

Real-Life Technology and the L2 French Classroom: Online Translation Usage among Intermediate French Students

by Errol M. O'Neill

Introduction: the challenges posed by online translators

The expansion of the Internet in the past few decades has led to an explosion of resources available for free to the general public, including foreign language teachers and students. One controversial tool that many students are well aware of is online translation (OT). Online translators are freely-available, web-based sites that allow users to convert text, ranging from isolated words to multiple pages of writing, from one language to another. It was estimated in 2010 that over 500 million words were translated on OT sites daily (Koehn 2010). The existence of OT poses several issues for foreign language teachers, including the unknown effects of online translator usage on student writing and uncertainty about what to do in cases where OT use is suspected on graded compositions.

Online translators were originally intended as a demo of paid software translation solutions, or to offer a gist of a text written in a language the user doesn't speak, not as a tool for foreign language learners to write in their target language. In spite of this fact, SYSTRAN — the creators of Babel Fish — and others became aware early on that students were attempting to use OT to translate from their native language to the language they were studying (Yang and Lange 1998). This use of OT is opposed to the more typical use of translation: to take a text originally written in a foreign language and make it understandable to others by converting it into their native tongue (or another language they read fluently).

Concerns shared by some teachers faced with the existence and availability of OT sites include academic honesty (is it the student or the computer doing the work?), the anticipated poor quality of computer-generated text (will the text be worse than what a student would produce, or produce complete nonsense?), and ill effects on students' acquisition of the language (are the students really learning anything if they are having the computer translate all or part of their writing?).

Because of these and other considerations, online translators are often prohibited by language teachers. OT use in student writing is nonetheless believed to be widespread, with one study finding that 12 out of 18 students reported using OT on at least some assignments even though they were aware that their syllabus explicitly prohibited this (White and Heidrich 2013).

While some research had been done attempting to evaluate how well online translators performed on different text types, with varying results, no study was found specifically comparing OT-aided writing to that written by students without the help of a translator. In light of this and the fact that many students are aware of this easily-accessible technology, I decided to investigate the effects of OT use on composition writing among intermediate students of French to get at least a preliminary answer to two main questions:

- Do those writing with an online translator score better or worse than those not using OT?
- Can teachers identify correctly which compositions were written with the help of a translator?

Investigating the effects of OT use on composition writing

I chose the intermediate level for this study since I anticipated that these students would already have some basic knowledge of the French language. Because of this, participants might be able to reject more obviously erroneous output from the online translator, while still potentially benefit from any correct output that was produced.

In all, there were 32 students who completed all required tasks. Participants were divided into three groups: Group A, who wrote without using an online translator (the control group); Group B, with access to the OT site FreeTranslation <<http://freetranslation.com>> but having no prior training in its use; and Group C, who had access to OT while writing, as well as a prior 50-minute session with hands-on practice and discussion of some of the strengths and weaknesses generally associated with online translation.

In the first week, participants did a pretest, which involved writing a composition without the aid of online translators to check their levels before the experimental tasks; there was no statistically-significant difference found among groups. The next week, they attended either a general cultural lesson about the profession of translation (Groups A and B) or a training session about the use of online translators (Group C). In this way, all participants had the same number of contact hours during the study while only Group C received training. This was done to see if training would make a difference in their success with using an online translator.

Potential strengths of online translators covered at the training session included an ability to translate with some degree of accuracy:

- words that have one meaning in isolation ("television" / *la télévision*)
- words in context with a small number of common, distinct meanings ("I saw the man" / *J'ai vu l'homme*)
- common, straightforward expressions ("What a bummer!" / *Quelle déception!*)
- basic agreement with nouns and nearby adjectives and verbs ("She went" / *Elle est allée*)
- tenses that are the same between French and English ("I love the Internet" / *J'aime l'Internet*)
- gist of a sentence or longer passage

Participants also discovered a number of possible weaknesses with OT, including difficulties with:

- words that have a large number of meanings ("set" in English)
- specialized or technical words ("the escape key" on a keyboard isn't *la clef d'évasion*)
- most expressions and phrasal verbs ("What a drag!" isn't *Quelle drague!*; "She wrote it down" isn't *Elle l'a écrit avalent*)
- agreement with more distant nouns/adjectives, subjects/verbs ("She was, as you know, very intelligent" needs feminine agreement on the adjective)
- tenses that are different between French and English ("I've been doing...since" should take the present in French)
- misspelled and misused words ("their" / "they're" / "there" / "thier")
- proper nouns ("Bill's house" is not *la maison de la facture*)
- accurate, polished translations

On each of the two weeks following the cultural or training session, all participants wrote a composition. Groups B and C wrote theirs with the aid of an online translator, while Group A did not use OT. Lastly, a post-test composition was written without OT, which again showed no difference among the groups. The fact that the three groups did not have significantly different scores from each other on the pretest suggests that the main difference in any results would be due to what students did as part of the study, not a pre-existing variation in level between students. Since participants additionally had statistically similar scores on the post-test, the results suggest that their level in French at the end of the study was still similar when not using online translation to write. Each composition was scored by two instructors of French who did not know which compositions were written by which group; their scores were found to have a highly-significant interrater reliability (at the $p < 0.01$ level).

Study results

My study found that there was no statistically-significant difference among groups for the first composition. For the second composition, there was a highly-significant difference between the control group (Group A), which used no OT, and Group C, who used a translator after receiving training. Group C's average score was 25.364 points out of a possible 30, whereas Group A's score was only 20.650, a difference of nearly five points out of 30. Group B also scored higher than the control group, with 23.681 points, but this difference did not reach statistical significance. These results mean that students using an online translator did not perform worse than those who did not use OT; in fact, the group that used OT and training actually scored higher than the group not using an online translator.

Several factors might explain why the group that had online translator access and training outscored the control group on the second composition. First, it is possible that the more students became familiar with using the online translator as a tool to assist their writing, the better they got at using it. This could also explain why it was only the group that had prior training in OT use that scored significantly better on the second composition, and not the OT group that had no prior training or the control group.

Second, we can look at the six subcategories that were considered by raters for each composition. OT participants scored higher on grammar and spelling on one or both composition tasks. At the intermediate level, students may have enough knowledge of the language to reject egregious and perhaps even some small grammatical errors made by the online translator, while benefitting from correct structures they have seen but not necessarily mastered enough to produce accurately on their own. It is also unlikely that the machine would produce a word with incorrect spelling or accents in French, something that students writing on their own sometimes do.

Participants using the online translator also scored higher on comprehensibility and content. All students were given the same amount of time (50 minutes) to write the compositions. If participants using the OT delegated some of the mechanics of the language to the translator, this might have left them more time for planning and developing their content than their counterparts who did not use the translator.

There was no difference on vocabulary or syntax among groups. Word order, which was used as the main criterion for syntax for this study, can be a problem both for students and for online translators. As mentioned above, OT systems can also have issues with word choice due to an inability to parse context. Participants using the OT did not appear to see a beneficial or detrimental effect on their writing overall in these areas.

To summarize the findings for the first question of the study, we can say that there were four areas (grammar, spelling, content, overall comprehensibility) in which participants who used OT sometimes outperformed those not using a translator, two (syntax, vocabulary) in which there wasn't any difference detected, and no areas for which the control group did better than students who used a translator.

As for the second consideration — whether or not teachers could differentiate between OT and non-OT compositions — the results showed that 70.7% of the time, raters correctly classified the compositions they scored. While raters were able to judge OT use to a significant level ($p > 0.01$), there were also a large number of compositions (29.3%) that were incorrectly identified. Of the 256 ratings, there were 42 where OT use went undetected and 33 times that online translator usage was wrongly suspected (O'Neill, 2013).

Although it is important to stress that raters were successfully able to tell which compositions did or did not have text translated by OT at a rate that was statistically significant, it is also useful to consider what the raw numbers might mean in a classroom setting. If teachers are wrong almost 30% of the time about whether their students used an online translator in their writing, it makes it difficult to justify any penalties that might be handed out. A well-intentioned instructor wanting to

encourage students to develop their own writing without the use of technology by imposing penalties for OT use may end up meting out punishment on students who did not in fact use a translator, while other students who did translate some of their compositions may get off scot-free.

Rethinking our approach to online translation in the classroom

The results reported here represent the findings of one study; follow-up research is currently planned to delve further into the issue and to see whether there are any long-term effects of translation use on acquisition of the language (as opposed to scores on their compositions). Nonetheless, I believe these results strongly suggest that foreign language teachers and administrators should consider rethinking our approach to dealing with the issue of online translation. With the increasing inclusion of technology in our classrooms and homes, it has become unrealistic to believe that students do not know about or have access to OT. Whatever one's position is about whether or not students should use online translators, the fact that a number of them are doing so, combined with the rate of failure in correctly identifying OT among raters in my study, suggest that dealing with online translators on a case-by-case basis may not be an effective or fair strategy.

One approach that is gaining some attention (Williams 2006, Niño 2009, White and Heidrich 2013) is trying to embrace using online translators in the classroom as a way to teach students more about language. A few ideas include:

- Showing students the output from OT sites on isolated sentences so that they can see some of the mistakes machines make when processing language, leading students to a better understanding of linguistic features (polysemy, syntax, adjective agreement, etc.).
- Using parallel corpora, in which text from the original language is shown side-by-side with that of OT-produced text in the target language; students can try to figure out what the OT site got completely correct, what parts might require minor stylistic or other tweaks, and what portions were mistranslated (and why this might be the case).
- Promoting OT instead for one of its originally intended uses — the comprehension of texts in a foreign language — to allow students to understand the gist of more advanced texts, to expose them to the meanings of words in the target language that they may not know yet, and to whet their appetites for further study and exploration of the target language and culture.

Instructors do not necessarily need to promote the use of online translators with their students. Demonstrations of OT in the classroom could also be used to steer students away from its use, for example:

- Pointing out more humorous mistranslations from OT, accompanied by an explanation of the weaknesses of the technology to discourage their use, particularly at the beginning levels where students' conception of French and language in general is not as strongly developed.
- In a similar vein, having students input select French sentences into an online translator and having them convert the text to English to see examples of incomprehensible output in their native language, thus driving home real limitations of OT and encouraging students to work on their own or at least take a more critical approach to using electronic tools (instead of copying and entire sentences or paragraphs to be translated and pasted in to their writing, unread).
- Asking students to correct erroneous sentences produced by an online translator, to stress among students how much they already know about vocabulary and structures without the need to resort as readily to technology.

Acting as though online translators do not exist or issuing prohibitions against their use does not appear to be successful. Until more is known about how OT affects student writing in a foreign language, it is difficult to suggest one catch-all solution that would work for all contexts and instructors. Awareness about the availability and prevalence of online translation, familiarity with its strengths and weaknesses, and consideration of the fact that OT can go undetected or lead to better compositions in some cases are all important factors in informing our decisions about how best to serve our students and their linguistic needs.

UNIVERSITY OF MEMPHIS

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