AI IN TRANSLATION, INTERPRETATION AND MULTILINGUAL COMMUNICATION

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Crossref DOI – https://doi.org/10.63665/rh.v7i2.38

Abstract :

Artificial intelligence has become an important part of our lives. People in all sectors, from governments to businesses, are increasingly using AI to solve problems and improve processes. Artificial intelligence (AI) has played a significant role in the development of language. It is not only helping in the preservation and revitalization of languages but is also promoting translation, language education, communication systems, and inclusive language use. Artificial intelligence is a type of technology that helps computers and machines think and learn like humans. Artificial intelligence helps computers perform tasks that typically require human intelligence, such as understanding different written languages, recognizing patterns in images, solving logical and critical problems, and making decisions. AI-based tools and applications are making linguistic communication simpler, more effective, and more accessible. Through this, linguistic diversity is being integrated into the technological world, making the global development of language possible. This paper focused on AI in translation, interpretation and multilingual communication.

Keywords : Artificial Intelligence, Translation Software, Machine Translation, Human Translation, Legal Translation

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Preface :

AI is at the forefront of technological innovations that are revolutionizing various aspects of human life. Its applications span industries from healthcare and education to finance and transportation, offering solutions to complex problems and improving virtually every task. While AI presents immense opportunities for progress and convenience, it also raises ethical concerns about privacy, job displacement, and societal impact. Therefore, it is crucial to proceed thoughtfully as we integrate it into our lives, ensuring that its benefits are maximized while mitigating potential risks. Used with responsible development and deployment, AI has the potential to transform the future, augment human capabilities, and drive progress in unprecedented ways. Language is the most powerful and fundamental expression of human life, through which we share our thoughts, feelings, experiences, and knowledge. It is not merely a means of communication, but also a reflection of our culture, traditions, and identity. As human society progressed in science and technology, the form and development of language

also underwent significant changes. The 21st century, along with the technological revolution, witnessed the rise of a new power: Artificial Intelligence (AI). This technology has now permeated almost every aspect of life, and language is no exception. AI has not only become capable of understanding and responding to human language, but it is now playing an active role in the preservation, dissemination, and development of languages. From language learning applications to machine translation, voice assistants, automatic transcription, and AI-based conversational systems, AI has made language more accessible, efficient, and multifaceted in all these areas. AI is now not only enriching existing languages but is also proving helpful in preserving endangered languages and developing new linguistic styles. In this technological age, it has become essential to understand AI's role in language development, analyze its benefits and potential, and determine the direction in which it is leading the linguistic future of human society.

Literature, Society, and Culture in the Mirror of Digital Technology :

In light of the ongoing advancements in new technologies, the future of studying literature, society, and culture has become even more interesting. Today, data pooling and artificial intelligence are providing access to internet resources such as e-books, videos, podcasts, simulations, and games in the world of literature. Technology is enhancing people's literary experiences in society. Making learning and teaching more interactive, personalized, and enjoyable can be considered a marvel of artificial intelligence. This alternative platform for literary events emerged during the COVID-19 pandemic, keeping us informed about these events even during that difficult time, and remains relevant today. It can be said that there is now more space for literature and literary figures, and the gap between the author and the reader has narrowed. In the coming times, the development of artificial intelligence will enable significant changes in the world of literature, not only in English but also in Indian language literature. From the author's selection of topics and book concept to the final delivery of the finished product to the reader, artificial intelligence is involved in every stage of the process. With the help of digital technology, educational institutions are providing a wider range of courses and a higher level of support to more students than traditional in-person instruction. This use of digital technology to aid and improve teaching and learning is called "digital education." It includes various types of technological tools, such as social media, multimedia resources, online platforms, and instructional software. Digital educational technology makes the process of studying literature, society, and culture more effective and process-oriented. Electronic and mechanical devices can be easily used for teaching purposes. The main objective of the digital study of literature, society, and culture is to help young people improve their decision-making abilities. It has now become not only an assistant but also a creator, and a new genre known as "artificial literature" (AI literature) is taking shape. Creating educational materials in our mother tongue will now become easier and faster. At the behest of the federal government and some state administrations, AI is being used to create educational materials in regional languages. The possibilities of machine translation have changed dramatically in the last ten years. Comparing machine translation today to what it was ten or eleven years ago, you can see how much it has improved over time. This process will continue to become faster and more accurate. Books written in Hindi, French, or English can now be scanned and translated

into Hindi in just a few minutes. Artificial intelligence is capable of learning and improving from our actions, our work, vast data repositories, both new and old, human input, our own mistakes, and other factors. In just a few years, we can develop machine translation to a level where it can rival human translation, and it will be readily available—not only through computers and mobile phones but also through digital devices present in offices, schools, public spaces, and buildings. A deeper connection between the world's major languages will be one of the main impacts of artificial intelligence. The works of Munshi Premchand, Rabindranath Tagore, Balkrishna Bhatt, Subramania Bharati, Ramdhari Singh Dinkar, Jaishankar Prasad, Suryakant Tripathi 'Nirala', Mahadevi Verma, and texts like the Ramayana, Mahabharata, Shrimad Bhagavad Gita, Vedas, Puranas, and Upanishads, as well as sources of knowledge such as Ayurveda and Yoga, will become accessible to readers worldwide. This will help increase global recognition of our literary, cultural, spiritual, and educational treasures. According to UNESCO estimates, nearly half of the 7,200 languages spoken worldwide will become extinct by the end of this century. If we do not want our languages to be among the endangered languages, then artificial intelligence should be welcomed with open arms.

Social and Cultural Impacts of AI on Language :

- **Improving Linguistic Equality and Inclusion :** AI-based technologies such as voice assistants, speech-to-text, and machine translation have significantly reduced language barriers for illiterate, visually impaired, or physically disabled individuals. This empowers marginalized sections of society to participate in communication.
- **The Challenge of Linguistic Inequality :** AI tools are primarily developed for dominant languages (such as English, Chinese, and Spanish). This neglects local and minority languages, leading to increased social inequality and linguistic dominance.
- **Changes in Communication Style :** When interacting with AI, people tend to simplify their language, making it more concise and "machine-friendly." This impacts natural language styles and local dialects, and people gradually begin to alter their natural linguistic behavior.
- **Threat to Cultural Diversity :** AI tools are often based on generalized language models, which have limited understanding of local cultural contexts and expressions. This can weaken regional languages, idioms, proverbs, and cultural symbols.
- **Crisis of Cultural Identity :** Language is the soul of any culture. When people begin to prioritize English or other global languages due to AI, they gradually become distanced from their mother tongue and culture.
- **Digitization and Preservation of Language :** AI is being used for digital archiving, language resource databases, and voice modeling, preserving many languages in digital form. This is a positive step towards cultural preservation.
- **Impact on Folk Literature and Oral Traditions :** AI translation tools and content generation platforms still struggle to fully capture the essence of folk language, oral traditions, and indigenous stories. This can lead to a loss of authenticity and originality in cultural heritage.

Technology and Translation :

Technology and translation have a strong connection. In the increasingly globalized environment, translation serves as a tool for communication worldwide, facilitating user-centricity. Thus, translation methods have begun to incorporate alternative scenarios based on the translation needs of self-selected participants. Technological transformation has gradually encroached upon various fields over time, particularly in the areas of translation and cultural exchange, even though the birth of machine translation depended on the significant development of artificial intelligence created by the human mind. The continuous growth in intelligent translation has led to its significant evolution in recent decades, making it more logical and closer to human translation. According to Hartley, as the world enters the digital age, expectations for translation have increased, and instead of relying solely on complete, authoritative source texts, translation now often involves working with databases, dictionaries, and electronic tools. Technology translation is a term that can be defined as the use of any technology in translation, whether oral or written.

The Use of Artificial Intelligence in Translation :

Both programming and natural language have played a significant role in the development of artificial intelligence. According to Russell, computational linguistics and natural language processing can be used together to create a hybrid science during the study of standard linguistics and artificial intelligence. Understanding the subject and context in this way is considered essential for language comprehension and for understanding sentences generated by artificial intelligence, although this was not generally recognized until the 1960s. However, studies in linguistics related to decades of work on the philosophical analysis of language inspired early work on knowledge representation. Now, a large number of people use smart phones and online machine translation apps to communicate across language barriers, bridging the gap between cultures and linguistic systems. Yang noted that with the development of automated translation tools, a new translation concept known as artificial intelligence translation has emerged, with new machine translation apps showing further developments to provide greater equivalence to human translators. Most machine translation studies to date have focused on translating and evaluating sentences, neglecting the context in which those sentences appear. Refining the translation process in this way can yield several benefits, including increased ease of data set generation, the development of more effective algorithmic models, and faster human evaluation. In particular, human evaluation without context fails to reveal every translation error, which can lead to some problems with early claims of human parity.

Conclusion :

The world around us is changing rapidly due to the development of information technology. Now everything is available to us at the click of a button. The recent updated and advanced versions of artificial intelligence have significantly broadened the scope of information technology. However, artificial intelligence is viewed as a double-edged sword, because while it offers many advantages such as data automation, language capabilities, accuracy, and perfect efficiency, it also has potential disadvantages such as ethical concerns, job displacement, bias, and security vulnerabilities. Human translation and AI translation (also

known as machine translation) are two different ways of translating text from one language to another. Human translation is performed by a person fluent in both the source and target languages, who deeply understands the cultural context and nuances of the text. AI translation, however, uses computer programs to translate text using algorithms and large amounts of data. While AI translation can be faster and more cost-effective than human translation, it may not always accurately capture the subtleties and cultural nuances of the text as well as a human translator. Although artificial intelligence translation has made significant progress in recent years and can provide a fast and cost-effective option, it still has several limitations. On the other hand, human translation provides a deeper understanding of the cultural context and nuances of the translated text: a skilled human translator can accurately convey the intended meaning and tone of the original text, making it a better option for translations that require a high level of accuracy and cultural sensitivity. Legal terminology and concepts can vary across different jurisdictions, so AI translation tools may not always account for these differences.

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