

Mukurtu for mātauranga Māori: A case study in Indigenous archiving for reo and tikanga revitalisation

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Introduction

Te Reo o Taranaki has always been an early adopter for trialling new technologies to bolster Taranaki reo revitalisation. Stalwart, Ruakere Hond, recalls two decades ago compiling, on ancient technology, the first language database that would evolve into *He Pūranga Tākupu a Taranaki*, the Taranaki wordlist. The next iteration was trialled in Kete Software¹ in 2007, abandoned soon after, after much tinkering and financial investment revealed it was fundamentally unsuited to mātauranga Māori knowledge management. At that point on the technological continuum, Te Reo o Taranaki's vision outstripped the delivery capability of any software that we might afford. Back then, Te Reo o Taranaki archivist Honiana Love and I wrote of our inaugural, and clearly failing, database project for Te Reo o Taranaki, "Despite the challenges around technical capability and the user-friendliness of our chosen software, we remain committed to the potential for this kind of database" (Hall & Love, 2012, p. 31).

This commitment, and much searching, inevitably led us to Mukurtu. A short while later, developers Michael Ashley and Kim Christen brought their training roadshow to Aotearoa, and offered the best affordable alternative to a bespoke mātauranga Māori database seen thus far. While we are not the only rūpū Māori in Aotearoa working with Mukurtu, we are arguably the most advanced. We entered this phase of development with a very clear strategy, having considered in advance where archiving fits within our wider programme of development. Te Reo o Taranaki's efforts to create a physical archiving space in Taranaki were coupled with our ongoing digital archive development. Our plan reflected critical awareness of our communities' need for an archiving programme responsive to both tangible and intangible preservation and collection-building efforts, through the filter of the language and cultural revitalisation (Hond & Sundgren, 2003).

Why Mukurtu (MOOK-oo-too)?

Mukurtu (Mukurtu CMS, 2017a) is a long-running grassroots project aiming to empower communities to manage, share, preserve, and exchange their digital heritage in culturally relevant and ethically-minded ways. Its relationship with Aotearoa spans the last few years, and a handful of iwi, hapū, and whānau databases have adopted Mukurtu's easy to use, Drupal-based², content management system.

It is a Warumangu (Australian Aboriginal) word which means safe keeping place, designed alongside traditional knowledge holders to enable Warumangu people to appropriately share knowledge, stories, and cultural heritage using their own protocols (Mukurtu CMS, 2017b). Mukurtu is not, at its foundations, a mātauranga Māori knowledge management platform. This must be acknowledged, as "IK (indigenous knowledge) mātauranga resides within a different knowledge space altogether for traditional academic disciplines" (Tuhiwai-Smith et al., 2016, pp. 131-132).

Nevertheless, perhaps the beauty and adaptability of Mukurtu is that it is premised on a non-academic, non-classical system of knowledge management. This allows digital heritage content to be organised around traditional narratives and alternative, user-led organising classifications. It also allows for nuanced sharing and access protocols at all levels: by site, by community or subcommunity, by user, or at an item (object or metadata) level. As Christen explains,

Within Mukurtu CMS, customizable cultural and sharing protocols allow for finegrain management of access within the archive. Protocols may be based on family groups, clans, ritual societies, gender, age, seasonal activities, etc. ... [and] are flexible, adaptable and can be changed at any time. The salient point is that the communities themselves decide together how best to share and circulate their cultural materials. For example, if a tribe has traditional access parameters around the viewing of sacred materials limited only to elders, or if some songs should only be heard in specific seasons, ...they can use these protocols to determine access within the database itself. (2015, p. 5).

New look for the Taranaki Wordlist in 2017

After languishing in hard copy since its publication in 2008, *He Pūranga Tākupu a Taranaki* is freshly online within Te Reo o Taranaki's new taonga database, see <https://puteroutiriata.mukurtu.net>.

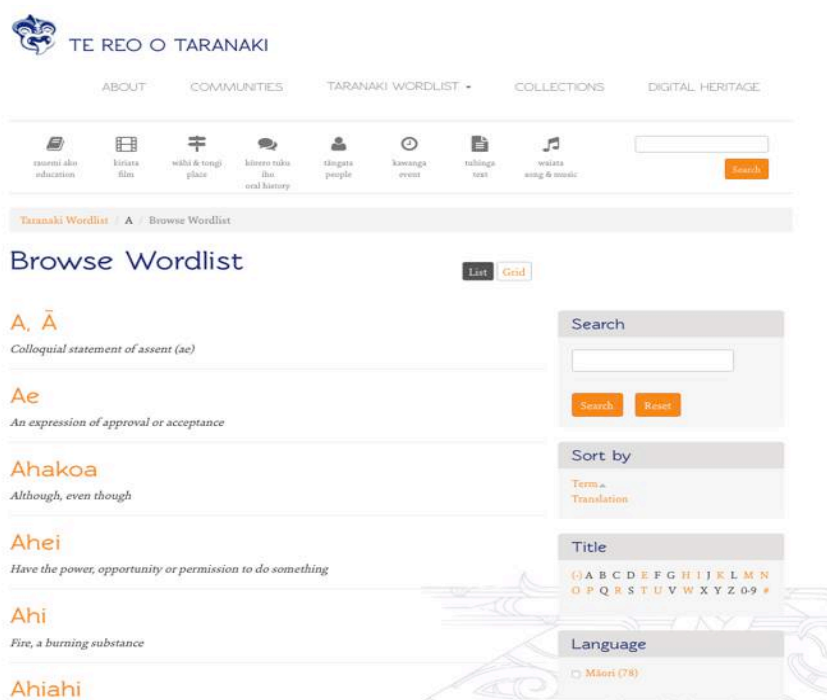


Figure 1: Te Pūtē Routiriata o Taranaki wordlist screen view.

The wordlist represents Te Reo o Taranaki's latest round of optimisations to Te Pūtē Routiriata online within Mukurtu 2.0. Development of the glossary function was a key project for Te Reo o Taranaki last year. Supported by Mā Te Reo³ and developed in partnership with the Centre of Digital Archaeology⁴, this functionality entrenched the digital archive as a critical tool in reo revitalisation and was another step towards making Mukurtu more Māori, further shaping its indigenous knowledge management roots to suit mātauranga Māori.

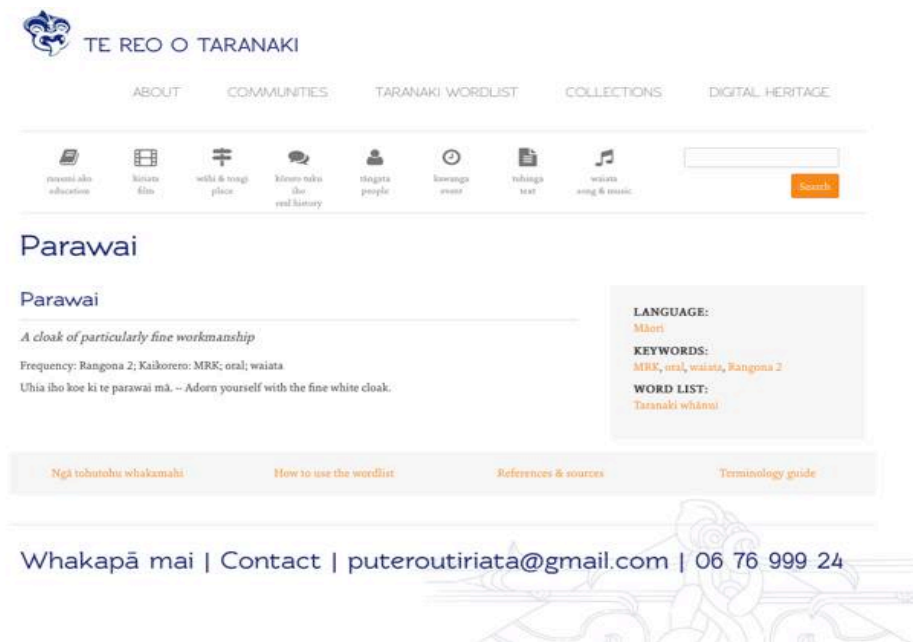


Figure 2: Te Pūtē Routiriata o Taranaki single word entry screen view.

The database allows collections of kupu or words to be curated in relation to digital heritage items, or collections. It creates links between wordlist entries and their source files, highlighting the significance in this database of linking provenanced language sources with related items.

For example, three kupu (word) entries (parawa, tipare and whakawai) and one other digital heritage item (the waiata, *Tangi a Tākū Ihu*) have relational links to the Taranaki waiata *Whakawaiwai Ana*.

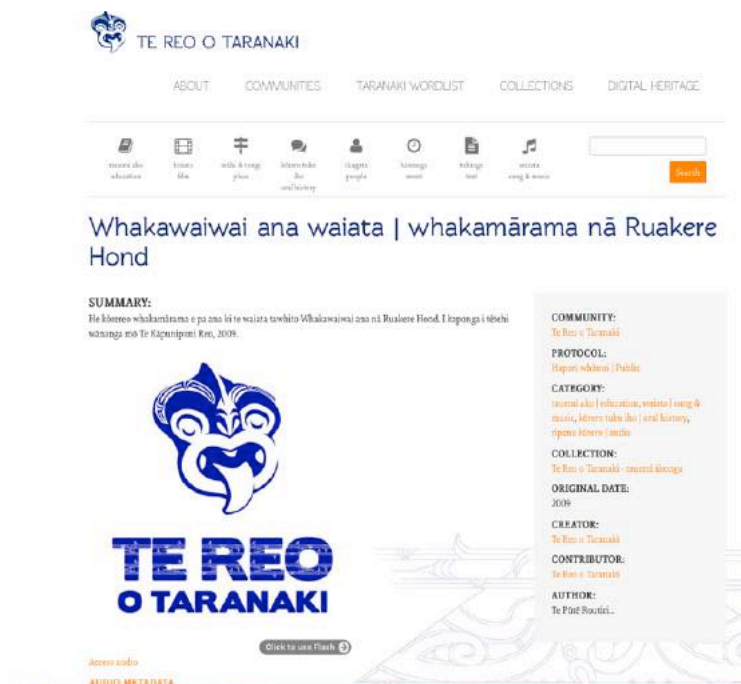


Figure 3: Te Pūtē Routiriata o Taranaki item screen view (top of entry page).



Figure 4: Te Pūtē Routiriata o Taranaki related item screen view (further down same page).

Figure 5 shows the back end process for creating these relational links between digital heritage items and kupu.

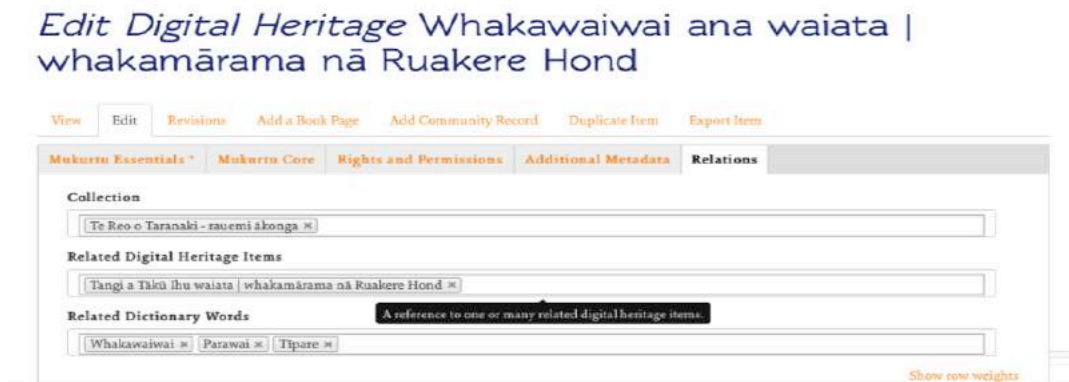


Figure 5: Creating relational links between digital heritage items and kupu screen view.

Also note above the layering of core information: *Mukurtu Essentials* represents the crucial layer of metadata for basic arrangement; *Mukurtu Core* elaborates on culture narrative and traditional knowledge descriptions for a digital heritage entry. *Rights and Permissions* includes fields for traditional knowledge labels and licensing options (including Creative Commons variants). The *Additional Metadata* field allows location geo-tagging.

Whakahokinga: Repatriation and recontextualisation

As Taranaki increasingly loses its native speakers, the need to find additional language sources and evidence of traditional language use becomes even more critical. Inherent in this repatriation work is the notion of ethical practice, and emphasising the traditional knowledge rights of Taranaki whānui in relation to mātauranga being analysed as well as the creation of new records.

Christen (2015, p. 1) asserts that one of the most pressing concerns for tribal archivists is managing, preserving, and caring for the large amounts of diverse cultural heritage materials not only in their own collections, but also those that reside in physically distant collecting institutions. Furthermore, reconnecting with such taonga most often includes complex processes of digitisation and digital repatriation.

Since 2007, both have been a key component of Te Reo o Taranaki's reo revitalisation strategy. In this context the potential for using the Mukurtu platform to 'bring home' digital heritage mātauranga from other collections is clear. Our first shot at this was a successful project with Archives New Zealand to identify pre-1900 records in Taranaki reo or, those relating to the historical context of Taranaki's muru raupatu, the documented historic land confiscation, and dispossession with the resulting loss of language and culture (Waitangi Tribunal, 1996). A two-year research partnership allowed Te Reo o Taranaki to identify, digitise, and recontextualise catalogue metadata according to our own defined fields. This gave historic documents new meaning, making their searchability more relevant

for those researching Taranaki mātauranga, and particularly to those working in the reo or with aronga Māori research methods.

Figure 6 shows how a collection of archival material displays by item in Te Pūtē Routiriata. Note item metadata on the right described in aronga Māori terms as opposed to institutional terms.

Letter regarding land in Patea and corresponding map - 31 August 1882

View Edit Revisions Add Community Record Duplicate Item Export Item

TARA0002-2.pdf
FILE METADATA

DESCRIPTION:
ACIH 16075 MA68 1-2 I/1-29 MA68 Waitotara to boundary of Taranaki Provincial district

CULTURAL NARRATIVE:
Letter from Te Wiremu making reference to a landblock associated with Te Wairoa and Patea outlined in a Maori Landcourt map - includes map of the area

Add new comment

Your name

Subject

Comment *

COMMUNITY:
Te Kaahui o Rauru

PROTOCOL:
Te Kaahui o Rauru Community Only

CATEGORY:
wāhi & tongi | place, tuhinga | text, kohikohinga kē | other archives

KEYWORDS:
Whenua, Aotea, Taranaki ki Te Tonga, Patea, Te Wairoa, Waitotara, Momahaki, Ngā Rauru, Te Pakakohi, Ngāti Ruamui, Tangahoe, Te Wiremu

COLLECTION:
Te Kaahui o Rauru | Archives NZ Collection

ORIGINAL DATE:
3/1/1864

CREATOR:
Te Wiremu

CONTRIBUTOR:
Archives New Zealand

IDENTIFIER:
TARA0002

FORMAT:
tif, jpg, pdf

AUTHOR:
Admin

Figure 6: Te Pūtē Routiriata o Taranaki collection item level screen view.

By comparison, this is how a simple search within the Archives New Zealand Archway catalogue against terms 'Patea, Te Wiremu, land confiscation' provides a less accessible result (see Figure 7).

There are 34 records displayed for Papers Relating to the Māori Wars. show 30 results per page

open access see more restricted access

title	date range	last dept responsible	filed
Papers Relating to the Māori Wars Period [record group]			
Colonial Defence Force - Conditions of service in the Colonial Defence Force	1865	1866	Army Department [record group]
Colonial Defence Force - Conditions of service, Auckland and Wellington - with attestations	1863	1864	Army Department [record group]
Colonial Defence Force, Napier - attestations	1863	1864	Army Department [record group]
Colonial Defence Force, Hawkes Bay, land allotment agreements, January 1868 - November 1869	1868	1869	Army Department [record group]
Military Settlers - Declarations made by military settlers, Hawkes Bay	1864	1864	Army Department [record group]
Military Settlers - Declarations made by military settlers, Hawkes Bay	1865	1865	Army Department [record group]
Taranaki Military Settlers - Nominal and Descriptive Roll Book			
- Otago Contingent (Folio 1 to 31)			
- Melbourne Contingent (Folio 32 to 84)			
- Land grants at Tairāwhiti (Folio 85 to 88)			
- Otago Contingent, variations in service (Folio 162 to 191)	1863	1865	Army Department [record group]
- Melbourne Contingent, variations in service (Folio 292 to 325)			
- Officers and grants at Okara, Otago, Manukau and Rotokawa (Folio 362 to 399)			
- Alphabetical index, Melbourne and Otago Contingents (Folio 588 - see Copy Page 62)			
Military Settlers - Crown Grants to be Issued to the Forces at Rotorua			
- Taranaki Military Settlers, officers allocated land in Patea (Folio 1)			
- Wanganui Military Settlers (Folio 28 to 27)			
- Wanganui Rangers (Folio 38 to 43)			
- Patea Rangers (Folio 43 to 48)			
- Napier Contingent (Folio 51 to 60)	no date	no date	Army Department [record group]
- Taranaki Cavalry Volunteers (Folio 62 to 65)			
- Taranaki Militia Volunteers, No. 2 Company (Folio 66 to 70)			
Military Settlers - Crown Grants to be Issued to the Forces at Rotorua			
- Nominal roll, Taranaki Military Settlers, Officers (Sheet 1)			
- Nominal roll, Taranaki Military Settlers, No. 3 Company (Sheet 2)			
- Nominal roll, Taranaki Military Settlers, No. 4 Company (Sheet 3)			
- Nominal roll, Taranaki Military Settlers, No. 5 Company (Sheet 4)			
- Nominal roll, Taranaki Military Settlers, No. 10 Company (Sheet 5)			
- Nominal roll, Wanganui Military Settlers (Sheet 6)			
- Nominal roll, Wanganui Rangers (Sheet 7)			
- Nominal roll, Patea Rangers (Sheet 8)			
- Nominal roll, Rotorua Contingent (Sheet 9)			
- Nominal roll, Taranaki Cavalry Volunteers (Sheet 10)			
- Nominal roll, Taranaki Militia Volunteers, No. 2 Company (Sheet 11)			

Figure 7: Archway Archives New Zealand online database screen view.

Whakahoki ki te kāinga: Working with the 'Atkinson Letters'

This year we are celebrating the success of another collaborative effort to 'bring home' a set of Taranaki letters in the care of the Alexander Turnbull Library (Radio New Zealand, 2012). Known colloquially as the 'Atkinson Letters', the 'Maori letters from Taranaki' collected by Arthur Atkinson is one of a number of manuscript collections held in institutions identified as having the potential to contribute significantly towards expanding our archive's research pool of Taranaki mātauranga.

Of particular interest was this collection's Māori to Māori writings, a corpus confiscated from papakāinga for military intelligence during the Taranaki Wars. Building on the Alexander Turnbull Library's efforts to digitise this material and improve catalogue descriptions, Te Reo o Taranaki's role was to bolster community engagement with, and connections to, mātauranga tuku iho within the letters. We did this by transcribing, collecting additional metadata, and providing historical context for a pilot set of letters—around 70, or a third of the overall collection.

The principle focus of this effort was creating a Taranaki reo language learning resource suited to high-level fluency ākonga and rumaki (immersion) learning. Translation was purposefully left out of the scope of work—rather, we aimed to create a resource to foster critical analysis with these taonga within immersion wānanga.

With this work complete and the letters import-ready, the next phase of consultation is to work with Taranaki pouako, kaiako, and iwi leaders to wānanga how the resource may be used within Taranaki whānui for language and history learning purposes. This phase will involve hapori-led dissemination to select groups: Taranaki Iwi (set one), Te Atiawa iwi (set two), and the wider community (students of Taranaki reo and history (set three). This process will be ongoing through 2017, and well beyond. Until this testing and targeted engagement is complete, each letter group will sit within the archive under a strict (non-public) protocol.



Figure 8: *Te Pūtē Routiriata o Taranaki* collection-level screen view.

In the following screen view (*Figure 9*), note in the metadata mapping on the right hand side: the shared rights acknowledgement; Alexander Turnbull as kaitiaki of the originals; Te Reo o Taranaki as creator of translations and additional metadata. Note also the application of a Traditional Knowledge Label onto the intangible cultural heritage contained within the taonga item.

Koia enei nga tikanga ka tonoa e ahau:-
Me tino whakaae pono koutou ki te mana o te Kuini, o te

Ture ano hoki.

2. Ko nga taonga katoa o nga Pakeha i a koutou me whakahoki mai, inaianei tonu ano; a me homai he utu mo nga mea e ngaro atu ana, mo nga mea kua pakarua, kua whakakinotia.

3. Me tuku nga meera kia haere i runga i o koutou kainga, kua e ahatia, me tiaki pai hoki nga kai pikau i te meera.

4. Me tuku nga tangata, nga taonga, me nga kararehe kia haere noa i nga huarahi-kaua e ahatia.

Ko te hara nui ko te kohuru i nga tangata haere noa, i nga Tamariki, he hara nui tena kia te Kuini ki te Ture ano hoki-me mahi ano tena. Kei te wa ano e hopukina ai nga tangata e mei-nga nei na ratou taua hara, e nga kai whakahaere i te Ture, ka whakawakia ratou: a ma te Ture e mea, mehemea i pono pu te whakapaenga o te hara kia ratou; a mehemea kua hara ratou, ma te Ture ano e whakarite te whakawakanga mo ratou.

Na TAMATI KOA PARAONE,

Na Te Kawana.

Ngamotu, Aperira 15, 1861.

LOCATION:



Add new comment

Your name *Te Pūtē Routiri...*

Subject

Comment *

Format - **B** *I*

Figure 9: *Te Pūtē Routiriata o Taranaki item-level screen view.*

This pilot project took a year to complete, and reveals great potential for the use of Mukurtu software to connect flax roots communities with taonga tuku iho in institutional collections. There is also as-yet untested potential for institutions to use the database as a tool of repatriation, a means of ‘handing back’ traditional knowledge to source communities in a safe and managed fashion. Initial conversations with developers indicate much scope for coding to allow Mukurtu to ‘speak to’ other institutional databases, expediting the process of batch uploads from external collections and leaving source communities free to re-contextualise and reorder mātauranga to suit their own information architecture protocols.

This is good progress towards achieving what Honiana Love, mātauranga archivist, envisaged five years ago as a critical component of a successful iwi digital archive:

A database could provide immediate access to virtual copies of taonga ...along with kōrero surrounding those taonga, from both an institutional and iwi perspective. This database, administered by iwi with appropriate levels of access and security could be used to facilitate digital repatriation and the establishment of relationships between iwi and the Crown with regard to taonga (Hall & Love, 2012, p. 34).

Challenges and opportunities

Perhaps the greatest challenge for adapting Mukurtu to suit Aotearoa is how to scale it up while keeping its flax roots. In short, how to guard against this platform taking indigenous knowledge mātauranga further without it becoming “...institutionalised away from its indigenous communities and contexts, where it began and where it still informs identities, ways of living and being” (Tuhiwai Smith, Maxwell, Puke, & Temara, 2016, p. 132).

This challenge is also related to conversations around data sovereignty and security of information storage—digital kaitiakitanga. Iwi, hapū, and whānau are yet to have real choices around the safe storage and handling of their intangible taonga. Within Aotearoa, further work is needed around developing flax roots, collaborative (non-proprietary, non-commercial) data storage options. While this is the most expensive option (up to 16 times more expensive than Australia-based data storage and serving), cost should no longer be a barrier to enabling Māori to, independently, retain their mātauranga within Aotearoa.

The potential for Mukurtu is actively being realised with tribal archiving communities overseas. Strong state and community funding for Mukurtu is enabling wide regional rollouts across tribal communities, encouraging uptake and engagement. Washington State University, development hub for Mukurtu software, for example, recently announced new federal funding to expand Mukurtu into regional hubs in Hawaii, Alaska, Oregon, Wisconsin, and Connecticut. These hubs in turn provide training to local tribal archives, libraries and museums (Letizia, 2017).

The same appetite exists within tribal communities in Aotearoa. Engendering collaboration, training, and engagement with a tool like Mukurtu can also be a powerful tool of decolonisation and reconciliation. To conclude, as one of the architects of Mukurtu states,

The colonial collecting project was a destructive mechanism by which Indigenous cultural materials were removed from communities and detached from local knowledge systems. Much of this material remains today not only physically distant from local communities, but also lodged within a legal system that steadfastly refuses local claims to stewardship of these materials ...incorporating Indigenous knowledge systems into library and archive practices will not just enhance relationships and create access to records, but more importantly, it has the potential to decolonize archival practices and modes of access (Christen, 2015, p. 2-3).

Endnotes

¹ <http://www.kete.net.nz/about>

² <http://www.tetaurawhiri.govt.nz/our-work/community-funding/ma-te-reo-contestable-grants>

³ <https://www.drupal.org>

⁴ <https://digitalarch.org>

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