

Technology in the world of Inclusive Language

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Abstract:

Inclusive language refers to the use of language that is decent, aesthetically correct, and thoughtful of all individuals, irrespective of their gender, caste and age. In addition, it is essential in promoting diversity, equity, and inclusion in various settings, including education, workplace communication, media, advertising, and public discourse. The paper discusses the technology that can be used to implement inclusive language; the areas in society where inclusive language can be implemented; the obstacles and challenges in implementation of inclusive language; the key areas of inclusive language; and the future solutions of inclusive language. The research findings can contribute in creating awareness about the importance of language choices and their role in shaping a more inclusive environment. The outcome aims to contribute to a society where all individuals are respected and valued for their unique identities and experiences.

Keywords — **Inclusive Language, Gender Inclusive Language.**

I. INTRODUCTION:

Inclusive language is language that includes each and everyone in society, regardless of their culture, race, gender, economic background, or sexual orientation. It is free from bias, stereotypes, or discrimination, and it respects diversity while promoting equality. It is important to use the right words to achieve this. Sometimes, unintentionally, we may use offensive language that excludes certain groups of people. The way we talk or express ourselves can make others feel uncomfortable, misunderstood, or left out, based on their gender, race, colour, physical abilities, ethnicity, religion, caste, job roles, and more. In essence, Inclusive Language aims to create a society where language becomes a tool for harmony, respect, and empowerment.

The modality of formal dispatches encompasses textual documents (e.g., sanctioned reports, legal documents, and public calls); and audio speeches (e.g., audios from teleconference calls and public advertisements) since the digitalisation process has made a significant portion of them available in electronic form (e.g., pdf files, podcasts, web runners). The significance of Inclusive Language is in both academic and artificial communities. Inclusivity aims to combat demarcation conveyed through colourful forms of language, similar as written textbook, images, and gestures.

II. METHODOLOGY:

The methodology for inclusive language involves implementing specific strategies and practices to ensure that communication is respectful, sensitive, and considerate of diverse individuals and communities.

This paper discusses how a tool is created that has the ability to identify exclusionary words and suggest appropriate corresponding inclusive words for the same. This will allow us to identify exclusive words in files (pdf, ppt, pptx, jpeg, png and txt), audio and video. Later, it suggests and replace them with the appropriate inclusive words. To implement we need NLP and few python packages.

A. Use of Natural Language Processing [NLP] as a tool

Natural Language Processing (NLP) is a branch of artificial intelligence and computational linguistics dedicated to the interplay between computers and human language. Its main objective is to empower computers to comprehend, decipher, and produce human language, effectively connecting human communication with computer processing. Use the NLP algorithms to process text input to understand the language structure, semantics, and context.

NLP includes the following sub-components:

- 1) **Tokenization:** Segmenting the text into separate words or tokens.
- 2) **Normalisation:** By adopting normalisation techniques, NLP models can handle text in a more uniform and standardised manner, leading to enhanced comprehension and interpretation of natural language data.
- 3) **Named Entity Identification (NEI):** Identifying entities such as names of individuals, locations, organizations, etc.
- 4) **Part-Of-Speech (POS) Tagging:** Recognising the grammatical categories of each word.

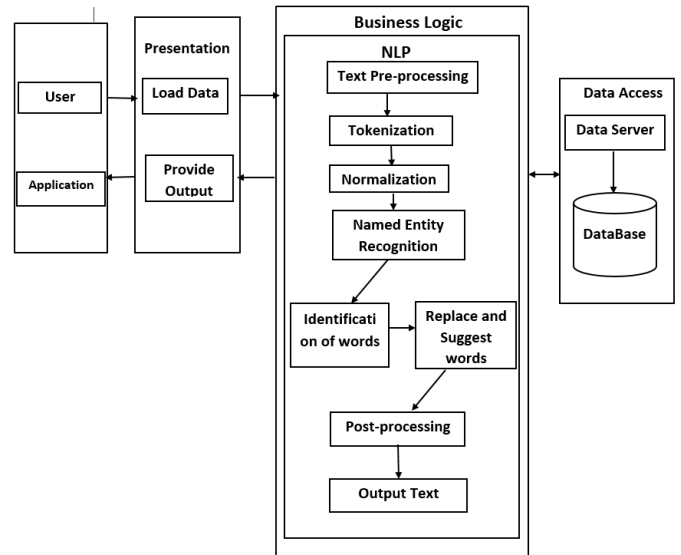


Figure 1: Architecture of Inclusive Language

B. List of packages:

- Speech Recognition package for extracting text from an audio file
- OCR tool for Python to extract text from an image file.
- Beautiful soup library to extract information from a webpage.

III. APPLICATIONS OF INCLUSIVE LANGUAGE:

- A. **Diversity and Inclusion Initiatives:** Inclusive language is an advancing aspect of incorporating varied and inclusive qualities in organisations, institutions, and communities. Valuing inclusive language guarantees that everyone is regarded and acknowledged, regardless of their origins, sex, ethnic background, or other characteristics.
- B. **Education:** In educational environments, inclusive language facilitates the establishment of a more inviting and supportive atmosphere for students and educators alike. It has the potential to positively influence learning results and diminish the marginalisation of specific groups. Like Teachers can use gender-neutral language while addressing the class or individual students, such as using ‘students’ or ‘learners’ instead of ‘boys’ and ‘girls’.

- C. Marketing and Advertising:** Businesses and brands utilise inclusive language in their marketing and promotional materials to access a wider audience and demonstrate their dedication to diversity and social consciousness. Like TikTok being utilized, can be beneficial for your target audience and contribute to a more positive brand image.
- D. Media and Journalism:** Media organizations and reporters are progressively acknowledging the significance of employing inclusive language to precisely and courteously portray individuals and communities from diverse backgrounds.
- E. Healthcare:** In healthcare, inclusive language is essential for delivering patient-centered care and establishing an atmosphere where patients feel at ease discussing their health issues. In addition, it builds strong patient-provider relationships, and ultimately improve health outcomes for all individuals.
- F. Technology and User Interfaces:** Incorporating inclusive language into software, websites, and user interfaces to guarantee that digital products are accessible and usable by a broad spectrum of users. Many digital platforms, including word processors, social media, and messaging apps, offer automated language suggestions to users as they type. These suggestions can help users adopt language that is more inclusive by recommending gender-neutral terms, avoiding offensive language.
- G. Public Speaking and Presentations:** Speakers and presenters can use inclusive language to captivate their audience proficiently and demonstrate awareness of diverse viewpoints. For example, while giving the presentation, instead of using ‘Hi ladies and gentlemen’, they can use ‘Hi people’ or ‘Hi folks’ to be more inclusive and respectful of all audience members.
- H. Social and Cultural Settings:** Inclusive language is crucial in social interactions and cultural settings to promote comprehension, compassion, and unity among individuals with diverse backgrounds. Different cultures may have

unique terms to address gender, family relationships, or other identities. Inclusive language should be adaptable to use appropriate terminology for each cultural setting.

- I. Government and Public Policies:** Governments and public institutions integrate inclusive language in their communications and policies to advance equity and prevent marginalization of any group. And Government documents, such as official statements, press releases, and public announcements, should use language that is inclusive and sensitive to various identities and experiences.

IV. CHALLENGES IN INCLUSIVE LANGUAGE:

- A. Workplace Discrimination:** Resumes with white-sounding names receive more call backs compared to resumes with black-sounding names, indicating racial biases in the hiring process.
- B. Micro Inequalities:** Subtle forms of discrimination, conveyed through facial expressions, gestures, and tone of voice, contribute to workplace disparities and hinder overall performance.
- C. Media Representation:** Newspaper titles can inadvertently discriminate in exclusive language by using following Newspaper titles like *The Hindu*, *The Bartaman Patrika*, and *The Divya Bhaskar*.
- D. Gender Bias on Social Media:** Social media platforms like Instagram, Facebook, and Twitter may use gendered language in their default settings, profile options, or prompts. For instance, when creating an account, users might be asked to select ‘male’ or ‘female’ without considering non-binary individuals. They also exhibit gender bias through gender-specific terms for clothing labels and targeted online advertisements, reinforcing gender stereotypes.
- E. Bias in Algorithms:** Algorithms used in various applications, including hiring and loan

processing, have been found to exhibit gender bias, leading to unfair outcomes for certain groups.

V. SOME KEY ASPECTS IN INCLUSIVE LANGUAGE:

A. Gender-Inclusive Language:

Gender-inclusive language aims to avoid assumptions or exclusions based on gender. It involves using terms and expressions that encompass all genders and avoid traditional binary concepts. For example, using 'they/them' pronouns for singular individuals instead of 'he' or 'she' and using terms like 'people' instead of 'guys' when addressing a mixed-gender group. Some challenges:

- One of these is the choice of gender-specific vocabulary, encompassing gender identity terms (female, male, etc.) and implicitly gender-associated words (e.g. beautiful, handsome).
- Additionally, there is the task of allocating third-person pronouns, such as she/her/hers and he/him/his, along with non-binary pronouns like singular they/them/theirs. Both of these difficulties emphasize the significance that Tran's individuals attach to personal self-identification. For instance, the normative use of third-person singular pronouns 'she' and 'he' is conventionally linked to women and men, respectively.
- The third obstacle discussed in this context involves refraining from ascribing gender to individuals when the gender is irrelevant or unknown. This issue can be tackled by employing gender-neutral or gender-inclusive language. Clearly gendered nouns, such as 'woman,' 'female', 'girl', 'lady', 'man', 'male', 'guy' and 'dude' serve primarily to indicate the gender of the person referred to, along with other societal traits. While these words are not abundant in quantity, they are frequently used.

B. Neutral Inclusive Language:

Neutral inclusive language refers to using language that does not favour or highlight any specific gender, race, or other characteristic. It allows for a more balanced and respectful communication style. For instance, using 'person' instead of 'man' or 'woman' or 'police officer' instead of 'policeman' or 'police woman'.

C. First-Person Language:

First-person language emphasises the individual rather than their characteristic. It involves using phrases like 'person with a disability' instead of 'disabled person' acknowledging the person before their condition or trait. This approach promotes dignity and respect for individuals.

D. Family Structure:

Inclusive language with respect to family structure recognises that families can have diverse forms and compositions. It avoids assuming a traditional nuclear family model and acknowledges various family types, including single-parent families, same-sex parents, blended families, and chosen families. For example, instead of using 'husband and wife' we can use 'partner'.

E. Inclusive Job Titles and Descriptions:

In the workplace, inclusive language includes using job titles and descriptions that do not contain gender bias. This means using gender-neutral terms such as 'salesperson' instead of 'salesman' or 'saleswoman' and avoiding terms that imply specific gender roles.

VI. CONCLUSION:

This paper introduced how Inclusive Language Fostering an inclusive atmosphere not only enhances one's emotional well-being but also boosts one's productivity. The technology in the world of inclusive language (verbal and written) is still in its infancy and will soon grow and capture its market in all areas of organisation and education overcoming all challenges and obstacles.

VII. FUTURISTIC SOLUTION:

Creating a futuristic solution for an exclusive to inclusive language leveraging using advanced technologies to promote inclusivity and diversity in

communication, one can integrate inclusive language into mobile phones and the tool Grammarly. An app can be created and use it as a Chrome extension. One can facilitate the adoption of inclusive language in written communication across various platforms.

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