical standards for ideological purposes. This study underscores the necessity of human expertise in preserving the integrity of Italian grammar instruction.

**Keywords:** AI algorithms, Educational AI systems, Inclusive language, Italian gender distinctions, Linguistic proficiency

## INTRODUCTION

Traditional Italian grammar categorizes nouns and adjectives by two distinct genders: masculine and feminine. In the singular, approximately 95% of masculine nouns and adjectives end with the letter "o" (e.g., avvocato [attorney] or alto [tall]), which changes to "i" in the plural (e.g., avvocati [attorneys] and alti [tall men]). Similarly, feminine nouns and adjectives typically end with "a" in the singular (e.g., maestra [teacher] or brava [clever]), and shift to "e" in the plural (e.g., maestre [female teachers] and brave [clever women]). Additionally, the masculine plural form applies when referring to mixed-gender groups. In recent years, however, these conventions have been challenged by certain writers, journalists, and progressive activists who argue that the binary gender distinction does not represent individuals who identify outside the male-female spectrum (Gauri, 2022). Historically, gender identity and sexual orientation categories have adhered to a strict binary structure (male-female), which oversimplifies the diversity of identities. Emerging generations are reshaping these constructs, pushing for inclusive language that transcends dual-gender norms (Nicolosi, 2023). Gender identity, a multifaceted construct that includes numerous dimensions, reflects how individuals perceive themselves as sexual beings. Consequently, it is not adequate to classify LGBTQIA+ individuals, as well as those identifying as non-binary, solely as male or female. Such an approach reflects an outdated societal perspective, underscoring

the need for language to evolve beyond binary gender labels (Nardinocchi, 2024). Recent studies indicate the existence of over 70 gender identities, a number projected to grow in the coming years (Catena, 2024).

As gender identities diversify, the reduction of nouns and adjectives to only masculine and feminine forms is increasingly viewed as restrictive and exclusionary. To address this, Italian grammar has seen changes aimed at “neutralizing” these traditional gender distinctions. Politically, this shift has gained traction, particularly among left-leaning progressive forces that advocate for LGBTQIA+ rights (Mutino, 2022). The left-leaning media often portrays these parties - particularly the Democratic Party and the 5 Star Movement - as the primary champions of LGBTQIA+ rights supporting initiatives such as Gay Pride parades and policies for same-sex parenting and surrogacy (Carboni, 2024).

To neutralize gender distinctions in nouns and adjectives, left-wing political advocates have introduced two linguistic tools: the asterisk (\*) and the “schwa” (ə), an inverted “e.” These symbols serve to replace the feminine singular (a) or plural (e) and the masculine singular (o) or plural (i) endings, thereby avoiding a gender-specific marker (Farnetani, 2023). For example, to refer to a male teacher (maestro) who does not identify as male, the word may be written as maestr\* or maestrə, with the final “o” replaced by a neutral symbol. Similarly, a female tailor (sarta) who does not identify with the female gender would be written as sart\* or sartə, replacing the “a” to neutralize the gender. According to progressive advocates, these symbols foster “inclusive” language for those who do not align with traditional biological categories and identify with a broader range of sexual identities. The same practice applies to plural forms. For instance, to refer to male nurses (infermieri) or female nurses (infermiere) in a setting where some individuals may not identify as traditionally male or female, one would use infermier\* or infermierə, replacing the masculine “i” or feminine “e” with a neutral symbol. Left-leaning writers, columnists, politicians, and activists employ these revised grammatical rules to demonstrate inclusivity and respect toward diverse gender identities (Di Feo, 2023).

Phonetically, the schwa sound is somewhat indistinct and resembles English pronunciation more than Italian. The “w” sound should resemble a “u” rather than a “v,” while the “c” takes a soft sound as in “scelta” (choice) or “sciagura” (disaster), instead of a guttural sound as in “scorta” (bodyguard) or “scala” (staircase). Thus, the schwa introduces a new sound to Italian phonetics. However, if one were to eliminate the masculine and feminine vowels in the vast majority of nouns and adjectives referring to people, this would produce a predominantly guttural sound that diverges from the Italian language’s melodic qualities. Using the asterisk to replace vowels not only disrupts the visual identity of Italian words but also their phonetic softness. Such alterations would lead to a guttural, almost Germanic or Northern European sound, rather than the traditionally Latin and Mediterranean tone (Ferrario & Martinelli, 2024). From a linguistic perspective, it is necessary to question whether this evolving grammar system has achieved official recognition and, if so, in what capacity. However, more than a linguistic shift, these modifications reflect a broader ideological movement permeating public and private sectors across Western Europe (Cavaliere, 2023).

Today, numerous AI systems assist in language learning and translation, including MAIA (Bianco, 2024). This research aims to evaluate MAIA’s capacity to understand and convey Italian grammar accurately. MAIA was selected for four key reasons: (A) It was designed by an Italian team specifically for Italian grammar; (B) it employs Neural ID and LLM Magic, adapting responses to individual users; (C) unlike general AI models such as ChatGPT, it provides personalized linguistic output; and (D) it complies with the European Digital Services Act (DSA), which regulates AI content, including politically sensitive topics like LGBTQIA+ rights and gender norms (De Chiari, 2024; Sandonnini, 2024). Given the DSA’s oversight, concerns arise about AI-driven restrictions on free thought and expression, affecting both AI outputs and user experiences (Balocco, 2024). This study explores the extent to which MAIA’s linguistic framework reflects political influences and its implications for Italian grammar instruction.

## LITERATURE REVIEW

This section reviews past studies across two seemingly unrelated fields. The first examines the use of AI as a tool in teaching and learning foreign languages and grammar, while the second focuses on research into inclusive language practices, particularly the adoption of schwa and asterisk symbols within linguistic communities.

In the first field, Huang X. et al. (2023) argue that AI usage among students is becoming increasingly popular, largely because basic AI tools are free. In *Trends, Research Issues, and Applications of Artificial Intelligence in Language Education*, the authors highlight that students frequently rely on AI for grammar checking. However, this study pertains to English grammar, which is significantly less complex than Italian. The English language, influenced by American “wokeism”, has also undergone shifts to be more inclusive of LGBTQIA+ individuals. For example, AI now commonly employs the singular “they” as a gender-neutral possessive pronoun, regardless of gender.

On December 14, 2023, Elinor Zucchet published *How Artificial Intelligence is Revolutionizing Language Learning*, which explores various AI technologies and their benefits in language learning. Zucchet asserts that while AI can be a valuable supplementary tool, it cannot entirely replace human educators. Rather, AI complements traditional methods, aiding tasks such as translation, sentiment analysis, and text summarization, though it often falls short in terms of grammar accuracy. Because machine learning algorithms depend on the data and programming they receive, results can vary significantly. Used strategically, however, AI-powered machine learning offers a vast range of benefits.

In his 2024 work, *The Use of AI in Language Learning: What You Need to Know*, Jusak Patty provides a comprehensive overview of the promises and challenges associated with AI in language education. He notes that while AI enhances personalized guidance, interactive engagement, and progress tracking, it may also reduce human interaction, impact learner autonomy, and alter the role of language teachers. He emphasizes the importance of integrating ethical principles, transparency, and inclusivity to responsibly incorporate AI in education.

Han et al. (2021) examine the role of politically oriented algorithms in shaping AI operations, suggesting that AI is often guided toward specific directions, limiting its ability to produce objective, unbiased responses across all fields. According to Ruffilli (2023), highly educated individuals tend to trust AI less than those with lower education levels. While AI systems respond quickly to user queries, concerns about social control and ideological biases remain relevant. Each AI model reflects certain biases, as these are inherent to the materials used in training, underscoring the necessity of human oversight and critical engagement with AI-generated content.

In a 2023 study, Feng et al. reached similar conclusions, surveying 14 generative AI models and discovering politically oriented inclinations. By analyzing each model’s agreement or disagreement with specific political statements, they found that Google’s BERT (Bidirectional Encoder Representations from Transformers) models lean conservative, while OpenAI’s GPT models, presumably trained on more liberal content, display progressive tendencies. The study reveals that language models can reinforce the political polarization embedded in their training data.

The February 2024 report *AI as a Public Good: Ensuring Democratic Control of AI in the Information Space* (Schertel & Stray, 2024) compiles findings from six months of interdisciplinary discussions and idea testing. The report advocates for safe, fair, and reliable AI systems that support societal benefits and sustainable development. It urges developers, implementers, and governments to adopt concrete, feasible measures to create more ethical, inclusive, and accountable AI systems. As the report points out, unchecked AI development risks undermining democratic processes and subjecting citizens to manipulation. Although the European Union AI Act, enacted on February 13, 2024, marks a global precedent, its limited legal scope and lenient penalties - ranging from €7.5 million to €35 million - dilute its impact on major corporations investing billions in AI annually (Baccini, 2024). The report further emphasizes that AI’s unprecedented role in information production, dissemination, and consumption poses risks to democratic discourse, given AI’s potential biases, discriminatory behavior, and vulnerability to misinformation. If we fail to implement adequate regulations, the influence of social media and tech companies over the past decade could repeat, resulting in significant harm to communities, institutions, and civic agency. The authors argue that AI can follow a path of responsible, democratically governed progress, sustained by civic leadership and public participation. Only through transparency, accountability, and democratic oversight, the report suggests, can we ensure AI systems are developed to serve a diverse global society. This report thus underscores how AI has the potential to alter the educational resources for various fields of study, including Italian grammar.

The subject of inclusive language and the adoption of new grammatical structures, such as the schwa and asterisk, has generated significant debate within the literature. Some proponents argue that these forms represent a new mode of communication designed to encompass individuals who do not identify strictly as male or female. As Western European societies have evolved, the recognition of multiple genders has become increasingly normative, even within European Union Institutions. Consequently, the Italian language, too, should not be confined to a binary gender system (Abels et al., 2021; Cannito et al., 2022; Mercuri et al., 2022). However, linguistic scholars maintain that Italian grammar is not a fluid construct subject to arbitrary changes but rather a historical system shaped by its speakers.

Edoardo Lombardi Vallauri, in his 2024 work *Le guerre per la lingua. Piegare l'italiano per darsi ragione* (The Language Wars: Bending the Italian Language to Prove a Point), contends that the widespread use of the masculine gender in Italian, which typically denotes a mixed-gender group, does not constitute patriarchy or discrimination. He argues that if such inequalities were to exist, the introduction of the schwa or asterisk would not suffice to resolve them. The overextension of the masculine form serves a pragmatic function, allowing for concise and effective communication without the need to repeat both gendered terms. This usage is prevalent in Italian legal texts; for example, Article 21 of the Italian Constitution states: “Tutti hanno diritto di manifestare liberamente il proprio pensiero” (Everyone has the right to freely express their thoughts), where *tutti* (everyone) is employed in the masculine plural form, encompassing both women and individuals of diverse gender identities. Lombardi Vallauri argues that the control of language is pivotal, as those who shape it often influence public thought. In the era of social media, debates on such matters are no longer restricted to experts but open to anyone, regardless of their qualifications. Central to his argument is that determining whether a term or grammatical structure is sexist or discriminatory requires more than ideological bias; it necessitates a deep understanding of linguistic functioning.

Chiara Puppinato, in her 2023 research *Linguaggio inclusivo: dividere per includere* (Inclusive Language: Dividing to Include), asserts that Western countries, including Italy, are on the cusp of adopting inclusive language on a broad scale, both in written forms (such as newspapers, newsletters, and AI-generated responses) and spoken language. She emphasizes the importance of fostering an inclusive environment in academic settings, where stereotypes and prejudices should be actively challenged. In Italy, with the absence of an official body to dictate linguistic norms, inclusive language could potentially be integrated into the standard lexicon. It serves to represent a wide array of social groups (such as individuals of various ethnicities, cultural backgrounds, and sexual orientations) who, despite being in the minority, possess equal rights to the majority. Language-based discrimination, especially concerning sexual orientation, is rooted in the concept of heteronormativity, which refers to the unconscious assumption of heterosexuality as the default and most natural sexual orientation. However, many individuals do not identify with this norm. If language reflects society, then Italian can be described as androcentric, as the masculine gender (especially in the plural) is overwhelmingly dominant over the feminine. In addition to the well-known symbols of inclusiveness like the asterisk and schwa, Puppinato also mentions other variations of inclusive language, such as using the @ symbol in place of gendered endings or replacing “o” (masculine) or “a” (feminine) with “u” or “x”. For instance, the word *ragazzo* (boy) could be written as *ragazzx* or *ragazzu*. While Puppinato passionately supports these innovations, she overlooks the fact that grammatical rules are not arbitrarily decided by a small, influential group but are instead shaped by the collective usage of the language’s speakers, who continually adapt it to meet their needs. The marginal use of inclusive language, primarily driven by ideological rather than practical considerations, suggests that the general public does not view it as a pressing issue and struggles to embrace it.

In her 2022 publication *Parole e persone: Cos'è il linguaggio inclusivo* (Words and People: What is Inclusive Language), Manuela Manera argues that language is a powerful tool through which we categorize, interpret, and express our thoughts and identities. Inclusive language is not a technical jargon but a carefully constructed form of communication designed to welcome and include all subjectivities, including those outside the heteronormative framework. Since Italian does not (yet) possess a gender-neutral grammatical structure to represent non-binary individuals, this gap must be addressed through innovative strategies that create new linguistic forms. Manera emphasizes that in modern Western societies, an individual’s sexual identity should take precedence over biological sex, as it allows for personal autonomy and self-determination free from societal constraints. According to Manera, eliminating the masculine and feminine genders in Italian is essential, and tools like the asterisk and schwa are effective in achieving this goal.



Several contemporary works have incorporated the schwa to explore gender and inclusivity, including 2021 Marcia Tiburi's *Il contrario della solitudine. Manifesto per un femminismo in comune* (The Opposite of Loneliness: A Manifesto for a Shared Feminism), 2020 Lorenzo Fantoni's *Vivere mille vite. Storia dei videogiochi* (Living a Thousand Lives: History of Video Games), and 2022 Michela Murgia's *God Save the Queer, Catechismo Femminista* (Feminist Catechism). These studies contribute to the broader discourse on language and identity, yet they also illustrate the ideological nature of linguistic reforms and their contested reception within the public sphere.

## Research Aims and Questions

The primary aim of this study is to examine the impact of so-called inclusive language on the official and established rules of Italian grammar. Specifically, this research seeks to:

**1.Objective 1:** Investigate the extent to which inclusive language has been integrated into the official structure of Italian grammar.

**2.Objective 2:** Analyze the role of inclusive symbols, such as the schwa and asterisk, and assess whether these symbols have been incorporated into the linguistic framework of Italian grammar.

**3.Objective 3:** Examine how MAIA AI system teaches Italian grammar, particularly concerning the translation of sentences containing masculine and feminine nouns and adjectives, and evaluate its reliability in providing grammatically accurate instruction.

To address these objectives, the study will focus on the following research questions:

1. Do the schwa and asterisk symbols represent a new grammatical paradigm in Italian?
2. Do Italian linguistics experts accept the incorporation of the schwa and asterisk into the official rules of Italian grammar?
3. To what extent do the algorithms of MAIA AI utilize the schwa and asterisk to replace masculine and feminine grammatical forms?

By investigating these questions, this research aims to provide a comprehensive analysis of how MAIA AI processes and teaches Italian grammar, with particular emphasis on the use of gendered linguistic structures.

## METHODOLOGY

### Study Design

This study adopts a qualitative approach, employing a case study methodology, which is particularly well-suited for an in-depth examination of complex linguistic issues within their real-world context (Yin, 2018). This methodological framework enables a thorough investigation of the interplay between Italian grammatical gender and the emergence of so-called inclusive language.

### Data Collection

The research gathers data through the following components:

**Official Analysis:** This segment examines the established grammatical rules governing the masculine and feminine forms of Italian nouns and adjectives. Additionally, it assesses the role of inclusive language markers, such as the schwa and asterisk, and their potential incorporation into formal grammar.

**Contemporary Newspaper Articles:** A corpus of articles from major Italian newspapers published between 2020 and 2024 is compiled. The selection criterion prioritizes articles discussing inclusive language, particularly those addressing public reactions, practical challenges, and the ideological influence of the LGBTQIA+

community on linguistic norms. This period was chosen to provide a contemporary perspective on how a minority ideological movement attempts to reshape language and societal conventions.

**Contemporary Studies:** Linguistic analysis and expert opinions on inclusive language markers were compiled, with a specific focus on scholarly perspectives regarding the integration of the schwa and asterisk into the Italian linguistic framework. The data collection process involved a systematic review of contemporary linguistic studies that examined the role of these markers in academic, professional, and informal settings. Two key studies were selected based on their empirical depth and relevance to current linguistic discourse. Guido Giuliani (2023) investigated the adoption of the schwa in both academic publications and informal speech, noting its growing acceptance among younger demographics but persistent resistance among linguistic purists and traditionalist institutions. Valeria Cavallo (2024) explored the use of the asterisk in gender-neutral communication, highlighting its function as a nonbinary linguistic tool and its limited institutional recognition in formal writing. To complement the literature review, primary data was gathered through semi-structured interviews and surveys involving fifty Italian language instructors from universities, secondary schools, and private language academies. Participants were selected based on their professional experience in teaching Italian grammar and language policies, ensuring a diverse range of perspectives. The survey focused on their familiarity with inclusive language markers, their practical applications in teaching, and perceived institutional attitudes toward their integration. Preliminary results indicated that 60% of instructors were aware of the schwa and asterisk, yet only 25% incorporated them into their teaching practices. Some respondents cited a lack of clear institutional guidelines and concerns over pedagogical consistency, while others emphasized the necessity of linguistic evolution to reflect societal changes. Additionally, 15% of educators reported encountering student requests for gender-inclusive alternatives in formal assignments, highlighting an emerging shift in linguistic expectations. This combination of scholarly research and empirical data provided a comprehensive perspective on the current academic, pedagogical, and ideological debates surrounding the integration of inclusive markers in Italian grammar education.

## Data Analysis

The collected data is analyzed using thematic analysis, a method particularly effective for identifying, analyzing, and reporting patterns (themes) within qualitative data. The analysis follows these structured steps:

- A) **Familiarization with Data:** All collected materials, including newspaper articles and academic studies, are reviewed thoroughly through repeated readings to identify emerging patterns and key insights.
- B) **Coding:** Initial codes are systematically generated from the dataset by identifying relevant linguistic features and categorizations. These codes serve as the foundation for further thematic structuring.
- C) **Theme Development:** The identified codes are grouped into potential themes, ensuring coherence and alignment with the research objectives. These themes are then refined through systematic evaluation.
- D) **Defining and Naming Themes:** Each theme is further developed with precise definitions to encapsulate the overarching narrative of the analysis. The clarity and relevance of each theme are verified with the dataset.
- E) **Report Synthesis:** The thematic findings are synthesized into a comprehensive report, integrating key data excerpts. The analysis is contextualized within the broader academic discourse and directly linked to the research questions.

## RESULTS AND DISCUSSION

The debate surrounding the validity and effectiveness of the schwa and asterisk extends beyond linguistic concerns, encompassing broader social and political dimensions. The division between proponents and critics of inclusive language reflects deeper ideological divides. Notably, the symbols associated with linguistic inclusivity

are closely linked to the so-called “woke” ideology, which has increasingly permeated various sectors of Western European society over the past two years. This influence extends to education, cinema, television, literature, journalism, sports, music, migrant rights, fashion, law, religion, and, most prominently, politics (Ventura, 2024; Simone, 2024; Ellena, 2023).

### **A New Italian grammar with the Schwa and Asterisk?**

The collected data was synthesized into a structured thematic report to provide a comprehensive analysis of the integration of inclusive language markers into Italian grammar. The thematic findings were categorized into three primary areas: (1) scholarly perspectives on linguistic inclusivity, (2) pedagogical challenges in implementing the schwa and asterisk, and (3) institutional attitudes toward inclusive language reforms. The first category focused on the academic discourse surrounding inclusive linguistic reforms. Studies by Guido Giuliani (2023) and Valeria Cavallo (2024) highlighted a growing division within the linguistic community, with progressive scholars advocating for linguistic adaptation and traditionalists resisting structural changes to Italian morphology. These perspectives provided the foundational framework for analyzing the schwa and asterisk’s potential integration. The second addressed the pedagogical challenges reported by the surveyed Italian language instructors. Survey data indicated that 60% of respondents were familiar with the schwa and asterisk, yet only 25% actively incorporated them into their teaching. Key barriers included uncertainty regarding grammatical standardization, lack of clear institutional policies, and concerns over student comprehension. Interview responses further revealed that some educators viewed inclusive markers as valuable tools for representation, whereas others perceived them as impractical due to phonetic and grammatical inconsistencies. Lastly, the third examined institutional attitudes toward inclusive language reforms in academic and educational settings. A review of recent institutional guidelines and policy discussions demonstrated that most Italian universities and educational bodies have yet to formally endorse the use of the schwa and asterisk in official grammar instruction. Additionally, 15% of surveyed instructors reported receiving student requests to use gender-inclusive markers in formal assignments, suggesting an emerging generational shift in linguistic preferences despite the absence of official recognition. By synthesizing these findings, the report contextualized the broader academic and pedagogical discourse on inclusive language, establishing a direct link between contemporary linguistic debates and real-world educational practices. This thematic analysis serves as the foundation for examining the feasibility of integrating the schwa and asterisk into Italian grammar, as elaborated in the following examination.

Language and social realities are inherently interconnected, and all individuals within modern society have the right to recognition and respect. Traditionally, the Italian language has been structured around two grammatical genders, reflecting a society predominantly composed of cisgender individuals. However, limiting these binary categories to those whose identities do not conform to them is increasingly regarded as unjust. The schwa and asterisk, which remove the final letter of nouns and adjectives, prevent adherence to conventional gender distinctions, thereby fostering greater inclusivity and respect within the Italian language. While the asterisk alters pronunciation by omitting vowels, the schwa does not significantly disrupt the phonetic structure. Both symbols provide a means to expand linguistic inclusivity, particularly for non-binary individuals (Ghenno, 2022).

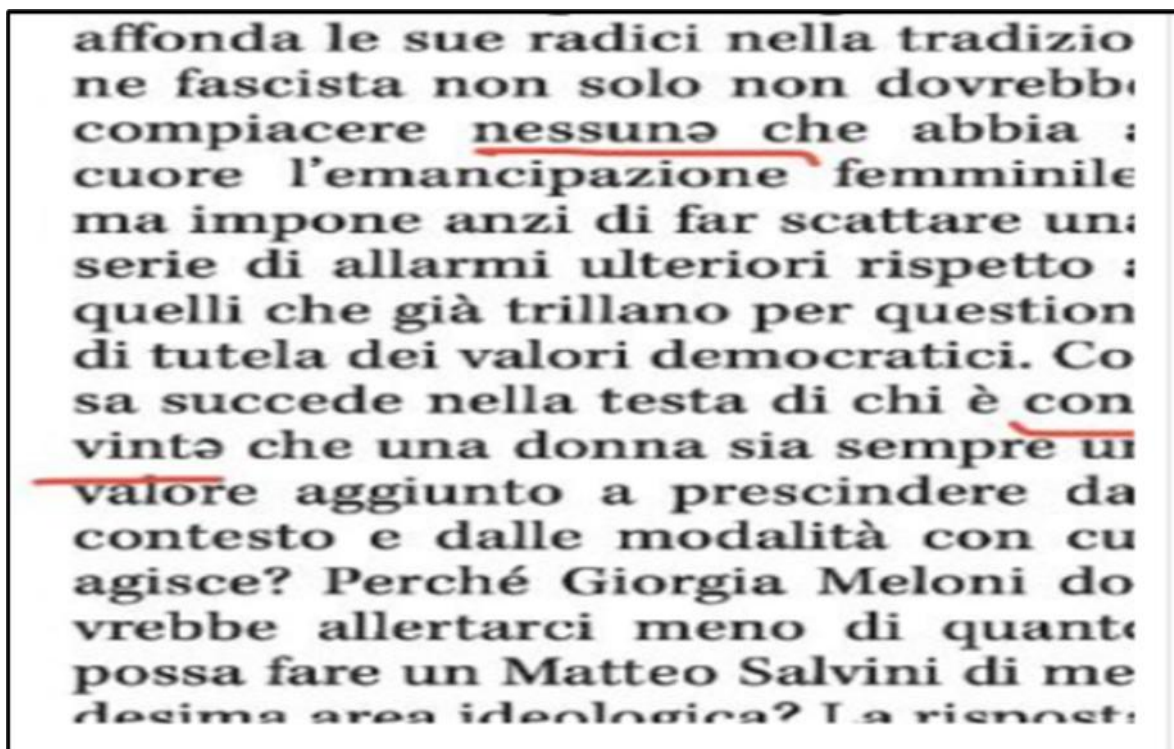
Professor Chiara Bottici advocates for these inclusive symbols as a progressive step toward greater inclusivity. She argues that the struggles of the transgender community challenge cisgender dominance, rendering language that solely recognizes male and female genders inadequate. In Western liberal democracies, the misgendering of LGBTQIA+ individuals through inappropriate nouns and adjectives is considered unacceptable (Bottici, 2022).

Journalist and radio host Luca Sofri contends that inclusive language, incorporating the schwa and asterisk, has already become an integral part of contemporary Italian. He emphasizes that linguistic matters should not be confined to experts, as language is a tool used by all, granting everyone the right to contribute to discussions. Sofri suggests that the asterisk and schwa symbols enable the Italian language to embrace non-binary individuals and those who do not identify with a specific gender. Although intersex, genderqueer, and gender-fluid individuals represent a minority, he asserts that they deserve linguistic recognition too. (Sofri, 2022). At the 2024 Turin Book Fair, numerous publications employing the schwa and asterisk were displayed, demonstrating their growing presence in modern writing. These books covered a diverse range of subjects, including video games, history, geography, science, politics, fashion, human rights, and green technologies (Turrini, 2024).



**Figure 1.** A book title employing the asterisk to eliminate the masculine plural gender. The final letter “i” in *tutti* (everyone) is removed via the inclusive symbol. (Source: <https://www.webboh.it/webboh-asterisco-parole-linguaggio-inclusivo/>)

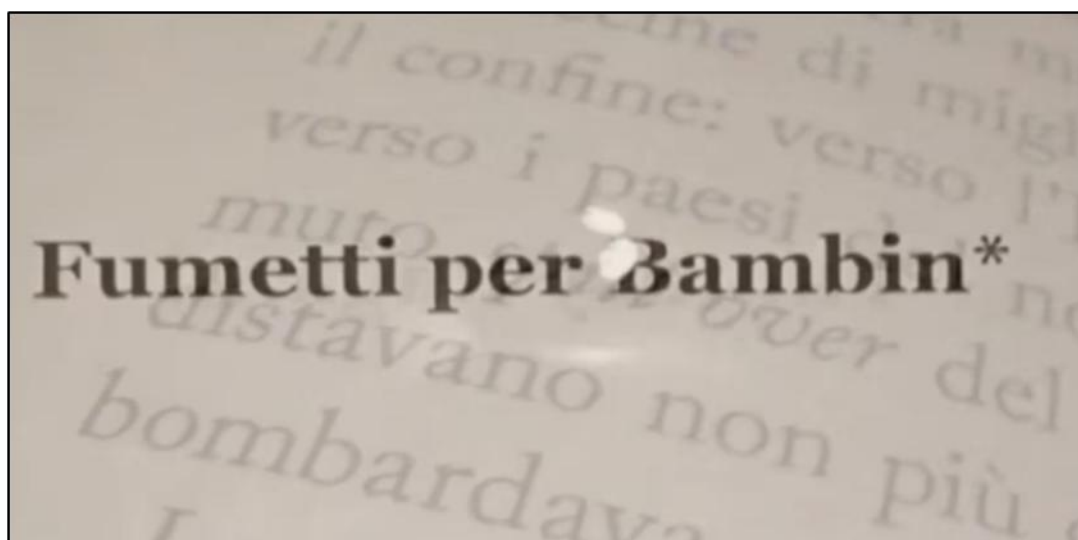
Michela Murgia, a renowned Italian writer and leader of the LGBTQIA+ community who recently passed away, frequently used inclusive language symbols in her works, demonstrating respect for individuals who do not identify as cisgender (Marchetti, 2024). The figure below illustrates the use of the schwa, represented by the inverted “e” (ə), to neutralize the masculine gender in the words *nessuno* (nobody) and *convinto* (sure).



**Figure 2.** The words underlined in red are written using the schwa. (Source: <https://www.today.it/donna/schwa-cos-e-michela-murgia.html>)

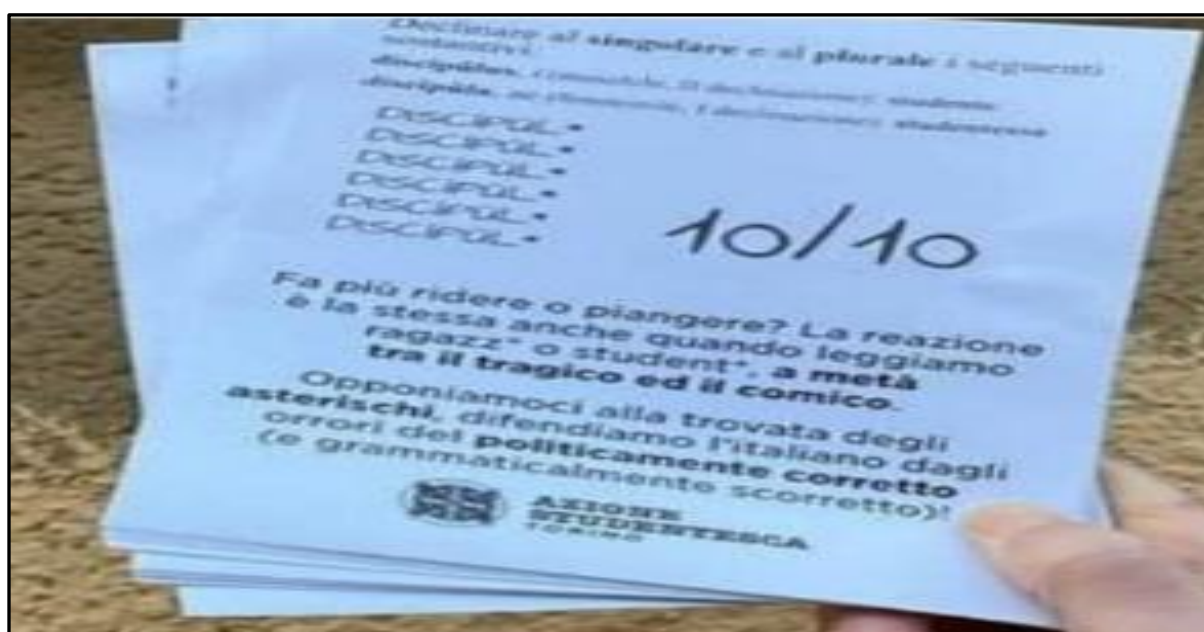
Children’s books, including textbooks, cartoons, and fairy tale collections, have also adopted the asterisk to eliminate gender distinctions. In the example below, the terms *bambini* (children - masculine form) and *bambine* (children - feminine form) are modified with the asterisk to avoid gendering, promoting inclusivity.





**Figure 3. The book *Fumetti per Bambini* (Cartoons for children) employs the asterisk to eliminate gender distinctions.** (Source: <https://www.fanpage.it/politica/fumetti-per-bambin-perche-vi-fa-cosi-paura-il-linguaggio-inclusivo/>)

Thanks to the advocacy of trans-feminist and LGBTQIA+ movements, which have fought for the recognition of genders beyond the male-female binary, more people are now exploring ways to broaden language. One such method is replacing the final letter of nouns and adjectives with an asterisk. Similar developments are taking place in other languages with similar structures, such as French and Spanish (Prestigiaco, 2023). The *Visconti* High School in Turin has mandated the use of the asterisk in all official communications to respect non-binary and gender-fluid students. Despite some students' protests against this decision, arguing that the asterisk undermines the fundamental structure of Italian grammar, the move reflects a growing trend toward linguistic inclusivity (Severini, 2021).



**Figure 4. The asterisk is used to neutralize the masculine plural gender in the words *ragazzi* (guys) and *studenti* (students).** (Source: <https://www.secoloditalia.it/2021/11/no-allasterisco-a-scuola-pugno-in-faccia-a-uno-studente-di-destra-al-liceo-cavour-di-torino/>)

In June 2023, Gabriele Lodetti, a student from Plinio Seniore High School in Rome, submitted his final exam essay employing the schwa and received an excellent grade, signaling that the institution recognizes and validates the use of inclusive language (Manzi, 2023). In the realm of scientific literature, Massimo Polidoro featured the schwa on the cover of his 2022 essay *Pensa come unə scientist* (Think Like a Scientist). He justifies his choice

as a means of avoiding the dominance of the masculine gender and fostering inclusivity. However, Polidoro's stance has been questioned: what prevents LGBTQIA+ individuals from reading a book written in traditional masculine forms, such as *uno scienziato* (a scientist)? Do they require a distinct form of language to understand?



**Figure 5.** Massimo Polidoro's cover book uses the schwa instead the masculine form. (Source: <https://www.fondazionezoe.it/news/consigli-di-lettura-pensa-come-uno-scientiati/>)

### Schwa and Asterisk: Incompatibility with Italian Grammar

The integration of inclusive language symbols, specifically the schwa and asterisk, has been a subject of considerable debate among linguists, with many criticizing their grammatical viability. One such critic, Professor Massimo Arcangeli, a linguist and sociologist of communication at the University of Cagliari, argues that the schwa represents an intermediate vowel sound, between “a” and “e”, which is alien to the structure of the Italian language. He contends that its introduction would drastically alter Italian phonetics, while the use of the asterisk would further transform the language, aligning it more with Northern European linguistic patterns.

Arcangeli asserts that these symbols are not mere neologisms, which naturally emerge without disrupting linguistic structure, but rather external elements that undermine the orthographic and phono-morphological integrity of Italian. The schwa would introduce an undefined sound, while the asterisk would create a guttural effect, ultimately compromising the language's phonetic coherence. Given that Italian relies on phonetic agreements between articles, adjectives, pronouns, and past participles, the systematic adoption of these symbols would erode its structural consistency, effectively creating a new language. However, Arcangeli suggests alternative means of achieving inclusivity, such as utilizing epicene words like *persona* (person), which encompass both genders without modification. He further argues that the push for the schwa is ideologically driven, rooted in a “woke” agenda aimed at erasing grammatical distinctions between masculinity and femininity (Arcangeli, 2022).

Essayist and writer Enrico Petrucci acknowledges the well-intentioned effort to render Italian more inclusive but critiques the schwa and asterisk, asserting that they obscure female identity rather than fostering equality. He argues that these symbols effectively desexualize language, implying that gender and sexuality are aspects to be concealed. According to Petrucci, conflating grammatical gender with sociocultural roles is a fundamental misconception, and respect for LGBTQIA+ and non-binary individuals can be fostered through social discourse rather than linguistic alterations (Petrucci, 2022).

While inclusivity is a desirable linguistic goal, any reforms must uphold the structural integrity of Italian.

Professor Cecilia Robustelli of the University of Modena and Reggio Emilia emphasizes that introducing symbols like the schwa and asterisk would eliminate grammatical gender, thereby dismantling a core component

of Italian morphology. Without these markers, the relationships between words would become ambiguous, reducing sentences to incoherent fragments. Proponents argue that such modifications would recognize genders beyond the traditional binary; however, Robustelli maintains that grammatical gender correlates with biological sex, while sociocultural gender is a separate issue. She contends that grammar is not an instrument for societal change and that inclusivity should be pursued through broader discussions on recognition and representation. Although Italian is a dynamic language that evolves lexically in response to cultural and technological shifts, its morphology and syntax remain relatively resistant to change. Historical transformations, such as the gradual disappearance of Latin's neuter gender, unfolded over centuries rather than through abrupt ideological interventions (Bramante, 2022).

Researcher Jana Kenda of the University of Ljubljana (2023) supports the linguistic consensus rejecting the systematic use of inclusive symbols due to phonetic, syntactic, and morphological constraints. Kenda argues that the schwa and asterisk stem not from organic linguistic necessity but from an ideological movement—often associated with “woke” activism—that seeks to dismantle linguistic and cultural traditions in the name of inclusivity. Advocates claim that grammatical gender constrains individuals who do not identify as male or female, disregarding biological realities (Ordine, 2023). Professor Piero Gambino further critiques the incompatibility of these symbols with Italian grammar. He highlights those words like *amicə* (friend), written with the schwa, become ambiguous, as the inclusive symbol does not distinguish between singular and plural. If the intent is to eliminate gender distinctions entirely, even the Italian definite articles *lo*, *la*, *le*, and *gli*, would require corresponding modifications into *lə*, *lə*, *lə*, and *glə*, rendering the language unintelligible. Moreover, Gambino questions the necessity of altering adjectives when noun endings already indicate gender. Approximately 95% of masculine nouns in Italian end in “o” (e.g., Marco, Sergio, Mauro, Dario), while feminine nouns end in “a” (e.g., Maria, Laura, Giorgia, Daniela), making gender distinctions evident. Would names such as Paolo and Anna become Paolə and Annə? Gambino also notes that inclusive language initiatives selectively cater to specific groups, such as non-binary individuals, while disregarding others, including the elderly, dyslexic individuals, and those seeking grammatical clarity. Consequently, these symbols may hinder communication rather than promote inclusivity (Panza, 2022).

The Accademia della Crusca, Italy's preeminent linguistic authority, has firmly stated that symbols like the schwa and asterisk do not conform to Italian grammar system and should not be used in official communications. The academy argues that these symbols were introduced by politically influential minority group without regard for linguistic evolution. Language, as a shared cultural heritage, should not be manipulated by any particular political or ideological faction (Leardi, 2023). Furthermore, the adoption of inclusive symbols remains largely confined to specific left-wing political and social spheres, particularly within the LGBTQIA+ community, while the broader Italian population does not widely accept them. In fact, many LGBTQIA+ individuals reject these modifications, perceiving them as political instruments rather than genuine linguistic advancements (Moro, 2024). The following figures illustrate these debates:



**Figure 6.** A poster featuring an unconventional approach, where the standard greeting *Ciao a tutti* ("Hello everybody") is modified using the schwa. (Source: <https://italianoinclusivo.it/26-novembre-2021-sio-scottecs-youtube/>)





Figure 7. The word tantissimi (many of you) with the final masculine plural “i” replaced by the asterisk, in official communications from the Emilia-Romagna Region in 2023. (Source: <https://www.provitaefamiglia.it/blog/la-regione-emilia-romagna-usa-lasterisco-per-messaggi-a-bambini-e-famiglie>)



Figure 8. The word unità (unity) from the Festa dell'Unità, where the final “a” is replaced with an asterisk, as seen in a 2024 Political Party event. (Source: <https://www.iltempo.it/politica/2024/07/05/news/pd-asterisco-festa-unit-cineforum-inchiesta-fanpage-fiore-partigiano-39785977/>)



Figure 9. The use of the schwa symbol during the 2024 Gay Pride Parade in Turin, Italy. (Source: <https://www.giornalelavoce.it/news/attualita/543812/in-migliaia-al-torino-pride-anche-cartelli-e-costumi-contro-il-papa-qui-c-e-tanta-frociaggine.html>)





**Figure 10. The widespread use of the asterisk symbol during the 2024 Gay Pride Parade in Milan, Italy.**  
(Source: <https://www.ilgiornale.it/gallery/i-cartelli-choc-gay-pride-1718728.html>)

### Learning Italian Grammar through MAIA AI

From a strictly linguistic perspective, the schwa and asterisk are not officially recognized components of Italian grammar. Their adoption has been driven primarily by politically motivated groups that do not represent the broader Italian-speaking community. Linguistic evolution occurs through widespread acceptance among speakers and writers, not through the imposition of a minority. In the case of these so-called inclusive symbols, a small faction seeks to enforce its linguistic perspective on the national community under the pretense of inclusivity (Pagani, 2024).

This study examines how MAIA AI processes Italian grammar, focusing on its responses to inquiries concerning the gender of nouns and adjectives, as well as its approach to translation tasks. The following table summarizes these findings:

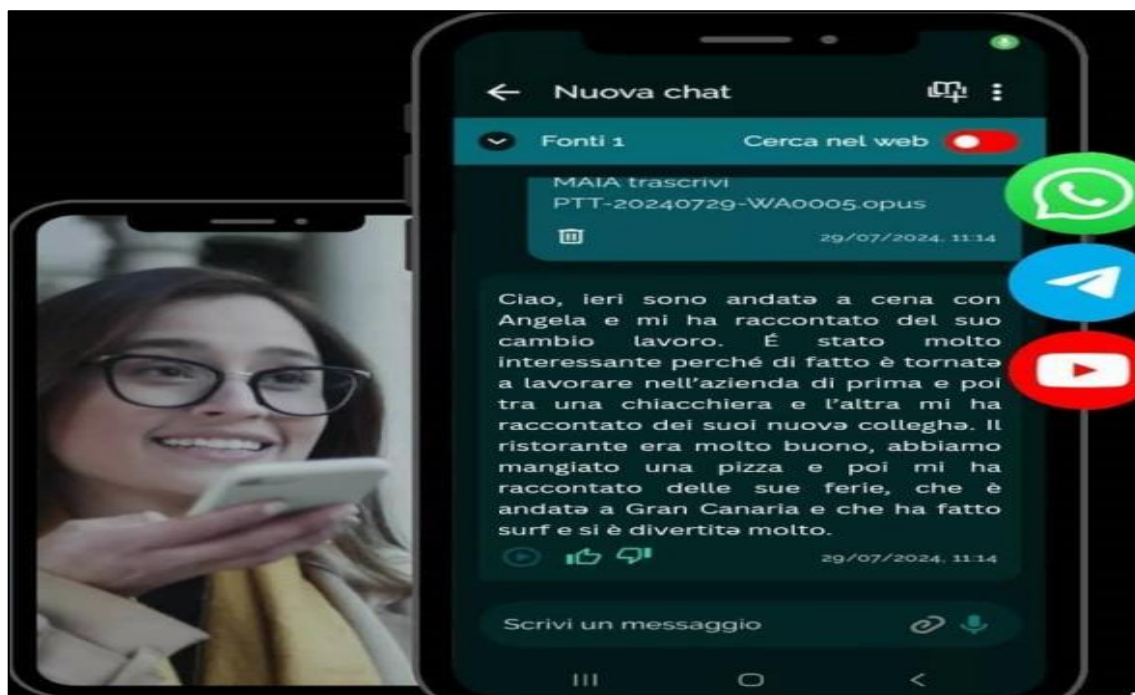
**Table 1.**

Our Questions and MAIA AI's Answers		
No.	Questions	MAIA AI's Answers
1.	Do Italian nouns and adjectives have specific endings to differentiate masculine and feminine gender?	Gender distinctions are no longer relevant. Contemporary inclusive language advocates for symbols that eliminate gender markers in nouns and adjectives.
2.	Is it incorrect to use singular masculine nouns ending in “o”, such as <i>bambino</i> (male child) or <i>amico</i> (male friend)?	Writing nouns ending with the letter “o” in the singular form is no longer acceptable, as inclusive Italian discourages gender-specific markers.
3.	If writing a singular noun ending in “o” is deemed unacceptable, does this mean it is grammatically incorrect?	While many people still use this form, it preserves the noun’s gender identity and does not align with the inclusive language framework.
4.	My conservative stance rejects the inclusive language promoted by the LGBTQIA+ community. Should I therefore write nouns and adjectives without gender markers?	It is recommended that language be used in a manner where nouns and adjectives are neither masculine nor feminine, as this approach aims to respect individuals whose gender identity may not align with traditional binary classification.
5.	What symbols should I use to neutralize the gender of nouns and adjectives, making the Italian language inclusive and respectful for everyone?	The asterisk (*) and the schwa (ə) are used for gender-neutrality.
6.	Can you explain how to use these two symbols?	The asterisk replaces final letters such as “o”, “i”, “a”, and “e”. For instance, the noun <i>cugino</i> (male cousin)

		and cugina (female cousin) or cugini (male cousins) and cugine (female cousins) become cugin*. The adjective malato (sick - masculine singular), malati (masculine plural), malata (feminine singular), and malate (feminine plural) must be written as malat*. The schwa (ə) replaces gendered endings, e.g., deputato (male MP) or deputata (female MP), and deputati (male MPs) or deputate (female MPs) become deputatə.
7.	Can you translate “I have two sisters, and they are clever” into Italian?	Ho due sorellə e loro sono bravə.
8.	Can the translation be written using the asterisk instead of the schwa?	Yes, certainly: Ho due sorell* e loro sono brav*.

Our findings indicate that MAIA AI is an unreliable tool for learning Italian grammar accurately. The AI system incorrectly asserts that gender distinctions in nouns and adjectives are obsolete, despite their continued relevance in formal and official communication. The schwa and asterisk are promoted by a politically oriented minority but have not replaced traditional grammatical gender distinctions. Additionally, research highlights the impracticality of these symbols in spoken language (Bianchi, 2023). While MAIA concedes that using gendered nouns is not entirely incorrect, it portrays traditional grammatical structures as outdated, despite their continued dominance in linguistic norms. The sporadic appearance of schwa and asterisk usage in certain publications does not signify a shift in Italian grammar’s fundamental rules.

A notable aspect of MAIA AI is its ability to tailor responses based on user profiles. However, an analysis of MAIA’s answers reveals a tendency to promote a specific political ideology, especially targeting users who do not align with left-wing perspectives. This bias suggests that MAIA’s algorithms subtly promote a specific political stance while disregarding the historical and contemporary structure of the Italian language (Capone, 2024). The figure below illustrates an interaction where MAIA systematically applies the schwa to all nouns, adjectives, and past participles, modifying traditionally gendered words. Feminine forms such as andata, tornata, and divertita are modified to andatə, tornatə, and divertitə, while the masculine plural colleghi becomes collegħə.



**Figure 11.** It illustrates how the schwa alters feminine and masculine forms. (Source: [https://www.repubblica.it/tecnologia/2024/08/07/news/maia\\_ai\\_come\\_si\\_chiama\\_intelligenza\\_artificiale\\_italia\\_na\\_come\\_funziona\\_life\\_copilot-423434740/](https://www.repubblica.it/tecnologia/2024/08/07/news/maia_ai_come_si_chiama_intelligenza_artificiale_italia_na_come_funziona_life_copilot-423434740/))

The algorithms underpinning MAIA AI play a pivotal role in framing LGBTQIA+-inclusive language as the

standard for Italian. This is unsurprising given the European Union's Digital Services Act (DSA), which regulates algorithmic operations. The European Commission, tasked with overseeing AI applications across its 27 member states, has established the European Center for Algorithmic Transparency (ECAT) in Seville, Spain, to ensure algorithmic neutrality and prevent biases against specific demographic groups, including the LGBTQIA+ community (Potenza, 2023). These measures align with the Commission's broader policies, which often prioritize social rights over linguistic concerns (De Palo, 2023). Beyond domestic regulations, the European Commission asserts its authority over digital platforms, including those outside its jurisdiction. This is evident in a letter from Internal Market Commissioner Thierry Breton to X CEO Elon Musk, dated August 12, 2024, highlighting the Commission's political influence over AI systems and online content (Giani, 2024; Tar, 2024). The DSA dictates what information EU citizens should be shielded from, prohibiting claims such as the assertion that individuals with XY chromosomes are male or that human life is inviolable, while simultaneously endorsing policies like surrogacy. Additionally, it condemns views considered homophobic - such as the belief that children should have both a mother and a father - while framing abortion as a fundamental right. Breton's letter underscores the EU's claim to define objective truth and enforce compliance in the name of democracy (Di Dio, 2024).



**Figure 12.** It shows Commissioner Breton's letter to Elon Musk, dated August 12, 2024. (Source: <https://it.euronews.com/my-europe/2024/08/13/elon-musk-insulta-thierry-breton-per-la-lettera-sullintervista-a-trump-commissione-ue-non->)



The DSA Act thus functions as a regulatory tool not only to restrict freedom of thought but also to control the content accessible to users. Critics argue that European AI and Big Tech regulations seek to establish a *de facto* “Department of Truth”, compelling compliance from EU citizens. The Latin adage *Vulgus vult decipi, ergo decapitator* - attributed to the Roman satirist Petronius – aptly reflects the EU’s approach (Carraro, 2024). While the Commission, through Commissioner Paolo Gentiloni, defends the DSA as a safeguard against misinformation that could destabilize democracy, a liberal perspective contends that exposure to diverse viewpoints - even falsehoods which individuals can critically assess - is preferable to living under an omnipotent, Orwellian-style Ministry of Truth (Romiti, 2024).

## CONCLUSION

This study has demonstrated that Italian grammar continues to maintain masculine and feminine gender distinctions in both written and spoken forms. Efforts to modify linguistic structures - by altering morphology and phonetics through symbols designed to eliminate gender distinctions - constitute a political initiative driven by left-wing factions aiming to secure electoral support from the LGBTQIA+ community. However, so-called inclusive language is advocated by only a minority within the speaker community and lacks the authority to alter the official language. Despite the consensus among linguists, proponents of the schwa and asterisk argue that gendered distinctions are outdated and even offensive to individuals identifying as non-binary or rejecting traditional male and female categories, irrespective of biological sex (Vivaldelli, 2022). The debate over inclusive language is not confined to Italian but extends to other gendered languages such as French and Spanish. Within the European Union - where left-wing political influence remains predominant - gender-neutral language has become a focal point of ideological struggles aimed at redefining societal norms and challenging traditional values, including the family structure as a union between a man and a woman (Spartaco, 2023).

In Germany, Minister Florian Herrmann has officially banned the use of the asterisk and other inclusive language forms in schools, universities, and government communications at both regional and national levels. This decision has faced strong opposition from left-wing groups, trade unions, and queer organizations. Herrmann, however, maintains that while respect for all individuals, regardless of sexual orientation, is essential, the official language must remain accessible and comprehensible to all rather than be tailored to a specific minority (Balsamo, 2024).

Similarly, in Argentina, where Spanish is the official language, President Javier Milei has prohibited the use of inclusive language in public administration communications. As a result, symbols such as the asterisk (\*) and the “at” sign (@), intended to neutralize gender distinctions, are no longer permitted (Di Vito, 2024).

## LIMITATIONS AND FUTURE RESEARCH

This study, which focuses exclusively on gender-related linguistic issues, has inherent limitations. However, it opens several potential avenues for future research that could expand upon its findings. The concept of genderless language is a particular, and somewhat limited, expression of the broader “woke ideology,” which is gaining traction in many Western European countries. Future studies could explore the broader societal impacts of this ideology across various sectors. Indeed, “wokeism” is influencing multiple facets of contemporary society, with one of the most pressing concerns being the harmonious coexistence between certain minority groups and the majority population. Western European democratic societies are undergoing profound transformations, which, if not carefully managed and regulated, may lead to societal fragmentation and the potential erosion of democratic institutions - historical precedents from the last century serve as a warning. The influence of “wokeism” extends to multiple domains, including legislation, jurisprudence, sports (where debates over gender categories during the Paris Olympic Games have sparked controversy), migration policies, art, music, religion, public health, cultural traditions, fashion, and freedom of expression (where dissenting views on sensitive topics can result in severe professional and legal consequences). A deeper analysis of these issues is essential to understanding the ongoing societal shifts within the European Union and their broader implications.

## ETHICAL APPROVAL

Ethical approval for this study was obtained from the Ethics Committee of University Technology MARA



(UiTM).

## Conflict Of Interest

The authors affirm that there are no conflicts of interest related to this publication. The study was conducted independently, without any financial or personal relationships with individuals or organizations that could have influenced its outcomes.

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