The A(I)rt of Translation

by Corry Cropper (French, Associate Dean)

BYU students combine AI and human ingenuity to translate a French senator’s book.

“I trust you. You’re the experts!” French Senator Stéphane Demilly told our business French students while visiting campus in 2023. These students, along with students in our localization and translation course, were translating the senator’s book, *L’Alchimie des singularités* (Eyrolles 2022). They had asked him about the title: should they stick with a fairly straightforward translation, *The Alchemy of Singularities*, opt for something more explicit like *Blending Personality Styles to Make More Productive Offices*, or something broader, like *Managing Effective Teams*?

The vast differences of those titles in English might seem extreme, or barely related, but such are the nuances translators face every day, and understanding how to discern between those options to choose what best communicates the author’s intent is a primary objective of some language courses at BYU. Beginning in 2023, my colleague, Professor Yvon Le Bras (French Language and Culture), and I started teaching several classes of students how to translate using a combination of AI, student revisions, and faculty feedback, with the senator’s book as the source—a project that would ultimately benefit both the senator and our students.

FROM MOSQUITO BITE TO TRANSLATION PROJECT

The story begins several years ago. Along with his work in public service, Senator Demilly has run a consulting firm for many years, training corporate leaders in team-building principles. During one of his consulting trips to the Ivory Coast, Senator Demilly was bitten by a mosquito and infected with cerebral malaria. He slipped into a coma for several weeks, and upon regaining consciousness, he had to relearn many things. The experience profoundly changed him and led him to study the connection between the brain and various leadership styles. His consequent book examines the functioning of the brain, personality preferences, and leadership.

Professor Le Bras and I met Senator Demilly in 2021, when he came to BYU during his state visit to Utah. He invited us, in turn, to visit him in the French Senate in Paris the next summer. When we met with him during our subsequent trip, he asked us to consider translating his book into English. Professor Le Bras and I instantly recognized an amazing opportunity for our students and accepted on the condition that our students could be heavily involved in the process. Senator Demilly agreed without hesitation.

AN ARTIFICIAL INVASION

The rising capabilities of artificial intelligence have vastly affected every aspect of humanities inquiry, including language work. We therefore decided to lean into artificial intelligence and help our students learn to use tools like DeepL (to provide an initial translation) and ChatGPT (to help improve the translated text), both to test the quality of the AI tools and to help our students gain skills utilizing tools we knew would only gain more traction in our field. Since the senator’s book is peppered with wordplay, quotes, idioms, and cultural references, beginning the process with machine translation allowed students to focus on post-editing—the work done to humanize machine translation and adjust for cultural differences.
Over the course of the 2022–23 school year, Senator Demilly met—remotely and in person—with students enrolled in our French localization and translation course and in our business French course, answering their questions and brainstorming with them as they worked on the translation project.

Our first task was to familiarize students with translation apps, helping them learn the strengths and weaknesses of the automated process. We produced a rough, AI-translated version of the senator’s book.

Students were then tasked with postediting portions of the book. We assigned students to compare the machine translated text with the original, identifying problems in wording, tone, idiom, etc. and proposing solutions. Students with the same assigned passages then met together, hashed out the best edits, and entered these revisions into a shared document.

Next, we hired a student research assistant to read the entire translation and ensure that terms were translated consistently and the text was coherent and readable in English.

Then I went through the entire book and did another edit, clarifying passages that are incomprehensible outside a French context and preparing the book for a final copyedit.

TRANSLATION IN PROCESS
Throughout the process, we encouraged students to be “courageous” translators. By this we meant that students would need to exercise faith by leaving behind literal translations in favor of language that would resonate with English readers and reflect the meaning in an English-speaking culture.

For example, in the French original, Senator Demilly discusses the pros and cons of the IQ test, playfully dissecting two popular French insults: “Tu as le QI d’une huître!” (you have the IQ of an oyster) and “heureux comme une palourde” (happy as a clam).

For those of you who know French, here is the passage in question: “À ce stade de ma présentation, je voudrais réhabiliter l’honneur de deux mollusques marins bivalves: l’huître qui n’a jamais passé le test du QI, contrairement à ce que prétendent les mauvaises langues . . . et la palourde, dont la durée de vie peut être de 500 ans, de quoi clouer le bec aux hauts potentiels intellectuels!”

And here is the AI translation of the passage: “At this point in my presentation, I would like to defend the honor of two objects that are often held up as models of stupidity: the oyster, which has never taken the IQ test, contrary to what the naysayers claim, and the clam, whose lifespan can be as long as 500 years, enough to shut up even the most pretentious geniuses!”

Our students edited the same passage as follows: “At this stage of my presentation, I would like to defend the honor of two objects that are often held up as models of stupidity: the oyster, which has never taken the IQ test, contrary to what the naysayers claim, and the clam, whose lifespan can be 500 years, enough to shut up even the biggest geniuses!”

Our students updated the AI translation by capturing the rhyme present in French. Ultimately, we opted for a well-known adage in English that communicates the same idea rather than aiming for a literal translation of Homer. As a bonus, Turner’s quip contains a nice rhyme, paralleling both the French translation of Homer and our students’ rendering of the saying.

Finally, here is how we updated the passage: “At this stage of my presentation, I would like to defend the honor of two objects that are often held up as models of stupidity: the doornail, which has never taken the IQ test, contrary to what the naysayers claim, and the bag of hammers, which can prove useful for building any number of necessary items. This evidence should suffice to shut up even the most pretentious genius.”

In the context of the chapter, Senator Demilly is trying to undermine conventional thinking about intelligence. A literal translation that includes oysters and the IQ test makes no sense in English. Though we say “happy as a clam” in English, the implication in French is that the clam is happy only because it is too stupid to know better. As in the original, we took common objects that are stand-ins for low intelligence and defended their utility, or their “honor,” as the senator writes. In other words, we opted to use expressions that communicate the same meaning in English, even though they’re not literal translations.

Here is a much shorter example:

French original
“Ceux qui se ressemblent s’assemblent.”
—Homère (fin du VIIIe siècle avant J.-C.)

AI translation
“Those who are alike, come together.”
—Homer (late 8th century BC)

Student edit
“Those who resemble, assemble.”
—Homer (late eighth century BC)

Professor edit
“Birds of a feather flock together.”
—J. M. W. Turner (1775–1851)

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Finally, here is a passage describing cold, calculating leaders in the mold of Charles de Gaulle:

Original
“L’incompréhension nuisant au rendement du temps, ils utilisent plus la communication froide que la communication chaude, davantage les mots que les intonations . . . N’aimant pas les périphrases tout en étant parfois « rabat-joie », ils sont effectivement plus centrés sur le contenu que sur le contenant, sur la communication verbale que la non verbale. Ce laconisme et cette brièveté sont parfois perçus comme de la directivité, de l’autorité ou de la maladresse.”
The project gave our students real-world practice as they puzzled over thorny linguistic challenges.

Machine translation
“Since misunderstanding is detrimental to time efficiency, they [people who think like de Gaulle] use cold communication more than warm communication, words more than intonation . . . Disliking periphrases while sometimes being a ‘killjoy,’ they are indeed more focused on content than container, on verbal communication than non-verbal. This terseness and brevity is sometimes perceived as directiveness, authority or clumsiness.”

Student edit
“Misunderstanding harming the performance of time, they use cold communication more than hot communication, more words than intonations . . . Not liking periphrases and sometimes being ‘killjoys,’ they are indeed more focused on the content than on the container, on verbal communication than non-verbal. This laconicism and brevity are sometimes perceived as directness, authority or awkwardness.”

Professor edit
“Since misunderstandings waste time, they prefer blunt communication to emotional expression, more clarity and less nuance. Uncomfortable with wordiness and sometimes seen as ‘killjoys,’ they focus on content more than delivery, on verbal communication more than the non-verbal. This curtness and brevity are sometimes perceived as bossy, authoritarian, or awkward.”

This paragraph’s original text is 71 words long. The AI reduces it to 58, and the finished product is just 50 words long. Where French frequently repeats prepositions, English does not. French also requires conjunctions that are usually dropped in English. Changing word order serves to further shorten the English passage. While AI gets some of this, humans still have a gift for concision that apps lack.

THE FINISHED PRODUCT
In the end, our students learned both how AI can be helpful and what its current limits are. They learned to be more courageous translators, to adapt—or localize—the text for a culturally and linguistically different readership. The project gave our students real-world practice as they puzzled over thorny linguistic challenges; Senator Demilly will use our translation in his trainings going forward. What’s more, our students were able to meet and collaborate with a French senator who, prior to his time in the senate, served as a mayor and as a member of France’s National Assembly. A number of them have since met with him in the Palais de Luxembourg, the home to France’s senate.

As for the final title of the senator’s book, we’re sticking with The Alchemy of Singularities.