Using Technology to Bridge Gaps between Speakers, Learners, and Linguists

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Background

In general, minority languages often lack publicly available learning materials. (Sarkar & Metallic 2009)

Linguists studying a minority language do have linguistic data contributed by native speakers of the language, although such data are often "sleeping" in linguists' computers (or notebooks).

Linguists' data can be used to develop learning materials.

>> **How can linguists contribute the data back to the community?**

Linguistic information collected by linguists is partial compared to native speakers' living knowledge of the language.

>> **How can we connect learners with native speakers and their linguistic knowledge?**

Learners' needs and interests in learning a language greatly vary. There is no "all-purpose" learning materials that meet individuals' varying needs.

>> **Can we make the learning material customizable?**

Photos from the LingSync hackathon (February 2013)

Needs

Learners: relevant materials; space to speak & make mistakes; connections with other learners and native speakers; abstracted guidelines for the language

Speakers & Teachers: ownership over material they create; record of materials; balancing privacy & openness; easy ways to organize and prepare materials; knowledge of how to best help learners

Linguists: accurate and broad-ranging language data

Contributions

Learners: continuation of the language; their knowledge of the language and of their pedagogical needs; expertise in their own areas

Speakers & Teachers: living and comprehensive knowledge of the language; materials already developed; experience simplifying linguistic patterns

Linguists: simplify linguistic patterns; their own linguistic datasets & databases to share

LingSync

What is it?
- collaborative field linguistics application/Chrome extension with standard linguistic data annotation
- free, non-proprietary, open source
- accessibility makes it possible for anyone to contribute to data collection & correction

Online & Offline:
- shareable across geographic distances, among different parties, not committed to a particular location
- data collection/recording possible in remote places with no Internet access, data may be synched later into the shared database

Searchable:
- by grammatical categories, thematic vocabularies
- easy to extract relevant information for creating teaching/learning materials (good tagging system!)

Link to audio/video data:
- documentation of language in use (not just static text)
- (facilitates analysis of prosody, phonology)

Data security:
- encryption protects private information
- public or private options for corpora

Learn [Language] *PROTOTYPE

What is it?
- language-independent learning aid for Android
- free, non-proprietary, open source
- complementary to LingSync, giving students access to many types of searchable information

Customizable:
- "make-your-own-lesson" tool
- lets learners cater to their own needs
- lessons offer a structure in which learners can connect to speakers in their lives with concrete goals

Networkable:
- students can have the option of sharing their progress through social media
- users can share (or not) the lessons that they make

Oral, Auditory, Visual:
- students speak early and often
- teaches mainly from pictures and audio, not text
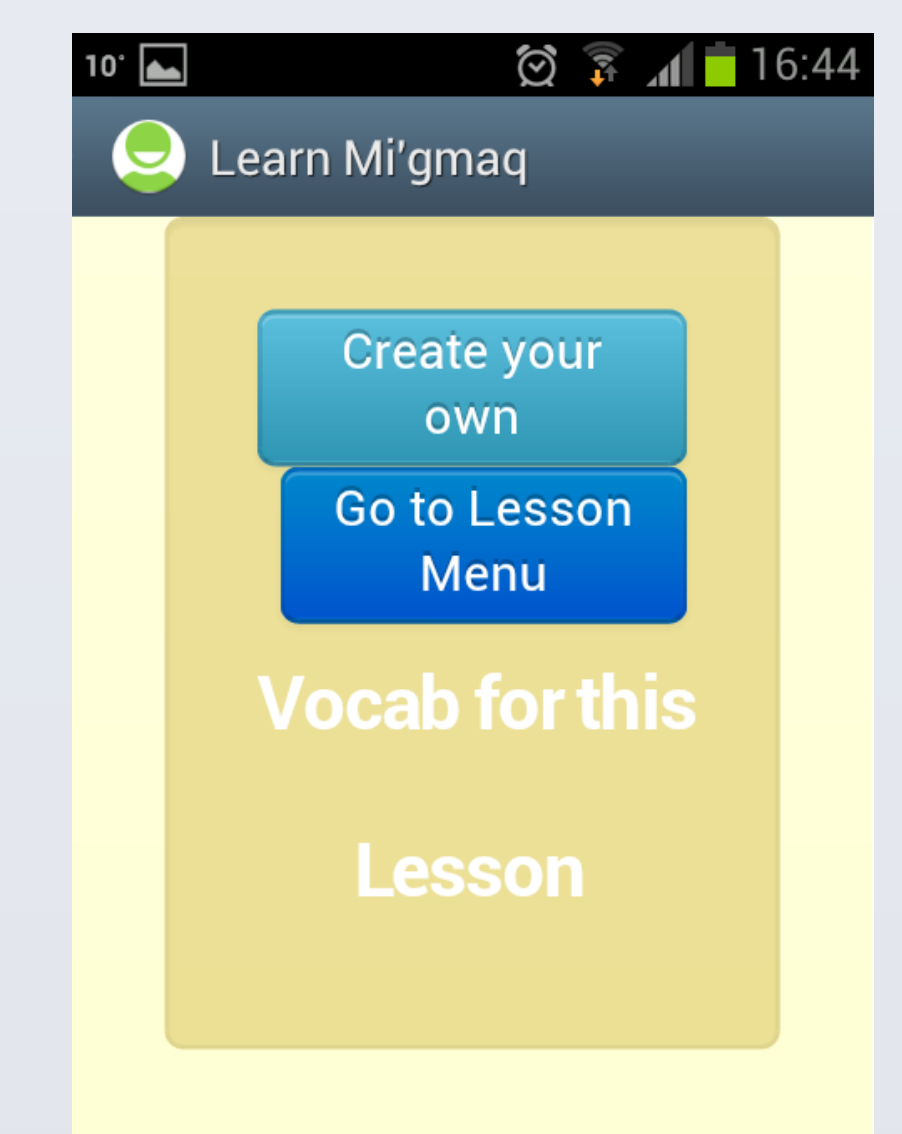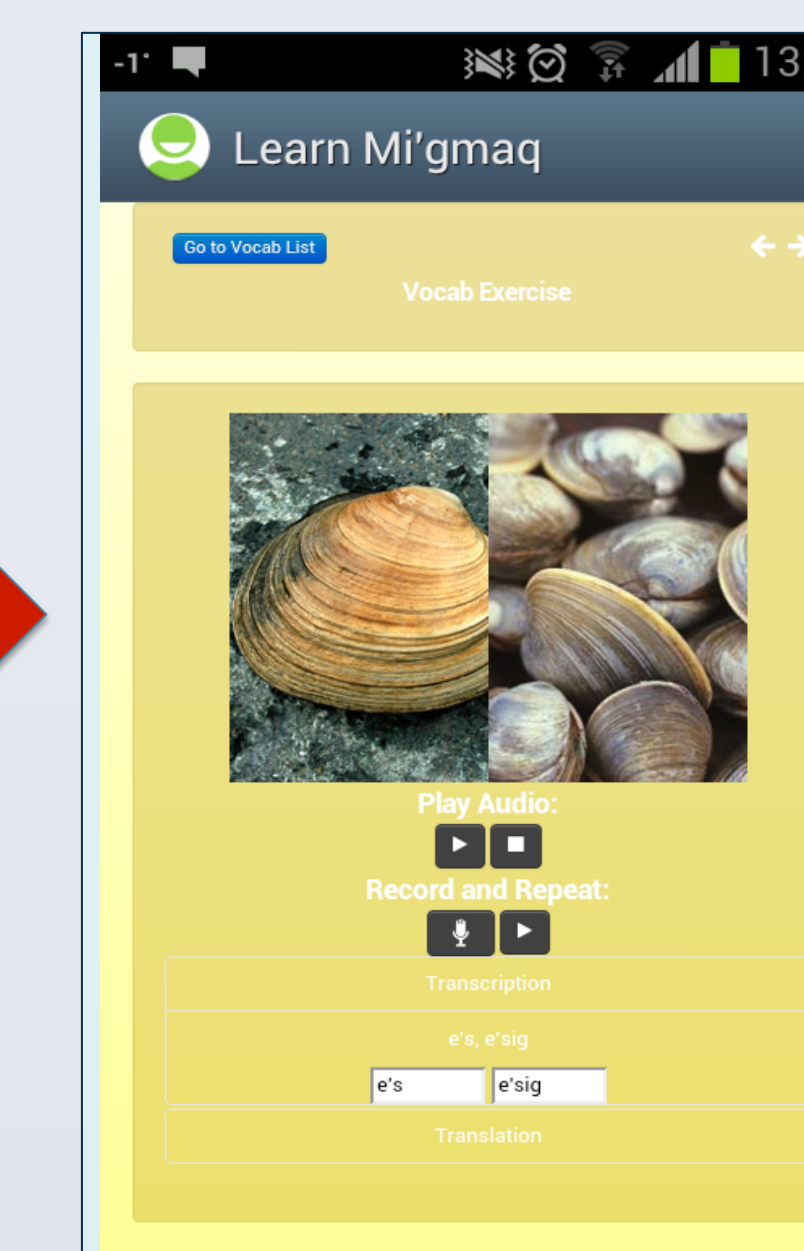- naturalistic learning methods

Distributed:
- encourages widespread engagement with the language, in or outside the classroom
- decentralizes learning process

Red signifies aspects of the applications that haven't been fully implemented yet, but are important goals for us!
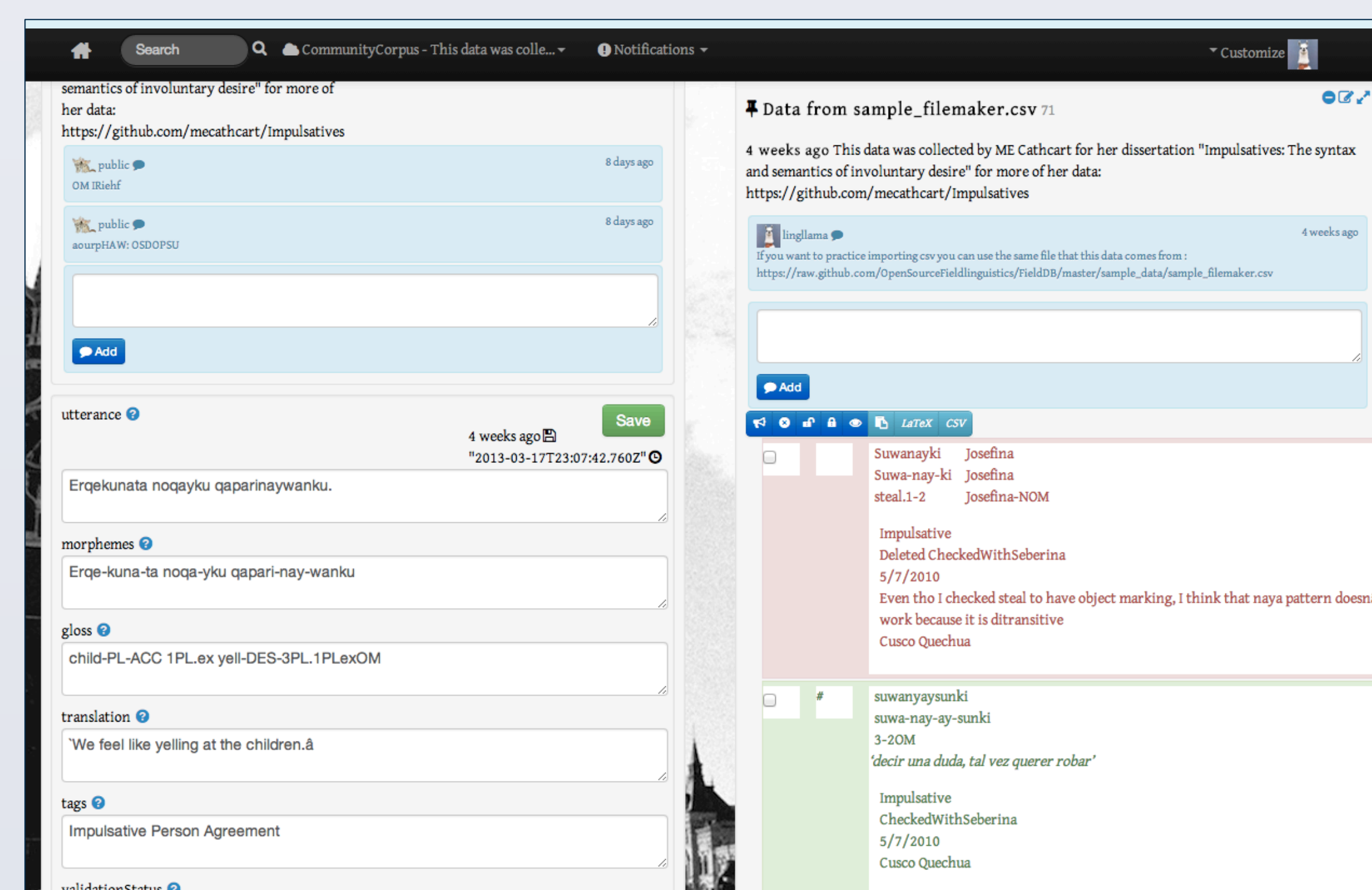
Screenshot of LingSync

Screenshots of language-learning app prototype

Down the Road…

LingSync and Learn [Language] are both tools; the results ultimately depend on the users and how they choose to employ the applications. Our hoped-for outcomes are that they will allow speakers, learners, and linguists to connect and collaborate more fully, and democratize the language-learning and research processes to an extent.

Acknowledgments and Contact