Design as Translation, Translation as Design: Toward Critical, Creative, and Ethical Pedagogies

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Abstract

The practices of technology design and translation are both socially and culturally situated activities, requiring creative problem-solving and deep understandings of how artifacts fit the constraints set by various stakeholders and contexts. However, especially in HCI courses within computing departments and translation courses in language learning contexts, students are often taught to conform to pre-existing norms and frameworks of rote mechanics due to time and resource constraints on the class. Within these contexts, the question that HCI and translation educators now face is: How can we teach our students to become critical, ethical, creative, and reflective practitioners in their respective fields? We believe that co-analyzing the fields of design education and translation can provide actionable insights into HCI and translation pedagogy. In this provocation paper, we present a narrative dialogue around the intersections of design and translation to explore how each of them might inform the other in educating more critical practitioners. We aim to inspire future work in critical HCI education and creative translation education, enabling a future where our students are better equipped with the tools necessary to take responsibility for their creative decisions.

CCS Concepts

• **Human-centered computing** → **Human computer interaction (HCI)**; *Interaction design theory, concepts and paradigms*; • **Social and professional topics** → *Computing education.*

Keywords

HCI education, Design education, Inclusive design, Translation studies, Language pedagogy, Translation education, Narrative dialogue

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1 Who are we? Why this topic and this format?

AO: I've been in the human-computer interaction (HCI) education space for several years now, always with a focus on how we can help our students become more ethical and critical practitioners. I don't have formal design training — my background is more situated in computing and HCI. However, I've spent a lot of time teaching, researching, and advocating for design in contexts where it has never been an "easy sell" to students, colleagues, or even peer reviewers. This deeply motivates me to explore design's connections to other disciplines. When describing what I do, I've often phrased my work as "translating" design concepts to non-designers. So, I was immediately interested in your expertise in translation. I don't know much about literary translation, but it seems like our disciplines do overlap in some aspects, especially in how we try to introduce these ideas to novices.

LT: I come to this project with training and background in literary translation, Japanese and comparative literature, and a smattering of digital humanities training. The courses I teach are centered in Japanese language acquisition, translation, and literature as it relates to popular culture, affect, and gender and sexuality. This also means that I'm quite unfamiliar with the field of design, especially in the context of computer sciences and human computer interaction, though I've done a great deal of thinking about book and website design in terms of affect. I knew, however, when you and I started chatting about a possible project, that I wanted to broaden my work to be more interdisciplinary and to think especially about creative and novel approaches to translation and, as it turns out, language pedagogy as well. I'm interested in how far the definition of translation can stretch and how the stretching therein can lead to possible approaches and frameworks for understanding broader categories in the world.

AO & LT: This work is informed by feminist standpoint theory approaches [1, 19] which claim all knowledge is situated, and pragmatist approaches which judge the value of an idea or product by its impacts upon people [23]. We both want our students to become more critical and ethical practitioners and be able to situate their creations within the broader world. The narrative dialogue format, popularized by bell hooks [20] and used in both computing education [33] and literary studies [10, 15] allows us to place our two disciplines in conversation through a kind of freeform, longform collaborative interview.

We began this process by co-considering the questions *How is user interface design an act of translation?* and *How is translation an act of design?* through conversations over multiple weeks. Then, when we felt we had identified enough salient themes, we recorded a long conversation covering each in detail. This paper

Theme	in HCI Education	in Translation Education	Takeaways
Fidelity/ Faithfulness	Fidelity describes a prototype's level of accuracy relative to the "final" outcome. Students progress from lower to higher fidelities.	Faithfulness describes how well a translation captures ideas, forms, and styles of the original text. High faithfulness is considered the end goal.	Both relate to "doneness" and are defined with respect to sociocultural factors and goals.
Stakeholders/ Audience	Stakeholder needs inform design requirements, which shapes outcomes. Perceivability of interaction affordances varies by stakeholder group.	Stakeholders vary in knowledge and goals, which shapes translatorial approaches, esp. with regard to a text's "roughness" or "smoothness."	Users and readers are not monoliths. Variations among who interacts with the final artifact and how they interpret information influence artifact form.
Conforming/ Rule-Breaking	Tensions arise between creative values and conformance to design standards. Exemplars can provide guidance.	Broad knowledge bases help highlight contextual differences in translation styles, especially in register.	Successful "stealing" or mimicry relies on a thorough understanding of audience and context.
Rationale/ Notes	Explicitly documenting rationale supports high quality designs. Lived experience is not always valid evidence.	Translators' notes document rationale but also describe how they almost invariably "fail" to capture the original text.	Design and translation are both value-laden processes, but subjectivity is more recognized in translation contexts.
Binaries/ Nonbinaries	Computing students are more often trained to solve small, well-defined problems than large, complex problems. Verifiability goals encourage optimization.	Grammatical correctness goals in language education encourage conformance to a specific syntax, even though there are many ways to communicate the same idea.	Neither set of students is well-equipped to engage with nuanced "wicked" problems at the core of many design and translation processes.
Failing/ Learning	Computing students are often hesitant to take risks or be "wrong," hindering ideation and understanding of the design problem space.	Advanced translation students generate more alternatives than beginners. Peer engagement helps illustrate that "different" is not "wrong."	Effective problem-solving education should provide space to disentangle correctness from success and learning.
Production/ Reproduction	Design work is generative (productive). Students often fail to see how they will use design skills in future careers.	Translation is framed as non-generative, which impacts authorship rights. Translation work is not always seen as economically viable.	Feminized labor ("creative" design work; "reproductive" translation) is often devalued, reducing perceived weight of real-world impacts.
Defeatism/ Hope	Creating ethical technology is difficult, so computing students may give up. Time constraints make it difficult to treat structural issues with nuance.	Translation has been used as a historical tool of oppression, similar to tech. Certain contemporary translators give examples of how to make resistance visible.	Problematizing long-held worldviews can lead to nihilism. Successful critical education should support hope by providing ways to practice actionable resistance.

Table 1: High-level themes and takeaways about intersections of HCI and translation education arising from the narrative dialogue. Themes in the first column correspond to the following paper sections, in order.

emerges from edited transcripts from that conversation. We provide headings, loosely organized by themes, in an attempt to improve readability of the conversation (Table 1). However, we recognize that the boundaries of many of these concepts are blurry and can't be fully excised from each other.

This provocation is part of an ongoing project to develop interdisciplinary pedagogical methods to help novices become more critical, ethical, creative, and reflective practitioners in their respective fields. We hope that this conversation will speak not only to HCI educators and researchers, but also to translation educators, and possibly also language educators, interested in helping students better situate their work and production in real-world contexts. Throughout all this, we recognize that our positions as post-secondary academics carry an amount of privilege and limit our insights, so we hope that this will be the starting point of a broader interdisciplinary conversation, so more perspectives can be brought in.

AO: During our discussions, I noticed some shared terminology — Words that were the same across both disciplines but meant different things in context. This might be a good place to start to build some shared understandings.

LT: Yes, the notion of language in both our fields interests me. In my translation course, we begin by attempting to define "translation," and many students come to the table with a very strict definition: Translation is the transformation of a text in language A into a text in language B. However, as is implied by the ways we deploy the term "language" in other fields, humans also conceptualize non-linguistic languages — music, art, mathematics, design, dance, computer programming. When you consider the idea of translation in these new contexts, the question of how one translates, of how one translates "correctly" becomes stickier.

AO: Absolutely. HCI researchers have explored language in the recent past, looking at how theoretical concepts are translated into practice (c.f. [6, 18]). We've even seen some recent HCI education work that leverages language as a lens to understand ethical design practice [17]. That work is more focused around how designers articulate their processes, though. While that's certainly important, I think this discussion is more centered on conceptual overlaps between the practices of design and of translation, with the hope that this will reveal some insights for teaching and learning.

2 Fidelity / Faithfulness

AO: One word that came up early in our discussions was *fidelity*. In HCI, at a high level, fidelity describes the level of accuracy different elements of a prototype are to the imagined "final" outcome of the design process [25]. In HCI classes, we tend to have students start prototyping with lower fidelity representations like sketches, then move along to higher fidelity representations as they refine

their ideas. In reality, most designers iterate between low- and high-fidelity representations as their ideas take shape. However, due to time constraints in HCI courses, we usually have to present it as a linear process from low to high fidelity so students can get some experience with multiple prototyping methods by the end of the course.

LT: That's interesting, because in translation, we'd call that the process of *editing*. Not all translators work with the same flow, but at least for me, I always start with a complete rough draft — an ugly, messy conglomerate of the text — and from there I refine and refine until I'm more or less satisfied, though the nature of translation is that you'll always find something you wish you'd done differently. That process of refining the translation is done with the intention of producing a "faithful" text: A text, to borrow design parlance, that is high fidelity.

The tautological understanding within translation is that the more faithful your translation, the greater your fidelity, the better the translation will be. But what is actually meant by faithfulness? Is it more true to have translation that is word for word, in an almost mathematical form of equivalency? If I translate the rote phrase "*Yoroshiku onegai shimasu*" using this one-to-one approach, what literally comes out the other side is "(I) goodly and humbly request," which I think we can agree is not what is intended by notions of "faithful" or "fidelity."

AO: Sure, that mechanical approach doesn't seem to fit in all cases. In a way, fidelity also seems to touch on the idea of audience, because the fidelity of something is always defined with respect to something else — it's a subjective measure based on an imagined or intended outcome.

LT: Right? The question becomes, what are we "faithful" to? What "fidelity" are we maintaining? Does this idea, in the context of translation, mean you need to be faithful to the words on the page? Or do you need to be faithful to some incredibly subjective understanding of what the text is and does? And how do you — or can you — even differentiate the two?

3 Stakeholders / Audience

AO: So, pulling on that thread, let's think about audience as a shared concept. As designers, we could extend the faithfulness idea to ask ourselves, *"Who or what are you trying to be faithful to?"* In HCI, we have stakeholders — clients and people who are impacted by your creations, directly or indirectly [14]. Some approaches even go beyond humans as stakeholders, including the environment or animals [2, 13] as stakeholders too. I'm curious — who would you say the "stakeholders" are when you're doing translation? Is there an analogue?

LT: Certainly. In translation, I think Skopos theory [31] enmeshes similar ideas. The publisher is a major stakeholder — when you take on a literary translation, you're thinking about what the publisher wants and how best to balance those expectations with your own understanding of the text as well as the craft of translation. Sometimes, I might consider questions like, "Will the publisher — or more specifically, the editor — let me get away with a bold translation choice here or am I going to get a note back?"

Another stakeholder is your imagined audience: The readers who will pick up this book and immerse themselves in it. Considerations there are things like, Is this a mass market publication? Will you see it in airports? Or is this for a smaller dedicated literary audience that is passionate about international literature? Or is it an academic translation which will be read by other experts in the field? The answer may change the choices you make as you translate.

And then, obviously, the author of the original work is also a stakeholder. They may have strong opinions about how the English should sound. They may go over your every choice with a fine-toothed comb. Or they might not care at all.

AO: That notion of "imagined audience" reminds me of affordances, which are usually described as action possibilities embedded in objects or environments — some aspect of form that indicates to users how they're supposed to interact with it. Recently, there have been some critical takes on affordances that move beyond the question of *What does this artifact afford?* and integrate the nuance of *For whom does the artifact afford that?* [9]. When I used this additional question in my most recent course, I found that it really helped students "mark" their users in Costanza-Chock's design justice sense [8]. It reframed discussions from simply "Is this interface usable?" which lacks nuance, to questions like "Who has the prior knowledge, resources, or capabilities needed to successfully interact with your design? And who doesn't have those?"

LT: "Form" is another one of our disciplines' shared terms, though it's a bit more fraught in literary studies, with many conflicting definitions and understandings [12, 30]. Because I work with poetry, I think a great deal about form and the way it can both constrain and encourage creative problem solving. To give an example, when you're talking about something as vast and many-faceted as Twitter literature, the form of the Tweet becomes its most defining feature. In the context of Twitter novels in Japan, though they span a wide variety of genres and styles, they are (or rather, were until character limits were redefined) unified by the limitation of their 140-character form. And that limitation made for works that needed to be immediately graspable — they didn't have the same kind of room a novel has to build and expand over pages or chapters.

I use the words "rough" and "smooth" in my own research [37] to describe these kinds of graspable forms of literature. I use "rough" to refer to texts that are supposedly easy to understand — mysteries, romances, thrillers. These kinds of texts are popular, like popcorn. They're considered very digestible, very graspable. In contrast, a smooth text might be something like James Joyce, where there's not a lot for a reader to easily grasp onto. Taking the metaphor further, the rough text is akin to a beginner-level climbing wall, while a smooth text is for Olympic-level climbers only.

AO: I have a hunch that this idea of rough and smooth is something we'll draw upon as this project moves along. To be effective, affordances have to be *perceivable* — they almost need to be that "rough" digestible popcorn so people can understand the interaction potentials. If an affordance was completely "smooth," it wouldn't be very useful at all, because no one would be able to metaphorically grasp it. I'd imagine that "smoother" affordances probably correlate with lower learnability of interfaces and maybe also with more minimalistic interfaces.

LT: I think, too, that those notions of "rough" and "smooth" are quite subjective, which brings us back around to situatedness. My standing as a professor of literature means that I've received a great deal of training in how to read texts, how to approach,

consume and analyze them, so a text that may feel graspable to me may not necessarily feel graspable to, for example, my grandfather, who almost never reads fiction at all. And I think this is perhaps applicable in design to a certain extent, right?

AO: Sure. One concrete example is the hamburger menu icon[1] that is common in mobile site design nowadays. When my students are prototyping, I remind them that if they choose to use that icon, interacting with it had better result in a menu or sitemap, and if it doesn't, users will get frustrated because it subverts their expectations. However, there's an element of subjectivity and lived experience to that. Your grandfather probably doesn't have the same connotations for the hamburger icon as me and my students. This representation might be "rough" for us but too "smooth" for your grandfather to interact with easily.

LT: Oh, it definitely is.

4 Conforming / Rule-Breaking

AO: On that note of subjectivity, I've seen my HCI students struggle to delineate between when they should follow rules versus when they should break them. There's a lot of rhetoric in design spaces around creativity, novelty, and uniqueness. At the same time, you don't want to create something *too* wildly novel, because users might get confused. There's a normative pressure to mimic design elements from popular technologies, or to follow conventional design patterns, so that you can leverage users' implicit prior knowledge. Do you see these tensions — between creating something new and holding to convention — arise in translation as well?

LT: I think yes, because every culture has certain literary and writing conventions. There's a pose one takes when one is writing, for example, hard-boiled detective fiction, which sounds very different from someone who's writing a history of George Washington, which again sounds different from a book by a comedy writer. One of the things I was often told by my translation teachers was to read widely: "Do you translate poetry? Doesn't matter. You still need to be out there reading nonfiction, reading novels, reading cheesy mysteries." Reading only poetry will hamper your abilities as a translator. You need to be reading all sorts of literature and writing, because all of that will inform you and give you more tools to play with. Is there a similar concept for HCI?

AO: Definitely. It takes some time to help students develop the proficiency to recognize not just *that* something is a good design, but *why* it is a good design.

LT: But good for whom precisely? And in what way? That notion of "good" is a tough one because it comes back around to subjective standards and expectations.

A1: Oh, for sure. That's something my students wrestle with as well. In the same sense that your teachers told you to read widely, I try to expose students broadly to what other designers are doing by showing them as many real-world interface examples as possible. It helps them learn to mimic successful examples and develop that sense for what is "good" at the same time as they're learning the principles that support "goodness."

LT: I think the purpose that serves is to help you understand the norms at play in various formats and styles, so that you can go on to mimic some of that material when you need to. For me, mimicry is an important part of translation practice. It implies the ability to understand why something sounds the way it sounds, and then to reproduce that impression in your own translation, even when you're working across different languages and media. If I can identify, for example, iambic pentameter and understand how Shakespeare used it, that's a potential tool in my kit for translating something that sounds particularly lyrical in the Japanese, even though they have no equivalent of iambic pentameter.

Another example comes in the form of what is often called "register," which actually correlates very nicely between Japanese and English. "Register" refers to the level of formality a text takes — almost a form of code-switching, if you will. We know that we'll speak differently at a formal ceremony than we will just shooting the shit with our friends, and our vocabulary and diction matches that situational awareness.

With Japanese, because all state and religious business was conducted in Chinese until the modern period, Chinese-origin words and grammatical constructs retain an air of erudition even now, in the same way that Latin and Greek-origin words do for us. Understanding the historical and lexical connotations between the words "glowing" and "incandescing" prepares translators to better meet the demands and problems they'll find in their texts — they understand how to mimic those differences.

AO: We also have a similar notion that "good designers steal" or mimic others to some extent. Remixing [27] and bricolage [39] are used as problem-solving and ideating strategies: You take bits of pre-existing designs and combine them, adding your own perspective and adapting to your own constraints, to see if you stumble across an answer to your design problem.

LT: Like collage or pastiche?

AO: Yep, exactly. The more examples they have access to, the more they can start to compare the efficacy of different design elements and apply those understandings to their own design contexts.

5 Design Rationale / Translator's Notes

AO: Subjectivity also seems to come up in how practitioners approach technology. In broader culture, technology tends to carry perceptions of objectivity [3] and authoritativeness [26]. My response to that has always been that we need to center the fact that *humans* design technology, and humans embed their biases into the things they create, whether they intend to or not [14]. According to my most recent paper reviews, that's sort of a radical idea in HCI education. But it doesn't sound like it is in translation, right?

LT: Not for those versed in translation, no — though as the anecdote about my students understanding of translation implies, that may not be true for the broader population. But when it comes to the subjectivity of translation and choice, translators are often (though not always) afforded the space to explain their translation choices through a translator's note at the beginning or end of a book. These notes can take a lot of different forms: historical background, author biography, the context of the work. But they usually include, either briefly or lengthily, the translator's explanation of how they approached the text.

AO: Oh, interesting. I think the closest thing we'd have to translator's notes is the idea of design rationale documentation, where you explicitly justify your design decisions.

[1] https://en.wikipedia.org/wiki/Hamburger_button

LT: When a translator explains themselves in a note, they might cover concepts like how they approached the formal concepts of a poem (for example, with haiku, the famous five-seven-five syllabic construct and how the translator situated that in lineation.) Or a translator might address their choices in relation to the various culturally specific aspects *in situ* (for example, the choice to more freely translate epithets in Classical Greek drama). Or they might discuss their understanding of the style and message of a work and how that impacted their translation choices. (Did the translator, for example, read Gregor Samsa in Kafka's *The Metamorphosis* as a sympathetic character or as a complete villain?) If the work has been translated before, this is also where translators will justify the existence of their own translation by listing the ways in which their approach is novel and provides new insights to a text.

And almost invariably, translator's notes include an enumeration of how the translation fails. In these *mea culpas*, translators will often discuss aspects they found untranslatable or things they had to forego to make a text more readable or to achieve other, more important ends. Implicit in the translator's note is that mode of subjectivity and situatedness we're getting at. "I translated this work in this way, but it could also have been translated in this way or that way. By using my own way, I am bringing my own assumptions, aesthetics, and failings to the table." And you've talked about how there's not really a similar practice in a lot of design work, right?

AO: That's neat that there's space to express all those nuances. Yeah, the tone of rationale documentation seems quite different. It's typically framed more as how you met the client's requirements or how you addressed insights discovered in user studies. Even though you might write, "Our team made this decision because of what we learned from our user studies," you typically wouldn't say something like "Our team chose to do this because of our own lived experiences and personal knowledge." You also probably wouldn't have the same kind of *mea culpas* discussing failures in reasoning, because these documents are meant to be used more for justification than elaboration. These documents almost make the designers' own positionalities transparent or invisible so that requirements from clients and insights from stakeholders can shine through.

6 Binaries / Non-binaries

AO: Based on my experience teaching HCI in computing and engineering departments, I think the way we train these students to problem-solve actually harms their potential to be effective designers at all, much less creative, critical, and reflective designers. As a very simplified example, introductory programming students are usually taught prescriptive problem-solving approaches: Break down the problem into small, easily comprehensible parts ("modularization"), represent each part in a way that a computer can understand ("abstraction"), and write code to make the computer perform the steps that give you the correct output. And the output of your program is verifiable: Either your solution gives the correct output, or it doesn't. There's not a lot of room for nuance or ambiguity there.

LT: We have this same problem in second language education. At first, limitations in vocabulary or grammatical structures mean that students are very limited in what they can say, but even as they learn more words and structures, many pedagogy models are framed in somewhat absolutist terms: Students must make an utterance using the target grammar, and any other utterance is deemed incorrect, even if whatever they've said conveys the same fundamental idea. To give a concrete example, we have a lot of ways we can express affection for a pet dog: "I love my dog!" "My dog is the best!" "My dog is such a good boy!" "I don't know what I'd do without my dog!" But if the target grammar is in that last sentence, then the other sentences are automatically "incorrect" because they do not utilize that target grammar, even though they express similar sentiments. Learning new grammatical structures is important, yes, but so is communication, and I often worry we don't weight the latter element enough.

AO: I agree. In my field, I think part of this issue is due to the fact that we work with such limited, literal machines. Code needs to conform to particular syntactical patterns so that the computer can correctly carry out your instructions. There's a bit of room for creativity in exactly how the code is structured, but at the end of the day, you need to make your solution legible to a machine that can't extrapolate or interpret in the same ways humans can. In this way, we're almost training our computing students to ignore humans and prioritize machines. That doesn't set them up well to do *any* sort of human-centered work like we do in HCI.

LT: These absolutist frameworks are certainly detrimental to the problem solving that translation and design demand. In the case of translation, because students have been taught such a rigid understanding of how two languages relate, they have difficulty seeing beyond those frameworks. So at the very start of my translation class, many of my students expect that there is one "correct" way to translate any text I give them, but what I need them to understand is that there is no "correct" translation. There may be an "incorrect" translation, certainly, but correctness is a matter of perspective [21, 28, 41].

AO: Absolutely — the world is multifaceted, and what is correct from one standpoint might be incomprehensible from another. Designers often use the term "wicked problems" to describe open-ended, complex, multi-stakeholder problems [32]. Similar to what you mentioned, there are usually "incorrect" solutions to wicked problems, but they won't have universally correct solutions. Most meaningful design problems are wicked problems. And because most computing and engineering students usually only have exposure to design problems in their (usually singular) HCI class, our courses might be the first places they've encountered open-ended problem solving.

Wicked problems also can't be optimized for in the same way that well-defined problems can, which is another reason I think computing students struggle with them. Advanced computing students learn to *optimize* the programs they create for things like algorithmic efficiency, minimal runtime, and minimal memory space. These concepts are important for the machines the code runs on, but they don't always map to human values. On the other hand, wicked problems feature stakeholders with competing needs and conflicting constraints. As a result, designers often have to *satisfice* [36] when they are problem solving — to decide which aspects of the problem are most important to solve, and which constraints they can safely and ethically ignore. What do you think, do translators optimize or satisfice?

LT: Oh, almost exclusively satisficing. That goes back to that concept of *mea culpa*, in a way. No one translation can capture every single aspect of any given text. You have to weigh and decide on what's most important to you and grow comfortable with letting other aspects of the text diminish.

But I love the word "satisficing" because in the standard rhetorics of translation, the framework we almost always come back to is one of "loss" [24, 40], so much so that "lost in translation" is a cliche in English. But satisficing, to me, carries an implication that "you did enough. This is enough." The focus is less on insufficiency and more on the work.

7 Failing / Learning

AO: It seems like these educational structures we're discussing are training students to be comfortable with well-defined problems, perhaps at the expense of their ability to reason through wicked problems. So, how do you think we might we help our students develop more effective problem-solving mindsets?

LT: Even in having them scaffold out their translations, I start by having students produce a trot, which is where they list all the possible ways each individual word in a sentence could be translated. Usually, beginner students offer only two or three possibilities, but there are often many, many more options available, options beyond the dictionary definitions of each discreet word. And students are really uncomfortable with the idea of moving outside of those boxes they were given early on in their language learning, even though limiting their options to only two or three words really hampers their ability to approach their translation problems with more creative solutions.

AO: Absolutely. I've noticed that discomfort in my students too when I ask them to brainstorm multiple solutions to a problem. And we definitely want them to push through the initial discomfort — familiarity brings conventional ideas to the forefront of most peoples' minds first, but if you ask them to keep generating alternatives, they'll start to move beyond the initial limits of their perspectives and come up with more creative solutions [11].

And sometimes my students are so hesitant to take risks when they first enter my classroom! Embracing the concept of productive failure [22] is an essential part of developing design competence, in my opinion. Every time you brainstorm an idea that fails to meet important constraints, you're getting better at articulating the bounds of the problem space. Every time you run a usability evaluation and the results aren't what you anticipated, you're learning more about the bounds of the solution space. And coming up with a solution that addresses a complex problem well is really just an exercise in finding the most fit point possible in the intersection of those two spaces.

If students get stuck on the notion that failure is strictly a bad thing, it hinders their design learning. Of course, traditional educational structures aren't really set up to support productive failure, since they're so focused on assessing objective correctness. So I don't fault students for their lack of experience with it. I just think it makes adapting to the kinds of problem-solving we do in HCI and design classes a lot more difficult.

LT: Yeah, I experience that fear of risk in my translation classes, but it's even more evident in language classes. I think a great deal about how to reward students for risk-taking, because in my own pedagogical training, there was only ever the punitive side of evaluation, by which I mean, if you misuse new grammar, you will lose points. But in the actual process of producing language, this means students will often reach for the safest phrasing or utterance for an answer rather than experimenting with the new tools I've given them. I'm curious in your classes how you start helping students overcome that fear of experimentation.

AO: I've found peer feedback to be a good first exposure to subjectivity for students. Realizing that peers have different perspectives and assumptions — none of which are necessarily right or wrong, just different — can start breaking down notions of objectivity and complicating the ideas of "success" or "failure." Plus, when that learning comes from peer interaction rather than from me, I think it leads to different understandings. My role in the classroom is implicitly that of an authority figure, whereas their peers are colleagues. Have you used this technique at all in your contexts?

LT: Yes, in the translation classroom, we have workshops that are quite similar. I assign students the same text to translate, then I ask them to bring in their drafts, along with a translator's note that tells us what they wanted to achieve with their translation. Then we discuss as a class. So, when we are critiquing, we're doing it through the lens of what the person wanted to achieve and trying to help them work toward that goal.

In that translator's note, I also have them talk about things they had difficulties with, so we all understand where the workshopper is asking us to focus our attention, and we can collectively think and talk about possible solutions. And because students are all working, initially, on the exact same text, they can see all the ways their classmates chose to interpret and translate, which exposes them to just how many different possible solutions there are to the same problem.

AO: Yeah, there's something about having a shared artifact of analysis and bringing everyone's perspectives to bear on it that seems to help students start thinking outside their own heads. I've touched on that idea in some of my prior work [29]. Having students engage deeply with their peers' perspectives can really start to broaden their worldviews quickly.

8 Production / Reproduction

AO: Another challenge I've seen come up around teaching HCI ideas to computing students is the mismatch between their perceptions of the discipline and what design work actually entails. Most of my students enter my classroom thinking that good design is "artsy" or "subjective" and that those terms have negative connotations. I then go on to tell them that design work is best done with teams to surface many perspectives, and that their design decisions can embed bias. Now, computing and engineering are fields that promote traditionally masculine-perceived ideals like objectivity, individualism, and competitiveness [38]. In contrast, the terms we use to characterize design work — communal, subjective, and so on — are more aligned with feminine-stereotyped traits. I think this plays a part in why some students seem to devalue HCI or write it off as an "easy" topic.

Since design and creative work is stereotyped as feminized, it also tends to be viewed by students as less economically viable.

I feel like I constantly have to make that economic argument to motivate students to care about HCI. I remind them that design isn't just about making things *pretty*, it's about making them *usable*, and that no one will buy a product that's not usable. I really do believe that the skills they learn in this course will help them in their future careers, so I tell them that it will help make them a more competitive job candidate. I get that the job market is rough right now, and they want to maximize their chances. But on the other hand, I'd wager the instructors of the introductory programming course don't have to convince their students that their content is worth learning.

LT: And that feels even more frustrating to me because many corporations and companies say in their recruiting materials that they are seeking employees with skills in creative problem solving. Translation, too, is one massive creative-problem-solving endeavor. The fundamental act of translation is asking oneself how to achieve similar effects between two disparate languages when there is no correlate or equivalent between them. I look at my role in the classroom as teaching students how to creatively solve their wicked translation problems, and I think those skills transfer far beyond the translation classroom.

Yet, translation work is chronically undervalued not only in the field of literary studies but in the other areas where it's deployed, like patent translation or technical translation (think car manuals, ingredients labels, etc.). Part of that is the perception I talked about earlier of translation as a mechanical process — so much so that now many people believe you can just run a text through Google translate and that's good enough, even if an incorrect translation may result in misuse of a product, which could lead to accident or injury.

And part of it is that translation, like design, is also feminized labor. The relationship between the translation and the original text is framed like a marriage, and the translation (the wife to the husband original) must be faithful, must be true, because she is subordinate [5]. There's documentation from the turn of the twentieth century in Japan where many male writers viewed women as the perfect translators and insisted that they should not, under any circumstances, write their own literature because it would inevitably be inferior [7]. This feminization of translation has real-world economic consequences: A lot of translators don't get copyright to their translations, and a lot of translators don't get any royalties. I knew when I began pursuing literary translation that I'd never be able to support myself on literary translation work alone. And discussing this with my students, many of their takeaways are, "Wow, don't be a translator."

AO: I also just want to validate that, for both of us, it sucks to have to frame everything in terms of economic gain for students to care about it. I would love to not have to play into capitalistic narratives that ascribe moral values to people based on their fitness for productive work. But I also understand the reality we live in, and I know many people get into computing and engineering because they want a high-paying job that will help them feel financially stable. I mean, that's originally what attracted *me* to the discipline. Sometimes I feel like the best thing I can do for my students is help them get a job that they can live well off of in a world that requires a certain level of capital to survive. And unfortunately, the framings and topics I have to use to help them get there sometimes clash with my own values.

In that vein of productivity, you've mentioned a notion of generative versus non-generative labor, or to put it another way, productive versus reproductive labor. Can you say more about that?

LT: Yeah, I think we began talking about that when we were considering the differences in our fields, with the idea that design wants to be generative, whereas in translation, because you're attempting to be faithful to some imagined ideal, if you introduce — if you generate — new material, that's less than ideal, because it means you're taking liberties and being unfaithful. A translator is not meant to produce, they are meant to *reproduce*, which brings us right back around to feminized labor. But of course, the idea that translation isn't generative is a fallacy, because in the act of translating, you are not producing a perfect reproduction or even an imperfect reproduction, you're producing an entirely new work that is based very closely on a preexisting work. A translation will always introduce new and unintended meanings and if it didn't, what would be the point?

9 Defeatism / Hope

AO: Recently I've worked with some computing educators trying to integrate critical interface design activities into their classrooms. Students in one class really liked the idea of leveraging critical design methods to embed their own values of accessibility, equity, and inclusion into interfaces. However, they also said things like, "If go work for the Department of Defense, and they ask me to design an interface for a missile targeting system, I can't say 'no' or I'll lose my job." It's the very concrete tension between "I feel bad about what I'm doing" and "I need to pay my rent and buy groceries." And even if students do refuse to participate, they'll be replaced by any of the other new computing graduates who won't voice those same qualms.

In a sense, I can understand where they're coming from. Technology is a major avenue for oppression nowadays. Computing amplifies power, and if you're doing terrible things with it, it simply enables you to do those things *more* and *faster*. It's hard to wield it ethically.

But, there's also an implicit defeatism there — a notion that they can't help but work for organizations that don't align with their values, and that they will eventually be asked to create something that they don't agree with. Does that arise in translation work as well?

LT: There are certainly similar pressures in translation. One of the most viable career paths for translators might be, for example, going into the military or intelligence communities and utilizing your language skills there, but we've already seen what happens with those routes. Think, for example, of the unequal treaties the US forged with indigenous communities. Many of those treaties were purposefully mistranslated to mislead indigenous peoples into believing they were getting better terms than they actually were [35]. Or more recently, think of Facebook's role in the Rohingya genocide in Myanmar where a lack of care in translation — a lack of translation, really — lead to horrific violence [34].

So, with my students, we've talked quite extensively about ethics and translation, especially translation's role in colonialism. We read

quite a bit about how, during the colonial period in Korea, Japan served as an imperial mediator for almost all media entering Korea from the outside world, and how the aftereffects of that coloniality have lingered in Korean scholarship and literature, through ongoing (and well-justified) anti-Japanese sentiment.

AO: You've mentioned Don Mee Choi in relation to that anti-colonial mindset. Can you talk a bit about her work?

LT: Of course. In 2020, Choi put out a pamphlet titled *Translation is a Mode=Translation is an Anti-neocolonial Mode*. She uses the pamphlet to think about her positionality. She imagines herself as a twin, and one of the twinned pair continues to live in South Korea even as Choi and her family flee the US-backed dictatorship. For her, translation is a way to occupy two contradictory and oppressive spaces at once, which opens up a space of refusal. As neither "properly" American nor "properly" Korean, Choi can push back against the colonial pressures of both.

The way this plays out is, for example, in who you choose to translate. Do you translate some lovely naturalistic Korean poems that become little Oriental vases on a mantelpiece, reinforcing imperialist, racist stereotypes? Or do you only translate people who trouble this image, who are messy and unruly and loud and ugly — all things that are quite antithetical to the stereotypical images of East Asia.

AO: Sounds like she's interested in being visibly against the grain. Are there any other ways she represents that critical mode? Like notes or annotations?

LT: Yes, she demands visibility of the work, of the translator and the translator's role as mediator in this contested space. In one of her books of poetry, *Hardly War*, she has a poem that opens with a Korean folk song about flowers in a field — if you've watched *Squid Game*, you've heard this song, because it's the song the big doll statue chants as the contestants play the deadly Red Light, Green Light game. That song, "Mugunghwa kkochi pieot seumnida (The rose of Sharon has bloomed)" is used by Korean children as a tool to count to ten, but the song itself has also been used as an anti-Japanese message during the colonial period, an anti-American message during the Korean war, and a nationalist message in subsequent dictatorships.

Crucially, Choi renders this song in Korean and Hangeul rather than Roman letters, so for readers who can't read Korean, the meaning is completely abstract. She accompanies that with a repeated phrase in English, "I refuse to translate." Choi's refusal to translate is quite literal. She wants her readers to be uncomfortable, to be aware that they *need* mediation, and to acknowledge the work of that mediation.

AO: That sounds sort of similar to the notions of critical refusal [16] that have been becoming more popular in HCI and data science spaces. We definitely need to help our students be like Choi and feel empowered to say "no" to creating things that don't align with their personal values.

I'd also argue that teaching our students to be critical, reflective, and creative requires us to complicate their understandings of the world. To illuminate the ways that the broader world typically doesn't fit into preconceived boxes, that everything is a little messier than you expect. It's hard to do that, though, when there's so much other content to cover. For instance, I have only ten weeks to teach students as much as I can about *all* of HCI — how do I make space for them to sit in the trouble, to steal a phrase from Judith Butler [4], when I'm facing this sort of time crunch? You're on the quarter system here with me — what do you think?

LT: The ten weeks really is brutal in that sense. In my translation courses, I'd love the space to be able to talk about translation beyond the Japanese context. So many of my students are Spanish speakers, and I think being able to expand on that for them, to talk about the ways they can use their Spanish for resistance, would be so helpful.

AO: It's a thin line to walk too. Problematizing deeply held worldviews can be a very uncomfortable process, and that discomfort can breed fatalism it's if not handled delicately. How do we unveil unfairness and oppression in the current systems while still helping students hold out hope that things can change in the future?

Another layer on that issue is that my computing and engineering students typically don't enter my classroom prepared for deep, reflective critical analysis. It's not a mode of thinking they've been trained in yet by merit of the educational structures they're used to. If I have to scaffold that learning before even getting to the tough questions, that's even more time taken away from other content in the course.

At the end of the day, I do think teaching students critical design methods gives them a way to practice "small acts of resistance," to borrow a phrase from one of the educators I've worked with. Once they graduate and start practicing their craft, these students aren't going to change the world immediately. But if you teach them ways to integrate ethics into their daily work in small ways, little acts of making the world better, maybe it can help them become empowered to work toward larger structural changes.

10 What's next?

AO: We started off these conversations by considering how design is an act of translation, and how translation is an act of design. I think we've covered their intersections pretty thoroughly. But, where do we go from here? What can we do help our students become more reflective, creative, ethical, and critical practitioners?

LT: I mean, I think in translation education — and in literary studies in general — making students aware of just how crucial a role translation has played in the formation of literature should be a much bigger part of our educational approach. Helping students to see beyond monolingual and national walls of literature into the ways these systems move across borders via power structures like the nation-state, religious organizations, and economic class divides will help them see precisely *why* it's important to think about translation and what translation does.

AO: I think we could do better at that in HCI education as well. Technology usage isn't constrained by these borders, and we need to be thinking more deeply about how sociocultural power structures influence the things we create.

LT: A facet within that is to have students practice translation in a really broad sense. That goes back to what I talked about before with discovering ways to reward student creativity and experimentation not only in translation classrooms, but also in language classrooms (including their own native languages). As educators, we must find ways to help them see the vast and varied possibilities open to them when they're working in the confines of a language, or multiple languages (again, in a very broad sense), where their tools

are, as yet, somewhat limited. How do you maneuver around your limitations? What do those creative avenues and paths look like? And how do we help students see those possibilities and detours?

AO & LT: Throughout it all, we want to underscore that our courses need to empower students to claim hope and autonomy. Especially in today's political climate, we absolutely need our students to make choices that provide foundations for better worlds rather than supporting oppressive status quos. We believe it's our duty as educators to show students how they can concretely enact values of equity and justice in an increasingly disempowering world. So, as a final provocation to readers, we'll leave you with these questions:

- If you're an educator, how are you supporting your students in developing the skills they need to practice "small acts of resistance?" And if you're not, do you want to, or should you?
- If you're a researcher, how is your work furthering goals of liberatory, hopeful, and ethical design and translation practice? And if it's not, should it be?
- And finally, what might HCI and translation education spaces look like if they were *truly* designed in service of realizing better worlds?

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