

Beyond Protocol: Indigenous Knowledge Resource Circulation in the Digital Age

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Abstract

This presentation considers protocol-based digital access management to Ajamurnda, a collection and access system for language and cultural items of the Indigenous Anindilyakwa people of Groote Eylandt, Australia. Ajamurnda will be a 'living' collection facilitating and regulating access and circulation of resources, based around protocol – consideration of the personal, communal, cultural, property and privacy interests of individuals, families and other culturally-relevant groupings. In the specific, highly traditional context of Groote Eylandt, standard regulation of access using accounts and passwords are ineffective. Ajamurnda will instead use a 'sanctions before barriers' strategy based on the fact that in such Aboriginal communities, acquiring and holding knowledge has consequences, and that these consequences will be best known by users themselves, and act as constraints on choice. For those of us seeking to implement a fully authentic implementation of protocol, such a 'sanctions before barriers' approach is probably the only way that access protocol can be fully informed, nuanced, authentic, appropriate to, and responsive to dynamics of change in the community.

Keywords: Anindilyakwa, access, protocol

1. Introduction

This presentation considers protocol-based access management to cultural resources, a central issue for *Ajamurnda*, a collection and access system for Anindilyakwa language and cultural items that is currently being designed by the Groote Eylandt Language Centre on behalf of the island's Indigenous community. Anindilyakwa is the name of the language and culture of the Indigenous people of Groote Eylandt in northern Australia, and is often used to refer to the people themselves. Ajamurnda is a project of the Groote Eylandt Language Centre and is established principally as a repository for language materials. However, the boundaries between language, culture, land and history are overlapping and fluid, markedly so on Groote Eylandt where the Aboriginal community's language, culture and lifestyle are amongst the very least colonially disrupted among Australia's Indigenous peoples. Ajamurnda will include a range of media types representing the community's language, culture, families, land, history and events.

By far the greatest amount of knowledge about language, stories, people, history and places is currently in the form of knowledge held by individuals across the Anindilyakwa communities and shared orally, and thus at risk of being lost as time passes. Therefore, Ajamurnda will provide an ongoing participatory framework based around a customised type of 'crowdsourcing', to encourage and enable community members to enrich the collection by adding and correcting information in their own terms (Christen 2011, Garrett 2014).

2. The protocol context

Ajamurnda is intended to operationalise a 'living' and appropriate set of functions for both facilitating and regulating access and distribution. For access to resources, we aspire to a participatory platform that authentically represents Anindilyakwa needs for identifying sources of permission and attaining permissions. This would likely include steps of communication and negotiation. For access to the system, we want to explore methods that are both

truly feasible in the community settings and which might innovatively use cultural strategies such as self-identification and sanction, and language and location, and avoid standard technical barriers such as user accounts and passwords.

A major consideration in the design of *Ajamurnda* is *protocol* – incorporating the personal, communal, cultural, property and privacy interests of individuals, families and other culturally-relevant groupings. This involves research of factors which make materials sensitive, sacred, dangerous, shaming, or restricted in other ways so that access needs to be regulated. *Ajamurnda* will both hide/protect materials where required, while otherwise making access as easy as possible. Some existing systems implement similar protocols, such as *Ara Irititja*¹, *Mukurtu*², and the Endangered Languages Archive at SOAS University of London³, and we will seek to collaborate and learn from their experience, while adapting and extending protocol implementation to suit the Anindilyakwa community.

The past 15 years have seen a parallel emergence of language documentation for endangered and minority languages, together with use of digital technologies to record and share the resulting documentation. A feature of the language documentation movement has been attention to the ethics of fieldwork and data collection, with increasing inclusion of native-speaker community values and participation (Czaykowska-Higgins 2009). Alongside that, several language archives were established, with varying degrees of emphasis on and implementation of access protocols meeting community expectations. For example, the DoBeS archive⁴ allows depositors (who are trusted to act on behalf of the people they have recorded) to decide whether public access to resources is allowed. The Endangered Languages Archive at SOAS established an innovative system of negotiated access involving exchange of information between depositors and requesters to determine whether access is appropriate (Nathan 2010). *Ara Irititja* archives in Australia have focused tightly on providing functionality and access to Aboriginal community members. A series of archives based on the

¹ See www.irititja.com and www.keepingculture.com

² See mukurtu.org

³ See elar.soas.ac.uk

⁴ See dobes.mpi.nl

Mukurtu system⁵ use a nuanced system of protocols and licences to regulate addition of, access to, and usage of resources.

Protocol is dynamic over time, because sensitivities and restrictions change, just as clan lands on Groote Eylandt are closed and reopened in respect and mourning circumstances. Proper understanding, observance and implementation of protocol will involve ongoing participation of a range of people, for example, to inform and set temporary restrictions on display of particular texts, recordings, photos and videos. It also requires collaborative research on how it can best reflect and support community-appropriate cataloguing, usage, and access management by understanding the cultural dynamics of knowledge holding, ownership, control, circulation and access.

3. Strategies: sanctions before barriers

We are exploring concepts for innovative methods for regulating (and encouraging) access as alternatives to standard logging in using accounts and passwords for identification/authorisation.

Although there have been several significant efforts to develop culturally-appropriate ways of regulating access and usage that observe community values and protocols, all of them are ultimately implemented using some kind of digital barrier. ‘Digital barrier’ here refers to any kind of login or other access process that requires correct presentation of a password or other token of permission that has been pre-arranged and verified by a digital system – an arrangement typically called an ‘account’. Normally, we do not notice that these systems actually conflate *identification* with *authorisation*: identification (technically usually called ‘authentication’) refers to a system’s confirmation that the user is who they say they are, while authorisation refers to the system’s satisfaction that login has been obtained legitimately and to permitted resources. Where protocols or other differentiated forms of access apply, these two are linked (for example, a bank teller can access information that the customer cannot). Where protocols reflect complex social dynamics, such as for the Anindilyakwa community, then the interplay between identification and authorisation becomes ever more complex.

Ultimately this means that implementing the increasingly rich, detailed protocols for access associated with Aboriginal knowledge and resources becomes, in practice, dependent on a highly reductionist and simplistic process of ‘logging in’ to one’s account via a username and password.

The potential of digital technologies for serving the needs of Indigenous communities, and parallels between community dynamics and the patterns of collaboration and communication in those communities have been long recognised (Nathan 2000). However, simply going digital is no measure or guarantee of success. Indeed, in relation to archived language resources, some have pointed out the low rate of community member access to resources (Trilsbeek & König 2014).

For Ajamurnda, we ask whether providing digital cultural resource management in an Aboriginal community such as on Groote Eylandt – which has very high continuity with its traditional cultures, values and dynamics – risks a 21st century version of ignoring, erasing, and failing to learn from Aboriginal civilisation, in the same way that Bruce Pascoe describes the many ways that colonisation of Australia has not only ‘ignored ethnographic evidence of Aboriginal engineering’ but erased that knowledge through blind introduction of imported practices (Pascoe 2014:65).

The ‘sanctions before barriers’ strategy is based on the fact that in Aboriginal communities such as on Groote Eylandt, acquiring and holding knowledge *has consequences*. Further research is needed to fully understand the cultural ecology of Anindilyakwa knowledge, and will be reported in future papers, but for now we can simply mobilise the fact that knowledge circulation has consequences, and that these consequences will be best known by users themselves, and act as constraints on choice. For those of us seeking to implement a fully authentic implementation of protocol, it should be noted that such a ‘sanctions before barriers’ approach is the *only* way that access protocol can be fully informed, nuanced, authentic, appropriate and responsive to dynamics of change in the community.

Regulating access through ‘sanctions before barriers’ is a solution to meeting the complex dynamics of authentic community-oriented access and participation. It was born from synthesising ethnographic observations, interviews with colleagues, and in particular a concrete account of how access to highly-sensitive men’s and women’s objects is implemented in the community’s arts workshop. In that workshop, which is more-or-less a public space, there are two cupboards that contain, respectively, items restricted to viewing by men, and items restricted to viewing by women. Community members access these cupboards regularly, in conformance with the gender protocol. However, neither cupboard is locked, or physically hard to reach, or even labelled. This shows us that observance of protocol can be driven from individuals’ judgements and choices. In turn, those judgements and choices are motivated by community values, and by sanctions – the strong sense among Anindilyakwa people that events are connected means that a breach of protocol is likely to result in negative consequences.

4. Other strategies

Readers will note that a ‘sanctions before barriers’ strategy can only work effectively where the ‘rules’ and ‘consequences’ are not only known by a user but are genuinely felt by the user as affecting his/her feelings, welfare and perhaps other more serious outcomes. Access decisions by outsiders – non-Anindilyakwa people – will therefore not reliably conform to relevant protocols, whether or not those outsiders sympathetically respect explicit guidelines that might be presented on the Ajamurnda website. So how can access by non-Anindilyakwa people be regulated?

There is no clear dividing line between community member and non-community member. Leopold (2013) notes, in the USA context, that ‘diaspora communities and tribal

⁵ See, for example, plateauportal.libraries.wsu.edu

members living off the reservation' are rarely considered when designing access regulation – a situation relevant to many Anindilyakwa people who have various phases of residence off Groote Eylandt in places including Arnhem Land and other Top End locations, and in Queensland.

And of course a web-based collection will be potentially open to view by millions across the world, only some of whom might observe polite requests not to view or use or recirculate sensitive materials (if they can read the message asking so!). It seems to the Ajamurnda team that hanging onto the default, conventional password and user accounts barrier system of regulating access ultimately means that access systems are designed around these millions – who are not the main target audience or beneficiaries of the Ajamurnda collection.

We have already identified ways in which the conventional barrier systems do not work well for Anindilyakwa people. Most are not living in a world of literacy (and knowledge of English is limited), so navigating web pages to make accounts, personal profiles, and set up identities and passwords is difficult and demotivating. While smart phones are common throughout the community, passwords are frequently lost or misremembered. Devices such as phones and iPads are frequently shared and borrowed, making personal accounts an approximation at best.

Further observation, however, reveals real alternatives to conventional barrier-based access management. We have identified three opportunities. Firstly, language: the Anindilyakwa language is spoken almost universally by community members but by few others, so a catalogue can easily use selections expressed in Anindilyakwa to confine effective navigation to community members.⁶ Since literacy in Anindilyakwa is rare, the language also needs to be presented in audio form.

The second opportunity is *location*. Many protocol-related attributes revolve around location – sacred places and stories associated with them, or ownership by clans and families who are strongly associated with areas of land. With today's network technologies, we can make resources accessible on the basis of location, either using GIS-based location services (where, for example, users have smart phones), or, much more simply, by enabling access to specific resources through narrow-casting from physically localised wireless access points at specific outstations, townships or buildings.

Thirdly, the Anindilyakwa population is only around 1,500 people, most of whom are resident on the small Groote Eylandt and who are listed in an extensive genealogical database held by the Anindilyakwa Land Council. This means that in principle nearly all community members can be pre-registered in Ajamurnda, so that users only need to select themselves as users (selecting either an individual, or group of people collaboratively accessing).

Of course other forms of circulation and media involve 'consequences' ranging from zero consequences to a level defining the form itself. For example, a loan of a library book has no effective consequence for the library (or its

community). A radio broadcast has midrange consequences because it provides a shared daily experience to a population. The response outcomes on today's social media (Facebook, Twitter etc) not only populate and feed the content but completely define its purpose. Seen against this background, many of today's digital collection management systems are pale and haggard systems requiring high and specific skills for participation, yet failing to represent the most interesting dynamics of *using* resource collections.

5. Conclusions

The act of accessing cultural resources has many consequences, positive and negative. Highlighting potentially negative consequences to influence the choices of community members as a means of access management is just one. However, others are likely to be positive: our broader aim is that Ajamurnda will not only provide regulated access to resources, but will be a dynamic collection representing a *living map of the sources and circulation of Anindilyakwa knowledge*.

While we expect Ajamurnda to open new horizons in protocol-managed access to resources, few of the concepts mentioned here are genuinely new. It is easy to spot other ways in which access to resources has consequences. Marshall McLuhan explained, as far back as 1959, that electronic media turns its users into participants who are creative 'co-authors' and 'co-producers' (McLuhan 1959). He thus also anticipated, 40 years earlier, the rise of social media (aka 'Web 2.0') during the first decade of this millennium. Today it is increasingly difficult to buy anything (probably online) without being asked for a review of the product, which is then shared to influence others.

A recent article 'Estonia, the Digital Republic'⁷ points out that it is a central ingredient of personal data protection in the upcoming 'digital societies' that all people must be able to know who has looked at their data, such as medical records.

While most existing cultural resource repositories have stuck with simple user account methods which might satisfactorily meet the needs of academic researchers, Indigenous peoples should not be denied the potential of the new media to provide systems that meet their values and needs.

The Ajamurnda team has had initial discussion with the Mukurtu team based at the Washington State University and led by Dr Kim Christen. The Mukurtu system is an ideal springboard for Ajamurnda, since Mukurtu is based on the highly ubiquitous, open-source CMS Drupal, has had several cycles of community-influenced development, and provides a robust platform for further expansion of community-controlled protocol-based access to resources. The Ajamurnda team plans to work with the Mukurtu team to build and share new capabilities based around careful implementation that meets the Anindilyakwa community's values and dynamics, and with an innovative focus on representing the consequences of users' interactions with

⁶ This can also offer the benefit of describing resources and navigation in emic (community-conceptual) terms.

⁷ See www.newyorker.com/magazine/2017/12/18/estonia-the-digital-republic [Accessed 21-01-2018]

the collections. We anticipate that this new and ambitious implementation of community-oriented digital resource management will contribute to the robustness of the Anindilyakwa community's cultural continuity and similarly inspire others.

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