Technology and Community-Engaged Language Revitalization

Building Accessible Solutions in Awakening the Tunica Language

Andrew Abdalian • Tunica Language Working Group

Outline

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- Reconceptualizing "the field"

- Digital technology in Indigenous language revitalization

- The Tunica language

- Tunica language revitalization

- Digital products in Tunica revitalization

- Conclusions

Introduction
Why language revitalization?

- Language endangerment caused by pressures on minoritized language communities by encroachment of **hegemonic languages**

  - Languages of government, education, economic opportunity, "mainstream" culture

- Communities continue to work to retain or reclaim their heritage language(s)

- Health and educational benefits of Indigenous language use (Whalen 2022; McCarty 2021)

Introduction
Potential difficulties of language revitalization

- Break in intergenerational transmission

- No written form

- No or little presence in certain environments (domains)

- In **reawakening languages**, no documented vocabulary for recent concepts

  - Languages that were not spoken for a period of time

- Language decoupled from the rest of cultural life

Digital technology in Indigenous language revitalization (ILR)

- Source of both optimism and concern

- Promise of attractive, interactive ways to engage with language

- New domain for Indigenous language use

- Digital presence can improve language's reach and perceived prestige

"It is quite difficult to imagine the survival of Indigenous languages without support from digital technologies, with their ability to record, preserve, analyze, manipulate and transmit languages in a myriad of ways."

Galla 2018, 100

Digital technology in Indigenous language revitalization (ILR)

Sources of concern

- Significant investment and maintenance costs (both time and money)

- Varying quality and effectiveness (De Korne 2009)

- High learning curve

- Sovereignty and control issues

"[D]igital technologies used to document, archive, and teach language have also contributed to privacy concerns, cultural appropriation, misuse of control, and the manipulation of cultural knowledge."

Galla 2018, 104; Delgado 2003

Reconceptualizing "the field"

- Traditional view of fieldwork

  - Process of extraction (of information or physical material)

  - Linguistic fieldwork: collection of linguistic information for academic study

    - Value of Tunica tied to its status as a language isolate

- In community-engaged Indigenous language research, "the field" is both the source of information and the beneficiary of analysis

  - "[S]eeks and nurtures community involvement, leverages community knowledge, and is led by community need." (Baldwin et al. 2022, 176)

"If it is a Pa'ni [Caddoan] language I would not attach so much importance to this discovery to as to devote weeks or months upon its study; but if it forms a new stock, it would be worth a profound study here on this spot…"

1886 letter from Albert Gatschet to the Bureau of American Ethnography

Reconceptualizing "the field"
"The field" in community-engaged ILR

- Community dictates the information-gathering and co-creates scholarship

- Scholarship undertaken to further community goals

"Community engagement research is a framework that seeks and nurtures community involvement, leverages community knowledge, and is led by community need."

Baldwin et al. 2022, 176

Reconceptualizing "the field"
Language reawakening contexts

- Concept of "the field" flipped on its head

- Because there are no speakers, the community can no longer be the main source of linguistic information

- Language information often found in extractive or assimilatory documents

  - "The field" largely in museums and archives

- "Fieldwork" in language reawakening is the repatriation of language information to the community

The Tunica language

- A heritage language of the Tunica-Biloxi Tribe of Louisiana

- Language isolate, unrelated to any known language

- Last known native speaker, Sesostrie Youchigant, died in 1948

- Three periods of documentation before that time (1886, 1910, 1930s)

  - Field notes (Gatschet 1886; Swanton 1910, 1930–1931; Haas 1933–1939)

  - Sketch grammar (Swanton 1921), grammar (Haas 1940), texts (Haas 1950), dictionary (Haas 1953)

The Tunica language
Early revitalization efforts

- 1948: Sesostrie Youchigant, last known native Tunica speaker, dies

- 1964: Chief Joe Pierite writes Mary Haas requesting copies of her Tunica work

- 1960s–1980s: Sharing of Tunica stories and recordings of songs by tribal members

- 1990s: Language summer camps

- **2010: Tunica-Biloxi/Tulane University language revitalization collaboration begins. Kuhpani Yoyani Luhchi Yoroni (KYLY), the Tunica Language Working Group, is created**

- 2014: Tunica-Biloxi Language & Culture Revitalization Program (LCRP) created

Tunica language revitalization
KYLY: 2010 – present

- Language classes, summer camp, immersion workshops

- Transformation of existing documents into more accessible products

  - Tunica grammar (Haas 1940) → *Tunica Textbook* (KYLY 2023)

  - *Tunica Texts* (Haas 1950) → children's books (KYLY 2011; KYLY 2025)

  - *Tunica Dictionary* (Haas 1953) → online dictionary and dictionary apps

beads
say'ɔhta, laspita'eyu

beak
*shtahka

beam
ritoru

bean
shihpari

bear
nokushi

a

b

c

Arhilani Wirani Luhchi Yoroni

(Tunica Language Story Time)

Traditional Tunic...

as told by Sesostrie Y...

ROWINATAWORU LUHCHI YORONI

TUNICA LANGUAGE TEXTBOOK

KUHPANI YOYANI LUHCHI YORONI

THE TUNICA LANGUAGE WORKING GROUP

Hichut'una
Awachihk'unanahch

Fighting Eagles

As told by Sesostrie Yo...
Illustrat...

Digital products in language revitalization

- Endangered Language Computer-aided language learning (EL CALL)

  - Use existing solutions where possible

  - Solutions should be simple, reliable, easy to use, able to be quickly updated, and have low investment and upkeep costs (Ward and Genabith 2003)

Digital products in Tunica revitalization
Tunica dictionary

- Based on Haas's *Tunica Dictionary* (1953)

- Digital dictionary originally only available in SIL's Fieldworks Language Explorer (FLEx) database

  - Designed for linguists doing fieldwork

  - Only available locally on a Windows PC

  - Exportable as a printable PDF or a very basic HTML text export

Digital products in Tunica revitalization
Tunica dictionary

- Webonary

  - Allowed simple export from FLEx to a WordPress site hosted by SIL

  - Better search functionality (search only in one language, search full words only, easy entry of non-Latin characters)

  - No administrator control of the WordPress instance

  - Requires active Internet connection

Digital products in Tunica revitalization
Tunica dictionary

- Dictionary apps

  - Complicated process to use SIL's Dictionary App Builder to build the app

    - Requires far more technical knowhow than Webonary export

    - Requires a Mac to build the iPhone app

  - Must rebuild the entire app to update the content

  - Requires app store accounts. App subject to approval by Google and Apple
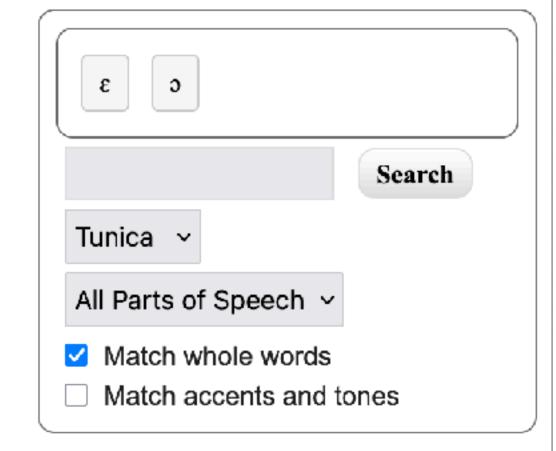
  - Available offline

Tunica-English Dictionary

Search for a word in the Tunica-English dictionary.

To search for a word, type it into the box on the right.
You can search for a word or part of a word in Tunica or in English.
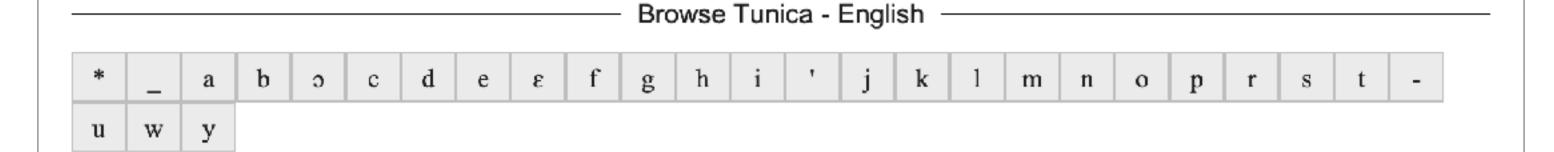To enter characters unavailable on the keyboard, click on one of the buttons above the search box.

[Tip: you can ignore the Languages and Parts of Speech drop-down boxes - they are for advanced searches]

ε ɔ

Search

Tunica ⌄

All Parts of Speech ⌄

☑ Match whole words
☐ Match accents and tones

Number of Entries

Tunica: 3675
English: 3298

Last upload: September 30, 2025

Browse Tunica - English

| * | _ | a | b | ɔ | c | d | e | ε | f | g | h | i | ' | j | k | l | m | n | o | p | r | s | t | - |
| u | w | y |

Overview   **Search**   **Browse**   **Language**   **Links**   **Download**   **Help**

Tunica Dictionary

TUNICA   ENGLISH

beads
say'ɔhta, laspita'eyu

beak
*shtahka

beam
ritoru

a
b
c

‹ Back

Version History

1.4   4mo ago
bug fix - search crashing

1.3   7mo ago
Most up-to-date Tunica lexicon

1.0   1y ago

Digital products in Tunica revitalization
Tunica dictionary

- An app on the app store may raise prestige, but is slower to update

- Future directions

  - Searching for an web-based solution to replace apps

  - Living dictionaries (https://livingdictionaries.app/)

    - Doesn't yet import from FLEx

    - Web app (no need to build apps, go through gatekeepers)

    - Offline data access

Digital products in Tunica revitalization
Tunica texts

- Based on Haas's *Tunica Texts* (1950)

- Digital **interlinear texts** originally only available in SIL's Fieldworks Language Explorer (FLEx) database

  - Texts displayed in several tiers, each examining the language at a different level of specificity

Text

Title

tun

en   43d. A Star Country

Info | Baseline | Gloss | **Analyze** | Tagging | Print View | Text Chart

1 **Word**   Tastihpulat'ɛ   sahkun   , hal'ukin

Morphemes   tastihpula -t'ɛ   sahku -n   hal'ukin

Lex. Entries   tastihpula -t'ɛ₁   sahku -n₄   hal'ukini

Lex. Gloss   star   big   one   nasal prosody   (the) world
Lex. Gram. Info. n   Attaches to any category   num   Attaches to any category   n
Word Gloss   a big star   one   a world
Word Cat.   n   num   n

arani   tastihpulat'ɛ   kichun

ara   -ani   tastihpula -t'ɛ   kichu   -n

ara₁   -ani₁   tastihpula -t'ɛ₁   kichu   -n₄

existential - "there is/was"   QUOT, "it is said"   star   big   inside of   nasal prosody
v.chameleon   v:(Quotative) n   Attaches to any category   post   Attaches to any category
there is, it is said   the big star   inside of (it)
v.chameleon   n   post

Free (There is) a certain big star (which) has a world inside of it.

Digital products in Tunica revitalization
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  - Texts displayed in several tiers, each examining the language at a different level of specificity

  - Same issues as the dictionary:

  - Designed for linguists doing fieldwork, only available locally on a Windows PC, exportable as a printable PDF or a very basic HTML text export

Digital products in Tunica revitalization
Tunica texts

- Interlinear texts are daunting

- Allow users to customize their experience by adding and removing tiers

- Lingview (Pride et al., 2020)

43d. A Star Country

1

Speakers:

Show/hide tiers:
- ☑ Luhchi Yoroni words
- ☑ Luhchi Yoroni morpheme (as in the text)
- ☑ Luhchi Yoroni morpheme (citation form)
- ☑ English morpheme gloss
- ☑ English free

Tastihpulat'ɛsahkun hal'ukin'arani tastihpulat'ɛkichun.

Tastihpulat'ɛsahkun	hal'ukin'arani	tastihpulat'ɛkichun
tastihpula-t'ɛ+sahku+n	hal'ukini+'ara-ani	tastihpula-t'ɛ+kichu+n
tastihpula-t'ɛ+sahku+n	hal'ukini+***-ani	tastihpula-t'ɛ+kichu+n
star-great, big+one+nasal prosody	town, village+***-QUOT, "it is said"	star-great, big+in+nasal prosody

(There is) a certain big star (which) has a world inside of it.

English ⌄

43d. A Star Country

1

Tastihpulat'ɛsahkun hal'ukin'arani tastihpulat'ɛkichun.

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☑ English free

English ⌄

Digital products in Tunica revitalization
Tunica texts

- Interlinear texts are daunting

- Allow users to customize their experience by adding and removing tiers

- Lingview (Pride et al., 2020)

  - Not updated often

  - Requires technical knowledge and server space for set up

  - Internet connection required

- Search for a fully accessible solution continues

Digital products in Tunica revitalization
Tunica texts

- Reformat original Haas texts??

  - Does not use modern orthography. Mostly not interlinear

  - Not digital

- Improves readability of original work

- Allows language workers and learners to read original translations and see text as originally documented

- PDFs are very accessible: downloadable, readable, offline.

a.   ta´yatosi´nimǎn, ta´rkuki´čǔn, laka´nì.   hin-hč, ka´tǎn,
ri´hkuwa´kǎn, ʔu´rǎhč, hǐhč, yu´kana´sitǏhč, ra´pusitɛ´nì.   ka´kǔn,
sinta´pʔuwanakʔǏhč, ka´tǎn, ta´rihkuwa´kǎku, ʔu´rakʔǏhč, hiyu´kaw-
ʔǏhč, sinta´piwikʔahčá.   sinta´piri´hčuwʔǏhč, ʔu´rišsinču´yukawik-
ʔahčá.   h-hč, ya´nišʔɔ´ndeti´šiču´wʔǏhč, sinsa´kuyu´wawikʔahčá.
ta´yato´hǒku, wi´staya´wǏhč, ʔu´witǎn, sa´kumekɔ´nì.   ti´kara´wǏhč,
ta´rkukičʔu´wǎhč, ʔuwe´nitištukʔɔhɔ´nì.
b.   ta´yasi´nimǎn, ka´tǎn, ču´hkiʔe´lǔn, na´mupa´nuya´tǏhč,
ta´yasi´nimǎn, hiyu´kasa´kusitɛ´nì.   la´hilatǏhč, ʔa´hakʔǏhč,
la´hontoya´kasi´tǏhč, sa´kusitɛ´nì.   ʔa´marsa´kusi´tǏhč, ha´tikǎn,
ta´rkuki´čǔn, ma´rǔn, si´sitašɛ´nì.

a.   Fawns live in the woods. They go lie (beside) a fallen
log and sleep there.[1] If anyone wants to catch them, he must go
(to a place) where (there) is a fallen log; when he gets there, he
will catch them.[2] If he catches them and ties them, he can take
them home. He should give them cow's milk to drink.[3] When a fawn
gets tame, he searches for food himself. When he gets big and goes
off into the woods, he cannot be found.
b.   Deer go and feed (at a place) where (there) are a great
many acorns.[4] At dusk or early in the morning, they come and feed.
When they have eaten enough, they always go back into the woods
again.

B About Deer

a.

1. ta'yatosi'nimăn, ta'rkuki'čhŭn, laka'nì.

   Fawns live in the woods.

2. hin-hč, ka'tăn, ri'hkuwa'kăn, ʔurăhč, hĭhč, yu'kana'stĭhč, ra'pusitɛ'nì.

   They go lie (beside) a fallen log and sleep there.[43B.1]

3. ka'kŭn, sinta'pʔuwanakʔĭhč, ka'tăn, ta'rihkuwa'kăku, ʔu'rakʔĭhč, hiyu'kawʔĭhč, sinta'piwikʔahčá.

   If anyone wants to catch them, he must go (to a place) where (there) is a fallen log; when he gets there, he will catch them.[43B.2]

4. sinta'piri'hčuwʔĭhč, ʔu'rišsinču'yukawikʔahčá.

   If he catches them and ties them, he can take them home.

5. h-hč, ya'nišʔɔ'ndeti'šiču'wʔĭhč, sinsa'kuyu'wawikʔahčá.

   He should give them cow's milk to drink.[43B.3]

6. ta'yato'hŏku, wi'staya'wĭhčh, ʔu'wităn, sa'kumekɔ'ní.

   When a fawn gets tame, he searches for food himself.

7. ti'kara'wĭhč, ta'rkukičʔu'wăhč, ʔuwe'nitištukʔɔhɔ'nì.

   When he gets big and goes off into the woods, he cannot be found.

b.

8. ta'yasi'nimăn, ka'tăn, ču'hkiʔe'lŭn, na'mupa'nuya'tĭhč, ta'yisi'nimăn, hiyu'kasa'kusitɛ'nì.

   Deer go and feed (at a place) where (there) are a great many acorns.[43B.4]

9. la'hilatĭhč, ʔa'hahkʔĭhč, la'hontoya'kasi'tĭhč, sa'kusitɛnì.

   At dusk or early in the morning, they come and feed.

10. ʔa'marsa'kusi'tĭhč, ha'tikăn, ta'rkuki'čhŭn, ma'rŭn, si'sitašɛnì.

    When they have eaten enough, they always go back into the woods again.

Conclusions

- Language reawakening projects repatriate extracted linguistic information to the community

- Digital tools can facilitate, but must operate within the constraints of these projects

- KYLY's digital tools experience has shown that EL CALL toold should be user-friendly, simple, customizable, cross-platform, and *tailored to community need*

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Tikahch
(Thank you)