# Chapter 6
# Digital Technology and Language Learning:
## How Does Digital Technology Change Our Perspectives on Language Learning?

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## ABSTRACT

*The advancement of digital technologies allows us to communicate in plurilingual contexts without learning additional languages. This makes the author wonder what learning languages means in today's technologically advanced environment. Therefore, this chapter explores the meaning of learning languages and taking language courses from multiple theoretical perspectives, including ecology, digital nature, agency and emotions in the action-oriented approach, and instructed second language acquisition. Using the concept of digital nature, the chapter argues that technology has provided us with freedom from the pressure to memorize and process a great deal of information owing to "our" externally existing knowledge (i.e., the internet) and magical tools such as real-time translation apps. The chapter discusses how this freedom allows us to exert our agencies, utilize noise for creativity and innovation, and take risks to learn languages through the fine-tuned delicate art of work, or teaching, valued in digital nature.*

## INTRODUCTION

*Tourist: "I want to go to Fukuoka Airport."*
*Station Staff:* 「地下鉄とバスがございます。」*("There is a subway and a bus.")*
(https://youtu.be/8Jjlv8VRBLk)

This dialogue is between a tourist and a station staff at a train ticket booth in Japan. In this dialogue, the tourist's utterances in English are automatically translated into Japanese and presented on a monitor screen between the tourist and the station staff. Similarly, the station staff's responses in Japanese are

automatically translated into English and presented on the monitor screen. As the dialogue shows, people can communicate using different languages in real time through digital technology, such as a monitor displaying automatically translated sentences, as in this dialogue, and smartphones. Such plurilingual or multilingual interactions have become part of everyday communication. Moreover, some may even use Google Maps in the above situation instead of communicating with others.

Similar phenomena have been observed in foreign or second language (L2) classrooms with rapid advancement in technology. Technology has been used in language education (Chapelle, 2003) and extensively researched in the fields such as computer-assisted language learning (CALL) (Grgurovic et al., 2013; Plonsky & Ziegler, 2016), online language learning (Rienties et al., 2018; Ushida, 2005), and mobile-assisted language learning (MALL) (Hsu, 2013; Karakaya & Bozkurt, 2022; Loewen et al., 2019). Recently, AI-based language learning has been discussed (Hockly, 2023; Jeon, 2022; Kohnke, Moorhouse, & Zou, 2023). Although I was aware of technological advancement in language education, I was completely amazed by the drastic change in students' use of technology in classrooms when I went back to teaching in-person after the COVID-19 pandemic. It was a first-year introductory Japanese course at a university in Canada. Reading materials in L2 Japanese were captured and instantly translated into their mother tongues (L1) on their smartphones; L2 listening activities turned into L1 reading activities using translated sentences on their phones; writing activities were completed with automatically suggested phrases on their tablets; hand-written sentences could also be shared instantly through tablets; and speaking performance, be it video-recorded monologues, dialogues, or group skits, could be edited for linguistic errors and adjusted for an appropriate speed. The current AI technology can create speech "as if you were a native speaker" (Reager, 2022, par. 7) with our own voice through voice cloning (Eleven Labs, 2023; OpenAI, 2023; Speechify, 2023).

By witnessing such useful digital tools for plurilingual and multilingual language use, I could not help wondering about the meaning of taking language courses. Why is it necessary to learn another language when there are various useful tools, including smartphones, that translate everything for us? Even for conversations, as presented above, digital technology makes it possible to have conversations in different languages. Contrary to my concerns, however, the number of language learners has been growing globally (LingoMelo, 2023). Let us take the number of Japanese language learners as an example. According to the surveys conducted every three years by the Japan Foundation (2022), the number of language learners – or, more specifically, Japanese language learners– has been increasing over the years. Although there was a slight drop in fiscal 2021 (3,794,714) from 2018 (3,851,774) by 1.5% (Japan Foundation, December 28, 2022), probably due to the COVID-19 pandemic, the number of learners of the Japanese language has increased by approximately thirty times since the first survey conducted in 1979 (Japan Foundation, December 15, 2022). The most recent survey also showed a change in language learners' motivation; the majority of the learners in the 1980s were studying Japanese for business, but the learners in recent years are more likely to become interested in the Japanese language due to the pop culture, such as anime and manga (Japan Foundation, December 15, 2022).

Speaking of motivation, I was recently surprised to see the results of the questionnaire I gave my students at the beginning of the course. I am currently teaching Japanese at a Canadian university and regularly give a questionnaire at the beginning of the term as part of a needs analysis to learn about students' purposes and goals for taking the Japanese course. Although this is a casual questionnaire, becoming able to communicate in Japanese was always the most popular purpose in the past years, as far as I remember. To my surprise, however, "becoming able to read in Japanese" was the top reason for taking the course in the most recent course, which I am currently teaching. This is perplexing to me

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