



Developing Digital Tools for Language Revitalization: Demystifying Coding, Apps and Web Platforms

Time, Date & Location

August 9-10, 2018
NINJAL, Tachikawa, Japan

Instructors

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Course Materials

No course materials are required, although the instructors kindly ask all students to read the four references provided in the bibliography (and uploaded to the Google Drive) in advance. Course materials for each workshop session will be available in digital form through the workshop website, including sample language materials and step-by-step instructions that cover all of the techniques and skills that students will learn. In advance of the workshop, the instructors will invite each student to join the workshop website in order to prepare their computers and be ready for the first class meeting.

Supplies Needed & Technical Requirements

We ask that all registered students work through all of the steps in the ‘Getting Started’ Module before coming to the workshop on Thursday. Students should come to class with open minds along with:

- A relatively recent laptop (Mac or PC).
- An active [Google](#) account (the kind you would have for Gmail) in order to access the course website and work in Google Sheets.
- 20 words in your ‘chosen’ language along with their English definitions to be incorporated into a language App that you will build through this workshop. **NOTE:** if you are working with an Indigenous language that is not your own, please be mindful of any protocols that relate to how you use the language and what you may do with it.

Goals

The goals of the workshop are to teach an intensive, hands-on, foundational skills for developing web, mobile, and desktop applications that enhance language revitalization efforts. At the same time, these digital tools will be situated within their social and historical context through contemporary examples of language mobilization through technology. In these two days, instruction in hands-on skills will be paired with conceptual and ethical considerations. This course will cover a lot of material and students will be expected to spend time on their own outside of the classroom practising the foundational concepts discussed in class. However, **no prior experience / knowledge of coding is required!**

Student Learning Objectives

Upon successful completion of this workshop, participants will have:

- learned to **organize, clean, process** and ‘wrangle’ dictionary data using the Python programming language
- a **basic** overview of HTML, CSS, JavaScript and Ionic
- **built** a Mother Tongues Dictionary app for iOS and Android

Instructional Methods

70% Hands-on Practice, 15% Lecture, 15% Discussion

Given the compressed nature of the workshop (5 x 2 hours each), and in order to ensure that students come away with practical skills and emerging understanding, we will use an approach that follows the first four of the [5Es teaching and learning model](#). This model speaks to **engagement, exploration, explanation** and **elaboration** in the classroom.

The majority of the workshop is structured around guided exposure to and facilitated hands-on practice with basic programming for language mobilization. Every student in the class will create a small language App based on Mother Tongues Dictionaries <www.mothertongues.org> by the end of the second day of the class using words from a language that they have brought to the workshop.

Our goal is for individuals to gain **comfort and familiarity with foundational language technologies** through the workshop, through which they will be able to further develop their skills by knowing where to look and what to ask.

Course Readings

Brand, Peter; Herbert, Tracey and Shaylene Boechler. 2015. ‘Language Vitalization through Mobile and Online Technologies in British Columbia’, in *Indigenous People and Mobile Technologies*, edited By Laurel Evelyn Dyson, Stephen Grant and Max Hendriks. New York: Routledge, pages 265-273.

Carpenter, Jennifer; Guerin, Annie; Kaczmarek, Michelle; Lawson, Gerry; Lawson, Kim; Nathan, Lisa P. and Mark Turin. 2016. *Digital Access for Language and Culture in First Nations Communities*. Knowledge Synthesis Report for Social Sciences and Humanities Research Council of Canada. Vancouver, October 2016. 41 pages [at least the *Key Messages* and *Executive Summary* sections]

Pine, Aidan and Mark Turin. 2017. ‘Language Revitalization’ in *Oxford Research Encyclopedia of Linguistics*, edited by Mark Aronoff. New York: Oxford University Press, Online Publication Date: March 2017. DOI:10.1093/acrefore/9780199384655.013.8.

Pine, Aidan and Mark Turin. 2018. ‘Seeing the Heiltsuk Orthography from Font Encoding through to Unicode: A Case Study Using Convertextract’ *Proceedings of the LREC 2018 Workshop “CCURL 2018 – Sustaining Knowledge Diversity in the Digital Age”*. Claudia Soria, Laurent Besacier and Laurette Pretorius (eds.), pages 27-30.

About the Instructors

Aidan is a linguist and a full-stack web and mobile developer from British Columbia, Canada. Aidan currently works at the [National Research Council Canada](#) as an Application Development Specialist on the multi-year [Indigenous languages technology project](#). For several years now, Aidan has developed mobile language apps which are available through <<https://mothertongues.org>>, and he currently manages and maintains these web technologies. Aidan is involved in further developing the [FirstVoices](#) series of apps in partnership with the [First Peoples' Cultural Council](#) of Canada. Aidan has taught coding and technical workshops and classes on digital tools for language revitalization at UBC's Department of Linguistics and most recently at the BC Breath of Life Institute in May, 2017.

Mark is an anthropologist, linguist and radio presenter. At the University of British Columbia, from 2014-2018, Mark served as Chair of the [First Nations and Endangered Languages Program](#), as Acting Co-Director of the University's new Institute for Critical Indigenous Studies and [Associate Professor of Anthropology](#). He has been working in digital humanities and language technologies for over 20 years, and directs the [World Oral Literature](#) and [Digital Himalaya](#) Projects. He has worked in collaborative partnership with members of the Thangmi-speaking communities of eastern Nepal and Darjeeling district in India since 1996, and since 2014 with members of the Heiltsuk First Nation through a [Heiltsuk Language Mobilization Partnership](#). He writes on language endangerment and revitalization. [@markturin](#)