

InterPARES Trust

Digital Preservation in the Cloud

A New Zealand Case Study

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Outline

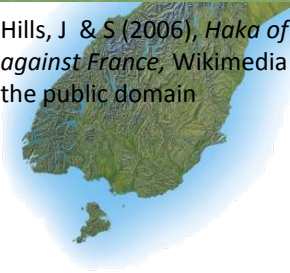
- **New Zealand's Cultural Identity**
- **Cultural Heritage Institutions**
- **Research Project**
- **Findings**
- **What Next?**



New Zealand's Cultural Identity



Hills, J & S (2006), *Haka of the All Blacks before the match against France*, Wikimedia Commons, Permission to use in the public domain



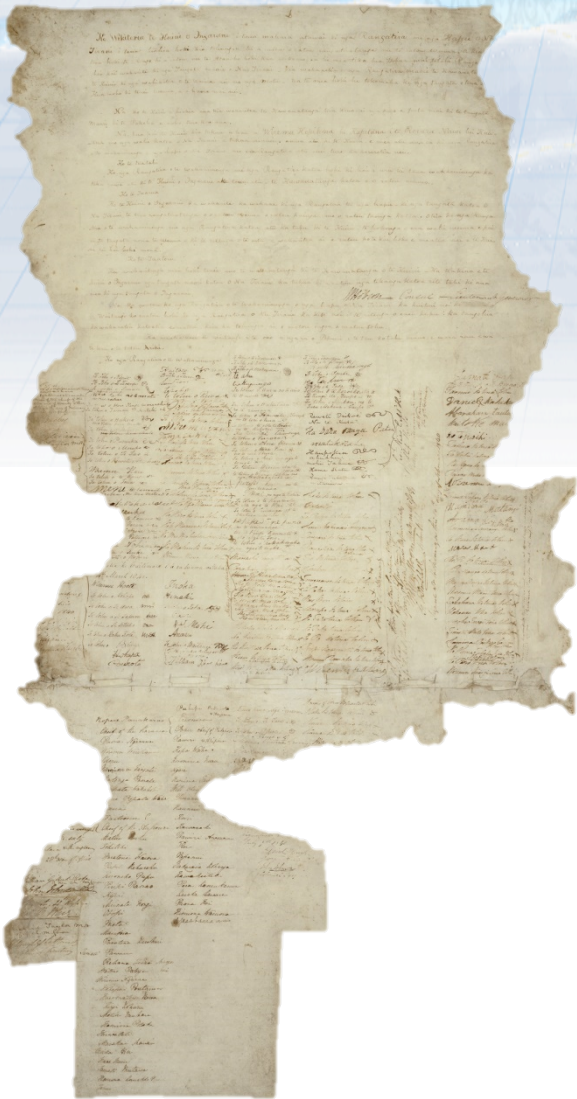
New Zealand Topographic Map (2006), Wikimedia Commons, Permission to use in the public domain



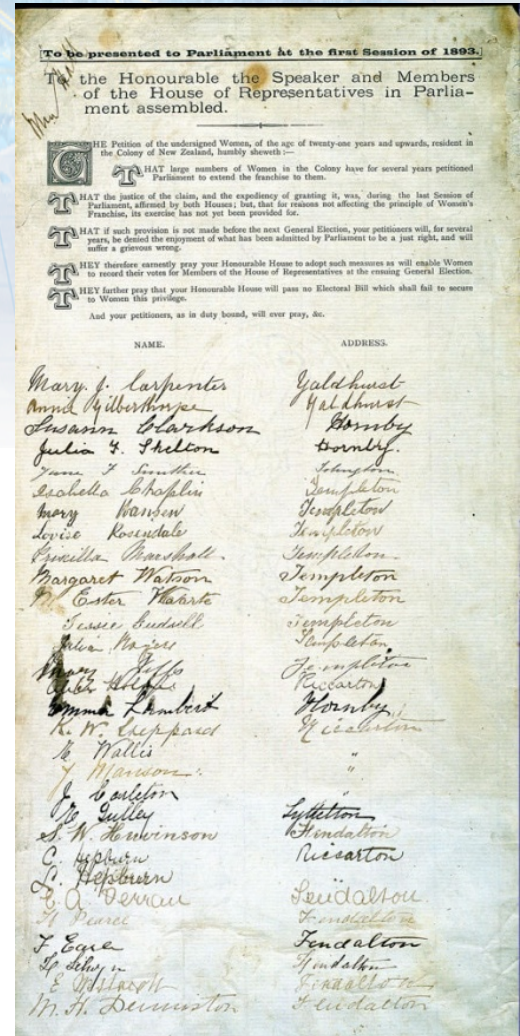
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New Zealand's Cultural Identity



Treaty of Waitangi, Archives New Zealand, IA 9/9, Permission to share



Women's Suffrage Petition, 1893, Archives New Zealand, LE1, 1893/7a, Permission to share

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The Case Study

National Digital Heritage Archive



Development of National Library and Archives

1957 – National Archives established. Part of the Department of Internal Affairs



1965 – National Library of New Zealand established. Standalone government department



2000 – National Archives became separate department. Renamed Archives New Zealand



2007 – Archives New Zealand started in-house work on building digital archiving capability (no additional funding)



2004 - National Library started development of National Digital Heritage Archive (NDHA). \$24 million in funding



2003 – New Zealand's legal deposit legislation updated to include digital resources



Development of National Library and Archives

2008 - NDHA launched “the nation's storehouse for digital materials, websites, CDs, DVDs, images and digitised copies of print and audiovisual assets that make up our digital heritage collection”

2010: \$12.6 million approved to develop a Government Digital Archive Programme (GDAP), to be created by extending the National Library's NDHA system so it can be used by Archives New Zealand for public sector records

2014: GDAP terminated

2011: Archives New Zealand and the National Library subsumed into the Department of Internal Affairs



All of Government (AoG) Cloud

- 2012 – Government moved towards the cloud in the form of approved data centres (currently 3)
- Department of Internal Affairs (DIA) has all of government lead for infrastructure as a service (IaaS)
- NDHA signed up for Storage as a Service (SaaS)
- NDHA collection includes Archives New Zealand legacy digitised content (+ Turnbull archives)
- Plan to add Back up as a Service



Research Project

- To contribute to InterPares goals, in particular to inform the development of policy relating to the use of cloud storage providers



Basis of Research

- Conducted 7 semi-structured interviews in May/June 2014 of representatives of the parties involved: Government Technology Services, NDHA and vendor
- All interviewees were at a senior level, which ensured a focus on strategic issues



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Findings

**Benefits; Challenges; Sector specific;
Advice for others**



Benefits

- Good timing for library because of age of data centre, amount of data being stored, air conditioning required, electricity supply into building etc.
- “Opportunity to look at the whole topography of how the NDHA was laid out ... it wasn’t set up in an ideal kind of way” (IM2)
- “Provisioning, you ring them up and say can we have another 20TB and they’ll stand it up in a day” (IM1)



Benefits

- [the data centre is] “... a tailor made modern facility, compared with the sort of ad hoc growth you’d see in an in-house shop” (IM1)
- “Going to an outsourced model gives you a bit more transparency about the costs and the choice of whether you continue the service is a real choice” (IT3)



Benefits – Escaping the Victim Mentality

- “...the paradigm that is the basis of our [CH] institutions, whether its physical storage or digital we tend to kind of preload, get some capacity and fill it and then panic and try to get some more investment. Which I think in the longer term is unhelpful because it masks the true year on year costs of operating the business and makes it easier for government or other investors once every 10 years to say here’s a bit of money, go away and managing within that becomes the challenge for the institution, rather than continually having a genuine conversation...” (IT3)



Challenges

- **Being taken seriously** “in the beginning we weren’t even invited to meetings, we were just told this stuff was happening” (IM1)
- **Our mindset** ‘The cultural heritage “institutional headset”’ (IT3)
- **The funding model** “its ironic ... there is this big push to consume things as a service which everyone knows is moving you down an op ex route. And the financial models aren’t there to let you do it. And in most places it’s the governments that are pushing you down this route, and yet the same people are going well, we can’t support funding it ...” (IT1)
- **Need to take leap of faith** Being able to make informed decision when current operating costs are unknown (IM2)



Cultural Heritage Sector

- **Need a higher level of assurance** “If [most] organisations lose a document, so long as they get the document back they’re pretty happy. But because of digital preservation being what it is, you don’t want to lose or corrupt any of the bits, they have to be exactly the way they were before” (IM2)
- “IT have a very vanilla view of servers, infrastructure, applications ... when it comes to [cultural heritage] type like the NDHA they are very passionate about the data that sits in there ... more than what IT folk typically are” (V1)



Cultural Heritage Sector

- Volume of data bigger, longevity longer. “Different organisation to your typical core government department. Large volumes which don’t change significantly on a daily, weekly, monthly basis” (V1)
- All of Government contract written for generic workloads.
- “very high initial throughput, and very peaky workloads at ingestion and has very random recalls and the capacity is much larger than what the service catalogue was originally written for” (V2)



Conclusions and Advice

- Clear benefits!
- Paradigm shift for CHI in terms of control and financial treatment
- Essential to understand funding and budget models
- Need for information managers to understand strategic dimensions of storage decisions
- Current environment characterised by Andrew Abbott's 'competition for jurisdiction' – we need to be able to understand, and articulate, our mission to manage information as an authoritative resource



What Next?

- Detailed look at risk assessment and risk management



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Questions or comments?

