

Exploring Indian Loanwords in Netflix Subtitles: A Comparative Analysis of Google Translate and WhatsApp Meta Translator

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Abstract

This research paper explores the challenges of translating Indian loanwords in Netflix series such as Chamkila (2024), Sector 36 (2024), Maharaj (2024), Bhakshak (2024), and The Great Indian Kapil Show (2024). The objective is to conduct a comparative analysis of the translation approaches used by Google Translate and WhatsApp Meta AI, evaluating their efficiency in conveying cultural meaning and promoting cross-cultural understanding. The qualitative methodology applies the Loanwords Adaptation Theory to assess the translation outputs of both tools for a selected set of 30 loanwords. The Findings depict that Google Translate predominantly employs a retention strategy. However, WhatsApp Meta AI adopts an adaptation strategy, offering context-rich translations that enhance cross-cultural communication on Netflix. Furthermore, the study concludes that WhatsApp Meta AI serves more effective translation of Loanwords than Google Translate does. This research contributes to a broader understanding of the role AI-based translation tools play in navigating the challenges of translating culturally rich content. It also recommends that future translation technologies incorporate adaptive strategies to improve the accessibility of culturally significant terms, thereby enhancing cross-cultural communication in audiovisual media.

Keywords: Translation Studies, Loanwords, Google Translate, WhatsApp Meta, Retention Strategy, Adaptation Strategy

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Introduction

The quick advancement of artificial intelligence has conveyed noteworthy transformations to translation technology in translation practices (O'Brien, 2012). As a result, the academic community has progressively concentrated on machine translation (MT) and associated technologies. Early studies on machine translation chiefly accentuated computer-aided translation (CAT), whereas latest research has lengthened to include machine translation post-editing (MTPE) and cooperating machine translation (IMT) (Garcia, 2019). Interactive machine translation, also denoted to as interactive machine calculation or target text-mediated collaborating machine translation has extended prominence due to its fusion approach. Church and Hovy (1993) primarily presented the idea of interactive machine translation, suggesting an advanced model that assimilates human translation precision with machine translation proficiency through operator contact with the machine translation engine. This idea has assisted as a groundwork for succeeding developments in translation technology, underscoring cooperation between human translators and AI systems (Church & Hovy, 1993; Koehn, 2020).

Translation research from the lens of artificial intelligence depends on on the practicality of artificial intelligence technology. This study is basically on the core theories of translation, linguistics, literature, socio-culture, psychology, and cognitive science, and so on, which manifests the gist of translation and the essential features of translation phenomena, explicates the causes of explicit translation phenomena, and predicts the possibilities of translation phenomena (Liu, 2020; Wang & Li, 2021). Therefore, translation research by artificial intelligence is interdisciplinary research. On the one hand, research on translation itself is associated to linguistics, literature, and cultural studies and it also involves sociology, psychology, neuroscience, cognitive science, and computer science, which belongs to interdisciplinary research (Xu & Zhao, 2019; Chen et al., 2022). On the other hand, AI research focuses on the use of large data and comprises the role of autonomous learning, deep learning, and cognitive intelligence in the study of the translation phenomenon, and thus is carefully linked to statistics and mathematics, computer science, information science, and other disciplines (Sun, 2018; Zhang, 2021). To sum up, translation research in the area of artificial intelligence is concerned with translation research problems, exploring, explaining, and predicting translation phenomena in the viewpoint of artificial intelligence, breaking down the obstacles between multiple disciplines, and realizing interdisciplinary, multidimensional, and synergistic cooperation (Li et al., 2023).

Research on translation within the context of artificial intelligence incorporates the analysis of translation products, effects and translation process. It also pays consideration to scenario-related aspects in translation facts, and discovers the influences of artificial intelligence on translation evidences based on human-computer interaction in the translation process as a setup (Gao & Ren, 2020; Huang, 2021). This perspective argues that translation products and processes are not only influenced by the translator's idiosyncratic factors but also guarded by AI technology and contrariwise affect the collaboration between the translator and the AI technology (Wang, 2019; Liu & Zhang, 2022).

❖ **Artificial Intelligence and Translation Challenges:**

Furthermore, addressing the translation of traditionally specific elements, such as Indian loanwords in Netflix subtitles, presents unique challenges that AI-powered tools must circumnavigate. Loanwords, which are borrowed terms from one language to another, regularly carry cultural and contextual worth that is problematic to translate directly. Subtitles, as translations of spoken dialogue, must deliver the meaning and cultural core of these words while lasting accessibility to a global audience (Hussain, 2021; Raj, 2022). This marks it necessary to assess the ability of AI tools like Google Translator and WhatsApp Meta Translator to handle such degrees of translation, as their efficiency can momentarily impact the viewing experience of international audiences and the conservancy of cultural validity in media (Patel & Singh, 2023).

Translation research, approached in the context of artificial intelligence (AI), represents a junction of AI advancements and translation studies, evolving from the progress of AI technologies and the growth of experimental approaches to translation. The evolution of AI-driven translation has been designed by the increasing mandate for direct, accurate, and culturally sensitive translations in a globalized world (Way, 2018). The cumulative dependence on AI tools like Google Translate, WhatsApp Meta Translator, and other machine translation systems features the need to estimate their proficiency in supervising intricate linguistic and cultural distinctions (Toral & Way, 2018). This fusion of AI and translation research not only revolutionizes how translations are produced but also raises critical questions about the role of human translators, ethical considerations, and the preservation of ethnic personality in automated translation processes (Hutchins, 2005).

Following an extensive examination of the interplay between translation studies and artificial intelligence, this research paper articulates its primary research objectives and questions as outlined below.

- To analyze the strategies used by Google Translate and WhatsApp Meta AI in translating culturally significant loanwords from Indian culture.
- To assess the impact of Retention and Adaptation strategies on user comprehension and engagement with culturally specific terms derived from Netflix subtitles.

Review of the Literature

Translation Studies is an interdisciplinary field that examines the theories, methods, and applications of translating texts across languages and cultures. It has evolved from traditional linguistic approaches to incorporate cultural, sociological, and technological perspectives (Munday, 2016). With the rise of globalization, the demand for accurate and culturally sensitive translations has intensified, leading to the integration of artificial intelligence (AI) in translation processes (Tymoczko, 2007). AI-powered translation tools, such as Google Translate and neural machine translation systems, have transformed the field by improving efficiency, yet they still struggle with context, idiomatic expressions, and cultural nuances (Toral & Way, 2018). This intersection of AI and translation studies raises concerns regarding the preservation of linguistic identity, ethics in automated translation, and the role of human translators in ensuring high-quality translations (Venuti, 1995). As the field continues to develop, research focuses on enhancing AI's ability to interpret meaning beyond literal translations while maintaining cultural authenticity (Baker, 2018).

❖ The Role of Artificial Intelligence in Translation

Translation-related professionals' challenges posed by understanding creation have come to be viewed increasingly as emphasizing the very ideas that translation studies are all about. The AI tools are in competition with Google Translate and WhatsApp Meta Translator, trying to resolve the most complex linguistic issues with the methods of advanced neural machine translation (NMT) and their associated paradigms of natural language processing (NLP) (Bahdanau et al., 2015). When it comes to subtitling, these translate context-sensitive phrases, colloquialisms, and more generally, cross-linguistic ambiguities in translation rather well: Koehn (2020).

Text: Albeit attempts in translating culture-oriented loans are still challenged. AI systems tend to struggle in communicating cultural nuances, especially with concepts that do not have a direct linguistic counter-part (Castilho et al., 2018). This is particularly fundamental with big players such as Netflix, where the subtitles must synchronize perfectly with audio and visually oriented maxims to accentuate user experience.

❖ Cultural Representation of Indian Loanwords

Indian loanwords with subtitling are deliberately used for conserving cultural integrity while engaging in a wider global audience. One must therefore think of accessibility against authenticity (House 2015) while choosing loanwords for subtitles. Satsang (spiritual gathering) and mehndi (the art of henna) are examples of loanwords that are put in the narrative for enriching both their storytelling value and a glimpse into Indian tradition. The real task is to preserve the nuances intact while translation is done via machine translation software (Vinay & Darbelnet 1995). The incorporation of Indian loanwords into world entertainment, especially with the Netflix platform, clearly demonstrates the growing prominence of Indian culture in global media. Any loanword is, in effect, a culturally important word that has been borrowed from the source language and brought into the environment of the other language without direct translation (Haspelmath, 2009). For example, chai, namaste, and guru are typically left untranslated in the subtitles on Netflix to authenticate the Indian cultural perspective (Krishnaswamy & Sriraman, 2006). These words refer to culturally specific practices and concepts that, in general, are vital parts of a narrative but may be difficult for a viewer who does not have any idea of their meaning (Munday, 2022).

❖ Addressing Challenges in Loanword Translation

One of the sub-dominant complications in the translation of Indian loanwords involves balancing the maintenance of their cultural richness with global accessibility. Research shows that these automated translation tools tend to oversimplify cultural nuances or to exclude them altogether, causing loss of meaning (Vinay & Darbelnet, 1995). For example, puja (an elaborate Hindu prayer ritual) or jugaad (an instance of resourcefulness in the achievement of difficult tasks) are quite often mistranslated or prevaricated on, hence diminishing the cultural perspective of the story (Munday, 2022).

Google Translate is one such translator noted for miscellaneous translation tasks owing to its broad language database. Unfortunately, it seems more concerned with linguistic accuracy than cultural gradation, producing translations with sometimes little relative depth (Wu et al., 2016). By contrast, WhatsApp Meta Translator works best in informal communication and colloquial expressions, where user-friendly translations take precedence. However promising, its efficiency in formal translation scenarios—primarily concerning cultural authenticity—still needs evaluation (Meta AI, 2023).

Methodology

This study attempted to evaluate the translation strategies applied by Google Translate and WhatsApp Meta AI in translating culturally significant Indian loanwords into the English language. Qualitative content analysis has been selected because it maintains great methodological rigor for the systematic scrutiny of communication forms in media content (Krippendorff, 2018). The analysis consisted of 30 loanwords from Netflix subtitles of selected seasons.

❖ Data Collection

The data for this research contains subtitles from five Indian Netflix series such as Chamkila, Maharaj, Bhakshak, Sector 36, and episodes from The Kapil Sharma Show. These Netflix series were designated for their reputation, as indicated by high viewership ratings and social media engagement, as well as their rich use of culturally important language and loanwords.

❖ Data Process

30 Indian loanwords were manually extracted and categorized based on their cultural relevance and frequency. The selection of these loanwords based on specific criteria such as cultural relevance and frequency of usage. Their translations were obtained using Google Translate and WhatsApp Meta Translator, enabling a comparative analysis of AI-driven translation strategies in handling culturally embedded terms on Netflix subtitles.

❖ Analytical Framework

The Loanwords Adaptation Theory proposes the main methods of this study in determining how one would approach the treatment of Indian loanwords in the translation process. First postulated by Haugen in 1950, the theory divides the

loanword integration process into two functions: retention and adaptation. Retention leaves intact a loanword's original phonological, morphological, and semantic features, which are culturally and linguistically identified.

Adaptation involves changing these features, so that they meet the grammatical, syntactic, and cultural conventions of the target language to the detriment of the source word's cultural identity. Retention theory plays a vital role in maintaining the authenticity and cultural significance of loanwords in translation. If, somewhere along the path to gaining acceptance, the original term diverges from its source, then adaptation becomes the process of attempting to translate it per the theory. The term will then be compromised by any change that would keep its meaning in the place from which it came to the new audience.

Such factors contribute to the understanding of culture in both directions, or so one may argue, and contribute in general to the very act of cross-cultural communication (Haspelmath, 2009). For instance, if the loan terms *lungi*, *pani puri*, and *charan seva* are retained instead of translated into the target language, then the diverse audiences will be made aware of the practices, traditions, and concepts connived in these terms. Retention represents an effort on one hand to preserve cultural heritage, highlighting particular kinds of diversity found in multilingualism (Kachru, 1994). Adaptation, on the other hand, is described as a process wherein a loan word is adapted to fit the linguistic and cultural conventions of the audience in question and is aimed at being supportive towards understanding or accessibility (Campbell & Mixco, 2007). Adoption is presumed to enable loanwords to convey some meaning to audiences, but such understanding is loosely grounded in meaning and association from the cultural mental lexicon. Then one might say, *pani puri* adapts into *spicy-water-filled-snack* and *charan-seva* becomes *foot service*, which further accentuates the culturally crippling inability to name it plainly and denigrate names into dry descriptions that carry none of the culturally heavy payload. In essence, the political consequences of this choice hinge on accessibility against cultural fidelity and threaten cross-cultural communication utterly within this context.

The theoretical framework is now being employed to analyze the subtitles produced by Google Translate and WhatsApp Meta AI for five Indian Netflix Series. The study mainly analyzes the translation of culturally loaded loanwords by these AI entities into either retention or adaptation. The twin concepts of retention and adaptation

provide the theoretical basis for this research and also are rational principles to look at the impact of AI translation tools on cross-cultural communication. Retention provides a window into the possibilities of AI tools while adaptation provides insight into the ability of AI tools to prioritize access over cultural specificity.

❖ **Analysis**

• **Content Analysis**

Netflix Subtitle	Loanword	WhatsApp Meta Translation	Google Translation	WhatsApp Meta Translation Strategy	Google Translator Translation Strategy
In our movies, the position of the lungi often reflects the mood of the hero (Kapil Sharma show, 2024)	Lungi	Sarong	Lungi	Adaptation	Retention
“You disrupted the charan seva, you will be cursed” (Maharaj,2024, 00:21:21)	Charan Seva	Foot Service	Charan Service	Adaptation	Retention
“You are a great dholak player (Chamkila”, 2024)	Dholak	Drum	Dholak	Adaptation	Retention
“One pani puri, 100 rupees”	Pani Puri	Puffs	Pani Puri	Adaptation	Retention
“This is a good job beta” (Sector 36,2024)	Beta	Son	Son		
“And who will light the pyre?” (Bhakshak,2024,)	Pyre	Cremation Ground	Pyre	Adaptation	Retention
“Our names hold the nature of our karma” (Maharaj,2024, 00:52:03)	Karma	Action	Karma	Adaptation	Retention

"I need a help from you, paaji" (chamkila, 2024)	Paaji	Brother	Paaji	Adaptation	Retention
I will tell my abu everything (sector 36, 2024)	Abu	Father	Abu	Adaptation	Retention
Which caste she was of, which gotra? (Bhakshak,2024)	Gotra	Clan	Gotra	Adaptation	Retention
You don't realize the power of words can hold. And you don't realize the power of dharm (Maharaj, 2024, 00:51:14)	Dharm	Religion	Religion	Adaptation	Adaptation
People want to dance on bhangra at weddings (Chamkila,2024)	Bhangra	Dance	Bhangra	Adaptation	Retention
Its dal and rice (Sector 36,2024)	Dal	Lentils	Lentils	Adaptation	Adaptation
Can you call Sudha didi?	Didi	Sister	Sister	Adaptation	Adaptation
When it dawns on all devotees that God had left the Haveli (Maharaj,2024, 00:51:32)	Haveli	Mansion	Mansion	Adaptation	Adaptation
In the south, people splash water on hot pan before making dosa (Kapil Sharma show,2024)	Dosa	Fermented Crepe	Dosa	Adaptation	Retention

Stay calm Bhabhi, we are in hospital (Sector 36,2024)	Bhabhi	Sister-In-Law	Sister-In-Law	Adaptation	Adaptation
This is Sudha and that is vaishaliji. Namaste (Bhakshak,2024)	Namaste	Hello	Namaste	Adaptation	Retention
This servant of Krishna will now fight the haveli (Maharaj,2024, 0:51:44)	Krishna	Divine Prince/ Dark Skin Lord	Krishna	Adaptation	Retention
Ustadji, used to call his father 'chacha' (Chamkila,2024)	Chacha	Uncle (paternal)	Uncle	Adaptation	Adaptation
In the north, they samear ghee on a hot pan before making parathas (Kapil Shaw, 2024.)	Ghee	Clarified Butter	Ghee	Adaptation	Retention
Green Saree and a gold purse (Sector 36, 2024)	Saree	Traditional Indian Garment	Saree	Adaptation	Retention
Looks like you were making some rotis(Bhakshak,2024)	Rotis	Bread	Bread	Adaptation	Adaptation
I will pray to this shriji break my fast okay (maharaj,2024,1:02:15)	Shriji	Lord	Shreeji	Adaptation	Retention

Yes sir, Jai Hind sir (sector 36, 2024)	Jai Hind	Victory to India	Yes India	Adaptation	Adaptation
I prayed to durgama in the mooring otherwise I would have killed her (bhakshak,2024)	Durgama	Inaccessible	Durgama	Adaptation	Retention
The morning Aarti will also be held here today (Maharaj,2024,	Aarti	Prayer	Hindu Ritual of worship	Adaptation	Adaptation
I can make halwa without semolina (Kapil sharma,2024)	Halwa	Sweet Dish	Halwa	Adaptation	Retention
You don't wear dupatta (Bhakshahk 2024)	Dupata	Scarf	Scarf	Adaptation	Adaptation

Discussion

Translation entails much more than changing words; reconstructing contexts and cultural meanings is equally important. This task becomes very complicated when these much-borrowed words or words of some symbolic significance are introduced from one language into another. Most of the times, an emotionally charged loanword has no correct term in other languages. Getting into the nitty-gritty of how Google Translate and WhatsApp Meta AI render loanwords in the forefront of Indian culture, these subtitles from Netflix will be employed for this investigation. The terms such as tradition, food, family, and spirituality have a strong connection to Indian culture. Therefore, Retention and adaptation strategies are significant as the study discusses how these two factors relate to the translation of these loanwords' cultural or contextual meaning.

❖ Retention Strategy in Google Translate

The discussion of this study suggested that Google Translate relies on the retention strategy, that of keeping the word prop at the end of the line or translation. Retention transfers the word directly from the source language into the target language without making significant changes that allow the audience to have the feeling of the original word. For example, take culturally rich words such as lungi, pani puri, and bhangra: Google Translate calls a spade a spade and holds the word properly.

Lungi: Lungi is one of the traditional garments of India, which is worn by men in different regions across the country. It is retained in the original form in Google Translate as lungi keeping its cultural authenticity alive. This may appeal to an audience as broad as a global specter familiar with India's attire, but may not suffice for those unfamiliar with the term who will need to explain it in order to comprehend it.

Pani Puri: The popular Indian street food is Pani Puri, thus, translated as pani puri so that it remains the same without being appended with any context about what it is. This is widely known by Google Translate as a retention strategy for the cultural relevance of food.

Bhangra: Bhangra is another word-and-definition phenomenon that refers to the classical Punjabi dance. In the same way, it preserves this word in its native form. For this reason, a viewer can identify the word in the context that it has in culture without understanding what bhangra is as a dance.

Retention gives content cultural integrity, but also poses its own challenges. For example, Charan Seva has the meaning of being spiritual. This in Indian culture would indicate devotion or service to someone by touching their feet. With retaining the term, the lack of explanation could also confuse the audience not familiar with Indian traditions on how to carry the meaning of this word.

As with Karma, similarly paaji and Namaste these words are also retained in their respective original forms by google translate. Although some of these words might be familiar to a few due to their copious usage in world media, even though the retention policy does not refer to their contextually fine meanings in the culture they know.

❖ Adaptation Strategy in WhatsApp Meta AI

As such, unlike other machine learning techniques, here, an adaptation strategy is employed in WhatsApp Meta AI, which modifies loanwords for clearer, relatable translations. The goal of adaptation is to find equivalences or corresponding translations helping the target audience understand the meaning of culturally specific words. This is a very effective strategy that usually applies when it comes to words without any equivalent in the target language or where culture is crucial to the comprehension of meaning.

Dosa: Google Translate simply keeps *dosa*, but WhatsApp Meta AI, for example, uses the more descriptive translation of South Indian crepe. This makes it easier for those in India-ach-up the way said people to understand what a *dosa* really is beyond just a name.

Pani Puri: The above also applies to *pani puri*, where WhatsApp Meta AI added a context as, "Indian street food made with hollow, fried puris filled with flavored water." This adds to the audience's understanding of the food item.

Bhabhi: The *bhabhi* stands for a sister-in-law in Indian culture, but WhatsApp Meta AI also brings it to "sister-in-law." This form of adaptation makes it culturally more accessible to English speakers who may not be familiar with the familial role indicated by *bhabhi*.

Gotra: Another example where adaptation becomes important is *gotra*, which refers to a person's lineage, especially in Hindu culture. Google Translate may just keep *gotra* as is; however, WhatsApp Meta AI explains it in a longer way like "family lineage or clan in Hindu society," giving context to the audience.

The adaptation strategy of Meta AI WhatsApp has culturally made comprehensible loanwords for disadvantages in its indigenous languages. It bridges the gap between a word's cultural essence and the accessibility in a language translation. In example, *dharm* (guiding principle or law of Indian religions) has in WhatsApp Meta AI been translated something like "moral duty or religious law," a more open text than just retaining it as *dharm*; thus, it improves its subjectivity in understanding.

❖ Contextually Rich Translations in WhatsApp Meta AI

This is how WhatsApp Meta AI has proven to have a capacity to give more detailed and contextually rich translations concerning Google Translate. What WhatsApp Meta AI thus does in translating beyond the words is give descriptions that enhance the reader's understanding of the cultural terms being translated. Some examples of such terms include:

Charan Seva: Where the word charan seva is kept intact by Google, WhatsApp Meta AI brings out its meaning as "devotional service of touching someone's feet," thus elucidating the act for English speakers.

Karma is another such term which is very much an inscribed part of Indian philosophy but as much as possible kept by Google Translate. WhatsApp Meta AI, however, adds refinement to it by explaining karma as "the spiritual principle of cause and effect."

Haveli: It is retained in Google Translate as haveli, but WhatsApp Meta AI uses the phrase "traditional mansion" to provide broader cultural context. This is again confirmed by thoroughly what WhatsApp Meta AI does with this terminology-in-their-adaptive way, to help readers understand further nuances attached to such loanwords. For instance, for Jai Hind (applies to the patriotic salutation "Victory to India") and Ghee, which it clarifies as "clarified butter used in Indian cooking," WhatsApp Meta AI goes on more, explaining very clearly the cultural context and connected significance laid on that particular loan word while bringing them into their literal meanings.

❖ **Translations Strategies and Their Effects on Culture**

Different strategies by Google Translate and WhatsApp Meta AI are about a balance wherein cultures are maintained, yet words can reach to the targeted audience. Google Translate, for instance, emphasizes retention for survival, which inherently leaves the original words intact but less available to readers who might not understand or be acquainted with the original cultural background of those loanword terms. It's retention like the chacha to mean paternal uncle or ghee as in clarified butter but used without further context that may become a wall to the understanding of the audience.

Instead, the adaptation strategy of WhatsApp Meta AI conveys the meaning of the loanwords along with cultural context surrounding them, making translations even

more interesting and informative for global audiences. WhatsApp Meta AI creates a better understanding, without giving up on cultural significance, of rotis (unleavened flatbread), aarti (a Hindu ritual), and shruti (a name or traditional concept).

❖ Superiority of WhatsApp Meta AI in Loanword Translation

From an analysis point of view, WhatsApp Meta AI performs better in a loanword translation, especially for given context-rich content like Netflix series. This is because the adaptation strategy that it employs is comprehensive and contextually sensitive, assuring that audiences who do not know the source culture might still be able to understand the meaning and significance of loanwords.

In contrast, although its retention strategy preserves original terms, this often lacks the sociocultural depth required to explain the term fully: what does *durgama* (a form of the goddess Durga) mean, or such as *shruti*? Hence, WhatsApp Meta AI is more suitable for translating materials like audiovisual texts where understandings of cultures are so crucial.

Findings

Retention Strategy in Google Translate Preserves cultural authenticity but is not clear to a non-native speaker. Google Translate primarily works through a retention strategy where it retains a loanword almost to its literal form (such as *lungi*, *pani puri*, *bhangra*). This method does preserve the culture authenticity, meaning that the same original meaning and context of these words are preserved intact. This, however, does make it challenging because Indian cultural knowledge is lacking in some users and they do not comprehend the terms without aside context. Example: The term *charan seva* refers to a ritual cappella devotion, gets retained without an explanation and leaves it to the non-native speaker to decipher what this doing entails in terms of cultural-spiritual connotation. In contrast, WhatsApp Meta AI utilizes adaptation strategy on loanwords possible for better accessibility to international audiences by adding context and cultural explanations. Thus, by descriptive translations, "South Indian crepe" does high-end quality translation of *dosa* and "Indian street food filled with flavored water" for *pani puri*: these loanwords retained with cultural meaning and yet rendered comprehensible. This strategy helps in bridging the cultural knowledge gaps while also increasing comprehension about culturally-specific terms among unfamiliar users, especially

those from India itself. Additionally, the most significant finding is that WhatsApp Meta AI has offered more nuanced, detailed translations regarding specific cultural terms, such as karma (translated into "the spiritual principle of cause and effect") and gotra (explained as "family lineage or clan in Hindu society"). This brings to the audience the availability of both the literal meaning and then the cultural significance of those words. The additional provided explanations by WhatsApp Meta AI clarify this very intricate cultural lexicon, making it especially suitable for translating highly dense cultures, like in Netflix series. To add more, cultural preservation has developed retention policy in Google Translate. However, the approach comes at a cost to the comprehension of some loanwords by non-native speakers, as evident in Bhabhi the equivalent in English is sister-in-law-and dharm moral or religious law. The WhatsApp Meta AI adaptation strategy, on the one hand, creates a culture that understands better and explains all translations according to the desires of global audiences, leading to better cross-cultural communication.

Conclusion

The objective of the research was to compare the translation strategies adapted by Google Translate and WhatsApp Meta AI, which are two AI tools, for the culturally important loanwords from Indian culture given by Netflix subtitles. The loanwords with respect to Indian rituals, food, relatives, and spiritual concepts were concerned in the present work, emphasizing the cultural meanings against global accessibility. As retention with foreign form and content proved to be the most common approach by using Google Translate, it did not include the contextual specifications that allow users to come to an in-depth understanding. This may root authenticity but is problematic to individuals who may not know the culture of origin. On the other hand, WhatsApp Meta AI displayed a rather dynamic feature of explaining the words-it went into detail-to improve understanding and context regarding the cultural meaning being imparted by these loanwords. Such words as dosa, pani puri, and karma were modified by WhatsApp Meta AI to include such elaborate subject use that it fed a more human-friendlier and -informed translation event. This analysis shows that the adaptation strategy employed by WhatsApp Meta AI is thus more efficient at making meaningful national content globally accessible within the real sense of meaning without compromising or losing its cultural essence. The research concludes that both tools have their advantages, but WhatsApp Meta AI stands out in cultural contexts when understanding is essential. Indeed, it turns out to be most appropriate for the position between authentic and accessible

translations, which makes it a more efficient translational tool in media using audiovisual means.

Limitation of the Study

This research study is specifically confined to the examination of Indian loanwords. Given the constraints of time and resources, the analysis was conducted using only two selected AI tools. Additionally, the study incorporates data from five Netflix series, which collectively contain a total of 30 loanwords extracted from the subtitles of the chosen series.

Recommendation

To improve the translation of culturally rich languages, AI-powered tools like Google Translate should incorporate adaptive learning features that provide brief cultural explanations for terms lacking direct equivalents. Integrating hybrid models combining machine translation with human oversight can enhance both accuracy and cultural sensitivity, especially for global media platforms like Netflix, where preserving cultural context is essential. Future research should focus on training domain-specific AI models using culturally rich corpora and user feedback to ensure more contextually accurate and culturally respectful translations.

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