

# Stakeholder Groups

Workshop on User-Centered Design of Language Archives  
20-21 February 2016

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# Language Communities

**Loriene Roy (Anishinabe)**

School of Information, UT-Austin

# What do you see as the role of archives in sustaining and contributing to your native language?

- To work with tribal communities on assisting the documentation of their language, following tribal protocol.

# What would you like to do with an archive that it doesn't do now?

- Would like to know where archives of Anishinabemowin are.

# What forms of technology are most accessible to members of your community?

- Smart phones
- Desktops/laptops with audio and video
- Probably still lots of recordings in various formats
- Print
- Online resources, e.g., dictionaries; translation services

# Daryl Baldwin:

- Miami Tribe of Oklahoma Cultural Resources Advisory Committee (CRAC).
- Director, Myaamia Center (MC) at Miami University.
- Co-Director for National Breath of Life (BoL) Archival Institute for Indigenous Languages.

# What do you see as the role of archives in sustaining and contributing to your native language?

- Helping community researchers locate relevant materials.
- Providing easy access and assistance when needed.
- Working with community researchers to obtain digital copies.
- in cases where needed, provide opportunities to house new documentation.



# What language archives have you used?

1. National Anthropological Archives, Smithsonian Institution
2. Indiana State Library
3. American Philosophical Society
4. John Carter Brown Library, Brown University
5. Watkinson Library, Trinity College
6. Les archives de la Compagnie de Jésus, Province du Canada français, St-Jérôme, Québec
7. Newberry Library

# What do you use a language archive for?

To gather digital surrogates of all known Miami-Illinois language sources for the purpose of analyzing their content and making available for community purposes through the Miami-Illinois Digital Archive (MIDA), which is maintained through the Myaamia Center.

# What problems do you encounter when you use it?

- the search functions at several language archive catalogs are often difficult to use and counter-intuitive
- archives use a variety of spellings and references for language names that are not easily searched if the variations are unknown to the user.



# What would you like to do with an archive that it doesn't do now?

- Work with archives to update their descriptions and keywords for Miami-Illinois.
- Work with archives to share some of the transcription and analysis work done by linguists and tribal researchers, and to connect this work with the actual archival documents.
- Make archives aware of what kinds of research archival sources are being used for, and create a list of ongoing research associated with certain collections so that others who visit the archives become aware of who is doing what.

# What forms of technology are most accessible to members of your community?

Most forms of technology are currently available or accessible to the Miami Tribe community, but skill levels vary.

# Additional Comments

access (searching), locating (finding relevant materials), and obtaining copies are the three main challenges that we see.

technological advances have increased access with online search engines, but nothing currently replaces what 'archivists know' about their collections or search procedures.

locating materials is usually an issue of proper cataloging.

# Edward Alexander, Dinjii Zhuh K'yaa

Gwich'in Language Archive and Language Revitalization Center

# What do you see as the role of archives in sustaining and contributing to your native language?

- Central role
- Preserving, analog material, digitized and born digital material
- Distributing unique material
- Source of innovation
- Protected informational space
- Integrated and widespread (literally on the land) knowledge generation, preservation and sharing.



# What language archives have you used?

- Alaska Native Language Archive
- Aha Punana Leo
- Dinjii Zhuh K'yaa
- National Archives in D.C.

# What do you use a language archive for?

- to store information in an orderly fashion and to retrieve, or research information that may be unique.
- to catalogue material that may be unidentified.
- to share unique material with families that may not know the material exists.
- to provide a credible reference point for unique data that may be stored only in one place.
- To create secondary language materials for public use.

# What problems do you encounter when you use it?

- Lack of funding for the facility.
- Lack of funding for personnel/hours.
- Meaningful internet access.

# What would you like to do with an archive that it doesn't do now?

- Serve as an integrated hub for augmented reality/virtual reality data that is displayed throughout the community and region.
- Broadcast analog and digital signals of the holdings on record (radio, internet dropbox).
- Collect additional data in a more meaningful and streamlined way.
- Collect other sources of data, eg. Beadwork and skin sewing patterns.

# What forms of technology are most accessible to members of your community?

- Cell phones.
- Slow internet access at public terminals.
- Fax machines.
- Books, print media.
- Radio.

# Wesley Y. Leonard

*Miami Tribe of Oklahoma  
Southern Oregon University*



# What do you use a language archive for?

Answer: as a tool for language reclamation

*Language reclamation*: a broad effort by a community to claim its right to speak a language and to set associated goals in response to community needs and perspectives

# What do you see as the role of archives in sustaining and contributing to your native language?

- I focus on the reclamation of sleeping languages – i.e., those that are not actively known, but that exist in documentation and are claimed by a heritage community. **Archives are indispensable to sleeping language reclamation.**
- Important for language reclamation is appropriate integration of cultural beliefs, including community notions of language – e.g.:  
Language is the basket that holds all of our culture ... in order to understand why this oak tree sitting on a hilltop is *so critical* to my afterlife, the language is the only thing that explains that and carries that and is that ... I need the language to understand. I don't want to take a wrong road when I get to the edge of the land of the dead ... so language is pretty much everything.  
-L. Frank (Tongva, Ajachmem and Rarámuri artist)
- *Archives support language reclamation, but can also work against reclamation if they are organized or operated in ways that demote Indigenous worldviews.*



# What language archives have you used?

- California Language Archive/Survey of California and Other Indian Languages
- National Anthropological Archives and others in the DC area

What problems do you encounter  
when you use it?

- mismatches between the values and categories that guide archiving practices and those that guide reclamation efforts
- challenges in interpretation of archival knowledge for contemporary needs
- issues of access
- issues with some (though not many) archivists or other archive staff who are perceived not to trust Native users or who just “don’t get it”

# What would you like to do with an archive that it doesn't do now?

- When I'm engaging with archives, I want to be invited to share my definition(s) of *language* and related perspectives.
- This recognizes that there is a 'u' in *user-centered*.

# What forms of technology are most accessible to members of your community?

- ideally free (at least inexpensive) WWW-based resources
- other technology that is commonly used in the United States

# Additional Comments

- Language archives are of *tremendous* importance to Native communities, and they must be better funded.
  - In the United States, the 1990 Native American Languages Act implies that language archives should be better funded.

Michael Shepard  
Goucher College

# What do you see as the role of archives in sustaining and contributing to your native language?

- I like Gary's concept of a reservoir – the archive is a storehouse. I am currently thinking a lot about value added archive attributes especially around dissemination and use of archived resources
- The archive should be a central part of revitalization – but people in the communities I work with want to spend less time trying to be archivists and more time teaching their languages. That said, they still want a high degree of control on access and use.
- Archives have and are sites of struggle for power, control, access and ownership

# What language archives have you used?

- I have researched some of the major international archives like ELAR, DoBeS and PARADISEC
- I also studied community based archives in Alaska including C'ek'aedi Hwnax at Ahtna, *Dinjii Zhuh K'yaa* at Gwich'in and Sealaska Heritage Institute Archive
- I field tested the 1.5 V of the Mukurtu archive platform for language documentation and dissemination
- I consult with the Lummi Nation and the Northern Chumash tribe on interests in archiving and cultural barriers they experience



# What do you use a language archive for?

- Secure storage
- Research
- Evidence for court challenges to sovereignty
- Land claims/use documentation
- Ongoing documentation

# What problems do you encounter when you use it?

- Cultural protocol
- Potentially damaging access to cultural knowledge
- Replication of colonial ownership/decision making processes
- Cost, personnel, technical support, technological infrastructure
- Difficulty searching for content/low usability of archived content
- Incompatibility for education/revitalization

# What would you like to do with an archive that it doesn't do now?

- Facilitation of education
- Source reservoir for education
- Resignification, contextualization
- Direct recording uploads
- Collaborative metadata editing
- Building capacity in tribal communities
- Linked functionality for lexical database development
- Linked functionality for wider cultural resource management

# What forms of technology are most accessible to members of your community?

- Mobile phones, tablets, Internet QR codes, computers

# Linguists

Andrea Berez-Kroeker

# What language archives have you used?

- As depositor:
  - PARADISEC
  - Alaska Native Language Archive
  - Kaipuleohone
  - ELAR
- As researcher:
  - PARADISEC
  - Alaska Native Language Archive
- As director:
  - Kaipuleohone

# What do you use a language archive for?

- As depositor:
  - To preserve my fieldwork materials (media, transcripts, derived products)
- As researcher:
  - To provide a citable corpus of my own data
  - Access to other linguists' raw/primary data (usually transcripts, audio + transcripts)
  - Access to grey literature or hard-to-find publications
- As director:
  - As a pedagogical environment for linguistics graduate students
  - As a home for language-related digital materials at UH (Hamilton library, School of Hawaiian Knowledge, *J. Language Documentation & Conservation*)



# What kinds of information and search capabilities are important to you?

- As depositor:
  - Archive policies
    - Long-term plan for data viability → trustworthiness
    - How does the archive handle requests for access?
    - How straightforward is metadata creation? Metadata editing?
  - I tend not to access my own materials via the archive
- As researcher:
  - What's available? Media? Transcripts or other analysis?
  - The provenance and reliability of the materials

# What problems do you encounter using archives?

- As depositor:
  - Opaque submission procedures, especially metadata creation
  - Poor communication in the “black box” period between submission and ingestion
- As researcher:
  - Not enough context for items and collections
  - Not enough ‘apparatus’ – transcripts and other materials to understand the media
- As depositor:
  - Kaipuleohone is part of the UH DSpace IR
    - Excellent under the hood
    - The front end is awful
      - Little control over search functions, display
      - Geared toward traditional library publications, not language materials
      - Changing access conditions over time is clunky

# What would you like to do with an archive that it doesn't do now?

- More automation of services
  - Ingestion workflow tracking
  - Metadata validator
  - Various ways to visualize data
  - Annotation assistance
- Incorporation of archived data into the scientific process
  - Better integrated citation tracking
  - Facilitate access to subparts of collections, or “smart collections” for particular research purposes

Justin Spence

# What language archives have you used?

- UC Berkeley
  - Survey of California and Other Indian Languages
  - Bancroft Library (+ Online Archive of California)
  - Berkeley Language Center
  - P.A. Hearst Museum of Anthropology
- National Anthropological Archives
- American Philosophical Society
- Alaska Native Language Archive (remotely)
- [archive.org](https://archive.org)

# What do you use a language archive for?

- Supplementing published record (if it exists)
- Undoing effects of normalization and abstraction inherent to linguistic description
- Contextualizing information (names, dates, metalinguistic comments, ethnographic details, etc.)
- Recovering variation

# What kinds of information and search capabilities are important to you?

- Names, dates, locations
- How were responses elicited?
- Searchable description of content at various granularities
  - down to the level of a direct representation of the content where feasible
  - ideally, a transcription
  - rapidly locate specific information without having to read each page or listen to audio in real time
  - Lewis Lawyer: “deep access”

# What problems do you encounter using archives?

- Distance from where I live
- Cost of making copies of materials
- Inadequate metadata
  - generally a problem with the materials, not the archive
- Transcription salad
  - also a problem inherent to the materials rather than the archives



# What would you like to do with an archive that it doesn't do now?

- See above re: fine-grained searches on direct representations of content
- Connect resources across archives in a single interface
  - “all of Hupa everywhere”

# Additional Comments

- Community-generated documentation: special considerations

# Archivists and Curators

# Mandana Seyfeddinipur & Sophie Salfner

# How do users access your archive?

- Website
- Reader users
  - Registration
  - Creating public profile
  - Logging in
  - Searching and browsing the catalogue
  - Requesting access for upon-request materials
  - Viewing materials
- Depositor users (additional functions)
  - Uploading and structuring resources files and metadata [new archive system only]
  - Setting access
  - Managing requests for data access
  - Tracking downloads by reader users

# What sorts of problems are encountered by users?

- Language
  - Interface language English only
  - Catalogue and search language(s) mostly English only
- Information type (metadata)
  - Lack of contextual information at deposit/project level
- Information organisation
  - Thesaurus function not available
  - Browse options such as by language family, all dictionaries, ... not available
- Information display
- No access to resource files
  - Incl. unresponsive collection owners not processing access requests
- Incomplete materials
  - No annotations, no translations, ...

# What sorts of questions do users ask?

- Where do I find X?
- What is Y?
- What does the archive hold on X?
- Where are recordings where they speak X?
- Where are recordings of X?
- Where are recordings where they speak about X?
- Which deposits contain languages are most endangered?
- Which deposits have video, images, teaching materials, ...?

# What kinds of materials are users looking for, and in what formats?

- Researchers and students
  - Dictionaries
  - Transcriptions and translations
  - Specific Genres
  - Video recordings
  - Audio recordings
- Community members
  - Their own collection
  - Recording of their family members
  - Materials for language maintenance and revitalization
- Artists
  - Aesthetically pleasing material
  - Background research for stories
- Public
  - General information
  - Specific words, e.g. all words for 'buffalo'
  - Recordings and explanations for school homework
  - Background research for role plays
  - Songs to listen to
- Journalists
  - Materials in specific languages
  - Materials about specific communities
  - Background research for stories



# Additional Comments

## Additional ways into data

- Connecting metadata to a parallel multilingual thesaurus
  - search requests in Russian bring up results from metadata in Spanish
- Virtual guided tours on topics, areas, language families
  - Nursery rhymes, children's games, canoes, South America, Bantu, ...
- Pushing/navigating content by related terms
  - Tree > wood > canoe > fishing > fishing stories > old men > old women > women's work > cooking > recipes > ...
- Full off-the-shelf teaching sets for all levels of education
  - Children's toys (primary), colour terms across the world (secondary), multilingualism and identity (A-level, tertiary), ...
- Podcasts on archive highlights
  - Cf. British Museum's "A history of the world in 100 objects"

# Additional Comments

## Additional ways of curating data

- Crowdsourcing
  - Tag-athons: in parallel to the metadata provided by researchers and archive-based curators
  - Translating metadata: into local languages
  - Personal trails through the data: follow a user's path
  - Get involved areas on archive interfaces/archive portals
- Research on the data
  - Inviting students to add metadata, annotations, ...
  - Collaborate with other disciplines to discover and tag data, e.g. finding all the music with a computational algorithm that identifies music

# Additional Comments

Finding out about users, practices, needs

- Upon registration, ask about why people are interested
- Lightweight user testing of interface
- Studying the impact of archive
  - E.g. with the TIDSR toolkit  
<http://microsites.oii.ox.ac.uk/tidsr/welcome>

Felix Rau  
(Language Archive Cologne)



# What sorts of problems are encountered by users?

- Discovering that we have resources on a particular language
- Understanding whether the data suits their question and/or their level of understanding (e.g. level of annotation)
- Users might not have access to the data
- Contacting the corpus owner

# What sorts of questions do users ask?

- How to get an account
- Most questions come from data producers not data consumers and concern the usage of tools and the ingest portal

# What kinds of materials are users looking for, and in what formats?

- Annotated audio or video recordings – the desired level of annotation may differ.



# Additional Comments

- There are several types of archives users and data consumers are only on of the types.

# Susan Smythe Kung

Archive of the Indigenous Languages of Latin America  
(AILLA)

The University of Texas at Austin

# How do users access your archive?

- AILLA is a 100% digital archive that is only available on-line.
- AILLA has English and Spanish user interfaces (portals).
- Access to AILLA is free, and any user may read any of the metadata about the holdings.
- If users want to download any materials, they must
  - create an account and
  - agree to AILLA's terms and conditions of use.

# What sorts of problems are encountered by users?

- No keyword search ability on the current site
- Pre-set filters do not include names of people
- Access restrictions on some materials
- Technical problems
  - Problems creating an account (allowed character set)
  - No automated username look up or password reset features
  - Problems with firewalls set up by some foreign internet providers
  - Broken scripts and links

# What sorts of questions do users ask?

- I just created an account, so why can't I download any files?
- I've used the site before, so why can't I download these files?
- I see that the files I need are restricted. How can I get permission to access them?
- I can't remember my username/password. How do I retrieve/reset it?
- Which of your files would be good for me to use to learn Nahuatl?
- How can I change the way the metadata is displayed?
- Depositors: Why can't I just upload my own files and metadata to AILLA myself?

# What kinds of materials are users looking for, and in what formats?

Materials	Formats
Field notes on a particular language	Image (scanned) or text files
Word lists	Audio/video recordings & text files
Narratives – preferably with transcriptions and translations	Audio/video recordings & text/elan files
Grammatical analyses	Text or image (scanned) files
Anything in which they can hear or see their family/friends	Audio or video files, images
Language learning/teaching materials	Any format

# Additional Comments

- AILLA has only 1 full-time employee (me). Technical support comes from UT Libraries.
- Most suggestions for changes require expensive or impossible (for the current site) reprogramming.
- Current migration project underway to move AILLA's holdings and metadata into Fedora Commons digital repository with Islandora as the content management system (CMS).
- New repository system will solve many of the technical issues that users experience (I hope!).
- But what new problems will be introduced?

Jennifer O'Neal  
University Historian and  
Archivist  
University of Oregon



# How do users access your archive?

- By coming to our reading room and having physical items pulled from our collection
- Users then view collections in the reading room
- Some items are available digitally as well, but a very small percentage

# What sorts of problems are encountered by users?

- No major problems, except that it would be ideal if these items could be digitized and placed online so they could access them remotely.

# What sorts of questions do users ask?

- Who collected the items?
- Why are they in our repository?
- Who has access to the documents?

# What kinds of materials are users looking for, and in what formats?

- All types of records, mainly relating to Northwest history and areas that we focus our collecting (cultural history, writers, etc.)
- Formats include papers, records, manuscripts, photographs, recordings, film, etc.



**FIRST PEOPLES'**  
CULTURAL COUNCIL

Alex Wadsworth

FirstVoices.com

First Peoples' Cultural  
Council

Email: [alex@fpcc.ca](mailto:alex@fpcc.ca)

# How do users access your archive?

## FirstVoices.com

- officially launched in June 2003
- Supporting languages from Canada, Australia and the USA

Language Legacies Celebrating Indigenous Cultures

# FirstVoices

English Français

Des patrimoines linguistiques célébrant des cultures indigènes

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# How do users access your archive?

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## FirstVoices

### SENĆOŦEN Community Portal

ÍY, QNES QENONE TÁ- it's good to see you all

Learn Our Language Play a Game Community Slide Show

#### "First Words"

ASW seal

ĆEĆIKEN mink

KAQ baby

ĶENI seagull

App Now Available!



SENĆOŦEN app

#### About The W̱SÁNEĆ people

"Our people lived as part of everything. We were so much a part of nature, we were just like the birds, the animals, the fish. We were like the mountains. Our people lived that way. We knew there was an intelligence, a strength, a power, far beyond ourselves. We knew that everything here didn't just happen by accident. We believed there was a reason for it being here. There was a force, a strength, a power somewhere that was responsible for it. That is the way our people lived. They lived according to that belief, according to that knowledge. The universe lies before you..." David Elliott Sr. (Saltwater People, School District 63 (Saanich, 1990)

Welcome to the W̱SÁNEĆ community portal. We are Straits Salish People, also known as the "salt water people" because we lived from the bounty of the ocean and the land. Our summer homes were among the protected bays and inlets of the Gulf Islands and San Juan Islands. Our winter homes were in W̱SÁNEĆ, meaning "emerging land", or "emerging people" since the time of the great flood. Our name, W̱SÁNEĆ, was anglicized to "Saanich" when the white people arrived in our territory. Today the W̱SÁNEĆ live on four small reserves at the location of our winter village sites. The language of the W̱SÁNEĆ People is SENĆOŦEN, taught at tÁU,WELNEW Tribal School. We invite you to learn SENĆOŦEN, the first language of this land.

#### SNITQ̱EŁ-The home of the Blue Grouse

Written by STOLQ̱EŁ (John Elliott)

Blue Grouse was very plentiful at one time here in W̱SÁNEĆ (Saanich) territory, and it was most plentiful at SNITQ̱EŁ (known as Tod Inlet today). Our Saanich ancestors could go out to gather the Blue Grouse just with a basket and a stick; because there was so many that they had become tame and wouldn't even fly away. Plentiful amount of Blue Grouse is a sign of a healthy environment. SNITQ̱EŁ is very important because of its location. Protected from all winds, the water is calm even throughout the winter and bad weather season. SNITQ̱EŁ became the doorway to the winter deer hunting grounds at WMÍYEFEN (known as McKenzie Bay and Mt. Work area today). The shores at SNITQ̱EŁ are calm and steep; harvesting can be done even on a small tide. Spring salmon return to the small stream WEĆEĆE (little awakener) at the head of the inlet. W̱SÁNEĆ people trolled to SNITQ̱EŁ by canoe for fresh food in the winter months. If you ever have the opportunity to go to SNITQ̱EŁ by canoe or

#### Status of Our Language

Name of Archive	SENĆOŦEN
Language Family	THE SENĆOŦEN LANGUAGE
Country	Canada
Region	British Columbia
# of Words Archived	726
# of Phrases Archived	1325
Related Links	<a href="#">FirstVoices 3.0 find out whats new! [PDF]</a> <a href="#">FirstVoices 3.0 find out whats new! [html]</a>

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## FirstVoices

### SENĆOŦEN words

- Words
- List
  - Alphabetically
  - List by Category
  - Search
- Phrases
- List by Phrase
  - book
  - Search

Songs Stories



Return to Portal Page  
Return to Welcome Page

SENĆOŦEN	
I,OFOTEN	
Category	PART OF SPEECH
Animals - fish	Noun

ENGLISH  
rock cod

LITERAL TRANSLATION

SENĆOŦEN SAMPLE SENTENCE

ENGLISH SAMPLE SENTENCE

CULTURAL NOTE

Multimedia File Information

Manny Cooper  
Audio  
Voice: Manny Cooper  
Recorder: Randy Elliott  
Image  
Photographer: Dive BC  
Recorder: P Brand

About Our Archive

#### Audio

Click to play audio

#### Image



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FirstVoices

# How do users access your archive?

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**FirstVoices**  
FirstVoices

**Play a Game today!**

Choose a game and start playing!  
FirstVoices games make learning fun.

All FirstVoices games depend on content uploads from each Aboriginal language community. When not enough content is available to allow a game to function, an error message may appear.

**Word Search** search d  
Find the Hidden Words

requires Flash

**Jigsaw Puzzle**  
Put the Pieces Together

requires Flash

**Concentration**  
Find the Matching Pairs

requires Flash

**Concentration**  
Find the matching pairs!

the original doesn't require Flash

**Quiz Me**  
Choose the Correct Answers

**Sentence Scramble**  
Unscramble the Sentences

**Picture This**  
Match the Number to the Word

**Hangman**  
Add the Missing Letters

**Label Maker**  
Create Labels for Objects

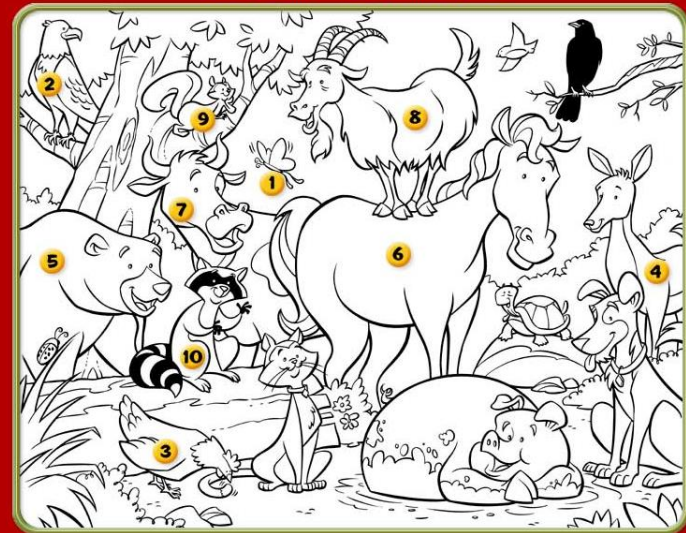
**Flash Card Maker**  
Create Cards for Fast Learning

HOME ABOUT US Choose A Language HELP GAMES

**FirstVoices** Halq'eméylem Picture This Game YOUR SCORE 0



Click any number on the picture, then click the button beside the matching word.  
Don't forget to find the hidden crow in every picture!



spáth  
English  
Black Bear

smimeyáth  
English  
Butterfly

chékel  
English  
chicken

músmes  
English  
cow

t'í'átele  
English  
Deer

sp'ó'a'es  
English  
eagle

p'ó'elqel  
English  
Mountain Goat

stí'áw  
English  
Horse

mél'és  
English  
raccoon

squirrel

80

PLAY AGAIN

EXIT





# How do users access your archive?


FirstVoicesKids.com  
Repurposes select  
data recorded at  
FirstVoices.com for  
Pre-readers aged  
0-5




# How do users access your archive?

  
FirstVoices  
Kids












  
FirstVoices  
Kids




FirstVoices Kids - Exploring Pictures - Halq'eméylem

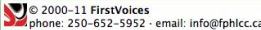
ANIMALS

 Halq'eméylem : thewéthem English : fish going to spawn 	 Halq'eméylem : mi meqw English : small bird 	 Halq'eméylem : mi't English : Blue Grouse 	 Halq'eméylem : mexáih English : Caterpillar 
 Halq'eméylem : méléš English : Raccoon 	 Halq'eméylem : méléš English : raccoon 	 Halq'eméylem : miš'ém English : to jump of a fish 	 Halq'eméylem : xep'tset English : Chipmunk 











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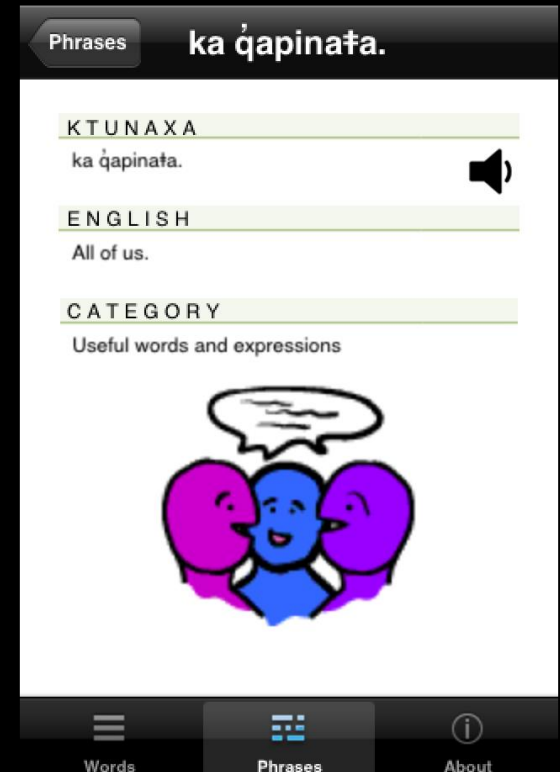
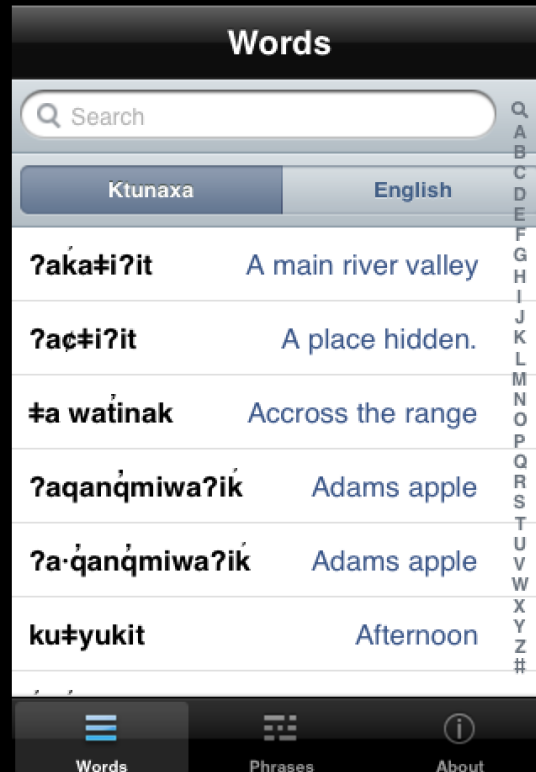


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# How do users access your archive?



FirstVoices mobile apps repurpose a snapshot of data recorded at FirstVoices.com

# Current FirstVoices Resources

Web-based tools to support First Nations communities engaged in language archiving and teaching. Includes:

- Community Portal
- Alphabet
- Dictionary
- Phrases
- Songs
- Stories
- Games
- FirstVoices Kids
- Grammar
- Punctuation
- Tutor
- Dictionary Apps
- Language Lab
- Chat App
- Keyboards



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# What sorts of problems are encountered by users?

FirstVoices is in need of an upgrade:

- Originally created to support dial-up users.
- Hasn't had a technology refresh in a long time.
- Flash and Java problems
- Currently server based
- plan is to move to the cloud – better reliability and uptime.
- Plan to open source new system to allow for additional collaboration.

# What sorts of questions do users ask?

- How do you say this in Language
- How can I type this on my computer
- Can I use this on my mobile device?

# What kinds of materials are users looking for, and in what formats?

- Words and phrases
- Audio
- Lessons
- Keyboards
- Apps



[www.fpcc.ca](http://www.fpcc.ca)

[www.firstvoiceskids.com](http://www.firstvoiceskids.com)

[maps.fpcc.ca](http://maps.fpcc.ca)

[www.endangeredlanguages.com](http://www.endangeredlanguages.com)

[www.firstvoices.com](http://www.firstvoices.com)

[tutor.firstvoices.com](http://tutor.firstvoices.com)

[www.fp-artsmap.ca](http://www.fp-artsmap.ca)

[alex@fpcc.ca](mailto:alex@fpcc.ca)



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# Experts in User-Centered Design

Crysta J. Metcalf Ph.D.

# How have you applied user-centered design in your work?

- For my entire career, I have conducted research with people in many different occupations and different walks of life, who use different types of technologies, in order to design new software systems for them to use.
  - Sometimes we were designing entirely new systems
  - Other times we were revising current systems so they met the needs of the users
  - Always we worked collaboratively on multi-disciplinary teams focused on the users

# What challenges have you faced?

- Many, but for this project I think the biggest challenge is the diversity of goals for the different user groups. The fact that each group of users of the archives might be using the same archive system for very different reasons, and may be wanting very different kinds of results, makes this design problem especially challenging.

# How could UCD contribute to the development and use of language archives?

- I think that the focus on the users in User-Centered Design is the key. In UCD we don't assume needs or goals or workflows, we don't design what WE want or would use - we talk to the people who will be using the technology, and engage in a dialectical design process, so the result should meet the needs of all of the users in an intuitive way for each group.

# What might the process look like?

- I envision a similar process to what I have used in the past.
  - Understand the problem
  - Talk to the users
  - Maybe do a bit of contextual inquiry with current tools (watching someone use something and asking them questions while they do it),
  - Creating some designs and circling back with the user groups for their assessment of the design
  - Then iterating on the design with continued input from the different user groups
- But I'm always open to new ideas...

# Additional Comments

- I am looking forward to it!
- Thank you!

# Santosh Basapur

Faculty Member  
IIT Institute of Design  
Chicago



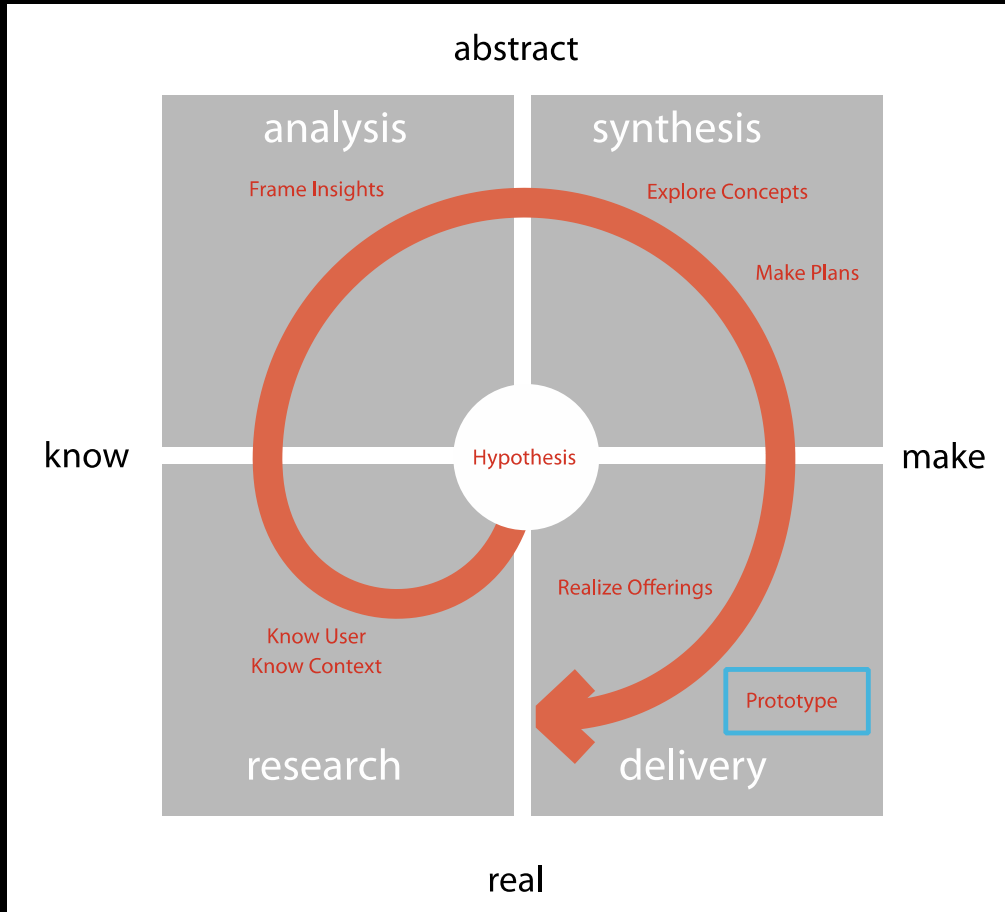
# How have you applied user-centered design in your work?

10+ years of UCD at Motorola Inc., Motorola Mobility (a Google Company) and Arris Inc.

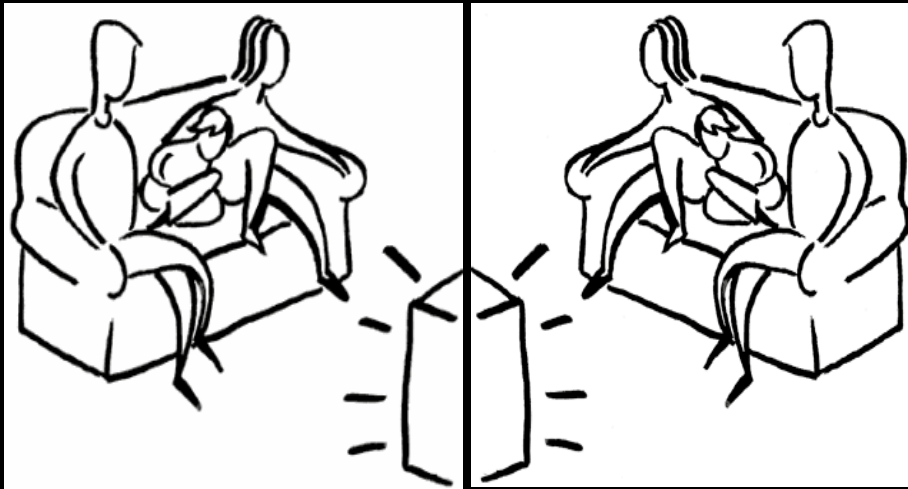
3 years of teaching User Experience Design (UCD ) at Institute of Design

Applied UCD process to variety of products Voice User Interfaces, Bluetooth Hands-free Calling in Cars, Phone Features to “future of communication” and “interactive Media” concepts

# UCD Research based Products



# UCD based Communication Concepts: Video Telephony



# Social TV

Social viewing of content and communication.



# Location Based Narratives & Communication

Location based “story telling” to connect generations of a family through the city scape

- Recording of videos and saving them to real-world places
- Serendipitous discovery of these videos as pre-tagged recipients pass them in everyday routine
- Promotes intergenerational communication
- Builds nostalgia around cities and communities

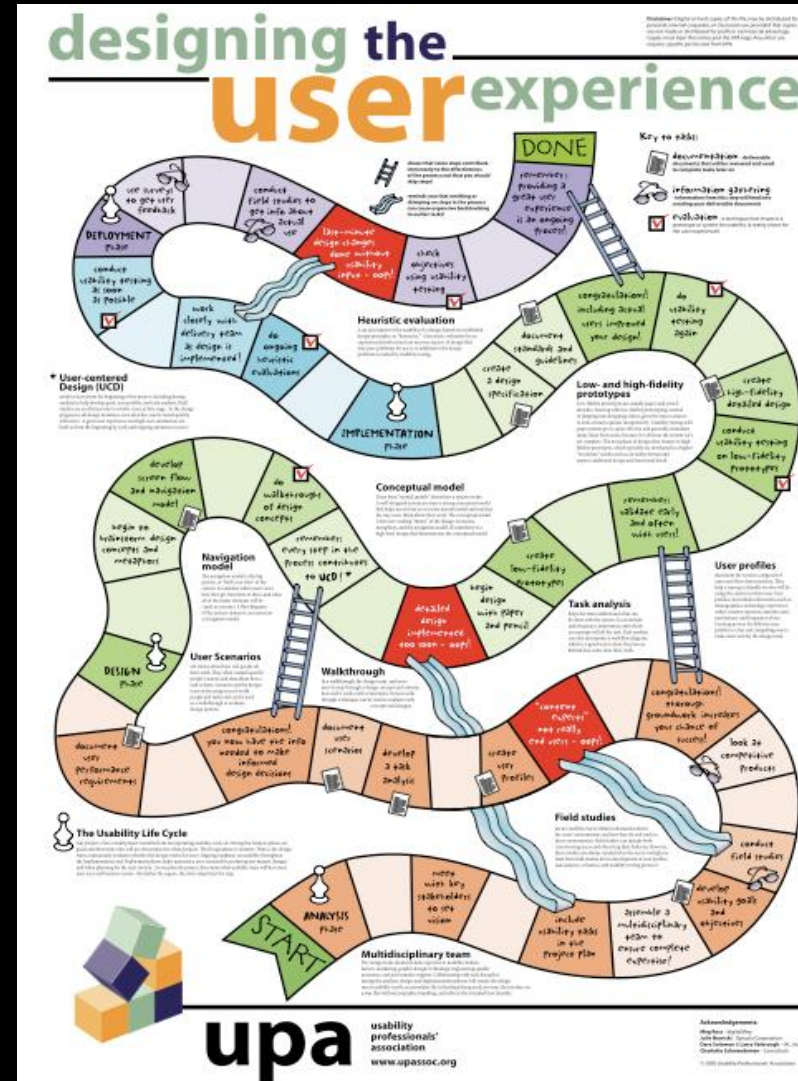
The screenshot shows the StoryPlace.me website interface. At the top, the logo "StoryPlace.me" is displayed with a location pin icon. Below the logo, there is a "What is StoryPlace.me?" section with a play button icon and a red location pin. The text explains that StoryPlace.me is a mobile service for sharing videos with friends at different locations. To the right of this section are login fields for "Email:" and "password:", a "Sign in with Facebook" button, and "Login" and "Sign Up!" buttons. Below the login section is a "How it works." section with a red header. It contains six panels: "Tell a story at a place" (a person holding a camera), "Create a story" (a person holding a smartphone), "Place it" (a smartphone showing a map), "Share it" (a smartphone showing a social media post), "Discover video at your location" (a person walking past a building with a location pin), "Get notified" (a smartphone showing a notification), "Navigate to story" (a person walking past a building with a location pin), and "Play video" (a person watching a video on a smartphone). On the right side of the page, there is a "Get to know your city!" section with a location pin icon and text about following public collections of videos.

# What challenges have you faced?

Developing empathy for users in stakeholders – technologists, marketing, business leaders is always a challenge

User research can get bogged down – analysis paralysis and not insightful and actionable

Short term is obvious but long term is fuzzy and needs faith





# Latest UCD applications at Institute of Design

To design future of Operation Theater

To design the Bike Sharing Service such as to bring equity to marginalized communities of Chicago

To design the Smart Homes and Smart Workplaces of the future

and now to design the Digital Archives that help preserve languages of Americas



# How could UCD contribute to the development and use of language archives?

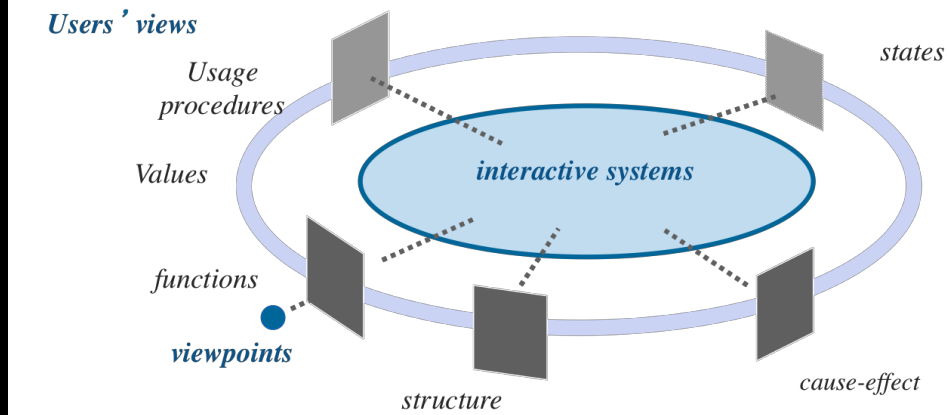
Complex multi-stakeholder project is ideal for UCD approach

Empathy for languages is essential to solution development

Human Factors Thinking - Technology needs to fit people practice today

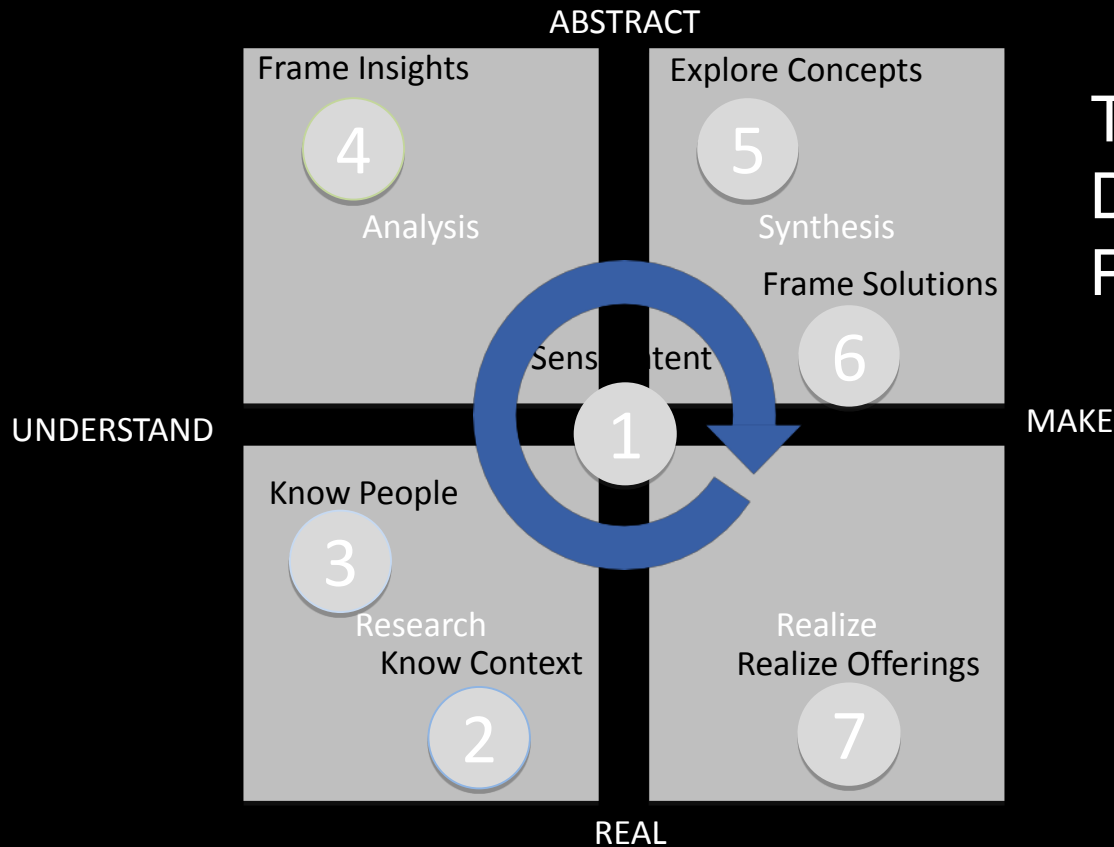
Design Thinking - Future oriented archiving objectives need to be anticipated

*Bridging Multiple Views of Consumer for Human-Centered Innovation*





# What might the process look like?



## The User Centered Design Innovation Process

# Additional Comments



Corporate Research → Social Innovation based in UCD at IIT Institute of Design, Chicago.

# Concerns of Funding Agencies

Shobhana L Chelliah

# Relevance of language archives to the National Science Foundation

US National Science Foundation DMP requirement

Documenting Endangered Languages Program (DEL) goal:

“develop and advance knowledge concerning endangered human languages,” using “advances in information technology to build computational infrastructure for endangered language research.”

DEL achieves these goals through a program specific DMP which requires archiving

# Challenges to the sustainability and use of language archives

- Archived material does not count for publication
- Variable standards
- Cost of archiving
- Changing interests in digital data
- Developing countries face infrastructure issues

# Main challenges facing the field

- Determining what counts as reliable data
- Engendering a culture of data sharing
- Data citation which includes citing data from archives
- Questions of intellectual property
- Curriculum which includes proficiency in data curation

# The need for Responsive Methodology (RM)

Language Documentation methods for community  
members and novice linguists