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**New Work Spaces: Wikis for Cataloging Collaborations**

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**Abstract:**

**Purpose** – The paper describes how tools like wikis can be used to improve collaboration and communication in project-based teams and general work groups.

**Design/methodology/approach** – Over the last few years a number of wikis have been used by New Zealand libraries for cataloging related purposes – two as project management tools, one as a repository for project documentation, one as a national knowledge repository, and one as a local institution-based knowledge repository. The paper examines both positive and negative aspects of using wiki technology in this environment.

**Findings** – Wikis prove to be very efficient project management and knowledge management systems. Information can be shared very quickly, efficiency of communication increases, and team productivity is higher. In all described cases a free and open source platform was chosen. Externally hosted solutions were preferred because they enable wikis to be immediately available for use. They are also easier to edit, and there is no need for local IT support. There remain concerns about disaster recovery and the long term preservation of documentation.

**Originality/value** – Experiences such as the ones presented in this paper can encourage other librarians to explore how new technologies can be used in their work environment.

**Keywords** wikis, cataloging, project management, knowledge repositories, knowledge management

**Paper type** Case study

Wikis are online content repositories to which anyone with access can contribute. They are interactive websites where users can add, delete, or modify pages. Because of their many aspects and applications, they are viewed as technology, webspace, as information and knowledge resources, philosophy, or even as communities (Klobas, 2006).

Ward Cunningham, who in 1994 developed the first wiki, defined it as "the simplest online database that could possibly work" (Leuf & Cunningham, 2001). *Wiki* in Hawaiian language means *fast*. Cunningham called the wiki he created WikiWikiWeb from the name of the Honolulu International Airport Wiki Wiki shuttle bus that runs between the airport's terminals. Cunningham's goal was to enable the quick exchange of ideas between programmers, so he made WikiWikiWeb's pages quickly and easily editable by its users. Because they are simple, quick and inexpensive tool, wikis became very popular and are used wherever there is a need for collaboration and communication. One of the best-known wikis is the encyclopedia Wikipedia.

Wikis are social software that has also been adopted in the business environment. They are often used for managing projects and sharing knowledge and provide an excellent means for capitalizing on the collective knowledge of a group when creating a knowledge repository (Farkas, 2007). As Christian Wagner says, they combine the best elements of earlier conversational knowledge management technologies (Wagner, 2004).

This article examines wikis as project management and knowledge management systems, and both positive and negative aspects of using wiki technology in this environment. It will describe five wikis that New Zealand libraries have been using for various projects relating to cataloging and bibliographic data exchange.

## How do Wikis Work?

With wikis, information can be easily made available online and participants are enabled to edit that information. In a wiki, any user can add entirely new pages, or change or add new content to existing pages, or delete information. As well as content, users can edit the organisation of the wiki.

Users do not have to have technical knowledge or web design skills. Wikis use simplified mark-up language and provide web-based forms that enable fast and simple editing. Members can view and create content independently of each other. Linking between pages or to any URL is simple, and connections to other wikis are also possible. Usually wikis offer instructions on how users can interact with the wiki.

Wikis can be created in several ways. They can be hosted on providers' websites, installed on users' servers, or embedded into other software. Most wikis are free and open source, but for some software or access plans, users have to pay. Wikis also differ in ways the content is stored, and the features and security options they offer. An extensive comparison of differences between wikis has been done by WikiMatrix (http://www.wikimatrix.org/).

Wikis are praised as flexible tools that can be used for a wide range of applications, but they have not escaped criticism. A common complaint is that anyone can edit the text, so the wiki lacks authority and control over its entries, and is prone to vandalism. However, many examples show that the wiki community usually deals well with these issues. The main principle of a wiki is openness and trust among its participants. To enable better protection of content, many wikis offer control over changes. A wiki can be created as private space or have different levels of administration rights for its members. In many wikis there is also an option to lock certain pages or documents.

**New Zealand Cataloging Scene**

Almost all New Zealand libraries contribute to the New Zealand National Union Catalog (NUC), also known as the New Zealand Libraries' Catalog. This database of catalog records is maintained by the National Library of New Zealand (NLNZ), to which New Zealand libraries report bibliographic records and holdings information. The NUC has 280 member libraries, 4 million bibliographic records, and 13 million holdings records.

In 2006, the National Library of New Zealand and OCLC signed a partnership agreement that made all libraries in New Zealand full members of OCLC. The practical implication for New Zealand catalogers is that they now organize their daily workflows around three databases: the local library catalog, the NUC and OCLC.

How libraries use these three databases varies, and depends on the way each library has designed its workflows. Some libraries, like the University of Auckland Library, prefer to create new records on OCLC. Others libraries create new records on the NUC, or on their local catalog. Contributions to the NUC can be made via the NLNZ Webcat service, the NLNZ Cataloging Client from the Voyager IMLS, batch-loading from a local library catalog, the OSMOSIS process, or OCLC Cataloging Services.

Data is exchanged daily between WorldCat and the NUC. To enable accurate representation of New Zealand records and holdings on the New Zealand Libraries' Catalog and on WorldCat, data exchange must be an easy and seamless operation, and for that to happen, the quality of data must be maintained.

**New Zealand Cataloging-related Wikis**

**Wikis Created for the OSMOSIS Pilot Project**

OSMOSIS is a software tool developed by the American-based company The Marc of Quality (TMQ Inc). It identifies additions and deletions to library holdings. The New Zealand National Library started the OSMOSIS pilot project in 2008, with the aim of testing whether OSMOSIS could be used to improve the batch update process of New Zealand library holdings to the NUC. Greater accuracy of library holdings supports interlibrary loan and future resource sharing, and the National Library wanted to ensure that the NUC is always up to date.

A number of libraries from different parts of New Zealand participated in the project - the National Library, one public library, four university libraries, and one consortium (representing five public libraries). Apart from the need to enable good communication between geographically separated members, it was important to ensure that all steps in this complex project were running smoothly and that the whole process was streamlined.

For the project, two wikis have been created. One is a repository for the documentation needed by New Zealand and international users of OSMOSIS. The other has been developed

for New Zealand libraries participating in the project. Each library has a separate folder in it with project documentation, batchload processing summary reports, and tracking steps.

Wetpaint (http://www.wetpaint.com/pages/sites) was chosen for the platform. It is one of the most popular social wikis, and according to data on its website, with more than one million social websites and eight million monthly visitors ("Wetpaint press room," 2009). This is a free wiki that targets non-technical users and has easy-to-use features. It is an externally hosted wiki.

Both wikis were set up as private sites, and users have to register to be able to see or edit the content. The same login and password allow access to both wikis. Subscribers can search across all their wikis from a window in the right upper corner (Figure 1). Editing is simple, and similar to MS Word (Figure 2). Documents are protected so only moderators can alter them but members can make comments.

The wikis were heavily used in the pilot year of the project, particularly the wiki developed for New Zealand libraries. It was a place where it was easy to check what had been done, and when the next load of records was due. It was also an excellent platform for exchanging experiences and getting answers from the whole group. The Discussion Forum page via which messages could be sent to the whole group was particularly helpful (Figure 3).

Initially, there were some minor problems because members had no previous experience with wiki technology. However, members soon became effective wiki users. Generally speaking, libraries participating in the project are very happy with the wikis. Nevertheless, there are some inconveniences. Wetpaint is a free wiki and its business model is to add advertizing to each page. There is also an issue with long term preservation because Wetpaint is a hosted solution, and all documents are saved on the Wetpaint server. To prevent documents being lost if a host ceases providing service, both wikis are backed up once a week, by exporting back-up files to one of the administrator's computers.

**The TPSAC Expert Working Group Wiki**

The OSMOSIS project has shown that data in library catalogs is not always usable for automatic machine matching. There are many reasons for this. For many years libraries have seen their catalogs as something to support only their own users, and they have adjusted cataloging rules to suit local needs. Some libraries modify externally sourced data on their local database (like change the standard form of a General Material Designation); some create only brief records on the local database to save time. It was never envisaged that the information in their catalogs would be used for communication between external databases and that data in them should be machine-matchable.

Another major problem, which involves a huge number of records, is the poor quality of ebook records supplied by publishers and vendors. They often re-use records for print books, and they frequently do not change elements within the record that are unique, such as Library of Congress Numbers, and ISBNs, which identify particular manifestation of the title.

In order to achieve better standardisation of bibliographic records, the Expert Working Group for Cataloging Standards (the Group) was established by the Te Puna Strategic Advisory Committee (TPSAC), a body that advises the National Librarian on the strategic direction of Te Puna Subscriber Services, a suite of tools to support the work of New Zealand libraries which supports the NUC. The Group is made up of people from several libraries around the country, and again, it was essential to establish a good method of communication between the members. The Group was given a tight timeframe to analyse the situation and deliver a solution. Some members were part of the OSMOSIS Pilot Project, and after the positive experiences they had had with wikis, the natural decision was to use a wiki for managing this project too.

The Group wanted to try a different wiki platform. After comparing various wikis and comments about them on the Internet, Pbworks (http://www.pbworks.com/) was chosen. This product was previously known as PBwiki, but changed its name in April 2009, because the developers had added additional functionality, and felt that the name "PBwiki" was no longer appropriate ("PBwiki Changes Name to PBworks," 2009).

PBworks is a major provider of hosted business and educational workspaces. It hosts over 800,000 workspaces and serves millions of users per month ("About PBworks," 2009). Like Wetpaint, it is also very simple to use. It has a Windows-like editing interface which is

familiar to Group members (Figure 4). It is possible to choose who will have the right to see the content of the wiki, and to edit pages (Figure 5). The Group decided to opt for the basic and free version of PBworks.

The wiki proved to be an excellent support for this project. The Group members have used it in a number of ways. All project documents have been stored on the wiki, including project plan, meeting agendas, minutes, actions, and Gantt chart. This has made it much easier to prepare for meetings. With all the documentation in one place, there is no need to look through folders and e-mails before meetings. Documents can't be misplaced or lost.

During teleconference meetings, members are able to have the wiki open at their desktops. People have occasionally taken part in meetings from home and being able to access minutes from previous meetings and other relevant documents via the wiki was a real advantage. Between meetings, the wiki was used for communication among the group members. Links to various resources and documents of possible interest to other group members were also posted.


**The NZNUC Wiki**

The work of the Group has resulted in yet another wiki. The Group decided that the best way to provide the New Zealand cataloging community with ongoing access to requisite resources and up-to-date tools was to create a special wiki which would store everything related to cataloging.

The NZNUC wiki is designed for New Zealand catalogrs who are contributing records to the National Union Catalog. It aims to provide guidance on how to create good cataloging records which meet appropriate standards, and to facilitate accurate machine matching of records to reduce duplication on the National Union Catalog and WorldCat.

The basic structure of the wiki will be created by the Group, and it will then be given to the cataloging community for further development. Work on setting this wiki commenced in April 2009, with the aim of presenting it to the cataloging community for assessment at the end of May.

Initially the wiki will have documents listing minimum requirements for bibliographic records supplied to the NUC, documents relating to the OSMOSIS project, and links to cataloging tools and standards. There will also be instructions about adding records to the NUC. Wiki features, such as easy photo and video integration, templates and tables have already proven to be advantageous (Figure 6).

The wiki will be public, and all New Zealand catalogrs will be able to read and edit it. However, not all members will have the same level of editing rights (Figure 4). It may also be necessary to "lock" some of the pages, to make them read-only.

The Group also recognizes that most members of the New Zealand cataloging community do not have experience in working with wikis, and may find the concept challenging. As Chawner and Lewis noticed, getting people to contribute to a Wiki is as much about culture as it is about technology (Chawner & Lewis, 2006). The Group plans to provide various methods for instructing catalogrs on what wikis are and how to use them.

**The Cataloging Wiki at the University of Auckland Library**

Following on the success of these New Zealand-wide wikis, a test was done to determine if a wiki could be used as a knowledge repository for catalogrs at the University of Auckland Library, the largest tertiary library in New Zealand. The Cataloging Department provides a centralized service for almost all libraries and collections in the university system and is responsible for the cataloging and classification of monographic library materials. Some cataloging is also done by the Architecture Library and Asian Languages collection library staff. The Serials Department is responsible for cataloging serials and continuing resources. Altogether, over 70,000 volumes are accessioned per year.

With catalogers working in different units across the Library, one problem has been the lack of a central repository for documentation. In-house policies and guidelines have been recorded in various cataloging manuals, and saved in different places online, and access has been difficult to provide. The main manual was done in HTML format, and can only be

edited by an administrator. Other manuals are written in MS Word. An intranet page contains further information, such as monthly and annual statistical reports, and project reports.

The main advantages of storing all this information in a wiki is that the wiki can be accessed from anywhere. There is no need for a web administrator. As the wiki has been created for a closed community, all members have administrator rights, and are able to add, edit and delete documents and pages (Figure 7).

At the beginning, some catalogrs found it difficult to get used to the wiki. Basic explanations about the wiki and instructions on how to use it have been stored at the Front Page. Even so, some editing training was still required as well as clarification on various wiki features. It was particularly important to point out to users that they can view new material and updates on a page called Recent Changes, and via an RSS feed.

The team needed a "wiki gardener", to oversee the wiki, and ensure that relevant information is in the correct locations. Without a gardener there is a danger that the wiki will become disorganized and that it will provide a confusing mess of information and ideas. The wiki already serves as a work space for catalogers. Cataloging documentation is being moved onto it, and it has proved to be an excellent solution, particularly for areas where traditionally organised documentation has failed to keep up, such as managing e-book collections.

PBworks has again been chosen as the platform, and because it is hosted off site long term preservation of the documents remains an issue. Because of this, the wiki may be migrated to locally hosted software at some point.

**Conclusion**

Over the past few years a number of wikis have been used by New Zealand libraries for cataloging related purposes – two as project management tools, one as a repository for project documentation, one as a national knowledge repository, and one as a local institution-based knowledge repository. In all of these cases wikis have proven to be a highly effective tool.

The chosen software offerings, Wetpaint and Pbworks, are both free, open source platforms. An externally hosted solution was preferred at the time wikis were set up because they enable wikis to be immediately available for use. They are also easier to edit, and there is no need for local IT support. The downside is the question of disaster recovery and the need for constant backups. Free wikis also have limited storage and limited numbers of users.

A wiki should be a collaborative and collective effort, but there is still a need for an organiser to oversee its development. Some members of a team may be reluctant to use wiki at the beginning, but once they become familiar with it and discover the advantages of this technology, they are keen to continue and to use it more fully. The way one wiki has led to several others in the New Zealand library world is proof of this.

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**Figures**

Figure 1: A page from TMQ OSMOSIS for NZNUC Libraries. In the upper right corner is a window from which a user can log onto their other Wetpaint wikis.
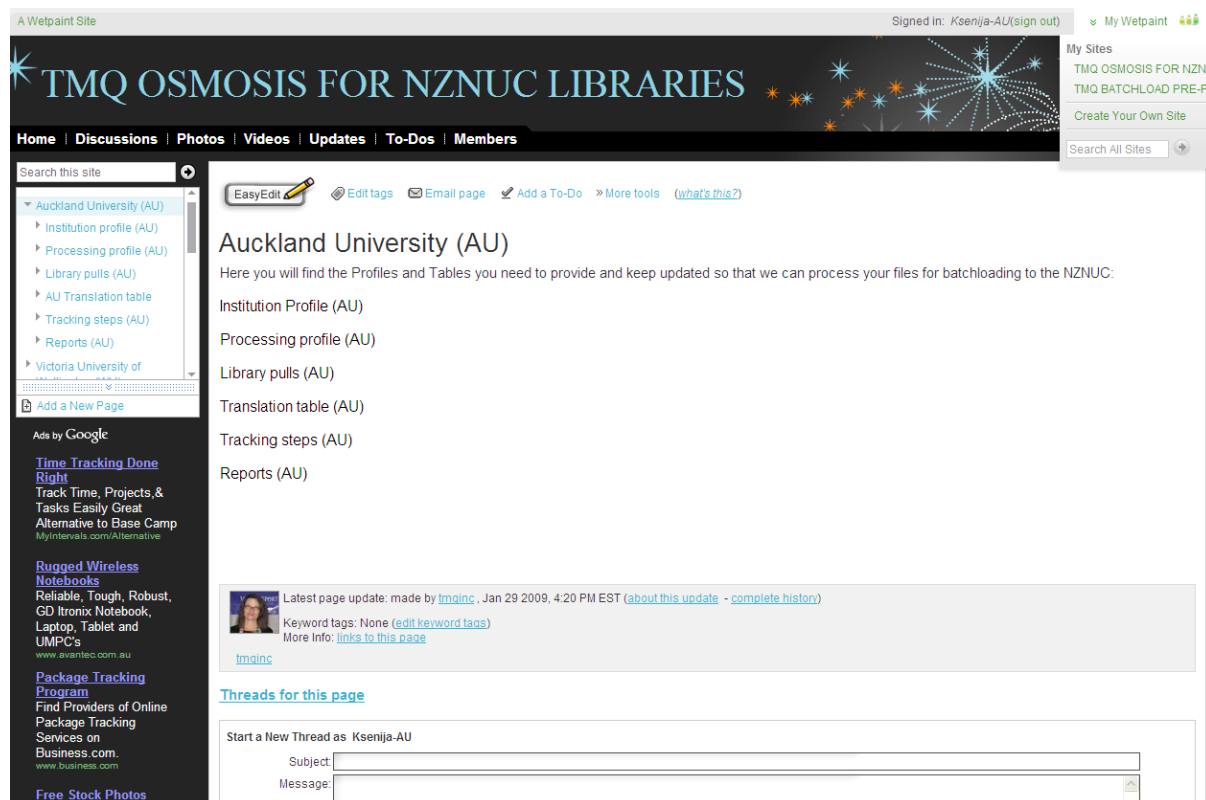


Figure 2: View of the same page showing the editing toolbar
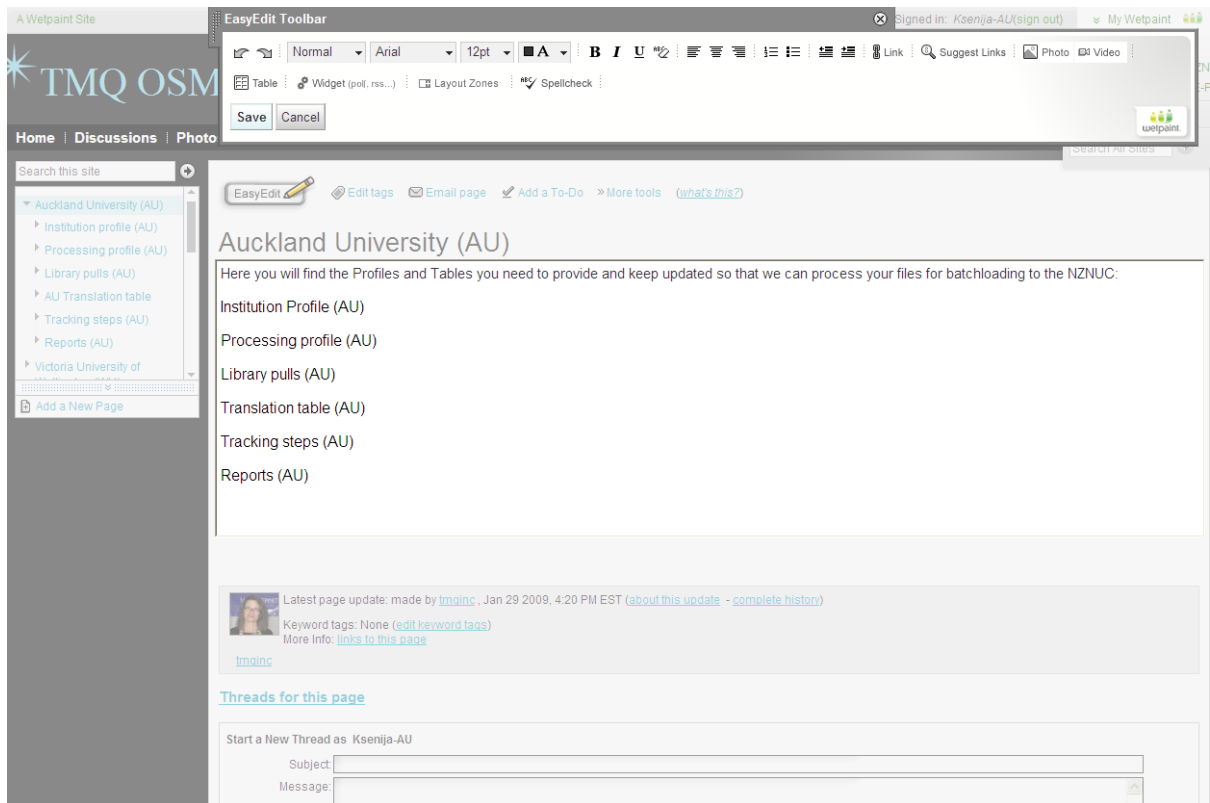
Figure 3: Discussion Forum on theWetpaint TMQ Batchload Pre-Processing Wiki
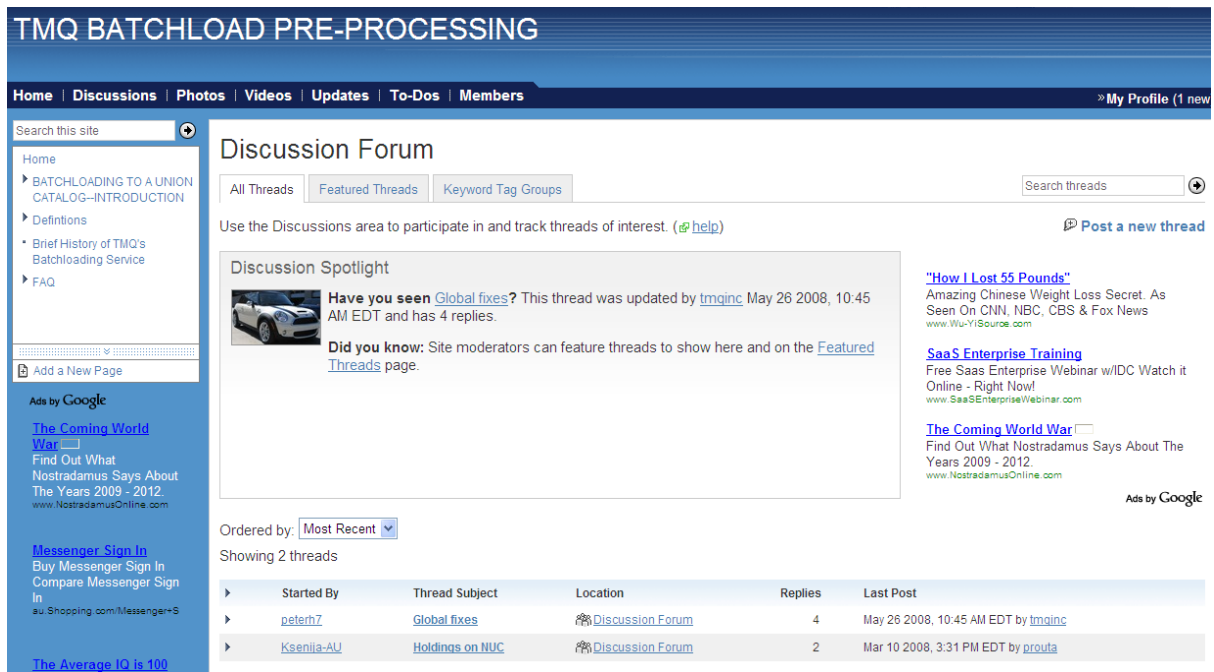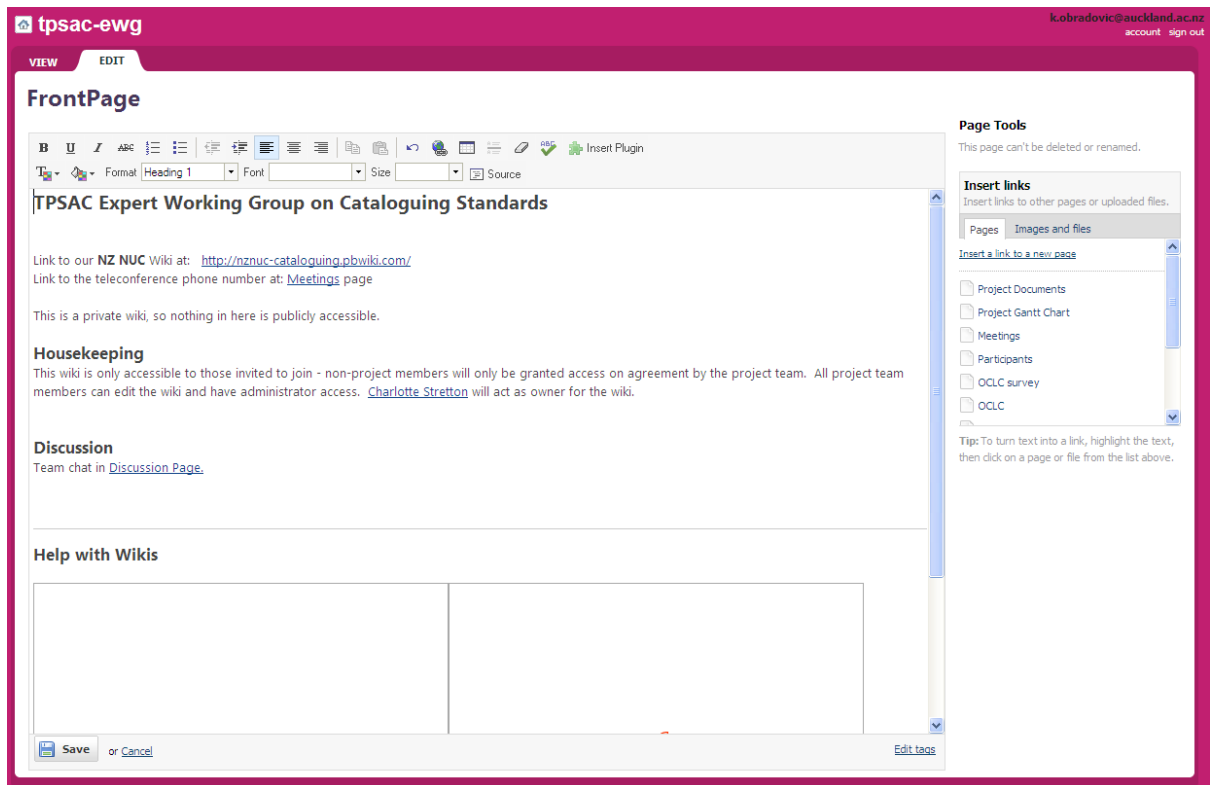


Figure 4: Editing view in PBworks

Figure 5: PBworks security settings page

Figure 6: NZNUC Wiki page with an instructional video

Figure 7: Front Page of the University of Auckland Library cataloging repository

**About the author:**

Ksenija Mincic-Obradovic joined the University of Auckland Library in Auckland, New Zealand as Cataloging Manager in 2002. She has worked in libraries since 1983, in many different areas – including medieval manuscripts, early printed books, current serials and children's books. Current focuses are electronic books and improving catalog usability. Ksenija Mincic-Obradovic can be contacted at: k.obradovic@auckland.ac.nz.