Dictionary as entry to literacy and language documentation: A Copala Triqui case study

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About Triqui people and the community in Albany

Indigenous population - southwestern part of the Mexican State of Oaxaca

Triqui language varieties: Copala, Chicahuaxtla and Itunyoso

Triquis Sin Fronteras

- Started as informal network
- Recognized by University at Albany in 2014

"Day of Triqui Culture" in the Capital Region at the University at Albany, starting April 12, 2014

Viva Cindo de Mayo, Cocina Vasquez

Triquis basquetbolistas - Los Gigantes Descalzos

Oaxaca, Mexico



Languages of Oaxaca, Mexico



Copala Triqui Day of Culture, Albany



Copala Triqui Day of Culture



Copala Triqui Day of Culture

Early history of the Albany Triqui Working Group

In about 1998, Aaron Broadwell was introduced to Irma Fuentes, a native speaker of Copala Triqui living in the Albany area. Irma was the language consultant for a field methods class.

In 1998, there was no Copala Triqui dictionary available. We began a linguistically-oriented wordlist as a class project.

We relied extensively on previous linguistic work by Barbara Hollenbach.

In 2003 we began to collaborate more extensively with the Copala Triqui community, and met two other speakers who became key members of the team – Jose Fuentes and Román Vidal López.

Román is particularly interested in language work and in literacy.

We call our team the 'Albany Triqui Working Group' (ATWG)

Earlier Work on Copala Triqui Language

Barbara and Bruce Hollenbach began working on the language in the 1960s in Oaxaca.

Developed an orthography over the course of their work. Most recent statement of orthography from 2008.

Translated New Testament and developed other literacy materials.

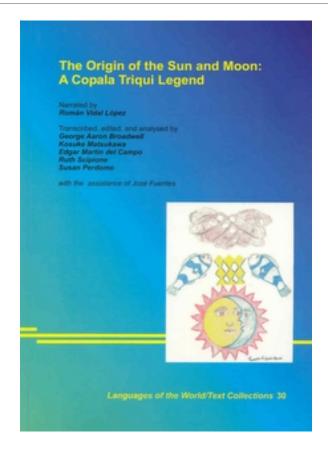
Very few speakers in the Albany community can use this orthography or these materials.

The origin of the sun and moon

Román Vidal López narrated a long Triqui story 'The origin of the sun and the moon' for students in the 2003-4 field methods class.

Vidal López, Broadwell and students worked for about three years to transcribe this Triqui story. In the process, Román began to become literate in his own language.

The Origin of the Sun and Moon published in 2009.



Orthography and literacy

Orthographic choices as key to literacy:

- Triqui has 8 phonemic tones, e.g. Achraa⁵ 'sing', me³ 'be', yaan² 'single'
- Practical orthography achráá 'sing', me 'be', yaan 'single'
- Román: "If I try to remember all the numbers and marks I can't write anything. If I don't worry about them, then I can write."

Our first book emphasized a phonetic orthography, with an appendix in popular orthography.

We decided after this to switch primarily to using practical orthography as a better match for the community needs.

Hollenbach 2005 dictionary

In 2005 Barbara Hollenbach issued a draft Copala Triqui-Spanish dictionary, primary in the practical orthography.

We spent a great deal of time with Triqui speakers learning to use this dictionary and the practical orthography.

We also learned that many Triqui speakers do not have enough experience in reading Triqui to be able to find words in a print dictionary.

Linguistic orthography vs practical orthography

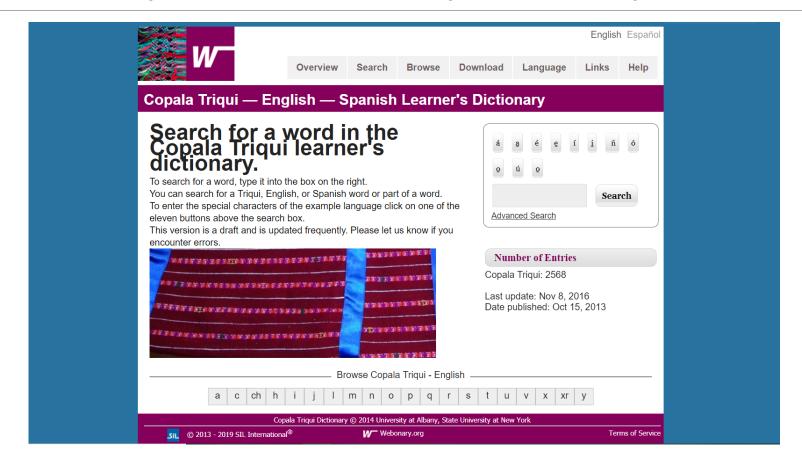
We learned that especially for a phonetically difficult language like Copala Triqui, too much emphasis on getting the spelling right is a real obstacle.

We also saw that

- Triqui speakers often found the Triqui words via the Spanish-Triqui index.
- Triqui speakers had great difficulty pronouncing unfamiliar words in the dictionary.

This lead us to begin work on a searchable dictionary with audio samples.

Online Triqui dictionary 2013-present



Words of counsel for the Triqui People

Inspired by literacy in the practical orthography, Román wrote the first version of Nana naguan' rihaan nij síí chihaan' (Words of counsel for the Triqui people) in about 2010.

Members of the ATWG worked on regularizing the spelling and making recordings of this text, and published the book in 2012.

We believe this is the first book written in Triqui by a native speaker of Triqui.

Nana naguan' rihaan nij síí chihaan' Consejos para la gente Triqui Words of counsel for the Triqui people by Román L. Vidal López



Edited and analyzed by George Aaron Broadwell Ashley LaBoda Sharone Horowit-Hendler Gabriela Aquino-Dehesa

Institute of Mesoamerican Studies Occasional Publication No. 16 The University at Albany – SUNY

Recent Developments

Mónica de Jesús Ramírez began to work with the Albany Triqui Working Group in 2013.

Lauren Clemens began to work with the group in 2015, and Michael Stoop and Jamilläh Rodriguez joined in 2017.

The ATWG now includes collaborators from the University at Albany and University of Florida.

Copala Triqui Dictionary App

In 2018, we began to work on expanding the online dictionary to an app

Goals for app:

- to make recordings more accessible to community members.
- to make it easier for leaners to look up entries during conversation.
- Electronic representation may increase the prestige of the language in eyes of community and outside communities (see Crystal 2000).

Considerations for the App

Many projects build an app from the ground up, with a large initial investment and slow accumulation of lexical entries.

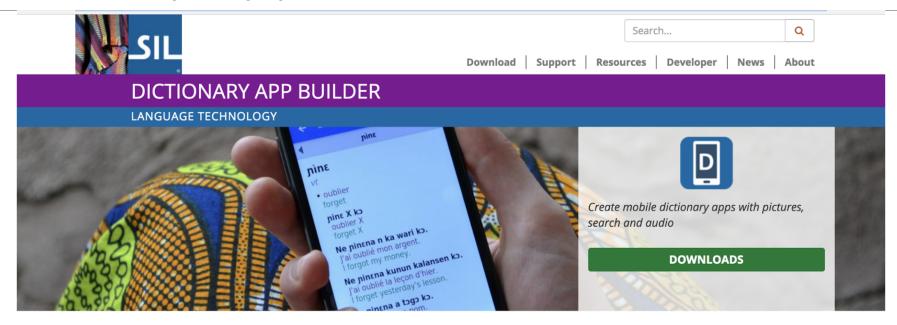
Some platforms also require the slow accumulation of lexical entries.

• For example, Román used previously existing app with 30 Copala Triqui lexical entries.

We already had an existing database in Fieldworks Language Explorer (FLEx).

SIL has developed a Dictionary App Builder to use FLEx output.

Dictionary App Builder



Dictionary App Builder helps you to build customized dictionary apps for Android and iOS smartphones and tablets. You specify the lexicon data file to use, the app name, fonts, colors, the about box information, the audio, illustrations and the icons. Dictionary App Builder will package everything together and build the customized app for you. You can then install it on your phone, send it to others by Bluetooth, share it on microSD memory cards and publish it to app stores on the Internet.







https://software.sil.org/dictionaryappbuilder/

Benefits of Dictionary App Builder

Does not require any knowledge of coding.

The work of formatting has (mostly) been accomplished already.

- Spanish and English reversal entries, menus, and search functionality.
- Attractive formatting for audio and complex entries.

We can use the same database for multiple projects.

Data is stored in a way that is accessible for future projects, instead of a format that is only suited for the app.

Difficulties

Formatting:

- Different FLEx outputs for app vs. Webonary
- Renaming audio files for Dictionary App

iOS App

- Can't be sure about formatting till app is published.
- Publishing on Apple store may be an expensive yearly cost for communities (\$99/year).

Timeline

July 2018:

Development began on Copala Triqui Dictionary App.

August 2018 – December 2018:

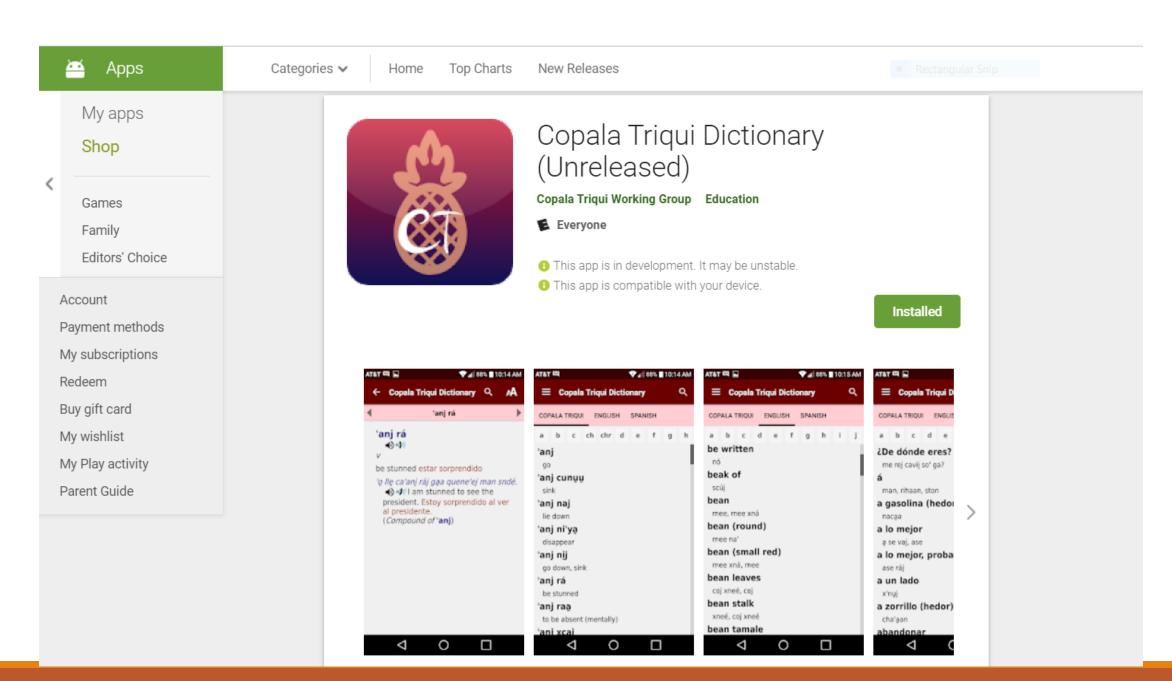
Prototyping

January 2019:

Beta version published on Google Play Store, shared with beta testers in community.

April 2019:

We anticipate releasing a beta version of the iOS App.



Summary

Publishing a dictionary app is often seen as labor-intensive, expensive, and requiring knowledge of programming.

In our context, however, using pre-existing resources, we were able to easily and cheaply produce an application.

For language projects using FLEx, we encourage considering this option to take full advantage of existing documentation.

Conclusions

- •Dictionary-making and text collection were the parts of linguistic research that members of the local Copala Triqui community valued as a way to preserve their language for future generations.
- In the process of writing the language and making dictionaries, we learned much valuable information about
 - Difficulties with the orthography
 - Value of audio recording
 - Value of web and mobile access
- •We might not have focused as much energy on these parts of our language documentation project without the guidance of our community language partners.

References

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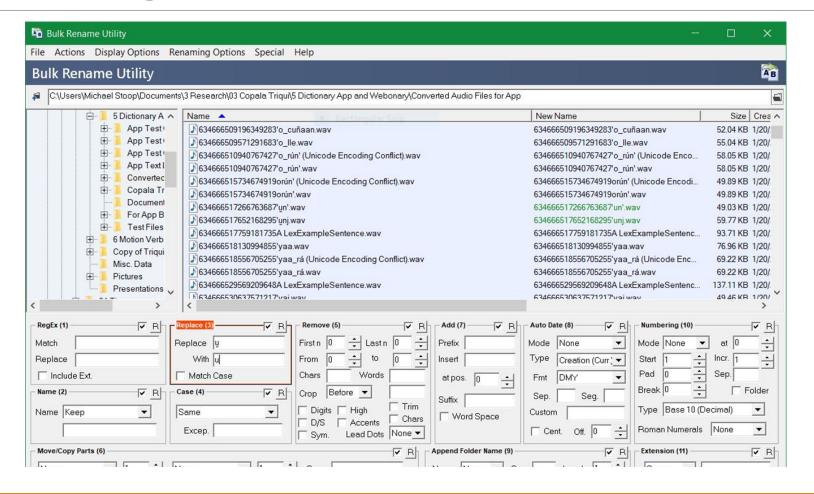
Appendix

Working with Dictionary App Builder

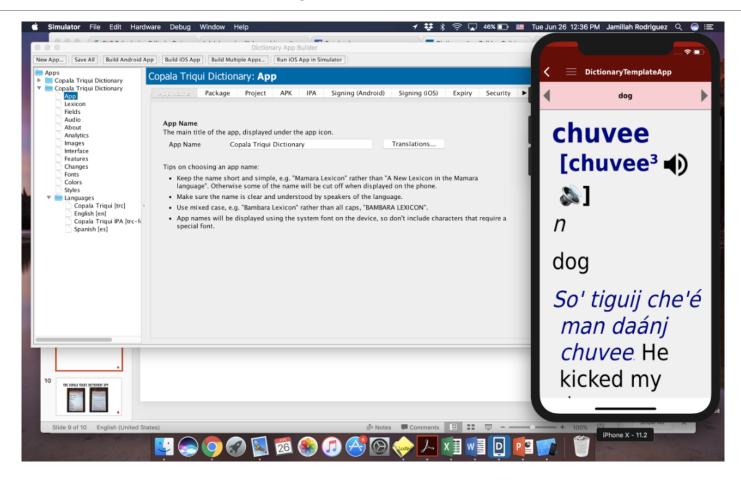
Formatting

- Need to produce separate outputs in FLEx for Webonay and Dictionary App
- Renaming files using third part software to remove diacritics and spaces

Bulk Editing File Names



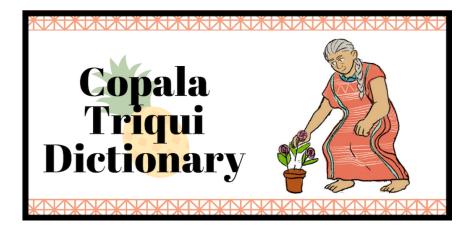
Apple/iOS Development



Publishing

Searchable in different languages if speakers use app stores in a language other than English Can add your own translations, or use automatic translations for select languages





(Triqui illustration credit to Blare Coughlin)

Publishing

Can be restricted to specified users:

- Password
- Specified serial numbers of devices with permitted access

Can turn off file sharing so users can not send app to others

Audio can be packaged with app or can be set to only available when connected to internet

Makes app file size smaller (although with ~2200 .wav files, we had no problems with file size)