

kete

telling our stories together  
he kete kōrero, nā tātou, mō tātou

# The Future of Kete

Proposal for Funding Support  
from New Zealand Public Heritage  
Organisations

*March 2013*

# Horowhenua Library Trust

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10 Bath Street, Levin, New Zealand

Telephone 06-368 1953

Fax 06-367 9218

[www.library.org.nz](http://www.library.org.nz)

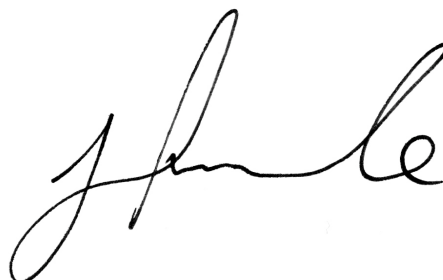
Many organisations use Kete, an online archive service, to store community and personal items of value. Kete was conceived in New Zealand and opened for free use to many of our libraries and museums. Now it needs love and funding to modernise our shared heritage.

In this environment of tight costs, Kete has achieved a lot for us all. Now the time has arrived to pitch in and keep the project alive for the future. Let's work together. We need you to consider a contribution before this year's end and for the 2013/14 financial year.

The Horowhenua Library Trust have committed to modernising Kete software, and will lead project governance for the first phase. Your involvement in making requests, testing, or communicating with our technical team at Rabid is very welcome. We aim to make involvement easy, and are determined to push Kete forward for today's requirements.



**Joann Ransom**  
CEO, Horowhenua Library Trust



**Josh Forde**  
Rabid Technologies Limited

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# Summary

*This document restates the value and vision of the Kete project. It is written to the community of Kete users and supporters of the project.*

Kete is an immensely important open source software project that enables communities to store local digital resources and collaborate to organise and share them. It was conceived by Horowhenua Library Trust and subsequently funded by a variety of other contributors in the New Zealand community. The time has come for a renewal, and we are seeking your financial support for a major upgrade to the project.

Kete has achieved much and enabled innovations, unlocking the cultural heritage within our communities. The visionary concepts of collaboration, openness and sharing that Kete embodies are now becoming the norm of the modern web. However, the core software was developed in 2007. While pretty radical for its time, it is showing its age and users now demand a more modern and usable system. The positive aspect of this progress is that Kete's values of collaboration are readily accepted and understood by modern software users.

Kete has much in its favour. The items it supports are extremely valuable - digital assets are often of immense historical and archival relevance.

The proposed project will deliver a major upgrade of the codebase. We aim to deliver a new Kete that is generally maintainable by existing IT staff without specialised experience of software development. We will mitigate obsolescence in the code and open the project to new developers. Without a concerted effort of work, support and discussion from the community of users, Kete is at real risk of becoming redundant.

After an initial phase, we propose a program of significant improvements to the design and user experience and add a set of additional features to modernise the powerful set of tools that Kete offers.

If we achieve this, we believe we can reinvigorate the open source community of the project, invite contributions from new stakeholders and new countries, and have a robust Kete that New Zealand will be proud of for years to come.

# What Does Kete Represent?

*An area of unique value for public libraries is to ensure that local content is created, collected, kept safe for the longer term and made accessible to the world. [...] Public libraries will continue to play a role in collecting and preserving the documentary heritage of their localities, often doing this in collaboration with the local historical society, museum or genealogical society.*

*Public Libraries of New Zealand - A Strategic Framework 2012-2017<sup>1</sup>*

Kete focuses on the cultural potential of items that ordinary people hold in our communities; in shoeboxes, photo albums and on the walls of our own homes.

We collect digitised items of cultural value, we categorise them, and we share the items in ways that others can work with them.

*Kete values:*

## *Sharing*

Valuable items are often extremely personal, perishable and vulnerable. But owners are often more than happy to share copies of these items, keeping them alive for people not in possession of the physical originals.

## *Collaboration*

We have designed a system where anyone can easily contribute resources. Others can contribute with record keeping, related items, or additional context, in line with successful models on the wider internet.

## *Free Access to Everyday Users*

Kete serves part of libraries' mission and role to keep knowledge within the community. Keeping the platform accessible for users helps Kete and also provides a means for everyone to participate.

## *Conversation and Dialogue*

Often the korero around items is just as valuable as the underlying artifacts. Discussion in groups can connect people to new stories or relevance of items. Having a sense of story and human context around items can be of great use.

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<sup>1</sup> [http://www.publiclibrariesofnewzealand.org.nz/misc/pdfs/NZ\\_Public\\_Libraries\\_Strategic\\_Framework.pdf](http://www.publiclibrariesofnewzealand.org.nz/misc/pdfs/NZ_Public_Libraries_Strategic_Framework.pdf)

# What Makes Kete Special?

*Increasingly, public libraries are providing users with a Kete or repository in which to upload and store images, text, audio and video material. The APNK has provided this service for a large number of public libraries that are members. Others have provided their own repository. Uploads from the APNK are automatically linked to DigitalNZ by topic and are searchable through Google and other search engines.*

*Public Libraries of New Zealand - A Strategic Framework 2012-2017*

The vast majority of the archives in our community are in private hands. Kete is a vault to share this common taonga.

Some numbers estimate that formal archive bodies hold only 10% of items of cultural significance. 90% of historical items are held in family or amateur hands. Not all family collections survive ageing and they can easily be lost or damaged. This content is very much at risk and record-keeping is fragmented and non-standard.

What Kete shows is that people are very happy to share items and stories at no cost to them. Through providing a means of digitising items, we sit alongside physical content, and our resources can potentially be pulled into formal collections when worthwhile.

Kete has been deployed throughout New Zealand, for example:

- A Kete deployment has been used to document the **community impacts of the Rena grounding** and oil-spill disaster for the Bay of Plenty region. This highlights the potential for all types of records to be created and maintained during events that impact our communities.
- The Horowhenua Library Trust's Kete is a **major contributor to the Digital NZ searchable index** of our cultural record. This is one of many Kete instances that is able to be widely indexed while being in use in our communities.
- The standards-based OIA-PMH data sharing protocol means items in the database can be indexed and **records shared beyond the walls of the Kete application**. This could provide valuable potential for the software in linked open data prototypes and projects.
- The Manawatu Library and Archives Shared Services project by Archives Central has enabled the councils of the region to **collaborate on archiving their records** in compliance with record-keeping legislation.

# Where Does Kete Fit In?

**The growth of the internet and the indexing of public information heralds a change in the role of libraries and heritage organisations in our country.**

With technology making information freely available online, libraries are increasingly valuable as a bridge to the internet and online repositories, preserving access for all the members of our community. The library is an accessible research tool for all. Yet also, the most powerful resources of knowledge for our community are our local taonga, history, people and family. Who better to be recording these than our local libraries and museums?

How are we preserving this vibrant local focus on our community? Individuals value first their own relationships, people, stories and places. Kete enables individuals and shared interest groups to store relevant local collections. These are woven together by the software to form a rich patchwork of preserved local instances, shareable nationally (and globally). No other institutions will care for community assets like local groups and libraries.

# Features and Development Opportunities

## We Collect:

- any digital file item
- an image or digital record of physical item/archive
- documents

## *Future Development:*

- *Better management and viewing of video, audio and transcriptions, e-books, slideshows*

## We Categorise:

- metadata on resources that can be developed by many people working together and revisions to the records
- complying with Dublin Core XML schema
- translation capabilities of records, including Te Reo

## *Future Development:*

- *personal content (own categories and tagging) and sharing socially online*
- *changing the concept of baskets to be more socially focused*

## We Share:

- data feeds, and make items searchable by other services such as Digital NZ, exposing these beyond the software
- by giving access to media through the accessible search and user logins with the site
- with a powerful interface to discover, share and contribute our community assets and personal historical items

## *Future Development:*

- *in providing citation record on uses of these items*
- *by encouraging Creative Commons use to open value of these items*
- *by linking data across organisations and pulling references to related works*
- *a concept of narrative & story creation, linking items in various contexts (written account, oral testimony, GIS information, timeline creation)*



# What Tangible Benefits Will This Project Bring?

## *Primary Benefits from Phase One*

In Phase One, we will modernise the Kete software to use current best-practice technology. This will deliver a refactored, maintainable codebase. Avoiding digital obsolescence is the compelling reason to commence an upgrade as soon as possible. This will enable the following benefits:

- Modern technology base as a platform for design improvements
- Improved technical performance of sites, which can be slow at times
- Enhanced security coverage
- Planning for storage of larger items, pictures and collections.
- Launch development of a robust API, a technical gateway enabling improved data sharing, linked open data work, mobile application capability

## *Phase Two and Longer Term Benefits*

Modernising the code base in Phase One opens up a number of exciting possibilities for further improvement of Kete, including:

- Redesigning front end of Kete for better workflow and presentation capabilities
- Mobile application development will be achievable
- Richer media types can be displayed to reflect current and future public expectations
- Encouraging commentary and mashups on items, including by non-technical users
- Harnessing Creative Commons to realise the value of taonga stored in Kete instances
- Rekindling the korero and incremental improvements to the project through a kaitiaki board with a clear place for dialogue, contributions and suggestions. In absence of this, the developers and Horowhenua Library Trust will direct improvements with an open invitation to contributions or more involvement in the project.

# How Much Will This Cost?

We believe it will cost \$NZ 200,000 - \$250,000 to complete a major upgrade of the software. Funded by many, we can work together to achieve a world-class offering. We will be able to demonstrate the value and potential of the software to serve other institutions inside and beyond New Zealand.

We have planned a multi-phase approach to deliver improvements before June 2013, and have these implemented in many Kete instances.

## *Phase One*

**Budget: \$NZ85,000 - \$100,000**

*See work plan in Appendix to this document*

Phase One involves the upgrading of the Kete codebase to modernise the system and enable further development. This work would be performed by Rabid, a Wellington-based software company who have invested in planning on the project. They have worked with Kete in previous projects and have the support of Walter McGinnis, who will be collaborating on the technical implementation.

Rabid also seeks to promote the project to more organisations in line with the spirit of Kete. They envisage being a long-term supporter and are seeking opportunities to introduce Kete into other countries, particularly Australia.

## *Phase Two*

**Budget: \$NZ115,000 - \$165,000**

Phase Two has a more open roadmap incorporating the features referred to in the section previous (Kete Features and Development Opportunities).

Attention will focus on modernisation of the design; developing usability and associated contexts such as larger storage and bandwidth requirements; rich media display; and implications of the UFB network on software requirements.

Front-end development of the website is required, with a usability review to implement a user-focused design that will allow easier browsing and workflow.

Mobile application demonstrating the capabilities for mobile and design requirements; this may involve exploring the context of mobile use cases with members and users of the software to inform incremental developments.

The deliverables will be prioritised and completed in phases of two to four months, with time for consultation with the community of users.

We would welcome your feedback on priorities for this phase as this will impact on features getting attention.

# What is the Kete We Aim to Deliver?

**Kete is an important project based upon the following tenets:**

- our communities hold items of great historical and cultural value,
- we should encourage archiving and sharing of these items,
- we should give the opportunity for anyone in our community to contribute items of cultural and historical heritage.
- we should make it easy for access to these items to be shared with the wider community

**Our vision is to improve Kete to be a simple, user-friendly and modern service open for the participation of everyday people. This will be of value to libraries and museums and anyone with digitised items to store for the long-term.**

In the future, Kete will become as much a tool for sharing items outside of Kete (such as embedding Kete items into your personal blog) as it is about classifying them.

We should all position Kete so that anyone, from a school child to an imaginative museum designer, could use our resources to enrich their own works.

We need your help in providing funding and feedback on improving Kete. Consider setting aside funds before the end of this financial year and creating a contribution for next year's budget. Shared amongst many, this need not be onerous and can give access to an exciting and valuable Kete for all of us.

# Appendix 1: Kete Product Roadmap and Work Plan

## *Phase One*

### **Deliverables**

Upgrade application to Rails 3	\$40,000
Move from XML based object storage to true relational data structure	\$25,000
Create upgrade tools to assist in updating existing sites	\$15,000
Update search system for ongoing support	\$10,000
Begin development of API with remaining budget	\$30,000

### **Milestones**

- Modernise the backend technology in use in the Kete application
  - Refactor and redesign parts of the codebase to make Kete maintainable and accessible to other developers
  - Upgrade the Ruby on Rails version
    - *Significant reduction of security vulnerabilities*
  - Provide an upgrade path for Kete
    - *Each instance of the Kete software will require upgrading to remain relevant. We plan to implement development in a way that maintains the existing instances of Kete, so there is a defined process for modernising the system.*
    - *Kete instances with highly customised solutions may require some reengineering work to permit upgrades but the design intent will be to redevelop custom work to occur via the API making the core application more standardised.*
- Consider the benefits of a fully writeable API, for different website displays of Kete items, within mobile devices or different web experiences.
  - *An API is a standardised gateway for the Kete application to share information with other web databases and services.*
  - *We have had initial discussions with archive.org regarding the provision of a 'permanent' backup of storage items for libraries that recognise this as a benefit.*

### **Timeframe**

4 months with a period of 2 months for testing, implementation and evaluation.

Delivery of technical upgrade work prior to 30 June 2013.

## *Phase Two: Future Development*

### **Goals**

- Front-end development of website with usability review to implement a user-focused design that will attract users
- Mobile application demonstrating the capabilities for mobile and future requirements
  - *This may involve exploring the context of mobile use cases with members and users of the software to inform incremental developments.*
- Dialogue with an aim to form a Kaitiaki group of engaged members with an annually scheduled budget formed in trust for the project
- Maintain and prioritise development of the project
  - *Commission development contracts avoiding lock-in to any individual*
- Push Kete forward in future in line with the values of the Kete project
- Revive the open source project
  - *Other developers should be welcomed to the project*
  - *Working with Walter McGinnis, we will involve his contributions to the project and diversify the knowledge with the Rabid team, based in Wellington.*
  - *Accessible to juniors and technical administrators to manage*
  - *Documentation and sharing of Kete use-cases or new ideas amongst members*

# Appendix 2: About Rabid

## *Company profile*

Rabid is a Wellington-based digital technology company focused on open-source technologies in business, community, and government sectors.

We propose to enhance the technology of the Kete project through Phase One and Phase Two, while positioning the technology to be accessible to other open-source developers.

As a consultancy, Rabid specialises in development of new services with modern technologies.

Recent projects have included:

- Stick with the Pack, a mobile phone application - in collaboration with Wellington City Council, ACC, Police and Massey University
- Peekaboo, a game for brain development and parental interaction of toddlers - supported by MSD, Vodafone Foundation and Plunket
- New Zealand Broadband Test, a project to deploy open-source broadband internet connection tools in a New Zealand environment - with REANNZ and a major international corporation

Rabid selects appropriate online tools, specifically Ruby on Rails, Node.js and standards-based Javascript / HTML5, to create modern and resilient applications. These technologies offer the ultimate in scalability, adaptability and speed of development.

Rabid works with clients such as Google, Deloitte New Zealand, digital design agencies, and NFPs like the New Zealand Guidelines Group to ensure a solid delivery of their customers' needs. Projects may range from bespoke web applications through to entirely new online products or services, requiring design, development, product strategy and support.

Alongside these projects, Rabid maintains an interest in contributing to projects with an element of social good. We contribute consulting to GRIT Learning, an organisation exploring technology-led social enterprise in Cambodian education; and NVader, a New Zealand-based organisation investigating human trafficking exploitation in South-East Asia.

Rabid was restructured from the web consulting arm of Enspiral in 2012, where current staff played roles in major client projects and development of technology start-ups. We are a member of NZRise, a not for profit organisation committed to the development of the New Zealand IT economy. Many of our team are members of InternetNZ.