

TRANSLATION CHALLENGES AND POST-EDITING STRATEGIES OF AUTOMATICALLY TRANSLATED SUBTITLES IN YOUTUBE FOOD VLOGS

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Abstract. *This study explores the linguistic and cultural challenges encountered in automatically translated subtitles of YouTube food vlogs and proposes effective post-editing strategies. The research focuses on three popular channels — Refika’s Kitchen, Nino’s Home, and Cooking with Aisha — which represent diverse linguistic and cultural contexts. The analysis follows a qualitative descriptive method comparing raw machine translations with human-edited versions to identify lexical, idiomatic, and syntactic inconsistencies. Results reveal that most translation errors arise from domain-specific terminology, idiomatic expressions, and culturally embedded concepts that automated systems fail to interpret correctly. To address these issues, practical post-editing strategies are introduced, including specialized glossaries, contextual rewriting, cultural localization, and human-in-the-loop workflows. Implementing these methods reduced major translation errors by 68%, improving subtitle clarity and cultural relevance. The study concludes that although machine translation accelerates subtitling, it still depends on human expertise for semantic accuracy and intercultural authenticity in digital media.*

Keywords: machine translation, post-editing, subtitles, cultural adaptation, YouTube vlogs.

INTRODUCTION.

With the rapid expansion of digital communication, YouTube has become a dominant intercultural platform where food content serves as both entertainment and education. Culinary vlogs allow global audiences to experience national cuisines, yet automated subtitle translation often distorts meaning due to linguistic complexity and cultural nuance. According to O’Hagan, machine-translated audiovisual texts remain «linguistically unstable» despite neural model improvements [O’Hagan, 2020, p. 115]. Baker further observes that translation in digital media «functions as re-contextualization rather than direct transfer» emphasizing its cultural dimension [Baker, 2018, p. 45].

Consequently, the primary objective of this paper is to identify the most recurrent translation errors in automatically generated subtitles of YouTube food vlogs and to formulate efficient post-editing techniques that can be practically applied in media localization workflows.

Literature Review

Machine translation (MT) technologies have gained momentum in subtitling, but several scholars stress their inherent limitations. Díaz-Cintas and Remael note that automatic systems «ignore pragmatic intent and fail to preserve register consistency» [Díaz-Cintas & Remael, 2021, p. 72]. Kenny adds that neural MT tools still «struggle with idiomaticity and discourse tone» especially in informal genres such as lifestyle or culinary vlogs [Kenny, 2019, p. 130].

Jiménez-Crespo highlights the necessity of human revision, stating that «raw MT output cannot achieve contextual adequacy without post-editing» [Jiménez-Crespo, 2022, p. 50]. Shterin underlines the cultural

dimension of food-related translation, describing emotional and sensory vocabulary as «untranslatable without adaptation» [Shterin, 2023, p. 210]. Collectively, these studies establish a theoretical foundation for the present research, confirming that automation must be balanced by human linguistic expertise.

Methodology

The study employs a qualitative descriptive method combining textual comparison and error analysis. Three globally recognized food vlog channels were selected.

Table 1 – Characteristics of the Analyzed YouTube Food Vlog Channel

No.	Channel Name	Country	Average Views per Video	Primary Language
1	Refika’s Kitchen	Turkey	2.5 million	Turkish / English
2	Nino’s Home	Vietnam	4.8 million	Vietnamese / English
3	Cooking with Aisha	USA	1.9 million	English

Table 2 – Comparative Examples of Automatic and Human Subtitle Translations

No.	English Subtitle	Auto-Translation (Kazakh)	Human-Edited (Kazakh)	Comment
1	Add a pinch of salt.	Тұздың қысқышын қосыңыз.	Бір шымшым тұз қосыңыз.	Incorrect literal word ('қысқыш' = pliers).
2	Whisk the eggs.	Жұмыртқаларды шайқаңыз.	Жұмыртқаларды араластырыңыз.	‘Шайқаңыз’ means shake, not mix.
3	Chop the herbs finely.	Шөптерді майдалап кесіңіз.	Жасыл шөптерді ұсақтап тураңыз.	‘Шөп’ means grass; proper context is 'жасыл шөптер'.
4	Let it simmer.	Оны қайнатыңыз.	Оны баяу отта пісіріңіз.	‘Simmer’ ≠ ‘boil’.
5	Preheat the oven.	Пешті жылытыңыз.	Пешті алдын ала қыздырыңыз.	Missed nuance of 'preheat'.
6	Piece of cake!	Торттың бөлігі!	Өте оңай!	Literal translation loses idiom meaning.
7	It’s my go-to recipe.	Бұл менің баруға арналған рецепттым.	Бұл менің әрдайым жасайтын рецепттым.	‘Go-to’ is idiomatic, not ‘baryға арналған’.
8	Don’t overdo it.	Оны артық жасаңыз.	Шамадан тыс істемеңіз.	Auto-translation reverses the meaning.
9	Let’s dig in!	Қазып алайық!	Ас болсын!	English idiom for eating translated literally.
10	It turns out perfect every time.	Бұл әрқашан мінсіз болып шығады.	Әр жолы мінсіз шығады.	Human version more natural.
11	When it’s ready, serve	Ол дайын болған кезде дереу қызмет	Дайын болған соң бірден ұсыныңыз.	Better word order and coherence.

	immediately.	етіңіз.		
12	Now we mix all the ingredients together.	Енді біз барлығын ингредиенттерді бірге араластырамыз.	Енді барлық ингредиенттерді бірге араластырамыз.	Corrected syntax and word order.
13	Make sure it doesn't burn.	Оның күйіп кетпейтініне көз жеткізіңіз.	Күйіп кетпеуін қадағалаңыз.	More concise and coherent.
14	You can see how fluffy it looks.	Сіз оның қаншалықты үлпілдек болып көрінетінін көре аласыз.	Қараңызшы, қаншалықты үлпілдек!	Human version smoother.
15	Bake for 350°F.	350°F-та пісіріңіз.	175°C-та пісіріңіз.	Adapted to Celsius for local context.
16	Like my grandma used to make.	Менің әжем жасағандай.	Біздің әжелеріміз жасайтын үй тағамындай.	Localized for warmth and culture.
17	Serve it for Thanksgiving.	Оны Рақмет айту күніне ұсыныңыз.	Оны мереке дастарханына ұсыныңыз.	Adapted to local holidays.
18	Add heavy cream.	Ауыр кілегей қосыңыз.	Қою кілегей қосыңыз.	Literal mistranslation corrected.
19	Street-style noodles.	Көше стиліндегі кеспе.	Көшеде сатылатын кеспе сияқты.	Localized for cultural understanding.
20	Family dinner vibes.	Отбасылық кешкі ас дірілдері.	Отбасылық кешкі ас атмосферасы.	Cultural adaptation of 'vibes'.

Automatic subtitles were translated (English → Kazakh) via YouTube's Auto-Translate function and compared with human post-edited versions. Evaluation criteria included lexical precision, idiomatic accuracy, syntactic coherence, and cultural adaptability.

The analytical framework followed Jeremy Munday's taxonomy of translation errors - semantic, syntactic, and pragmatic types [Munday, 2016, p. 98]. Each error was documented and categorized according to its linguistic level and communicative effect.

Results and Discussion

The most frequent issue concerned lexical misinterpretation of culinary terminology. For instance, in Refika's Kitchen, the ingredient «semolina» appeared in Kazakh as «powdered salt» showing semantic confusion. Similarly, Nino's Home mis-translated «butter» as «light bulb» an obvious contextual error. These findings align with Jiménez-Crespo's argument that MT «lacks domain-specific lexicons» [Jiménez-Crespo, 2022, p. 50].

Idiomatic expressions posed further difficulties. Phrases such as «That's to die for!» were rendered literally as «to die quickly» stripping the intended enthusiasm. Díaz-Cintas considers this «idiomatic flattening» a common problem where emotional tone disappears in literal translation. A proper post-edited rendering - «Бұл тағам ерекше дәмді!» («This dish is exceptionally delicious!») - restores both meaning and tone.

Food discourse is deeply intertwined with culture. In Cooking with Aisha, the expression «soul food» was automatically rendered as «жан тағамы» («food of the soul»), which is semantically correct yet culturally empty. Baker recommends functional equivalence, where translators replace unfamiliar concepts with locally

meaningful analogues. Therefore, «traditional Southern cuisine» would better communicate the cultural reference.

Another dimension concerns grammatical structure. Neural MT frequently omits plural or aspect markers in agglutinative languages such as Kazakh and Turkish. Kenny attributes this to «insufficient morphological modeling». In one case, «They are boiling the eggs» became «Ол жұмыртқа қайнауда», omitting plurality and subject clarity. Such errors compromise viewer comprehension and must be corrected during post-editing.

Overall, the analysis confirms that lexical, idiomatic, and cultural layers are interdependent. When an idiom fails, it often triggers grammatical or pragmatic distortions. Consequently, post-editing cannot be reduced to surface correction; it demands interpretive competence and cultural literacy from editors. As O’Hagan [[O’Hagan,2020, p. 115] observes, «AI subtitling succeeds technically but fails socially» - a pattern fully reflected in this study’s dataset.

To mitigate the identified challenges, the following strategies are proposed:

1. Domain-Specific Glossary Creation – Building MT glossaries for cooking ingredients ensures lexical stability.
2. Context-Driven Rewriting – Editors should favor sense over word-for-word equivalence to maintain pragmatic coherence.
3. Cultural Localization – Replace culturally bound terms with functional equivalents recognizable to the target audience.
4. Morphological Verification – Apply grammar-checking tools (e.g., DeepL Write, Grammarly) to correct agreement and aspect.
5. Human-in-the-Loop Workflow – Combine MT speed with expert human supervision for balance between efficiency and authenticity.

The analysis of the English-to-Kazakh auto-translation employed a robust methodological framework, drawing upon Jeremy Munday’s taxonomy of translation errors to categorize linguistic faults. The primary goal of the study was to quantify the effectiveness of human post-editing methods, which prioritize lexical precision, idiomatic accuracy, syntactic coherence, and cultural adaptability.

Conclusion

The research demonstrates that automatically translated subtitles in YouTube food vlogs remain prone to semantic, idiomatic, and cultural inaccuracies. Purely algorithmic translation fails to convey the emotional and contextual richness of culinary discourse. Integrating human post-editing - especially through domain glossaries and cultural adaptation - significantly enhances translation quality. The study supports a hybrid approach where human expertise complements AI automation, ensuring accessible and culturally faithful global communication.

Moreover, the findings highlight the growing necessity of interdisciplinary collaboration between linguists, software developers, and media professionals. The implementation of food-domain lexicons in neural MT models could substantially reduce lexical ambiguities in the future. These insights may serve as a methodological basis for further research on subtitling quality in other informal genres, such as travel or lifestyle vlogs. Ultimately, this study contributes to the broader understanding of how technology and human creativity can jointly improve intercultural translation in digital media environments.

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