SAFETY BEFORE SANCTIONS, SANCTIONS BEFORE BARRIERS: DIGITAL ACCESS PROTOCOL FOR ANINDILYAKWA PEOPLE OF GROOTE EYLANDT

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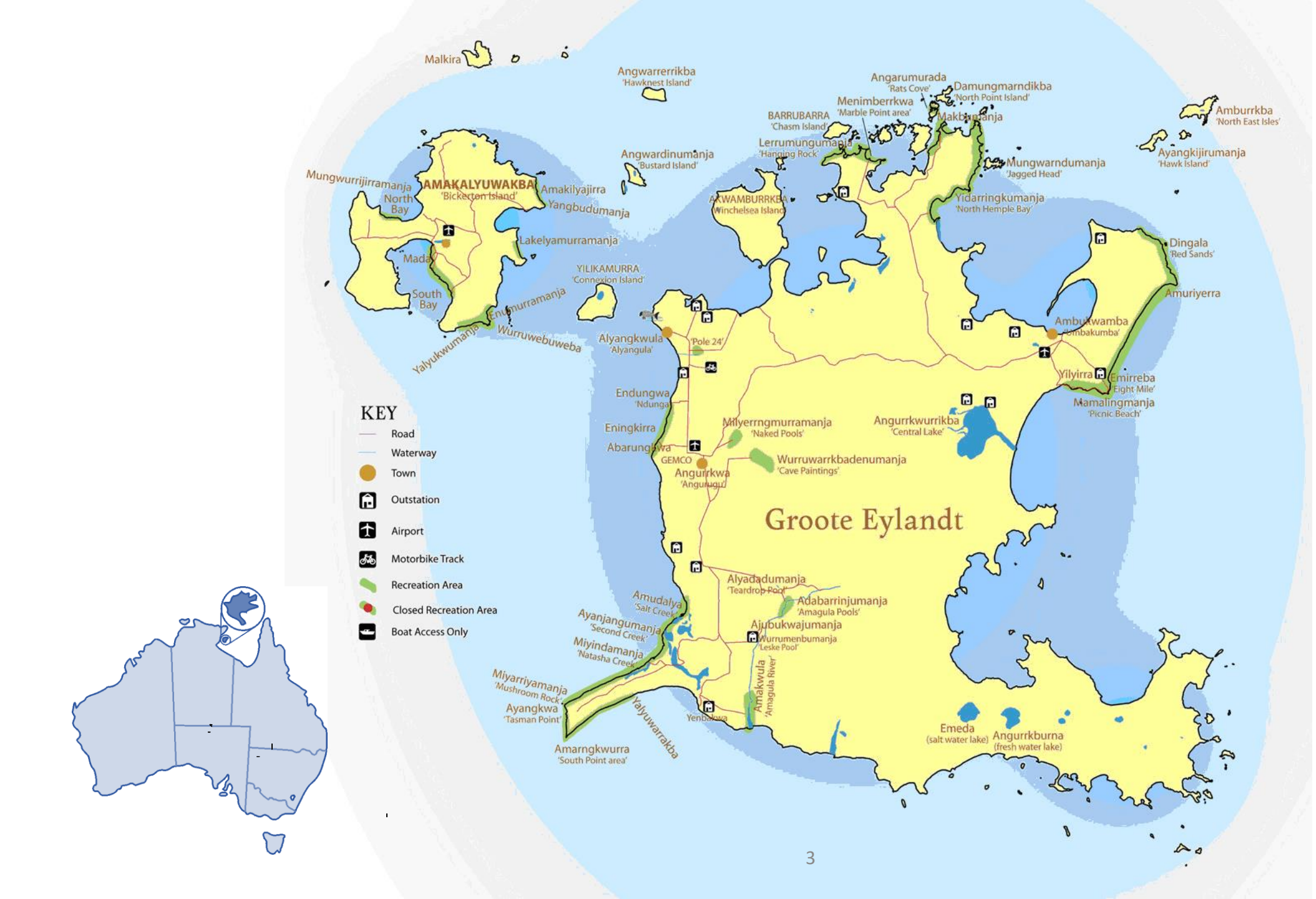
W26 - Collaboration & Computing for Under-Resourced Languages: Sustaining knowledge diversity in the digital age

Miyazaki, 12th May 2018

Australian Government
Indigenous Languages and Arts

This talk

- the context
- the Ajamurnda project: goals, challenges and priorities
- protocol
- source models
- Ajamurnda protocol model - safety, sanctions & circulation
- other usability strategies
- concluding remarks


Malkira
Angwarrerrikba
'Hawknest Island'
Angarumurada
'Rats Cove'
Damungmarndikba
'North Point Island'
Menimberrkwa
'Marble Point area'
BARRUBARRA
'Chasm Island'
Makbamanja
Amburrkba
'North East Isles'
Lerrumungumanja
'Hanging Rock'
Angwardinumanja
'Bustard Island'
Ayangkijirumanja
'Hawk Island'
Mungwarndumanja
'Jagged Head'
Mungwurrijirramanja
AMAKALYUWAKBA
'Bickerton Island'
North Bay
Amakilyajirra
Yangbudumanja
AKWAMBURRKBA
Winchelsea Island
Yidarringkumanja
'North Hemple Bay'
Lakelyamurramanja
Dingala
'Red Sands'
Mada
YILIKAMURRA
'Connexion Island'
Amuriyerra
South Bay
Endumurramanja
Wurruwebuweba
Yalyukwurnanja
Alyangkwula
'Alyangula'
'Pole 24'
Ambukwamba
'Bombakumba'
Yilyirra
Emirreba
'Eight Mile'
Mamalingmanja
'Picnic Beach'
Endungwa
'Ndunga'
Eningkirra
Abarungkwa
Milyerrngmurramanja
'Naked Pools'
Angurrkwurrikba
'Central Lake'
GEMCO
Angurrkwa
'Angurugu'
Wurruwarrkbadenumanja
'Cave Paintings'
Groote Eylandt
KEY
Road
Waterway
Town
Outstation
Airport
Motorbike Track
Recreation Area
Closed Recreation Area
Boat Access Only
Alyadadumanja
'Teardrop Pool'
Amudalya
'Salt Creek'
Adabarrinjumanja
'Amagula Pools'
Ayanjangumanja
'Second Creek'
Ajubukwajumanja
Wurrumenbumanja
'Leske Pool'
Miyindamanja
'Natasha Creek'
Amakwula
'Amagula River'
Miyarriyamanja
'Mushroom Rock'
Ayangkwa
'Tasman Point'
Yalyuwarrakba
Yenbalawa
Emeda
(salt water lake)
Angurrkburna
(fresh water lake)
Amarngkwurra
'South Point area'

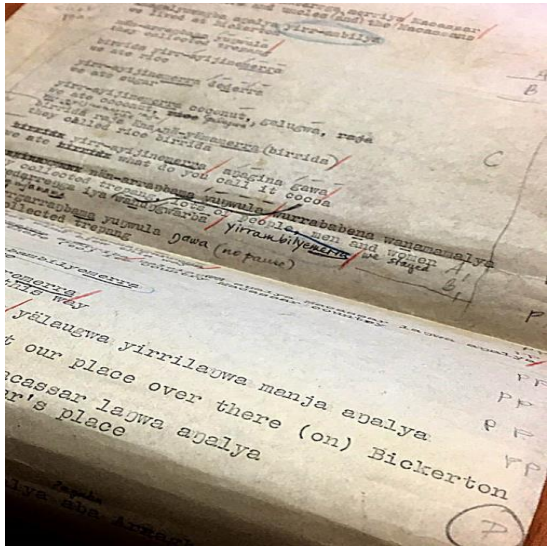
Richly named and regularly visited

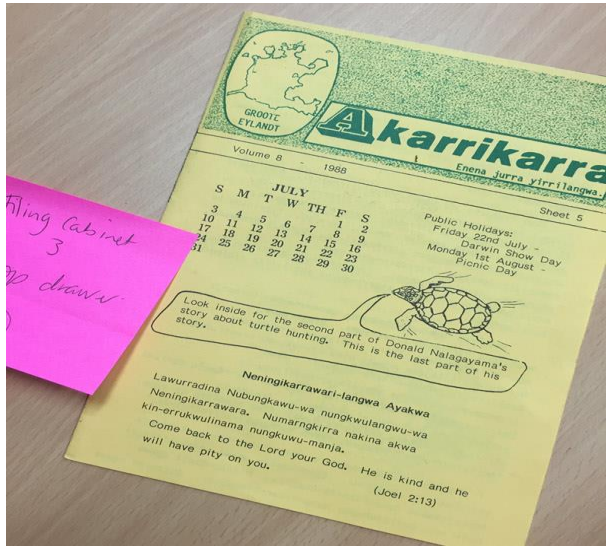
Anindilyakwa language

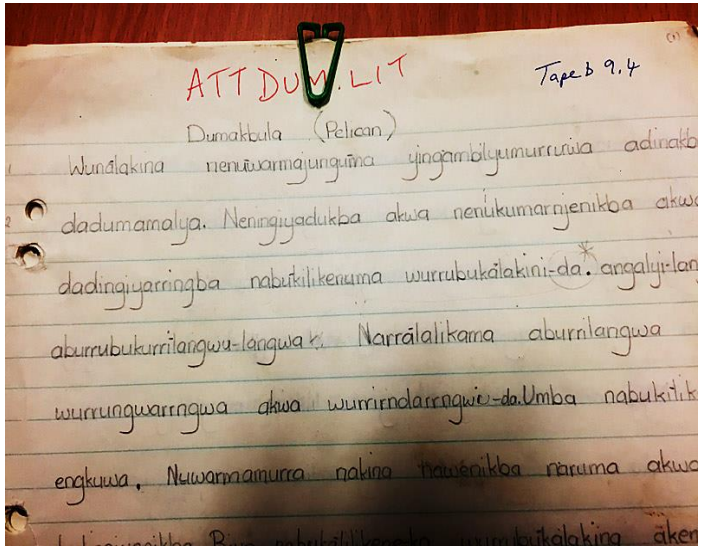
- 1500 speakers, the Indigenous language of the Groote Eylandt archipelago
- linguistically and culturally unique; language ‘isolate’ or Kunwinykuan; (opaque) commonalities with Wubuy/Nunggubuyu
- very complex polysynthetic morphology
- one of the strongest spoken Indigenous languages in Australia
- spoken fully by all generations; children are mother tongue monolinguals
- language not spoken elsewhere; nearly all the speakers are here
- strong cultural continuity

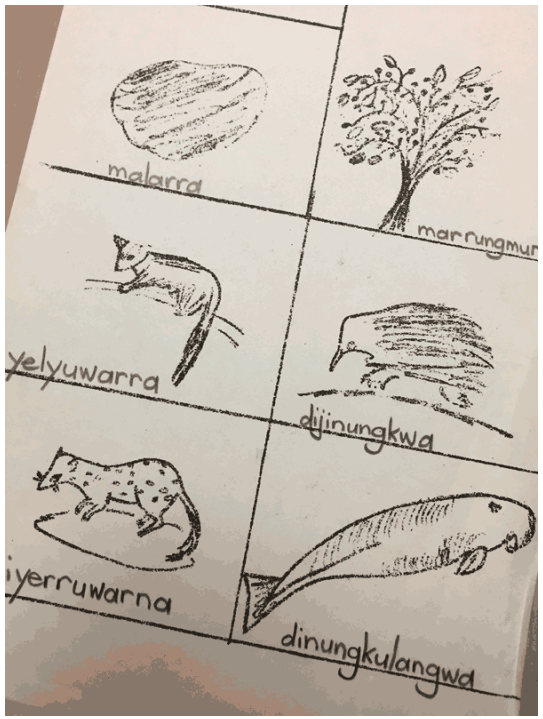
Strong language and cultural continuity

- there are no boundaries between language and other resources
- creating links between related resources strengthens their value and potential usage
- protocol matters are highlighted for a ‘web’ of interconnected resources


yilaugwa yirrilaywa manja anaiya
our place over there (on) Bickerton
's place


Akarrikarra
GROOTE EYLANDT
Volume 8 1988
Sheet 5
JULY
Public Holidays:
Friday 22nd July - Darwin Show Day
Monday 1st August - Picnic Day
Look inside for the second part of Donald Nalagayama's story about turtle hunting. This is the last part of his story.
Neningikarrawari-langwa Ayakwa
Lawurradina Nubungkawu-wa nungkwulangwu-wa
Neningikarrawara. Numarngkirra nakina akwa
kin-errukwulinama nungkuwu-manja.
Come back to the Lord your God. He is kind and he will have pity on you.
(Joel 2:13)


ATT DUM. LIT
Tape b 9.4
Dumaktula (Pelican)


malarra
marrungmur
yelyuwarra
dijinungkwa
iyerruwarna
dinungkulangwa


CD-R
TDK

Ajamurnda project

Ajamurnda - a basket made of paperbark used for collecting and carrying things

Why are we building Ajamurnda?

- to organise resources so we know where they are and how to access them
- to keep documents, photos, recordings - keys to the language, culture, history, knowledge and identity - safe for the long term
- to enable and encourage Anindilyakwa people to have access to these resources, and to add to them, on their own terms and in culturally appropriate ways

Goals for Ajamurnda

classical, best-practice
library/archiving

crowdsourcing

community curation

see www.elpublishing.org/publicationpage/12

individual/community
values, practices & dynamics

Priorities

- for and about the Anindilyakwa community
- protocol
- usability
- participation

Protocol

- understanding and dealing with individual/community values, practices and dynamics in regard to knowledge and information:
  - ownership / management
  - privacy
  - sensitivities
  - circulation

Challenges

- authentic & useful to community
- scope of “system” vs people
- challenge assumptions of familiar systems

these all need research and consultation

Models

- Mukurtu
  - project initiated by Kim Christen from Washington State University
  - catalogue for cultural resources from various Australian and USA Indigenous groups
  - built on top of open-source Drupal CMS
- Endangered Languages Archive (ELAR)
  - archive project initiated by the author and his team at SOAS University of London
  - built on top of open-source Drupal CMS

Mukurtu - TK (Traditional Knowledge) labels

- “Labels are a tool for Indigenous communities to add … local protocols for access and use to recorded cultural heritage that is digitally circulating ***outside*** community contexts
- … educative, non-legal … addressing … Indigenous cultural heritage material that circulates without Indigenous perspectives or protocols regarding fair and equitable circulation and use”
- each label consists of a graphic, and customisable text
- (Mukurtu also uses defined “Communities” - enumerated sets of individuals with permissions to access items)

Mukurtu - TK Labels - examples

TK Outreach (TK O)

TK Verified (TK V)

TK Attribution (TK A)

TK Community Use Only (TK CO)

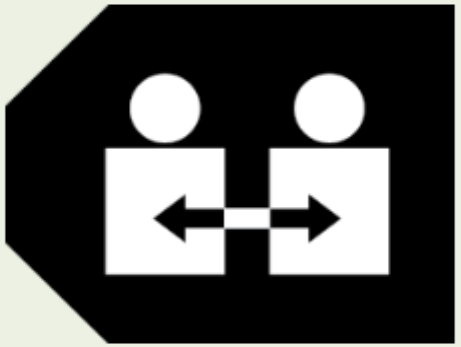
TK Secret / Sacred (TK SS)

TK Women General (TK WG)

TK Women Restricted (TK WR)

TK Men General (TK MG)

Mukurtu - TK Labels - examples



TK Men Restricted (TK MR)

TK Non-Commercial (TK NC)

TK Commercial (TK C)

TK Community Voice (TK CV)

TK Culturally Sensitive (TK CS)

Example label text: TK Women General (TK WG)

"This label should be used when you want to let external users know that the material circulating should only be shared between women in the community … there are restrictions of access and use to women within the community based on customary law …
This label is designed to recognize that some knowledge is gendered, and that certain knowledge can only be shared among specific members of the community. It should be used to complement already existing customs and protocols of access and use."

ELAR (Endangered Languages Archive)

- offers access categories O, U, S, which a depositor can apply to each resource
- “O” items are available for anyone to access
- “U” items are available to registered archive users, i.e. the archive arranges users’ access rights on behalf of depositors
- “S” items are closed by default. Users see metadata only - but users can apply (via the archive catalogue messaging) to the depositor for access, via two-way negotiations
- the catalogue provides depositors with an access report panel

Anindilyakwa community is the main user group

- collapse distinctions between knowledge providers and users
- breakthrough concepts, from ethnographic observation:
  - access to knowledge:
    - is *complex* - embedded in a web of social relations
    - has *consequences*
    - is itself an important *form of knowledge*
  - recognise knowledge *circulation* and representations of it

"I heard about that but you need to ask Jabani…"

Key example 1 - gender-exclusive cupboards

- men’s and women’s items in separate, aside-by-side, accessible cupboards in public space
- people know which cupboard is which and only access the appropriate cupboard
- there would be repercussions - consequences - if someone accessed the wrong thing, whether in real life, or on-screen

Key example 2 - poison cousins

- more widely known as *avoidance relationships*. From the Anindilyakwa School Dictionary:

  nadijarrka, nadija *"poison cousin" (mother's mother's brother's son and other relationships); son-in-law (woman speaking, daughter's husband)*

  dadijarrka, dadija *"poison cousin" (mother's mother's brother's daughter and other relationships); mother-in-law (man speaking)*

- specific behaviours are required; no direct communication, no facing or proximity etc.
- people preferring ‘safe’ social situations will e.g. avoid going into a shop if their poison cousin(s) might be in there.

Key example 2 - poison cousins [2]

- however, the dyads are not fixed as they might seem; they depend on the ebb and flow of relationships and the specifics of situations
- on screen, even for shy, 'safety-oriented' people, protocol for encountering a poison cousin is different:
  - "we wouldn't say their name"
  - "we would point out to someone else (viewing) that the person is a poison cousin"

∴ it's *face to face* that counts more, although different people can have different comfort levels

Beyond (simplistic) protocol

- access to knowledge has *consequences*
- possible safety threats can not all be stably or categorically identified (or relevant metadata might not be present)
- these lead to:
  - safety first (warnings, “Safe mode”)
  - sanctions before barriers (“Responsible mode”)
- we combined these with the recognition that “normal” access control via accounts and yes/no access is not a good fit (at best) and plainly simplistic

Knowledge *circulation*

- knowledge about the eligible recipients, actual recipients, and non-recipients of certain things is an important part of the Anindilyakwa cultural dynamic
- Ajamurnda will keep track of this kind of knowledge, i.e. recording patterns of access to items in Ajamurnda:
  - as part of making consequences explicit (holding users to account)
  - as part of representing, understanding and preserving this ‘ephemeral’, dynamic knowledge
  - the catalogue and collection become a *living map of knowledge circulation*

Our provisional access protocol category grid

Category	Subcat	Title	Subcat type	Description
A		Children		Recommended for children
B		Warning		General unrestricted
C	C1	Attributes	all	Items tagged with attributes**
	C2	Attributes	matched	User profile matches tagged attributes*
D	D1	Jungkayi	advised	Items tagged with advice
	D2	Jungkayi	licensed	User has explicit permission
E		Decree		Closed by decree

A: Children

- Items marked ‘A” are available in Safe mode, for child users, and are presented with higher priority for child users

B: Warning

- The ‘default’ category. Dispreferred items may be encountered by a (prior-warned) user but there are no systematic or inherent restrictions or sensitivities

C: Attributes

- items associated with attributes, such as a story about a place, or a women's song; attributes:

  Gender | Moiety | Family | Clan | Totem(s) | Land | Age group

- in *Safe mode* , a given user only gets offered an item if all of their own attributes match all the item's attributes (C1)
- in *Responsible mode*, a user is offered access to all these items (C2)
- *note*: items whose attributes are *required* or *advised* to be matched to a user are handled under D - Jungkayi.

D: Jungkayi

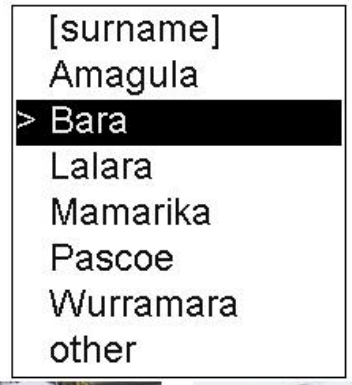
- *Jungkayi are the advisors, managers, or lawyers in Anindilyakwa society*
- items with expressed restrictions or sensitivities that can be stated by a 'Jungkayi' who has the authority to do so
- it could be advisory (D1) e.g. where anyone could listen to a song but should consult a particular person/family/group before singing it (system advises but applies no access restriction)
- an individual could require explicit permission from a 'Jungkayi' to access the item. Handled by a request-(negotiation)-response process. If the Junkayi approves, the system offers the individual access (perhaps with additional advice or conditions stipulated by the 'Jungkayi').

E: Decree

- items which Reference Committee, elders, or donors decide should not be accessed at all, or only by people with ‘elevated acccess’

Catalogue usability strategies

- navigation and search in Anindilyakwa
- ‘cultural captcha’
- audio
- images
- location-based access
- pre-enrolment



Metadata

- rich, documented metadata scheme (adapted from IRCA)

Source_history

acquired

Describe from who the item was acquired, how item was acquired or how it arrived, and whether by donation, created by staff etc.

Open

Default value: N/A

Mandatory: yes

acquired_date

Date item was acquired; approximate or estimated if necessary e.g. 1973 (estimated)

Open; date or partial date format dd-mm-yyyy

Default value: N/A

Mandatory: no

Default value: N/A

Mandatory: no

rights_contact

Person or organisation name and contac info for communications about rights

Open MOVED TO ROLE

Default value: N/A

Mandatory: no

ICIP_group

Indigenous Cultural and Intellectual Property stakeholder(s) group(s) e.g. cla gender, outstation etc.

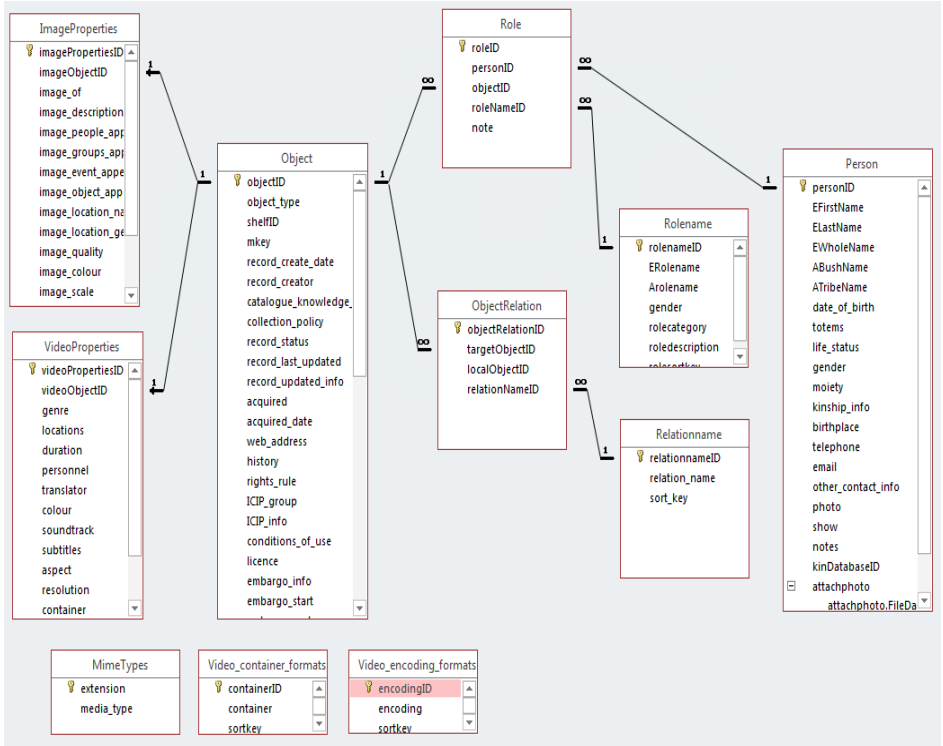
Open

Default value: N/A

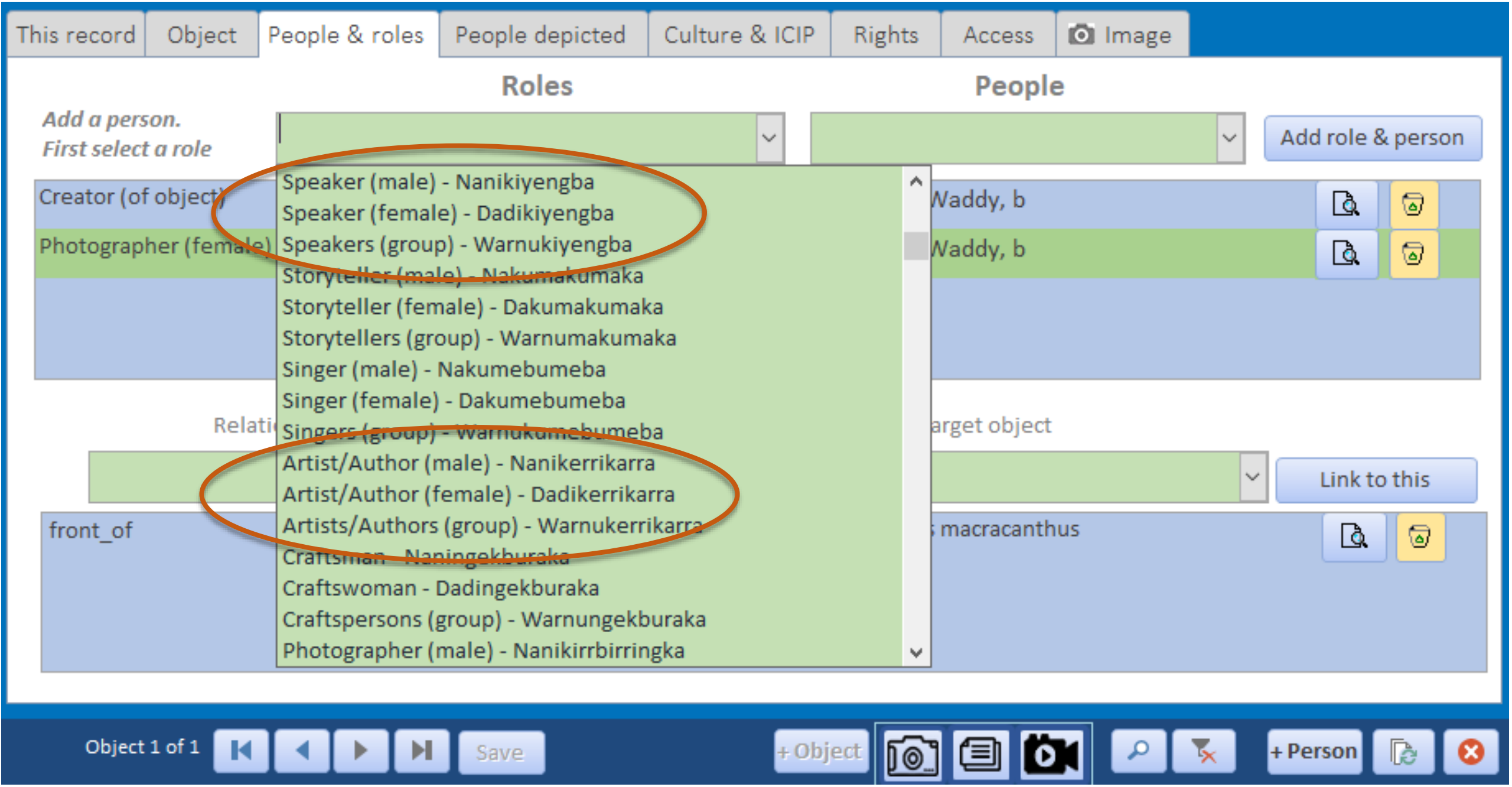
Mandatory: no

ICIP_info

Indigenous Cultural and Intellectual



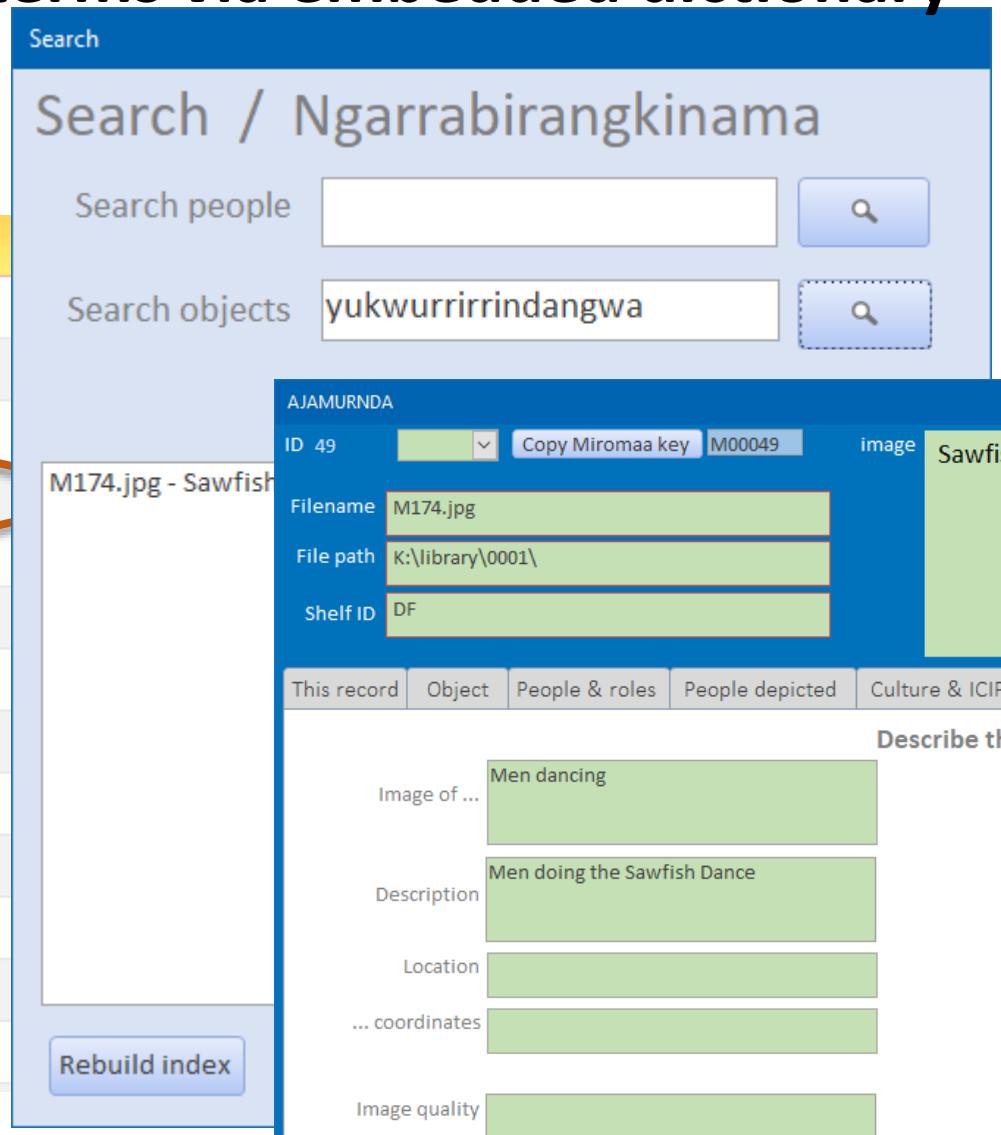
Roles respecting cultural categories, and expressed in Anindilyakwa

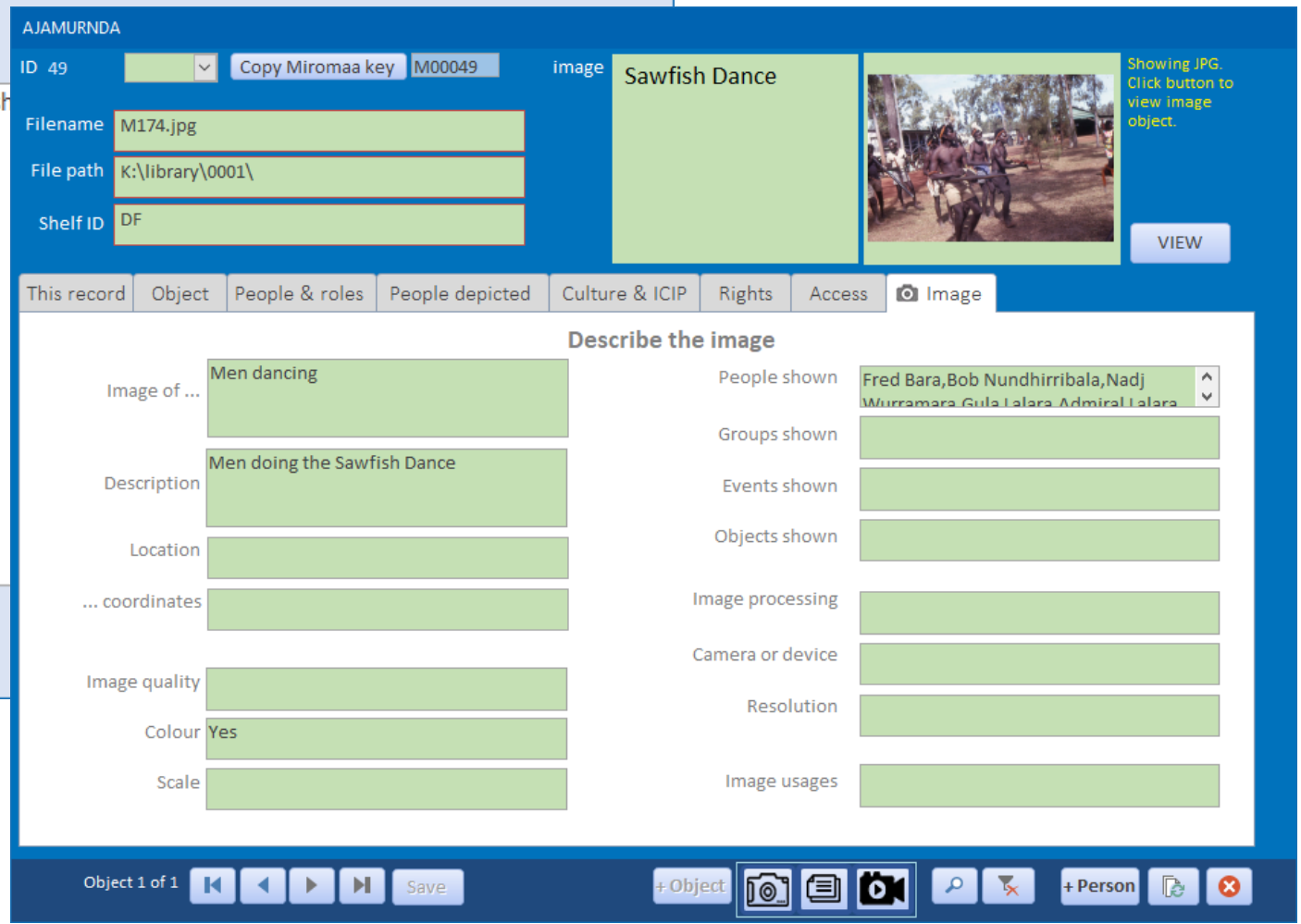


Search using Anindilyakwa terms via embedded dictionary

Embedded dictionary

anindilyakwa	english
yukurrkwa	frogmouth
yukwurna	baler shell
yukwurrijija	whistling kite
yukwurrirrindangwa	sawfish
yulkwa	toadfish
yungwula, derriba	trepang
yuwalkurra	cyrene shell
yuwama	fly
yuwara	snake vine
yuwarjerra	skink
yuweba	meat ant (red)
yuwekuwa	mudskipper
yuwunburna	bream





Final observations

- bring computing to language and community ✗
- bring language and community to computing ✓

- “we” provide “ourselves” with all kinds of digital services
- simple channels like phones are reasonably accessible and useful to everyone
- however, for things like digital libraries and other cultural asset management, we often fall back to tired, ineffective and ***under-researched*** methods

Contradictions and puzzles - IT and languages

- apps hailed as saving languages but many are so little used that the developer pays people to use them!

  meme for hooking journalists: “ancient language, modern technology”

- large sums spent developing multimedia that was technically defunct after short time!
- digital products are great candidates for empirical reporting and iterative design but these are rarely done!

Contradictions and puzzles - IT and languages

- aspirations for universal machine translatability - incompatible with growing literature on the interdependence of language and culture
- addressing *under-resourced* might be relevant to larger languages, but Indigenous languages need infrastructure, bandwidth, skills, and research into methodologies, not language processing
- 'fundamentalism' about "open source", e.g. *Spoken Karaim* (authored using proprietary software) now nearly defunct but was developed 20 years ago and has served a generation of a small community, was placed in nearly every Karaim family across Eastern Europe, and contributed to their language & culture

End

- Who knows something

  And who knows who knows something

  Are just as important as the something that is known

www.anindilyakwa.org.au