# *Technology, Toucan, and Language Education*

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**Abstract**
Globalization and computerization along with the limitations caused by the current pandemic have all moved us towards having more online presence. From online shopping to online learning, all aspects of our lives have been impacted by technology including how we learn and use languages. The goal of this presentation is to discuss various aspects of Toucan (www.jointoucan.com), a new technological tool that helps people acquire new languages while browsing the internet. Each time language learners visit a web page, Toucan automatically translates certain words in the language that they are trying to learn, thus increasing the level of i+1 input that they receive in their target language (Ashtari & Krashen, 2020). Mason and Krashen (2017) also highlight the importance of the acquirers selecting their own reading materials and being in charge of their own time and exposure to the language as one of the keys to more successful language acquisition. This invisible language acquisition technique allows the users to choose and browse their desired pages that they would normally read while going about their daily activities without any extra burden or added time of focusing on language learning materials or readings assigned by someone else. Moreover, as readers select their own reading materials on their own time, they will also feel more comfortable and have a lower affective filter (Krashen, 2013; McQuillan, 2020). In this paper, we will dive deeper into the research behind Toucan and how this tool has helped hundreds of thousands of language acquirers worldwide.

Keywords: Technology, Language Acquisition, Toucan Language Learning

## Introduction

Globalization and computerization have made significant changes to how we live during the past decades. Studies also report a significant increase in the number of hours spent behind digital devices during the COVID-19 pandemic due to quarantine measures, remote education, and remote work (Nagata, Cortez, Cattle, 2022). The field of language education has not been an exception with many ups and downs throughout the past centuries as our world has moved toward a more bilingual and multilingual sphere. In the following sections we will briefly look at the history of the various language instruction methods throughout the years, and we will look at how technology has created new venues to explore in the worlds of language learning and teaching.

## Methods of Language Instruction

The 18th century saw the rise of the Grammar-Translation Method also known as "The Traditional Method " or "The Classical Method" due to its prevalence in teaching classical languages such as ancient Greek and Latin. Grammar Schools were established in Europe where students would frequently go through many hours of grammar instruction, tedious text translation, and memorization of long vocabulary lists. One of the main purposes of such instruction was to enforce discipline and habit formation with the assumption that students would be able to develop their intellectuality through continuous mental exercises (Larsen-Freeman, 2000).

Even though the grammar-translation method has held its reign over many language instruction methods around the globe to this day, many other more effective approaches have been developed for language teaching. Some of these methods have included: the Audio-lingual Method, the Direct Method, the Natural Approach, Community Language Learning (Community Language Learning (CLL), Communicative Language Teaching (CLT), Content-based Instruction, and Task/Project-based Learning to name a few. The public use of the internet and the World Wide Web dramatically expanded the way people could communicate with those who do not share the same country, language, and culture. English as the current lingua franca started gaining more and more users in order to meet the need for a common international language. Other foreign languages also began attracting more learners, thus forging new paths to more opportunities and a wider audience for language teaching and learning.

## Technology-Enhanced Language Learning

It was not long before Technology-Enhanced Language Learning (TELL) and its branches such as Computer-Assisted language Learning (CALL) and Mobile-Assisted Language Learning (MALL) were added to the global language learners' toolboxes. Over the past two decades we have seen the rise of many different websites, applications, and electronic resources in language education. However, research shows that some of these tools have not proven to be helpful or more effective than regular class instruction (Krashen, 2013, 2014). Some of the concerns that users have shared about technological tools in language learning have been the fear of technology fully replacing teaching jobs and language centers, the possibility of losing human interactions, as well as the high cost, technical issues, and time-consuming aspects of such systems (Ashtari, 2016, 2018; Nielson, 2011).

Moreover, many of these tools utilize traditional methods of language instruction such as grammar-translation and audio-lingual methods while focusing more on conscious language learning rather than language acquisition. They also emphasize testing and dry exercises that result in high dropout rates of users (Krashen, 2013, 2014; Nielson, 2011). However, the existence of the limitations listed above does not mean that all technological advances in language education have been in vain. More effective tools have been developed to meet the needs of language acquirers around the world while using the research done over the past 50 years as the basis to improve the learners' experiences. Toucan is one of these tools which we will introduce in the following sections of this paper.

**Toucan: A New Technological Tool**

Toucan (www.jointoucan.com) is a browser extension that helps language enthusiasts acquire new languages while browsing the internet, without the need for flashcards or other study materials. Each time users visit a web page, Toucan automatically translates certain words in the language that they are trying to learn. The foundation of Toucan is based on the Second Language Acquisition theories and the Comprehensible Input Hypothesis (Krashen, 1982, 2003). According to the Comprehension Hypothesis we acquire languages when "we understand messages, that is, when we understand what we hear and what we read" (Krashen, 2008, p.1). By sporadically translating words on pages that are mainly in a language acquirer's native language, Toucan provides opportunities for the users to understand the text, and at the same time be exposed to new vocabulary in their target/second language along the way.

**Language Acquisition Theories Behind Toucan**

Self-selected and pleasure reading comprise a core aspect of Toucan. Users choose and browse their desired pages that they would normally read while going about their daily activities without any extra burden or added time of focusing on language learning materials or readings assigned by someone else. Mason and Krashen (2017) highlight the importance of the acquirers selecting their own reading materials and being in charge of their own time and exposure to the language as one of the keys to more successful language acquisition. As readers select their own reading materials on their own time, they will also feel more comfortable and have a lower affective filter. The Affective Filter hypothesis states that a person is far more likely to acquire a new language in relaxed situations, like browsing the web, than in stressful ones (Krashen, 1983, 2003).

In addition, languages are acquired when we are exposed to words and structures that are slightly higher than our current level of proficiency (i+1). Similar to Primary Language Acquisition (PLA), Second Language Acquisition (SLA) is a subconscious process. For instance, children do not memorize indefinite articles or study grammatical concepts in order to improve in their native language. They acquire their first language naturally, by listening to their parents speak and hearing the world around them. Over time, their brains subconsciously notice patterns and figure out how to communicate back when they are ready, starting with individual words and building into full sentences. In other words, comprehensible input or i +1 is naturally provided for them as they increase their level of language competence.

Toucan performs in a similar manner. This innovative system is set to translate progressively larger "lexical chunks," or words that often get used together. These chunks make it easier to

both build vocabulary knowledge and learn how to string words together in comprehensible ways. Each time a new webpage is loaded, Toucan translates a few individual words so that users can add them to their vocabulary by using context clues that are in a language they already know. As their vocabulary increases, Toucan will help them naturally learn how different words work together by starting to translate those context clues.

## Conclusion

The importance of the acquirers selecting their own reading materials and being in charge of their own time and exposure to the language has been emphasized in research as one of the keys to more successful language acquisition (Mason and Krashen, 2017). Toucan provides unlimited self-selected reading opportunities for users to acquire their desired language. It also automatically translates certain words at 3 levels of proficiency (Beginner, Intermediate, Advanced at 3 different density measures) in the language acquirers are trying to learn, thus increasing the level of i+1 input that they receive in their target language (Ashtari & Krashen, 2020). Moreover, as readers select their own reading materials on their own time, they will also feel more comfortable and have a lower affective filter (Krashen, 2013; McQuillan, 2020). In short, by providing meaningful context, vocabulary and structures that are comprehensible, and the freedom to choose individual reading materials, Toucan helps language acquirers expand their language knowledge without leaving the comfort of their everyday internet browsing habits.

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