

# Heritage Languages Online Tool for Preservation and Learning

Website: <http://web.pdx.edu/~nariyo/www/index.html>

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## I Project Goals

This goal is to develop a model of integrating language preservation techniques with leading-edge technology to create a web-based on-line tool for heritage language preservation and learning. The model is based on the Chinuk Wawa language sample, and is integrated into an enhanced version of an existing computer software package for adult ESL classroom research ('ClassAction'). ClassAction [Toolbox] can store multi-media language clips which synchronize audio, video and text (illustrating pronunciation, translation, grammar explanations, etc.) and present these in an interactive session using the common Web-interface for access by students, faculty, and affiliated Heritage language communities. By working with the National Labsite at Portland State University, we advance an on-line educational software package, which we hope will benefit the educational communities, researchers, and Heritage language communities.

## II Teaching and Research Setting

The model was introduced to P.I.'s seminar: Language Maintenance and Revitalization (LING 410/510, NAS399) in spring, 2006 at Portland State University. The class discussed merits of the technology and future possibilities of the use of this model for the language communities. One of the students in the seminar did research on various web-based research tools for endangered language communities and shared the results at the class final presentation.

## III Discussion of Project Results

One of the biggest obstacles for the project was the writing system for native languages. The Grande Ronde tribal language program was considering shifting the writing system from Chinuk Wawa fonts to Unicode, and we had many meetings with tribal linguists and National labsite members to discuss the font issues. We finally decided to use the Gentium fonts, which were preferred by the tribal linguists and the program director. Since their dictionary was written in the Chinuk Wawa fonts, the computer programmer and the tribal linguists spend a couple of months to convert from the Chinuk Wawa fonts to Gentium (Unicode). We were finally able to demonstrate all the documents in Gentium, which everybody can download on-line for free. Since most of the native communities have their own writing conventions\*, and even though the recent best language preservation practice has recommended use of Unicode, tailored instructions on writing system would be needed

for future use of the model.

In addition, matching the oral discourse with the existing dictionary is not an easy task for any Native American language. Whether in the cases of declining or reviving languages, language changes dramatically and creating an ad-hoc dictionary is a worthy but extremely time-consuming exercise. The tribal linguist generously provided their newest dictionary for this project, so we extracted only the part we needed from the dictionary. Future dictionary work, whether for this project or other documentation efforts, will experience continued challenges in adapting out-dated dictionaries and grammars to changes brought about by language growth.

Finally capturing live interaction required some navigation skills. We explored several different scenes to extract different speech styles such as story-telling by one person; story-reading by two people, explaining some materials, and chatting/joking. We were able to present different genres as several short clips.

In summary, we were successfully able to present a sample model based on Chinuk Wawa regardless of those obstacles. Each process was discussed with the partnered community in details, gained consensus from the tribe, and received appropriate permission from the participants.

The result was presented at the participating Native American community (Grande Ronde) as a work-in-progress, and we have discussion summary notes and evaluation questionnaire (Appendix). In general, the responses of the language teachers were very positive, and the model shows good potential for the future use for this particular community as well as for other heritage language communities.

Note

\* Originally Native American languages were oral languages, and most of their writing systems were developed by non-native scholars in different times. Some language communities might have several different writing systems.

#### IV Impact of Project

There are two noteworthy impacts so far. First, the demo project excited the native language teachers' interest on preserving 'natural conversations' of the language speakers as well as on developing teaching materials of their language by using the video clips. This might add extra curricula to the language program such as long distance education and proficiency development for language learners/teachers.

Secondly, this project increased awareness of this piece of software within the National lab school of PSU itself. After this project, PSU has decided to explore technology advancement and to pursue similar types of projects which will support Native American language communities regionally as well as nationally.

## V Future Plans

PSU will continue to support the Grand Ronde language program and try to develop more teaching materials which will support the language teachers' need. P.I. will look for further project funding and make a long-term project plan working with the community. Further, she will continue to work with the National Labsite at PSU for advancement of the technology tool to fulfill so that it may better meet all needs of native language communities at large.

## VI Summaries of the project publicity

This project was presented at two conferences: 1) American Indian Science and Engineering Society (AISES), Regional Conference in Portland; and 2) Conference of Endangered Languages and Cultures of Native America (CELCNA) in Utah.

- 1) Conference Proceedings of CELCNA (to be announced), Contact: CAIL Utah <cail.utah@gmail.com>
- 2) National Labschool Website at Portland State University: <http://www.labschool.pdx.edu/resfac/index.htm>

## VII Budget Summary (in a separate file)

**APPENDIX (Feedback from the GR language community teachers are in a separate file. Below is the sample feedback questionnaire.)**

### **[Feedback Questionnaire]**

**We would like to improve our multimedia language tool, and would appreciate your input greatly. Could you give us your feedback on our multimedia language tool?**

- 1. Do you think this tool would be useful for the tribes, language programs, or language learners? Please circle one of the followings.**
    - a) Yes, it's very useful.**
    - b) Yes, it's somewhat useful.**
    - c) No, it's not useful.**
  - 2. If you chose a) or b), please tell us what's useful and how you would like to use it.**
  - 3. If you chose c), could you suggest how we could improve this tool?**
  - 4. Please fill in below any questions you might have about the tool**
- \* Please write your name and contact address below (optional):**

**Your name:**

**Your email address:**