CLD:
Software for analysis of Anishinaabemowin texts and recordings

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CLD Overview

- Preliminary report on software under development
  - Computational Language Documentation/Description
  - Design strategy: develop by using to analyze Anishinaabemowin
- Intended uses/extensions:
  - language instruction
  - language technology
  - linguistic studies

Organized around texts

{home} > langs > lang.otw

Lexicon

otw

Texts

10 Gaa-zhi-ndaadizid Nenabosho - The Birth of Nenabosho
7 Lesson 10: Two Types of Nouns
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+

A published text

"mbe, mii sa iwi. aanii giiyeN goona da gii zhi-anishinaabekaaning ikwewok ji gichi mashkowaziiwaat. gaawiin go wiikaa miinawaa daa zhiwebasinoo iwi, owo ikwe iidik ji dash mashkowazit, ooshame go ji mashkowazit, nini dash. gichi noondaach ikwewok da piichiilwiwok ge nibimaadizidjik.",

gii kidawon dash giiyeN maaba oshkinowe newe.

aaniish, miidash gonaa gaye gaa bizhiwindawaauaagoweN gewe gaa dibaadjimagik gichi miigwech gonaa gaa bazindawa yek.

anishinaabe waabshkibinesiwon gaa debinaadjin

miidash go owo dash go waa dibaadjimak, oshkiniigish maaba, gii nowiigizi gonaa iwi oshkiniigit. yaawaa sa maaba anishinaabeNs, aapidji gonaa (doo) gaachiiwibae, ginimaa gaye gonaa ngodwaaswi (doo) sabiboonigizigoban, ginimaa gaye gonaa niizhwaaswi (doo) sabiboonigizigobar, mii ninda niikigoon maaba oshkiniigish gii nibowonit. bezhik dash giiyeN gonaa zhewe mindimooweN gonaa, geget gonaa ji kida yinggoban, mii iidik maaba gaa daapinaat newe, gaa inendang sa gonaa ji koginaapas ninda gwiiwizeNson. (doo) nowiigiizi maaba. aaniish, miidash go gii miinind ninda gwiiwizeNson wii ganawenimaat. aaniish, (doo) nowiigiizi sa maaba gwiiwizeNs, aaniish, mii sa go iwi gii ganawenimaat. miinawaa gaye maaba oshkiniigish (doo) wiidookowaat gonaa wiidji gwiiwizeNson, mii gonaa gewiin gegoo gaa oonji gikendang. miinawaa gaye gonaa (doo) miinaa gaye gonaa mitigowaabiin gaye go bikwakooNsan gaye, (doo) wiikodjitoot gonaa gewiin wii bimodaakowet. anishinaabeNsak gonaa. mii gonaa gaa thikinoomawindowaa iwi. wii gwenaakowewaat gonaa ninda mitigowaabiin wii nakaazawaat. miidash go maaba oshkiniigish iwi gaa zhiyaat go. miinawaa gaye gii nitaa bagito gaye. miinawaa gonaa (doo) googiit gaye, mii go e zhinoonaaflxit go. niyii dash ko ndoo zhiwaabidaan iwi ziibiing niiyiin, mitigooNson gonaa, memdig go naasaap go naanigodinong jiigi ziibi, miidash ko iidik zhewe naamiyiing wii mookiset. aapidji dash gaye go gibeying ko gii nonaadini. miidash gwonda gaa inendamawaat gwonda aanind begizodjik.

"Okay, that so... ...man can be that strong among the Anishinaabe people. That will never happen, ever again, that a woman will be that strong, and stronger than a man. The women from now on will not be as strong as that of a man."

This is what the big man said in the presence of this younger man. Well, this is what must have befell these people I am talking about, that is, the big man's words came to pass. Thank you very much for listening to me.

The Man Who Caught the White Eagle

This young man I am going to talk about now, he was orphaned as a child. This young man was very small, maybe he was six or seven years old when his parents died. So there was an older woman in the community who decided to raise this young child as her own. This child was an orphan. So this older woman was given the child to raise as her own. And so she raised this orphaned child. And as this child grew up, he played with the other children, and this is how he learned to do things that were expected of him. Someone gave him a small bow and some arrows so he could learn how to shoot an arrow and hit a target. This is what the young boys of the time were taught, they had to know how to shoot an arrow using a bow. And this young boy learned to use a bow and an arrow. And this boy learned quickly and easily. Also, this boy learned to swim very well, he was an excellent swimmer. Also, when he went into the water, it seemed he could go under for a long, long time. I used to see the reeds and shrubs along the river, and this young boy apparently would swim in and hide among those reeds and bushes that grow along the river. And he would be gone for long periods of time when he went under. And the other people who would be swimming there as well, they were awed by this feat.

A text

[home] > langs > lang.otw > text.13 > txt > edit

| Show Translation | Edit Metadata |

The Man Who Caught the White Eagle pp.164-165

Author: Howard Webkamigad
Language: otw
Orthography: default

Text

0   "gaawiin sa wiyii niiniin owo ogimaakwenhs ginigenh ndaa
    ganawaabimigoosii.   [+ | edit | igt | X]

1   gaawiin niyii gonaa e zhidiniwaat gonaa gwonda oshkinowek e
    niikozidjik, gaawiin niiniin iwi ndoo zhiyaasii.   [+ | edit | igt | X]

2   pane gonaa maanda bigikendamaanh gonaa ndoo bigidimaagiz.   [+ | edit | igt | X]

3   aaniish, aanowi go ggii nitaawigish.   [+ | edit | igt | X]

Entering new text

miinagoom."

9   aanish, mii sa iwi gii shkwaa danaandigidoong gewiin maaba sa mindimoowenh.   `+` `edit` `igt` `X`

10   aanish, noomak go dash maaba oshkinowe go bekaa go gii yaa.   `+` `edit` `igt` `X`

11

```
gaawiin go wewiip go gii ganoonaasiin.
```

[Commit]   [Cancel]

[+]

Romanization example: Salish

l*u pu*ti skw'kw'i*m'lt u esm'emscu*

łu púti skʷ'kʷ'íṁlt u esṁemscú

Show translations

[home] > langs > lang.otw > text.13 > para > edit

| Hide Translation | Edit Metadata |

The Man Who Caught the White Eagle pp.164-165

Author: Howard Webkamigad
Language: otw
Orthography: default

Text

0 "gaawiin sa wiyii niiniin owo ogimaakwenhs ginigenh ndaa ganawaabimigoosii.   + edit igt X
   "Oh, that daughter of the chief would not even l upon me.

1 gaawiin niyii gonaa e zhidiniwaat gonaa gwonda oshkinowek e niikozidjik, gaawiin niiniin iwi ndoo zhiyaasii.   + edit igt X
   I am not well off as the young men who have pa

2 pane gonaa maanda bigikendamaanh gonaa ndoo bigidimaagiz.   + edit igt X
   For as long as I can remember, I have always be

3 aaniish, aanowi go ggii nitaawigish.   + edit igt X
   However, you did raise me well.

4 aaniish, nonggom dash mii gonaa bidjiinak gowekotaa yaanh gonaa ji zhitoo yaanhmbaan gonaa geniin ge nakaaza yaanh, niin gonaa geniin."   + edit igt X
   And now I am getting old enough so I can begin myself and make the things for myself that I will

Interlinear glossed text

[home] > langs > lang.otw > text.13 > igt > edit.11

| Text | Metadata |

The Man Who Caught the White Eagle pp.164-165

Paragraph 11

| Prev | Next |

gaawiin go wewiip go gii ganoonaasiin.   edit
not   really ?   really past ?

He did not respond to her right away.

| Prev | Next |

Selecting a word

dg.ow > text.rs > igt > edit.rr.s

adata

Who Caught the White Eagle pp.164-165

vewiip go gii **ganoonaasiin.**
really past ?

edit

spond to her right away.

ganoonaasiin.0

Lexicon

Senses: ganoonaasiin.0

Similar: Gaawiin.0 aaniind.0 baataashin.0 baatiina.0 daapinigaasiiwag.0
ezhi-gindaaswinkaadeg.0 gaa'iin.0 gaawiin.0 ganoonaan.0
gigkenmaasiig.0 mayiingganon.0 mitigowaabiin.0 mitigowaakiing.0
niimiyaasiimi.0 nonaadizi.0 noondaagozit.0 noondawishin.0
oganoonaan.0 waakiing.0 wiigwaasmin.0 zhinonaadizit.0 zhiyaasii.0

ganoonaasiin.0   edit goto conc X

A similar word

ganoonaasiin.0

[Lexicon]

Senses: [ganoonaasiin.0]

edit

Similar: [Gaawiin.0] [aaniind.0] [baataashin.0] [baatiina.0] [daapinigaasiiwag.0]
[ezhi-gindaaswinkaadeg.0] [gaa'iin.0] [gaawiin.0] [ganoonaan.0]
[gigkenmaasiig.0] [mayiingganon.0] [mitigowaabiin.0] [mitigowaakiing.0]
[niimiyaasiimi.0] [nonaadizi.0] [noondaagozit.0] [noondawishin.0]
[oganoonaan.0] [waakiing.0] [wiigwaasmin.0] [zhinonaadizit.0] [zhiyaasii.0]

ganoonaasiin.0	edit goto conc X

ganoonaan.0 gloss were silent	edit goto conc X

Editing the lexical entry

gigkenmaasiig.0   mayiingganon.0   mitigowaabiin.0   mitigowaakiing.0

niimiyaasiimi.0   nonaadizi.0   noondaagozit.0   noondawishin.0

oganoonaan.0   waakiing.0   wiigwaasmin.0   zhinonaadizit.0   zhiyaasii.0

---

ganoonaasiin.0   view goto conc X

[gloss ◊]   [add field]

| ✓ gloss |
| = |
| morph |
| variety |
| source |

---

8   0   edit goto conc X

gloss were silent

Morphology

zhinonaadizit.0   zhiyaasii.0

---

ganoonaasiin.0   view goto conc X

gloss   he was silent

morph   ganoonaa siin

[= ▼]   add field

save

---

ganoonaan.0   edit goto conc X

gloss were silent

Derived

---

ganoonaasiin.0   edit | goto | conc | X

gloss   he was silent

morph   ganoonaa.0   siin.0

---

ganoonaan.0   edit | goto | conc | X

gloss   were silent

morph   ganoonaa.0   n.0

---

ganoonaa.0   edit | goto | conc | X

derived   ganoonaan.0   ganoonaasiin.0

"Morphology" broadly understood

[home] > langs > lang.otw > text.1 > igt > edit.1.0

[Text]   [Metadata]

The Man Who Caught the White Eagle pp.160-163

Paragraph 1

[Prev]   [Next]

miidash	go	owo	dash	go	waa	dibaadjimak,	oshkiniigish	edit
and then	*really*	*that*	*so, then*	*really*	*-ing, fut.*	*talk about s.o.*	*young man*	

maaba,	gii	nowiigiizi	gonaa	iwi	oshkiniigit.
this (anim.)	*past*	*be orphaned*	*yeah*	*that (inan.)*	*is young*

This young man I am going to talk about now, he was orphaned
as a child.

[Prev]   [Next]

miidash.0

Senses: [miidash.0]

Similar: [aaniidash.0] [dash.0] [miidigemaagan.0]

miidash.0	
gloss	and then
morph	[mii.0] [dash.0]

Concordance

Concordance: ganoonaan.0

miidash giiyenh maaba oshkinowe gaa inaat newe, wiikaa gonaa baamaampii gii ganoonaan maaba oshkinowe newe gashiwon gonaa ndaa kid gonaa, aaniish, mii newe gaa nitaaginigodjin.	So this young man replied to this old woman, wh mother, he replied to her after a long silence, as t raised him.
wiikaa dash giiyenh go maaba mindimooyenh miinawaa gii ganoonaan newe gwisison.	Again, there was a long silence between them, th spoke to her son.

Finishing the example

[home] > langs > lang.otw > text.13 > igt > edit.11.2

Text   Metadata

The Man Who Caught the White Eagle pp.164-165

Paragraph 11

Prev   Next

gaawiin   go   wewiip   go   gii ganoonaasiin.
not   really   ?   really past he was silent

He did not respond to her right away.

Prev   Next

wewiip.0

Senses: wewiip.0

Similar: gewiin.0   we'iiptaag.0

wewiip.0

we'iiptaag.0
  gloss quickly

Variant forms

oshkinowek.0   edit goto conc X
gloss   young men
morph   oshkinowe.0   k.0
variants   shkiniweg.0

k.0   edit goto conc X
=   ag.0
derived   dibaadjimak.0   oshkinowek.0

ag.0   edit goto conc X
gloss   pl.
variants   k.0   ok.0   ik.0
derived   gokomisag.0   zhigosag.0   nimoshag.0   Anishinaabeg.0
            mandaaminag.0   wesiinhsag.0   mindimoyag.0
            Wemitigozhag.0   makakiiag.0   oosag.0   daabanag.0

Lexicon

[home] > langs > lang.otw > lexicon > search

Texts	Browse

Lexicon otw

Form:

Gloss: carrot

| Submit |

Search by gloss

Texts   Search   Browse

Gloss carrot

carrot   Lexicon

Senses:

Glosses: 'arrow' bikwakoo.0 'carrot' zaawajiisens.0 'carrots' zaawajiisensan.0 'little arrow' bikwakoonhs.0

---

zaawajiisens.0   edit goto conc X

gloss   carrot

morph   zaawa.0   jiis.0   ens.0

derived   zaawajiisensan.0

---

jiis.0   edit goto conc X

gloss   sweet potato

derived   jiisan.0   zaawajiisens.0

---

ens.0   edit goto conc X

gloss   dimin.

variants   enhs.0

derived   baganens.0   zaawajiisens.0   binoojiins.0   gazhigens.0   wiigwaamens.0

Soft search by form

| Texts | Search | Browse |

Form shkin

Senses:

Similar: oshki.0 oshkini.0 oshkiniigish.0 oshkiniigit.0 oshkinowe.0 oshkinowek.0
oshkinowewidik.0 shing.0 shkiiaank.0 shkiiaankwaad.0 shkiigamin.0 shkiigaminan.0
shkiniigish.0 shkiniigishag.0 shkiniikwe.0 shkiniikweg.0 shkiniwe.0 shkiniweg.0
shkitoon.0 weshkiniigikwewid.0

Browse lexicon

[home] > langs > lang.otw > lexicon > browse

Texts   Search

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a

- Aanish
- Aate
- Aijaangwaamizin
- Ambe
- Anishinaabe
- Anishinaabeg
- a'aw
- aabdeg
- aabe
- aabo
- aadigaat
- aagim
- aagonetawa

Audio Transcription

[home] > langs > lang.otw > text.16 > audio > edit

| Edit Translation | Edit Metadata |

Audio 16: 0-19

Previous

0   0:00   0:02   aanish

1   0:00   0:02   mii sa iw zhigwa

2   0:00   0:02   ka ntaawginaad

3   0:00   0:02   gii bi-kognaad wa mindimooyenh

4   0:00   0:02   mii sa iw gmaapiich

5   0:00   0:01   gii-naan

6   0:00   0:01   niwi ookmisan:

7   0:00   0:02   "Gaawiin na ngoji anishinaabeg

8   0:00   0:02   gigkenmaasiig ji-yaawaad?"

Translation units

16: 0-19

🔊 ⣿⣿	aanish
🔊 ⣿⣿	mii sa iw zhigwa
🔊 ⣿⣿	ka ntaawginaad
🔊 ⣿⣿	gii bi-kognaad wa mindimooyenh \T
🔊 ⣿⣿	mii sa iw gmaapiich

Resulting text with translation

| Edit Audio | Edit Metadata |

Nenabosho Steals Fire (Manitoulin version)

Author: William Jones; Alvin Ted Corbiere; Alan Corbiere; Lewis Debassige; Evelyn Roy
Language: otw
Orthography: default

Text

0 | aanish mii sa iw zhigwa ka ntaawginaad gii bi-kognaad wa mindimooyenh | audio | igt | So accordingly then did the old woman br

1 | mii sa iw gmaapiich gii-naan niwi ookmisan: "Gaawiin na ngoji anishinaabeg gigkenmaasiig ji-yaawaad?" | audio | igt |

2 | "Enh," gii-igoon niwi ookmisan. "Oodi gaami- gchigami | audio | igt |

Language instruction

- Complement to immersion
    - Home practice
    - Learners with limited access to fluent speakers
    - Already supports immersion-style self-teaching
- Add drill component
    - Avoiding translation-itis: images as prompts when possible
- Better integration of audio and video
    - Subtitles
    - Links to audio, video from text passages and lexical entries

Grammatical component

- "How you say it"
    - Not just Anishinaabemowin words in an English sentence
    - "Mir war unwohl dabei" = "I felt uneasy about it", lit., to-me it-was uneasy there-by
- Generalizing over multiple languages
- Making it easier to enter grammatical info

Grammar

```
root -> !adjp adjp
root -> !np np
root -> !num num
root -> s
root -> aux[N,V] np[N] vp[V]
root -> np[wh:+] aux[N,V] np[N] vp[V,np]

np[N,W] -> n3[N,W] comma cadjp comma
np[pl] -> n3 conj n3
np[N,W] -> n3[N,W]
```

Conversational agent

```
> all humans are mortal
OK
> Socrates is human
OK
> is Socrates mortal
yes
> who is mortal
Socrates
> dogs are not human
OK
> Fido is a dog
OK
> is Fido human
no
```

Summary

- Software in progress
- Avoiding strong assumptions about particular linguistic approaches
- Robustness to what happens in real texts and recordings
- Importance of working with users to make it responsive to real needs
- Open source, freely available