Reconciling inclusion and accessibility: solutions for non-binary linguistic strategies in grammatical gender languages

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Abstract

The ongoing debate concerning gender-fair language in grammatical gender languages reveals a profound philosophical tension between the principles of inclusivity and accessibility. Specifically, certain linguistic strategies designed to ensure equity for non-binary individuals appear to impede accessibility, raising questions about potential trade-offs between these two ideals. This article investigates the nature of this apparent conflict by exploring the conceptual foundations of both accessibility and inclusion. I analyse specific linguistic strategies as a case study and argue that, although they may pose obstacles to accessibility, these tensions are not insurmountable. I conclude that, to reconcile accessibility and inclusion, it is crucial to understand the nature of accessibility challenges. Once these challenges are identified, appropriate solutions can be implemented to overcome them.

Keywords: Non-Binary; Gender-Fair Language; Italian; Accessibility; Inclusivity.

Introduction

The existence of genders beyond the constraints of the gender binary is a phenomenon that has been extensively documented in literary works (see, for example, Matsuno and Budge, 2017). According to Haslanger, the term "gender" refers to a social category that places people in a hierarchy based on their presumed sexual anatomy. It can imply oppressive forms depending on the context and is intertwined with other forms of oppression, such as race and social class (Haslanger, 2000). In most Western

societies, gender as a social category is considered binary (male or female). However, these options do not include all existing identities, as some people identify with genders other than these or with no gender at all (Independent Lens, 2015).

The term "non-binary" is used to define a range of gender identity groups, including those whose gender identity falls between or outside of the traditional male and female categories, those who can experience being a man or a woman at separate times, or those who have no experience of having a gender (Matsuno and Budge, 2017). The inadequacy of gender binarism has been central to the debate, with language playing a significant role. Even linguistically, the gender binarism that characterises many languages with a gender system has been questioned, e.g., on a grammatical level. Grammatical gender is defined by Corbett as "the most puzzling of the grammatical categories (...). In some languages gender is central and pervasive, while in others is totally absent" (Corbett, 1991: 1). This is an intrinsic property of the noun that controls the agreement between the noun (the controller) and some satellite gender-variable element (the target), such as an article, an adjective, a pronoun, a verb, number or preposition (Hellinger and Bußmann, 2001: 7).

According to the classification by Stahlberg et al. (2007), languages can be grouped into "grammatical gender languages", "natural gender languages" and "genderless languages".[1] Grammatical gender languages, such as Italian, are characterised by the pervasiveness of their grammatical gender encoding systems. In Italian, most nouns are assigned to either masculine or feminine grammatical gender.[2] The grammatical gender of terms referring to inanimate entities is not semantically motivated.

[1] See Stahlberg et al.'s (2007) classification of languages into *grammatical gender languages*, *natural gender languages*, and *genderless languages*: in grammatical gender languages "every noun is assigned feminine or masculine (or possibly neuter) gender"; in natural gender languages "there is no grammatical marking of sex", and "most personal nouns and their dependent forms can therefore be used to refer to both females and males"; genderless languages "have neither grammatical gender in the noun system nor sex-differentiated personal pronouns". Note that, even in so-called "genderless languages", the gender of individuals is expressed with the recourse to words lexically gendered. For example, in Turkish, which is a genderless language, there are lexically gendered words such as *erkek* (man, male) and *kiz* (girl, female). There does not seem to be a language in which expressions of masculinity or femininity are completely lacking.

[2] *Gender encoding* is a way of signalling the gender of the referent to which a linguistic expression refers. This can be achieved by various linguistic means, including attributive adjectives such as *male* or *female*, e.g., *male nurse*; appositions such as the

In contrast, the grammatical gender of terms referring to animate beings is semantically motivated, as it tends to reflect the referent's social gender (Corbett, 1991). Therefore, in these cases, non-binary people are generally forced to choose to use masculine or feminine grammatical gender to refer to themselves, creating a discrepancy between their social gender identity and the grammatical gender used (Rosola, 2024).

To deal with this discrepancy, there has been a growing recognition of the need to overcome the limitations of grammatical binarism also on the linguistic level (see, for example, Dembroff & Wodak, 2018; Lopez, 2020).[3] Regarding the Italian language, the solution identified to make non-binary people visible is the use of innovative grammatical gender encoding devices to replace the masculine and feminine grammatical gender encoding devices of words that refer to animate beings. The most used of these solutions are the asterisk, e.g., *maestr** (teacher), and the schwa,[4] e.g., *maestrə* (teacher), instead of *maestro* (teacher, M) or *maestra* (teacher, F) (Comadini, 2021). Various objections have been raised against this strategy, including concerns about morphological irregularity, phonological realizability, and systemic integration (see Thornton, 2022). Thornton (2022) provides a detailed analysis of the use of the schwa in Italian and highlights broader challenges concerning the compatibility between the structure of the Italian gender system and the inclusion of non-binary individuals. This paper focuses on one of these objections, namely the potential difficulties that the use of this strategy may present for individuals with visual impairments and dyslexia. The underlying idea of the objection is that resorting to these solutions would entail accessibility problems and, consequently, would imply the inclusion of one part of the

French *madame*, e.g., *madame premier minister*; for word formation, as in Turkish *erkek öğretmen*, *man teacher* for male teacher (Doleschal, 2015).

[3] This need is evidenced by the fact that many linguistic communities have sought various solutions to overcome gender binarism. Regarding pronouns, for instance, the English community makes extensive use of the *singular they*, which is a pronoun used for people who are non-binary or whose gender is unknown; the Swedish community has introduced the gender-neutral pronoun *hen* into the official norm. For more about non-binary pronouns in other languages, see Maturi (2020).

[4] The schwa (*ə*) indicates a mid-central vowel located in the middle of the vowel quadrilateral. Its sound is similar to that of the *a* of *about* (Gheno, 2022b).

community, dyslexic and visually impaired people, at the expense of another, people without accessibility difficulties (De Santis, 2022; Iacopini, 2021).

The objective of this paper is to examine the objection about the accessibility challenges posed by innovative grammatical encoding devices, to ascertain the nature of these challenges and to evaluate the potential for their resolution. To this end, I first illustrate the linguistic solutions identified for the Italian language to include non-binary people (§ 1). Secondly, I present the objection, and I explore the concepts of accessibility and inclusion (§ 2). Then, I analyse the accessibility difficulties that innovative grammatical encoding devices create for people with low vision and blindness, concluding that these difficulties are mostly related to the programming of assistive technologies, such as screen readers and Braille displays (§ 3). Subsequently, I examine the accessibility difficulties that these innovative solutions create for dyslexic people, observing that these difficulties could be related to the absence of these linguistic elements in certain digital fonts (§ 4). Finally, I examine two topics that are frequently discussed in the objection. These concern the non-inclusion of dyslexic and visually impaired categories of people and the importance of implementing solutions in a universally applicable manner (§ 5). I conclude that the objection in question is only partially true. Following the findings of Iacopini (2021), I argue that there are currently a significant number of accessibility challenges, which in turn give rise to a multitude of points of incompatibility between non-binary linguistic solutions and the instance of digital accessibility. Nevertheless, I present evidence indicating that many of these difficulties could be mitigated, thereby demonstrating how the incompatibility between inclusion and accessibility can be resolved in certain cases. The adoption of solutions that mitigate accessibility challenges represents a viable approach to reconciling inclusivity and accessibility with the non-binary linguistic instance. Furthermore, in alignment with Gheno (2022), I contend that until such solutions are implemented, the choice of gender-fair strategies must be weighed according to the communicative context.

1. Overcoming Gender Binarism in the Italian Language

For gender-fair communication, queer and transfeminist movements have encouraged the use of language that also includes non-binary individuals (for an overview, see Gheno, 2022). For the Italian language, various solutions have been proposed (e.g., *, *ə*, -, *@, u*, *x*, *y*, etc.) to replace binary grammatical encoding devices (Gheno, 2022b). For example, to include non-binary people, one could write *buongiorno a tuttə* (good morning, everyone) instead of *buongiorno a tutti* (good morning, everyone, [M]) to replace the masculine grammatical gender encoding device with a nonbinary grammatical gender encoding device. Each solution presents specific characteristics. Some of these have no corresponding sound, and therefore their use is limited to written communication, such as the asterisk, e.g., *buongiorno a tutt**; the at symbol, e.g., *buongiorno a tutt@*; and the hyphen, e.g., *buongiorno a tutt-*. Other solutions have corresponding sounds and are usable in oral communication as well, such as the schwa, e.g., *buongiorno a tuttə*; and the letter u, e.g., *buongiorno a tuttu*. Although the letter x, e.g., *buongiorno a tuttx*, and the letter y, e.g., *buongiorno a tutty*, have also been proposed as innovative grammatical gender encoding devices, their use in spoken language is problematic: "x" yields sequences that violate the phonotactic constraints of Italian (e.g., "tuttx" cannot be pronounced following Italian phonology), while "y" lacks a standardised phonological realisation in Italian, making it ambiguous or unintelligible in oral contexts.

Innovative solutions (e.g., *, *ə*, -, *@, u*, *x*, *y*, etc.) can be used both to make non-binary gender visible and to completely obscure gender references (González Vázquez et al., 2024). In the first case, the term with the innovative grammatical encoding device is paired with masculine and feminine grammatical encoding devices, e.g., *buongiorno a tutte, tutti, tutt**, where the three forms respectively represent women, men, and non-binary people. In the second case, the term with the innovative

grammatical gender encoding device is used as the only form, e.g., *buongiorno a tutt**, to include all genders.[5]

The use of innovative solutions has been the subject of criticism regarding accessibility. In the following section, I provide a detailed examination of the objection to the use of these linguistic solutions on the grounds of accessibility, focusing on the use of the schwa and the asterisk, which are the most prevalent linguistic solutions in the Italian context (Comadini, 2021). Furthermore, I examine the supposed inherent tension between gender inclusion and accessibility.

2. The Challenge of Inclusion vs Accessibility

The accessibility objection raised regarding the use of innovative grammatical gender encoding devices identifies a multitude of potential difficulties. As Kerch (2021) observes, the use of schwa and asterisk can present challenges, particularly in writing, for specific groups such as those of people with visual impairments and dyslexia. Regarding individuals with visual impairments, the use of digital assistive tools is a common method for the reading of digital texts. However, many of these assistive tools are unable to accurately interpret the schwa and the asterisk in Italian texts. Instead, individuals with dyslexia typically use specific fonts that facilitate reading. Nevertheless, a considerable number of these fonts do not include the schwa among their characters (Kerch, 2021). De Santis (2022) and Iacopini (2021) also identify the incompatibility between assistive devices and innovative solutions as an accessibility issue. De Santis argues that the use of screen readers hinges upon the software's capacity to discern and analyse words and their morphological properties. Nevertheless, it is currently not possible to use screen readers with the aforementioned linguistic solutions (De Santis, 2022).

[5] To further explore the difference between strategies that obscure gender (gender-neutral language) and strategies that make gender visible (gender-sensitive language), see EIGE (2019).

Taking these issues into account, Iacopini (2021) observes that the use of the schwa and the asterisk serves to illustrate the tension that currently exists between inclusion and accessibility. The concepts of inclusion and accessibility are inextricably linked, yet they are not synonymous: the notion of *inclusion* is predicated on the idea that it must be possible for everyone to participate actively in social life; *accessibility* means achieving full participation by removing barriers. Consequently, the notion of inclusion represents a conceptual horizon that can only be attained through the implementation of measures that ensure accessibility (Iacopini, 2021).

According to AGID (2024),[6] the term *barriers* is used to describe obstacles that impede the usability of physical or digital spaces. They may be classified according to their sensorial, architectural, psychological, or communicative nature. A context is defined as accessible if it is free from barriers.[7] The dismantling of such barriers can be achieved through the implementation of inclusive legislation, universal design principles, cultural shifts, training initiatives, awareness-raising campaigns, strategic investments, and the development of innovative solutions. Furthermore, these solutions are beneficial to all users, including those who are not typically considered to have a disability. Indeed, they facilitate the use of digital content in general (AGID, 2024).[8]

Considering the aforementioned factors, it can be supposed that the use of innovative grammatical gender encoding devices may present accessibility challenges, potentially acting as a barrier to communication. Specifically, according to the accessibility objection, it seems that such challenges

[6] In March 2024, I participated in the basic, intermediate and advanced levels of the AGID (Agenzia per l'Italia Digitale) courses on accessibility to identify the tools employed to facilitate communication and to investigate the digital accessibility issues that emerge. The course provided an overview of the relationship between digital dynamics and disability and facilitated an in-depth exploration of the regulatory, managerial, and technical aspects of digital accessibility.

[7] The concept of *accessible context* as an enabling context is specific to the biopsychosocial model. Indeed, it takes into account a multitude of factors, both influencing and influenced by others, including health conditions, bodily functions, activities, participation, contextual factors, environmental factors and personal factors. From this perspective, disability is contingent upon the individual relationship with these factors, including environmental ones (AGID, 2024).

[8] The information presented in this paper was sourced from a digital accessibility training curriculum developed by AGID (Agenzia per l'Italia Digitale), entitled *Corso Base - Contenuti Accessibili* (Basic Course - Accessible Content), which was conducted on 5 March 2024.

would result in a disadvantage for individuals who experience difficulties in reading written texts, including those with visual impairments and those with dyslexia. If this is indeed the case, it raises questions about the tension between the objective of including all individuals beyond the gender binary and the necessity of ensuring the accessibility of the aforementioned categories of people.

It is accurate to state that there are currently accessibility issues. However, it is important to acknowledge that these issues persist only if solutions to overcome these accessibility issues are not implemented. As will be demonstrated in the following sections (§ 3, 4), a significant number of the accessibility challenges can be overcome by adapting specific solutions. Considering that, in agreement with Iacopini, the inclusion of all can be achieved by adopting accessibility measures, this article seeks to ascertain the veracity of the objection by elucidating the impediments identified therein and evaluating the feasibility of their surmountability.

Given the different nature of the difficulties faced by the two mentioned categories, I divide the analysis into two parts. In the next section, I analyse the difficulties for people with visual impairments (§ 3); subsequently, I discuss the difficulties for people with dyslexia (§ 4). However, it should be noted that the aforementioned categories of people are not homogeneous when it comes to encountering accessibility challenges since the experiences of different members may be diversified. For instance, testimonies from some individuals with dyslexia indicate that they may experience challenges in interpreting innovative grammatical gender encoding devices, whereas others do not encounter such difficulties. Therefore, accessibility challenges may differ in the experiences of members of the same group, e.g. dyslexic people or people with visual impairments (Gheno, 2022b).

3. Innovative Grammatical Gender Encoding Devices and Visual Impairments

According to the accessibility objection, the use of innovative solutions creates difficulties for people with low vision and blind individuals (see, for example, De Santis, 2022).[9] The objection raised against the use of innovative grammatical gender encoding devices for visual impairments concerns its incompatibility with the assistive technologies used by blind and visually impaired individuals.

To access digital texts, people with visual impairments can use screen readers. A screen reader is a software application used as assistive technology that identifies and interprets text on a screen to provide information on icons, menus, windows, and digital texts. This hardware can provide information through non-visual means, such as speech synthesis or a Braille display. In the former case, the screen reader translates on-screen information into sound using text-to-speech systems. In the latter case, the screen reader translates information into the Braille alphabet on a Braille display (Nomensa, 2005). The Braille display is a tactile electronic device which is connected to computers and mobile devices and transmits the text interpreted by the screen reader in Braille. Next, I analyse both cases in turn.

3.1 Speech synthesis

In the case of speech synthesis, difficulties in reading innovative grammatical gender encoding devices are, in some cases, linked to the intrinsic characteristics of such solutions and, in other cases, to the inadequacy of assistive technologies. For example, the asterisk is a graphic sign that does not have a corresponding sound and, therefore, cannot be read in any way. Thus, a solution to the asterisk issues is currently unavailable, given that it is inherently illegible. For instance, VoiceOver Utility, the screen reader included in the iOS and macOS operating systems, reads the asterisk in Italian words as *stella* (star). Thus, this software reads, e.g., *car* tutt** (dear all) as *carstella tuttstella* (dearstar allstar).

[9] Low vision is an irreversible condition characterized by reduced visual capacity, while blindness refers to the total absence of visual capacity. For more about visual impairments, see the *Relazione del Ministro della Salute sullo stato di attuazione delle politiche inerenti la prevenzione della cecità, l'educazione e la riabilitazione visiva (Legge 284/97)* (2023). https://www.salute.gov.it/imgs/C_17_pubblicazioni_2727_allegato.pdf.

The incompatibility between the speech synthesis technology and the asterisk is structural since it does not have an associated sound. It can be hypothesised that this incompatibility could be overcome by associating a sound with the symbol. For example, the asterisk could be associated with the same sound as the schwa. In addition to associating a sound with the asterisk, the screen reader must be trained to interpret the use of the asterisk in Italian texts as an innovative grammatical gender encoding device to read it correctly. However, this should also be done with the schwa, which, despite having an associated sound, is not read correctly by speech synthesis technology. For instance, when there is the schwa in a text, VoiceOver Utility doesn't pronounce any sound and creates a sudden interruption, reading, e.g., *carə tuttə* ['karə ˈtuttə] (dear all) as *car tutt* ['kar ˈtutt].[10]

To recap, the asterisk is inherently incompatible with speech synthesis because it has no corresponding sound, while the schwa is incompatible due to a limitation of screen readers in correctly reproducing it when used as an innovative grammatical gender encoding device. According to Boselli (2021), difficulties related to the schwa may be overcome. The author, a visually impaired person, argues that the solution is to insert the sound linked to the schwa into a database to allow those who use this software to listen to a fluid reading. In other words, the solution to difficulties related to visual impairments lies in adapting assistive technologies that are currently not programmed to read the schwa in Italian words. Furthermore, the *Informare con un'H* Center, which deals with disability policies, has emphasised that in many of the software tested by the Center, the pronunciation of the schwa is not correct, but the meaning is still understandable. Therefore, in some cases, the reading is incorrect, but this does not limit the comprehensibility of the text (Lancioni, 2021). Consequently, it can be assumed that, as for the speech synthesis systems, incompatibilities with the use of innovative grammatical gender

[10] I tested VoiceOver Utility's reading of asterisk and schwa as an innovative grammatical gender encoding device on May 20, 2024.

encoding devices can be overcome. Moreover, despite these difficulties, understanding is not currently radically impeded.

3.2 Braille Display

Let us consider the Braille system. Braille is a tactile writing system employed by visually impaired and blind people, typically transcribed onto raised paper. The Braille alphabet is constituted of cells comprising six or eight raised dots,[11] which are perceptible to touch. Each dot combination is associated with a specific character, whether a letter, number, or symbol. This means that the combinations of dots are limited, so it is not possible to add combinations at will. Moreover, the process of decoding a text written in Braille is contingent upon the use of a specific alphabet, which may be Latin, Greek, or other.

To read digital text in Braille, blind individuals may use a Braille display, which constitutes the alternative output for screen readers. The screen reader interprets the digital text, converts it into Braille characters, and transmits it to the Braille display (Shalini et al., 2020). Thus, the Braille display allows one to read the text by electronically raising and lowering different combinations of pins in Braille cells.[12]

In this case, the issue of accessibility may not be primarily associated with the Braille display but rather with the Braille system itself. Indeed, no combination of dots in the Latin Braille alphabet corresponds to the schwa.[13] Currently, since the schwa does not have a corresponding set of dots in Braille, screen readers render the schwa present in digital text as Ô (the letter "o" with a circumflex accent) on the Braille display (Stilla, President of Unione Italiana dei Ciechi e degli Ipovedenti, p.c.,

[11] The traditional Braille code has cells of 6 raised dots, with a total of 63 possible combinations (64 if we include the total absence of dots). With the spread of Braille displays, which can be used in an updatable and interactive way to read the information on the computer screen, the use of 8-dot Braille has become widespread, which increases to 255 the possibilities of combinations (Dyxon, 2007).

[12] For more information on how Braille displays work, visit the page of the *American Foundation for the Blind*. https://www.afb.org/node/16207/refreshable-braille-displays.

[13] See all the combinations present in the Braille alphabet in this publication by the Istituto dei Ciechi Francesco Cavazza: https://www.cavazza.it/invitoalbraille/html/table6.html.

08/05/24).[14] In contrast, a combination of dots does exist that corresponds to the asterisk. It can, therefore, be concluded that the asterisk can be used in Braille, whereas the schwa cannot. It is crucial to emphasise that, as a writing system, Braille does not necessitate the representation of sound; rather, it requires the configuration of dots that correspond to specific characters. This avoids the asterisk problem with Braille displays that occur with text-to-speech systems.

Parimbelli (p.c., 13/05/24) suggests that a potential solution to overcome the incompatibility between the Braille system and the schwa would be to identify a conventional dots combination to represent the schwa in Braille. This can be achieved despite the restricted number of potential combinations of dots, which represents a limitation of the current Braille system. Indeed, in general, a single combination of dots can correspond to multiple linguistic elements. Note that the possible combinations of six dots in a cell are constrained in comparison to the potential uses that the writing system can accommodate, given the plethora of letters, numbers, and symbols that can be represented. Because of that, a single combination of dots may be associated with multiple signs, and the context permits to disambiguate its meaning. In addition to associating a Braille dot combination with the schwa, screen readers should be updated to transmit this association to the Braille display.

To recap, the asterisk is compatible with the Braille display because it has a corresponding dot combination, while the schwa is incompatible because it does not. This incompatibility could be overcome by first associating a combination of Braille dots to the schwa and then updating the assistive devices. The evolution of such software is rapid, and there is the possibility future updates include decoding of the schwa (Parimbelli, p.c.). Consequently, it can be assumed that also, as for the Braille

[14] Although some of the reflections presented in this article were informed by informal exchanges with individuals and professionals knowledgeable about dyslexia, visual impairment, and assistive technologies, these communications are not intended as empirical or representative data. Rather, they serve as qualitative insights that helped orient and contextualize the conceptual discussion developed throughout the paper.

display, incompatibilities with the use of innovative grammatical gender encoding devices can be overcome.

To conclude the discussion on visual impairments, speech synthesis programs and Braille displays pose different challenges. While the former has the potential to accommodate the schwa, it is unable to accommodate the asterisk. Conversely, Braille can accommodate the asterisk but not the schwa. Thus, the use of both tools in the rendering of digital text could result in the text becoming inaccessible in one or the other systems, depending on the innovative solutions used. In both cases, however, some measures can be taken to overcome these challenges. The solutions identified so far to overcome the incompatibilities with speech synthesis programs consist of associating a sound with the asterisk and updating screen readers to interpret schwa and asterisk as innovative grammatical gender encoding devices to read them correctly with text-to-speech technology. Instead, the solution identified so far for Braille displays consists of associating a combination of dots with the schwa and adapting screen readers to its interpretation as well as to the correct transmission to Braille displays.

In this section, I have examined the accessibility challenges faced by visually impaired individuals, specifically in relation to the use of the schwa and the asterisk as innovative grammatical gender encoding devices. The following section will examine the accessibility challenges faced by individuals with dyslexia.

4. Innovative Grammatical Gender Encoding Devices and Dyslexia

According to some scholars, innovative solutions can also pose challenges to dyslexic individuals (see, for example, De Santis, 2022). As for the schwa, the resulting challenge for dyslexic people can be attributed to the absence of the schwa among the character sets of many fonts used by people with dyslexia to facilitate reading.

Dyslexia is a neurodivergent condition characterised by potential reading difficulties that may manifest as challenges in decoding texts (Giuliani, 2021). The dyslexic population varies greatly in the difficulties encountered. Many dyslexic individuals struggle more with reading words as a whole and tend to break them down into smaller parts. Those with a reading disorder may tend to confuse visually similar letters such as *p* and *q*, *b* and *d*, *m* and *n*, and closed and semi-closed letters like *e*, *c*, and *o*. These and other challenges can slow down reading and compromise text comprehension (Madeo, 2021).

In general, the visual aspect of the text can contribute to graphic readability[15].[16] Factors such as font size, contrast, background, font type, spacing, and page layout can influence the readability of printed and electronic texts (Madeo, 2021).[17] For instance, some fonts (e.g. *Times New Roman*) have characteristics, such as initial and final strokes of characters that tend to curl, close, and confuse shapes, which make them less readable compared to others. Considering these elements, typography has developed fonts specifically for dyslexic individuals, such as *Biancoenero*, *EasyReading*, and *Opendyslexic*.[18] These solutions consider factors that are typically problematic for individuals with dyslexia, such as letter size, contrast, line spacing, letter spacing, and word spacing. The consideration of these variables serves to circumvent the impediment of visual clutter, which hinders the act of reading. Consequently, this could facilitate the interpretation of the text in question (Madeo, 2021). [19]

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[15] *Graphic readability* refers to the ease of identifying, recognising, and deciphering communication based on symbols and characters (Baracco, 2005).

[16] For further information on how type influences readability, see the Google Fonts website. https://fonts.google.com/knowledge/readability_and_accessibility/how_type_influences_readability.

[17] For more about factors that influence readability, see the document published by the British Dyslexia Association. https://www.bdadyslexia.org.uk/advice/employers/creating-a-dyslexia-friendly-workplace/dyslexia-friendly-style-guide.

[18] It is important to note that not all individuals with dyslexia prefer dyslexia-friendly fonts. I was informed by individuals with dyslexia that some of them may prefer standard fonts such as *Times New Roman*, even though these fonts do not possess the characteristics that are typically associated with accessibility. This preference may be attributed to the influence of habit, as standard fonts are more prevalent and may imply a certain degree of familiarity with reading texts that are written in those fonts.

[19] Different fonts consider different factors. For a comparison of some dyslexia-friendly fonts, see https://www.dyslexia-reading-well.com/dyslexia-font.html.

The incompatibility between some of the dyslexia-friendly fonts and the schwa, exemplified by Biancoenero,[20] may be attributed to the absence of the schwa among their character sets. Thus, the absence of the schwa among the font characters precludes the use of the accessible solution in accordance with gender-fair practices that involve the schwa as an innovative grammatical gender encoding device (Kerch, 2021). However, other fonts explicitly designed for dyslexic individuals, for example, *EasyReading* (Alfonsetti, creator of *EasyReading*, p.c., 10/05/24) and in almost all its versions, *OpenDyslexic* (Gonzalez, creator of *OpenDyslexic*, p.c., 10/05/24), include the schwa among their characters.

The use of dyslexia-friendly fonts on computers may result in incompatibility issues when the files are loaded in .doc format rather than .pdf. This is because these fonts are not typically included by default in the majority of word-processing software. This issue can be resolved by using standard fonts. The majority of writing programs already include a number of standard fonts that, although not specifically designed for the needs of dyslexic readers, possess characteristics, such as letter shape and spacing, that facilitate reading.[21] Moreover, among these standard fonts, some already contain the schwa character, allowing users to avoid incompatibility issues entirely.[22]

It is worth noting that in both dyslexia-friendly fonts and standard fonts, the absence of the schwa character does not seem to constitute an insurmountable accessibility issue that would prevent reading altogether. When the font in use does not support the schwa, the character is typically displayed using a

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[20] This information was provided to me by *Bianconero* font referents (p.c., 10/05/24).

[21] This is a suggestion from the University of Perugia. In its guidelines on Specific Learning Disorders (DSA), the University of Perugia recommends the use of the *Verdana*, *Arial, Helvetica*, and *Courier New* fonts for open electronic documents (.doc, etc.), citing their accessibility and the advantage of their compatibility with all operating systems. This approach allows one to circumvent incompatibility issues that may arise when the file is accessed on disparate computers. Alternatively, the University of Perugia also suggests the use of dyslexia-friendly fonts, such as *Biancoenero* and *Open-Dyslexic*, which are highly readable fonts. However, it is recommended that these fonts be used exclusively for files published in PDF format to obviate incompatibility concerns with computers where those fonts have not been installed (Università di Perugia, n.d.).

[22] Even among the standard fonts, as well as among the dyslexia-friendly fonts, not all fonts include the schwa among their characters. The *Avenir* font is an example of this. In contrast, other standard fonts, including *Verdana*, *Arial*, *Courier New* and *Helvetica*, are compatible with the schwa. I tested *Verdana*, *Arial*, *Courier New*, *Helvetica* and *Avenir* on Microsoft Word on the 13th of September 2024.

fallback font, resulting in a visual inconsistency but not in unreadability. For instance, in the Italian expression “ciao a tuttə” (dear all), if the selected font does not include the schwa character (e.g., Avenir), only the “ə” will be displayed in a different font (e.g., Times New Roman), while the rest of the phrase remains unchanged. This stylistic discrepancy may be noticeable, but it does not appear to hinder comprehension. While further empirical validation would be needed, this observation aligns with the fact that accessible fonts, although beneficial, are not an absolute requirement for legibility. In fact, many individuals with dyslexia do not use specific dyslexia-friendly fonts in their everyday reading, and although such fonts can improve reading fluency and comfort, they are not strictly essential for reading comprehension. The fallback character, when displayed in a different font, remains generally recognisable and does not prevent understanding of the text. Moreover, the issue can be pragmatically resolved by choosing a font that already includes the schwa or updating the character set of the preferred font.[23]

Note that there are additional issues related to the use of innovative grammatical gender encoding devices that seem more complex to address. For instance, the lack of schwa in many fonts may not fully resolve the challenges associated with interpreting both the schwa and asterisk symbols. Many individuals with dyslexia may experience difficulties interpreting these characters regardless of the font used. These challenges relate to the interpretation of the characters themselves and, as such, go beyond the scope of digital accessibility issues addressed in this paper. Since the focus of this work is the compatibility between accessibility and inclusiveness, and these aspects fall outside the strict definition of accessibility, they do not represent a case of incompatibility between the two. Nevertheless, this is a

[23] Although preliminary observations suggest that the absence of the schwa character in dyslexia-friendly fonts may not substantially hinder readability, this assumption remains speculative in the absence of empirical testing. Further research is needed to verify whether dyslexic readers experience specific difficulties with innovative symbols such as ə when these are displayed in accessible typographic environments.

crucial point in the broader debate. At least two types of interpretive difficulties can be identified regarding these innovative grammatical gender encoding devices.

The first concerns the visual confusion between the schwa and the letter "e", which can disrupt the reading flow. This type of confusion may resemble the difficulties dyslexic readers face with mirror-image graphemes such as "p" and "q". The schwa, visually similar to a rotated 180° "e", may pose comparable visual challenges.[24] At present, as for all other mirror letters, no solution has been found to avoid confusion between schwa and its specular letter "e" other than using fonts that reduce confusion between letters, as discussed above.

The second difficulty pertains to the recognition of schwa and asterisk symbols based on their familiarity and visual distinctiveness. The asterisk, being non-alphabetic, may stand out more clearly in written text and thus be easier to recognise. Conversely, the schwa, due to its resemblance to the letter "e", may be harder to distinguish. However, precisely because of this resemblance, some readers might find it more familiar and thus less disruptive. Given that individuals with dyslexia are often accustomed to dealing with letter confusion, the schwa may be perceived as less intrusive than the asterisk. On the other hand, the asterisk, being relatively uncommon in standard Italian texts, may pose additional interpretive difficulties due to its unfamiliarity.

Preferences for one symbol over another depend on individual factors such as familiarity and perceptual distinctiveness, and vary considerably from person to person. Recent research on French inclusive forms (Weber et al., 2024) offers relevant insights that can be extended to the Italian context. Weber and colleagues (2024) discuss the difficulties that dyslexic readers may encounter with abbreviated double forms (e.g., étudiant·e·s), which require complex morphological decomposition and thus higher levels of phonological and morphological awareness. However, they also suggest that such

[24] The website *Italiano Inclusivo* discusses the difficulties of the schwa for dyslexic individuals due to the similarity to the Italian alphabet letters. https://italianoinclusivo.it/domande-frequenti/.

challenges may diminish over time as exposure to these forms increases. Morphological awareness, often weaker in dyslexic readers, improves through systematic use and repeated encounters, allowing new morphological patterns to become more accessible (Weber et al., 2024). Following this reasoning, dyslexic readers of Italian might likewise learn to process innovative gender-encoding devices such as the *schwa* and the asterisk more efficiently as these forms become more familiar in everyday communication.

Comparable findings emerge from research on gender-fair translation in another grammatical gender language. In a survey of professional translators, Paolucci et al. (2023) found that inclusive strategies using typographic markers such as the colon (e.g., Lehrer:innen*) were perceived as relatively readable and comprehensible, whereas less familiar systems (e.g., *ens*, *Sylvain*) were rated as cognitively demanding. Crucially, participants' comments revealed a progressive improvement in reading ease and understanding with repeated exposure, even among those initially resistant to inclusive forms. This suggests that perceived accessibility depends less on intrinsic structural complexity than on familiarity and frequency of use (Paolucci et al., 2023).

Extending these insights to Italian, it may be hypothesised that the readability challenges initially associated with novel markers such as the schwa or the asterisk could likewise decrease as exposure and linguistic habituation increase, thus enhancing inclusivity without compromising accessibility. At this stage, however, no universally optimal solution can be established.[25] A more detailed understanding of these preferences will require empirical studies, such as surveys involving dyslexic readers, which could inform future developments in this emerging field.

[25] A solution that could help in any case in recognition of innovative grammatical gender encoding devices could be the signalling of their inclusive function, for example, in a footnote. As observed by Boer (p.c., 13/05/24), the designer of *Dislexie Font*, an explanation of the gender-fair function of the asterisk and the schwa in the text with a footnote could help to easier interpret the innovative grammatical gender encoding device (Boer, p.c.). It is also worth noting that it could be a useful addition in any case. For instance, the asterisk's function as an innovative grammatical gender encoding device may be misinterpreted due to its frequent occurrence in written texts and its ability to represent a multitude of meanings. For instance, it can be used as a mathematical symbol or to indicate a reference in a footnote. Clarifying its role as a gender-fair symbol may facilitate the interpretation of the asterisk as an innovative grammatical gender encoding device.

To conclude the discussion on dyslexia concerning the issue of digital accessibility, I have identified an incompatibility between the use of the schwa and the use of certain fonts. However, this is a problem with relatively simple practical solutions. In such cases, the most optimal solution would be to use highly readable fonts that already encompass the schwa within their character set. An additional potential solution to this issue could be the incorporation of the schwa within the character set of fonts that do not currently include it. Secondly, I have identified additional interpretative issues that extend beyond the realm of digital accessibility in its strict sense. These are issues pertaining to the interpretation of the schwa and the asterisk as an innovative grammatical gender encoding device in their own right. One difficulty may be related to the confusion experienced with mirror letters, given that the schwa shares a similar shape to that of the letter "e". Another difficulty in interpreting innovative solutions may be linked to their familiarity or distinctiveness. There are currently no specific solutions for these challenges. A detailed investigation of these issues is beyond the scope of this article, which aims to focus on the challenges of digital accessibility. Nevertheless, they are of central importance to this debate and could be expanded upon in future research.

To ascertain the veracity of the accessibility objection, two further questions must be analysed in light of the findings presented thus far. As Gheno (2022) observes, the objection posits that the deployment of innovative solutions, which may present accessibility challenges, entails the exclusion of specific categories of individuals. The objective of including non-binary people has the consequence of excluding those with dyslexia and visual impairments who experience difficulties in interpreting the non-binary strategy. Secondly, the objection presupposes that a proposal is only deemed valid if it is universally inclusive and accessible (Gheno, 2022). To ascertain the feasibility of reconciling accessibility and inclusion, it is crucial to consider these two issues. In light of the analysis presented above, the following section presents a discussion of these two arguments.

5. Beyond Categories

In this section, I discuss two key issues identified by Gheno (2022) that frequently emerge from the accessibility objection, whether explicitly or implicitly. The first issue concerns the assumption that the use of the non-binary linguistic strategy inevitably results in the opposition of categories of individuals. The second issue pertains to the presupposition that a solution must be universally implementable to be considered valid.

According to the first argument, the use of innovative solutions, which may entail accessibility difficulties, implies the inclusion of non-binary individuals while excluding those with dyslexia and visual impairments. This suggests that while a particular group of people is included, another is excluded. However, there are several reasons why the category of non-binary individuals should not be considered in opposition to the category of individuals with reading difficulties. Firstly, the exploration of linguistic solutions to transcend gender binaries does not occur in direct opposition to the legibility practices of other marginalised categories. These are distinct issues, but in some specific cases, they may be incompatible. This incompatibility depends on different factors, such as the innovative grammatical gender encoding device used, the tool used to communicate, and the difficulties that the people in question experience. Moreover, there are individuals with dyslexia or visual impairments who encounter difficulties in interpreting the schwa and the asterisk due to their condition. In contrast, other individuals with dyslexia or visual impairments may not face such challenges (Gheno, 2022b). Consequently, it can be argued that there is no category of people, namely non-binary people, that is contrasted with another category of people, those with dyslexia and visual impairment, in every respect and in general. From this, it follows that it is inaccurate to argue that the use of innovative solutions implies the inclusion of one category to the exclusion of another. Secondly, although accessibility and gender inclusion are two distinct issues, they can also be intertwined in numerous instances. For example, some individuals are dyslexic or visually impaired and who simultaneously identify as non-binary (Gheno, 2022). Moreover,

there are individuals with dyslexia or visual impairments who, despite not identifying as non-binary, may still elect to use the schwa and the asterisk to demonstrate their alignment with the gender-fair movement.[26] It follows that there are no opposing categories in general since the need to use non-binary strategies can be transversal to these categories.

Let us now consider the second argument, which regards the presupposition that a proposal is only deemed valid if it is universally inclusive and accessible, that is, if it can be a solution usable without negative implications for the entire population. This assumption suggests that anything which is not universally accessible should not be used. However, this is unlikely and untypical to be achieved in the digital world. It is important to acknowledge that a considerable number of the tools and resources employed in our everyday communication are not universally accessible. To illustrate, in addition to the innovative grammatical gender encoding devices, many symbols are not correctly interpreted by screen readers, thereby failing to guarantee accessibility. For instance, some screen readers are capable of interpreting emojis,[27] while others are not (Tuke, 2021). Folcarelli, a digital trainer, has observed that numerous other symbols and words that are not native to the selected language are also not read entirely or are read incorrectly. This phenomenon is also observed in the case of dialects and languages with limited usage (Folcarelli, p.c., 14/05/24). Moreover, also the misuse of punctuation and other special characters (e.g., the ampersand)[28] can impede the comprehension of text read by screen readers. It follows that if we were to apply the idea of using only universally inclusive and accessible things, we would have to avoid the use of a large number of elements that are widespread on the web. This is unreasonable in the digital environment, considering that it is constantly changing, and new ways of communicating are

[26] A testimony can be offered by the Fərocia collective. It has collected the signatures of several neurodivergent people, both from the LGBT+ community and simple allies of the cause, who find it important to use the schwa. https://www.facebook.com/f3rocia/posts/146983904419483/?paipv=0&eav=AfZ4suniyBHerZuyCIEWNaZdGZ6eb9uKV4VuXqd2tx9LQAemVQAtn6KBrIhOvZ-i7uc&_rdr.

[27] *Emojis* are small images that depict an emotion, an animal, a person, an object, etc. They are very common in social media communication and messaging.

[28] *Special characters* are all those elements that represent something other than a letter or a number (Tuke, 2021).

always emerging. Instead, a more reasonable intermediate solution could consist in trying to make the tools we have as inclusive and accessible as possible. For example, we could update screen readers to program them to interpret the symbols and emojis that currently cause difficulties. It may, therefore, be proposed that the schwa should be added to the list of elements to be considered in the programming of screen readers.

Both for the first and the second argument, the solution does not lie in the suppression of all content that does not guarantee accessibility. In the first case, given that there are no categories of people directly in opposition, it is preferable to adopt a solution that reconciles both accessibility and inclusion instances the most optimally. In the second case, given the absence of universal solutions in the digital domain, it is not feasible to eliminate all communicative elements that are not interpreted by assistive tools. It would, therefore, be more reasonable to attempt to comprehend the nature of the accessibility challenges and to identify ways of overcoming them.

Nevertheless, one might contend that incorporating the schwa and the asterisk into the development of assistive technologies would entail a cost. The landscape of these proposals is constantly evolving, and so this cost may prove unsustainable. Furthermore, it seems unfeasible to expect screen readers to be reprogrammed on an ongoing basis in response to each new solution that emerges. Nevertheless, to overcome the accessibility issues that arise alongside the advancement of digital communication, assistive technologies must evolve following the latest developments when new applications become widely adopted in communication. Otherwise, assistive technologies may inadvertently impede the ability of a subset of digital users to engage with these tools. It follows that although the constant updating of digital tools seems impracticable and expensive, it is a necessity that concerns the digital world in general. If you want to make the digital environment accessible and inclusive, you must try to constantly update the tools used for this purpose.

From an accessible and gender-fair perspective, certain precautions can be taken when writing digital text, such as limiting the use of special characters. However, using emojis and special characters is widespread on the web, and it is unreasonable to expect that they will be truly avoided altogether. For example, using emojis is useful to better express an emotion, as in the case of emojis representing an emotional state. The use of schwa and the asterisk is also spreading on the web, especially in queer and deliberately gender-fair contexts. They are used to make one's non-binary gender identity visible or to express being allies[29] to the inclusive cause explicitly. So, the problem that, in some cases, communication may not be accessible and inclusive remains. On the other hand, continuous updating is essential to overcome or at least mitigate some of these cases.

Considering the relationship between the concepts of accessibility and inclusion discussed above (§ 2), it can be argued that it is essential to guarantee accessibility in all contexts to achieve comprehensive inclusivity. From this, it can be assumed that innovative solutions should not be used, as they cause accessibility difficulties in some cases. Nevertheless, there are grounds for the argument that the suppression of the non-binary instance is not an optimal solution. It can be argued that the optimal solution for all cases considered is to implement effective solutions to overcome accessibility difficulties wherever possible. However, it is important to acknowledge that these difficulties currently persist. According to Gheno (2022), an intermediate solution would be to use innovative solutions where necessary, considering the specific case from time to time. She suggests using these linguistic solutions thoughtfully, considering different factors without having to abandon them altogether. Specifically, these proposes may be employed with due consideration of context, intentions and interlocutors. For instance, it may be optimal to use the schwa and asterisk in accordance with the referent, that is, to refer to non-

[29] *Ally* is a key term in the debate on LGBT+ issues, very widespread on the web. It indicates a person who supports the LGBT+ community and embraces its causes, despite not being LGBT+ themself. To learn more about other terms useful for understanding the phenomenon, see the glossary published by the Ordine degli Psicologi della Lombardia (Order of Psychologists of Lombardy). https://www.opl.it/public/files/17141-OPL_Dossier-LGBT+_singolapdf.pdf.

binary individuals, contingent on their preferences. Moreover, the deployment of such solutions may be appropriate in informal contexts or in situations where it is essential to convey the intention to make all genders visible. It may be crucial to identify which factors should be taken into consideration when weighing the use of non-binary strategies. However, an analysis of the factors that should be taken into account when choosing non-binary strategies is beyond the scope of this article.

Conclusion

In this article, I analysed the accessibility difficulties that the use of innovative grammatical gender encoding devices poses to visually impaired and dyslexic individuals. In some cases, the difficulties depend on contingent features of assistive tools and can be overcome. In other cases, they depend on intrinsic features of the linguistic strategies and currently have no immediate solution.

Regarding visual impairments, I analysed the incompatibility with screen readers. Screen readers can translate digital information into sound using text-to-speech programs or into Braille on specific displays. With text-to-speech programs, the asterisk is inherently incompatible because it has no sound. One solution could be to associate a conventional sound with it to make the symbol pronounceable. While having a corresponding sound, the schwa is currently incompatible with some text-to-speech programs because it is not interpreted correctly and with the right sound by the software. One solution could be to adapt screen readers to pronounce it when used as a gender-fair strategy in Italian words. As for the Braille translation on displays, the asterisk can already be used as an innovative grammatical gender encoding device, unlike the schwa, which does not have a corresponding Braille dot combination. One solution could be to associate a conventional combination of dots to it to make it writable in Braille and update screen readers to convey this change correctly to the Braille display.

Regarding dyslexia, I have identified an incompatibility between the schwa and digital fonts as the main accessibility challenge for the use of this innovative grammatical gender encoding device. One

solution could be to incorporate the schwa into the character set of the fonts in question or to use a standard font that is already highly readable, and that includes the schwa among their characters. Subsequently, I have identified two additional challenges that extend beyond digital accessibility. The first concerns the confusion between the schwa and the letter "e". The second concerns the difficulty in interpreting the schwa and the asterisk due to the familiarity or distinctiveness that one has concerning the linguistic solution. In both cases, there are many possible scenarios: some people may experience different challenges than others, and no universal solutions are currently identifiable.

As previously stated (§ 2), it was beneficial to differentiate between accessibility challenges associated with visual impairments and those pertaining to dyslexia, as they necessitate disparate analytical approaches and considerations. Nevertheless, the use of screen readers and highly readable fonts is advantageous for the aforementioned categories and the linguistic community in general. These solutions are beneficial to all users, including those who are not typically considered to have a disability (AGID, 2024). For instance, even people who have no difficulty reading can benefit from using an easier-to-read font or reading text with a screen reader. Moreover, even though assistive devices are usually designed to help people with specific difficulties, they can also be useful to people with other difficulties. For example, highly readable fonts may help dyslexic individuals as well as visually impaired individuals.[30] Screen readers are used by blind and visually impaired individuals but may also help dyslexic individuals or, more generally, those with learning difficulties.[31] It is essential to recognise the

[30] There are also accessible fonts designed specifically for visually impaired people. For example, the Braille Institute in cooperation with Applied Design Works has developed a typeface for people with low vision, the *Atkinson* Hyperlegible font. It can be difficult for visually impaired readers to distinguish certain letters and numbers. To make it easier for them, the design of this font differentiated between similar letter pairs such as *i* and *l*, eliminated ambiguities such as that between *O* and *0*, clearly defined character outlines, and paid attention to the shape, graces, and tails of the letters. This font takes specific characteristics into account and is designed to facilitate reading for visually impaired people. However, it can also facilitate reading for dyslexic persons. For more about the *Atkinson Hyperlegible Font*, see the website of Braille Institute. https://brailleinstitute.org/freefont.

[31] For more about compensatory tools, which are devices (e.g. the speech synthesis program) that each person can use to achieve their goal by compensating for specific difficulties, see the website of the Associazione Italiana Dislessia (AID). https://www.aiditalia.org/gli-strumenti-compensativi.

cross-over aspect of assistive tools to acknowledge that an accessible environment can enhance the lives of all individuals, not just specific categories.

Beyond the difficulties related to assistive tools, other issues should be considered. The limitations of using the asterisk and the schwa are not exhausted by those related to digital accessibility. Their use, for example, may generate challenges for non-native Italian speakers (De Santis, 2022), elderly individuals (Gheno, 2022b), and those unfamiliar with the gender-fair language debate. The use of gender-fair language, and especially the use of strategies that are not part of ordinary language use, may require greater effort in understanding and prior knowledge of the function of such strategies, which may be a barrier for those new to the language. In such cases, individuals may struggle to decode the text (Gheno, 2022b). One solution could consider adding a note in texts written explaining the meaning of the gender-fair linguistic strategy. A note could inform the reader of the function of the linguistic strategy used, clarifying its inclusive function. Furthermore, this issue should be addressed by raising awareness in the linguistic community about gender non-binarism and, more generally, the importance of using gender-respectful language.

In conclusion, I argue that the accessibility objection is only partially accurate, as some of the identified challenges can be overcome. The use of innovative grammatical gender encoding devices may currently imply accessibility problems. Therefore, at present, non-binary gender-fair language may be inaccessible in some cases. However, many of these solutions require technical adaptations of assistive tools or systemic changes that may not be easily or promptly implemented. Therefore, while the potential solutions exist, the actual implementation remains uncertain and depends on a variety of institutional, technical, and social factors. In this respect, the accessibility challenges currently associated with innovative grammatical gender encoding devices should not be dismissed but rather addressed through long-term collaboration between stakeholders. Meanwhile, alternative inclusive strategies, such as the

use of the vowel -u, already attested in LGBTQIA+ communities, may represent a more accessible option in some communicative contexts.

While the present paper is primarily theoretical and exploratory, future research should aim to develop concrete recommendations for educators, software developers, and policymakers in order to facilitate the implementation of inclusive and accessible linguistic practices. A valuable next step would be to initiate interdisciplinary collaboration with professionals from different sectors, such as font designers, Braille experts, and screen reader developers, to understand how to address the practical challenges identified in this paper and develop coordinated solutions. In this paper, due to space constraints and thematic focus, I have limited myself to reporting the insights provided by experts in the relevant domains (including font designers, representatives of associations supporting visually impaired and blind individuals, accessibility consultants, and screen reader specialists). Through these direct consultations, I explored the main accessibility obstacles in their respective fields, especially regarding the use of the schwa and the asterisk in digital texts.

Further research may extend the analysis beyond the digital context and focus on other innovative grammatical gender encoding devices to identify the challenges they present. Among these, alternative proposals such as “u”, “x”, and “@” deserve closer investigation. While not addressed in detail here due to space constraints and the current prominence of schwa and asterisk in the Italian debate (Comadini, 2021), these forms raise distinct phonological, typographic, and accessibility issues that should be systematically analysed in future work. A comparative study of these strategies would enhance the comprehensiveness of the analysis and help evaluate their respective potential for inclusive and accessible language use.

Finally, future work will need to be complemented by systematic empirical data collection. Surveys or interviews with dyslexic and visually impaired individuals will be essential to verify the variability of individual experiences and preferences concerning innovative grammatical gender encoding devices.

Such empirical investigations would substantiate the anecdotal evidence discussed in this article and provide a clearer picture of intra-group variation, thus supporting more grounded and inclusive recommendations. This is a topic that remains understudied in the Italian debate and requires further investigation.

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