Carnegie Mellon University
Global Communication &
Applied Translation

Translation Talk

Interviews conducted by students in the M.A. in Global Communication & Applied Translation program.
Spring 2020

Laura Dickey

Laura Dickey holds a BA in Linguistics from McGill University and a PhD in the same field from the University of Massachusetts. For over 5 years, she worked as a Senior Program Manager at Google, localizing Google Shopping for various global markets. Currently. Laura is a Software Development Manager at Amazon. She is in charge of managing a machine translation R&D team who do "research to build, test, train, and deploy high-quality automated language translation systems at scale for use across Amazon." Her specialties include machine learning, speech recognition, machine translation, phonetics and phonology, and natural language processing.

Can you describe the project(s) that you manage currently?

I lead a machine translation project which builds neural machine learning models to translate from one human language to another. We have computational linguists, scientists, technical program managers, and software engineers all collaborating to make this possible.

How does translation play a role in your current position? In what ways do translation and machine translation go hand in hand?

Translation is the foundation for all internationalization efforts for businesses. I see machine translation and human translation as going hand in hand to make information accessible to everyone in their language of choice. You need human translators to create great translation examples in order to train machine learning models. Human translators can also evaluate and help improve those translation models. You have to decide for each use case what level of translation quality is required. Although machine translation has gotten very good, it will never replace human translators. But there are not enough human translators to do all the translation work needed. So, machine translation scales up the translation possibilities for all the info out there. In fact, we've seen that access to machine translation has made more organizations look at making their content available in more languages -- which in turn prompts more human translation work to maintain quality standards.

Do the people you work with have backgrounds in translation? Does your team ever hire freelance translators or require expertise from in-house translators?

Most of the people I work with have some experience with translation, a few professionally. All but the software engineers have linguistics backgrounds. My team does work with both internal and external translators -- but the teams we partner with, the ones using our machine translation to translate their content, are the ones who have constant work for human translators.

How much of a technical background did you have before starting your positions at Google and Amazon?

I have a PhD in Linguistics. I was an academic for many years and then I became a consultant working on many projects, but most of them in software, building speech recognition, and natural language processing software. I am not an engineer, but I have a strong technical background which allows me to bring together different expertise in domains where language meets computing, such as machine learning models which classify and mine text; software teaching foreign language pronunciation; internationalizing virtual assistants like Alexa and the Google Assistant; and of course machine translation.

How has your background in linguistics helped you with your current role?

It's everything! I rely every day on my technical understanding of specific languages and overall language patterns for language families and all human language. For example, knowing linguistics helps me identify what kinds of language issues will be different when we branch out into a new language or what we can apply from languages we have already worked on.

In your opinion, what should a student focus on in order to eventually work on similar projects?

I wish I had learned coding basics in school rather than trying to figure it out on the job. Study Python! I think phonetics, syntax, and language typology -- in addition to solid grounding in the basics of linguistics -- are fantastic for applying to lots of problems in language tech.

How do you anticipate machine translation changing over the course of the next couple of years? In your opinion, what direction is it moving in, and do you think there will be a shift in how/when we use it?

I see machine translation becoming more and more prevalent - the price is coming down and the quality is going up. I think it's a key part of fixing the global digital divide. People need access to the internet, but it will do them no good if they can't understand what's there.

What do you find to be the most rewarding aspect of your current work?

I love working with people who find language fun and want to know quirky things about language, who share nerdy linguistics jokes. I love feeling like I'm part of the solution in bringing people and cultures together. And I love helping people find their path and grow into their full professional potential.

This interview was conducted by Liz Slesinski.