

An evaluation of how digitised periodicals serve academic research in a New Zealand Context.

by

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Abstract

Research problem

This research investigates how researchers from humanities backgrounds research print periodicals that have been digitised. It investigates how New Zealand digitised periodical resources facilitate that research. How do these resources represent the periodical as an object, not just textual content?

Methodology

This research project is mixed methods in design combining two qualitative approaches of content analysis and a self-reporting survey comprised of mainly open-ended questions. These approaches facilitated exploration of rich data interspersed with some quantitative data to help interpret some of the findings. Both methods were undertaken simultaneously after an initial pilot study of one online source. The content analysis focused on four New Zealand digitised periodicals sources and there were nineteen responses to the survey.

Results

The findings indicated humanities researchers are using content and paratexts in their research. They require context from the digitised periodicals they use and they want good quality images and readable text. Researchers call for refinement of search results into component categories and want good browsing functionality. New Zealand digitised resources are inconsistent, fulfilling only some of these requirements and not delivering on others.

Implications

A better understanding of paratexts in periodicals and how they are used in research will address some of the assumptions in library practice that lead to incomplete digitisation and/or limited accessibility. The importance of consultation with targeted research communities during the planning of digitisation projects is highlighted.

Introduction

While the National Library of New Zealand methodically adds to *PapersPast* and more and more magazines are published electronically what becomes of our print periodical heritage? In an increasingly digital world, research into print culture is growing as new technologies throw new light onto what we once took for granted. Scholars have a proliferation of electronic sources available to them, changing their research habits and expectations along the way. In between the print texts and the born digital material lie the hybrids: the digitised. These developed because people wanted the best of both worlds. There is no rule book for producing digitised periodicals, but there are plenty of economic, labour and copyright constraints. The digitised periodical creates further difficulties due to its complex nature and equally complex use by humanities researchers. How do we digitise the periodical as an object, not just textual content?

Research objectives

The goal of this research is to explore the nature of periodical research in a New Zealand context. Because this research is exploratory there are no underlying assumptions or hypotheses. It aims to investigate two sides of the process: digitised resources and the needs of researchers. The intention is also to see whether research needs are being met by New Zealand digitised periodical sources, and if so, how. A further goal is to see if the data collected can help improve digitised resources in order to meet the needs of the academic research community.

Research rationale

Paratexts are those elements of a text (in this case periodicals) that inform the reader about the text and help them interpret it (Genette, 1997). Paratexts surround the text, and are separate from it (Genette, 1997). Text cannot function without paratexts, for e.g. the cover of a magazine, or even the paper it is printed on (Genette, 1997). The literature shows there has been no real examination of paratexts in periodicals. There is therefore, a lack of awareness and understanding of these elements and their importance in providing context for qualitative research in the humanities. Furthermore, assumptions made in library practice such as

cataloguing and binding have seen the exclusion of paratexts from bibliographic description and removal in binding. These oversights and exclusions are also evident in digitisation practice as well in the form of omitted content and/or limited accessibility. The literature also shows that international and New Zealand scholars are using paratexts in their research and these elements provide valuable context which is essential in qualitative research. Due to a lack of standards in overall digitisation (Coyle, 2006) as well as assumptions made by those undertaking the digitisation there is a gap between what scholars need from digitised sources and what is available.

This research benefits future periodical digitisation projects by examining what kinds of access need to be made to give the researchers the content and context they require. It also draws attention to the importance of consultation with research communities in the planning stages of digitisation projects. Quality digitisation that meets the needs of researchers effectively will become increasingly important as more material is made available online internationally fuelling expectations of users. Poor quality resources do not reduce the use of print material which has implications for preservation. As heritage print collections age preservation concerns will increase putting more pressure on digitised sources to deliver.

Studies have been done on information seeking behaviours of various groups including researchers, and studies have been conducted on the efficacy of library catalogues and databases. However, there is no specific data on what humanities researchers need from digitised periodical resources. This is an important area to address as the information needs for this type of research are quite different from those using catalogues and academic journal databases.

Research questions

This research is guided by the following question and sub-questions:

- ❖ How do digitised periodicals serve New Zealand academic researchers?
 - What is the extent of the metadata in New Zealand digitised periodical web resources?
 - What kinds of metadata are evident to facilitate research in visual paratexts?

- What kinds of metadata are evident to facilitate research in textual paratexts?
- How does the extent of metadata in New Zealand digitised periodical web resources serve, or not serve, the needs of humanities-based academic researchers?
 - What areas are working well to represent paratextual elements in current digitised resources?
 - What needs to be done to fully meet the needs of researchers using periodical paratexts?

Definition of terms

Born digital

Digital sources that have been created online rather than converted from physical sources (Digital Preservation Coalition, 2012).

Digitised periodicals

Digital surrogates created from periodicals, the original form of which is physical.

Epitexts

A form of paratext that exists outside and separately from the main text (Genette, 1997, p.344). For e.g. a pamphlet featuring a publisher's blurb about a newly released book (Genette, 1997, p.347).

Grey literature

It "is not controlled by commercial publishers. In general, grey literature publications are non-conventional, fugitive, and sometimes ephemeral publications." (New York Academy of Medicine, n.d., para.2).

Magazines

These are a subgroup of periodicals. The Oxford dictionaries define a magazine as, "A periodical publication containing articles and illustrations, often on a particular subject or aimed at a particular readership: *a women's weekly magazine*" (Magazine, 2015). However the Boston College University Libraries go further to state, "A PERIODICAL intended for the general public rather than for scholars.

Examples are Newsweek, Time, and Business Week.” (2014, May 22, heading: Magazine).

Marginalia

“Scribbles, comments and illuminations in the margins of a book” (Marginalia, 2015, May 28).

Paratexts

See Theoretical Framework.

Periodicals

Scholes & Wulfman (2010) use Frank Luther Mott’s definition of periodicals as a subgroup of publications that are issued at intervals (Mott, 1930-1968, as cited in Scholes & Wulfman, 2010, p.45). This means newspapers are also periodicals, but this report is excluding them (see delimitations).

Theoretical framework: paratexts

The theoretical framework in this research is a way of defining elements of periodicals that have been overlooked in library practices such as, cataloguing, binding and digitisation. It highlights the complexity of periodical content which has implications for metadata requirements in digitised sources.

The term paratexts was devised by Genette who focused on the paratexts of literary works. He outlines it in his introduction as including things that inevitably accompany text and make it recognisable for what it is “such as an author’s name, a title, a preface, illustrations” (Genette, 1997, p.1). He goes on to describe paratext as a threshold, an area of transition and transaction (Genette, 1997, p.2). This threshold, in the case of literature, is where we learn what kind of text we are looking at, and it is also where we make judgements such as how to approach the work or even whether we want to read it or not (Genette, 1997, p. 1-15).

The idea of paratexts is that they “present and comment on the text” (Genette, 1997, p.345) and without them the text cannot function. However, the interpretation of what is paratext and what is text in periodicals is not always easy to discern. One of the few to define paratexts in magazines is Robert Bee who uses paratexts as a lens in

his essay on the history of science fiction magazines (2008, April). Bee describes paratexts in Science Fiction magazines as including editorials, illustrations, and blurbs (2008, April).

Periodicals can often be defined by their paratexts, such as glossy magazines defined by paper quality. An area that made periodicals very different from books was the direct and ongoing relationship with readers in the form of published correspondence and other contributions, such as short story competitions etc. This public commentary did more than present or comment on the text it often shaped it. Advertisers also had a hand in shaping periodicals. Unlike newspapers, magazines could be targeted to very particular groups connecting the worlds of commerce and arts (Latham and Scholes, 2006, p.517). The *Modernist Journals Project* makes a point of including the advertising in periodicals in its database (Modernist Journals Project, n.d.). This is emphasised because of the library practice of removing the advertising before issues were bound together. This practice expresses an assumption that “text” was more important than paratexts. One of the aims of this project is to determine how paratexts are treated in some digitised periodical sources in New Zealand.

It can be argued, however, that reader contributions, such as letters, are actually content, therefore text and not paratexts. The difficulty with Genette’s theory is that it still has not been fully applied to periodicals. So, for the purposes of this research, following Bee’s example and expanding it a little, paratexts in this project include: advertising, editorials, letters, advice and similar columns, covers, photographs and other images.

Literature review

The use of, or study of, periodical paratexts in academic research highlights the primary resource nature of non-academic periodicals. This review focuses on studies that include various periodical paratexts, the value of which will be explored by type: advertisements, letters, covers, and a mix of all these elements. Understanding the significance of paratexts in these studies demonstrates their role in providing context

to the articles, and highlights the importance of including them in the access tools of online periodical sources. A brief examination of digitisation standards as well user focused research in the library context concludes the review.

Advertisements

Advertisements help shape the periodicals they inhabit. The way periodicals are targeted to specific groups makes them appealing to advertisers. This partnership makes advertising paratext: an area of transition and transaction (Genette, 1997, p.2). Advertisements are clues to the potential reader to the kind of periodical it is they have picked up. This makes advertising a valuable resource for historical and anthropological research. Reginald Pound captures this well in his history of *The Strand Magazine*:

“They indexed the domestic and social life of its readers with something like encyclopedic completeness. We become acquainted with the preferences, prejudices, habits, and conventions, of a wide section of society. A sociologist might discover more about the period from those back and front pages of *The Strand* than from the articles and stories between.” (Pound, 1967, p.79).

Leach compares advertisements in magazines and brochures to anthropological informants (2014, p.7) echoing Pound’s belief that such sources can provide more information to sociologists than the articles (Pound, 1967, p.79). Informants furnish us with rich detail that artefacts alone cannot. Leach states her reliance on print sources in *Kitchens* and, also the limitations this has in showing diversity: only households that could afford what was being advertised are represented in this publication (2014, p.11).

Kitchens gives our current obsessions with home renovation and food historical context. Leach “unearths” advertisements from numerous periodicals: from newspapers and magazines to government publications, and uses them to chart the evolution of the New Zealand kitchen and the food produced in them.

Like many of the other scholars in this review, Leach links evidence in print sources to moments in history, such as government legislation restricting post war home lending led to smaller houses and therefore smaller kitchens (Smith, 2014, Nov.5,

para.26). These changes were reflected in the advertising in newspapers and magazines.

Leach includes numerous illustrations in the form of advertisements taken from newspapers on *PapersPast*. This demonstrates how valuable it is to researchers to include paratexts such as advertising in the keyword search. It is also very useful to be able to differentiate the advertisements from the articles in the search results. The scanned images provide further benefits of original layout and design.

Shaw and Brookes (1999) made a case study of advertisements from 1936 to 1970 in the New Zealand publication, *Home and Building*, illustrating how they shaped and perpetuated gendered roles in New Zealand. Shaw and Brookes discuss the influence of advertising on the content of the magazine which evolved from an architectural publication to one that focused on the home and its interior (1999, p.201). This evolution is mirrored in the magazine's growth from a struggling small print run to a very popular mainstream magazine (1999, p.201 & p.203). Nelson discusses the complexity of paratexts as they become text when at the centre of scrutiny (1998, p.13) and as Shaw and Brookes (1999) focus on the advertisements they are no longer a threshold to the text fleetingly glimpsed at, but rather the text of a marketing campaign aimed at middle class women. This demonstrates the need for context since the content and the advertising are inextricably linked. Readers' letters, another form of paratext in this study, showed readers liked the advertising because it informed them of the sources of inspiration in the featured articles (Shaw & Brookes, 1999, p.205). Readers influenced the magazine content and the advertisers exploited their growing appetite for home related spending.

Shaw and Brookes' investigation into advertising required access to illustrations, photographs as well as text. The kinds of metadata needed to facilitate this kind of research go beyond traditional library indexing which tends to focus on editorial content. The Shaw and Brookes study also shows the importance of the placement of the advertisements in relation to the articles. This suggests the display of the original layout of the resource could be beneficial to studies of this kind. In an online resource, including the advertisements in keyword searches and refining results to separate the advertisements would involve treating them both as image files and text. Although Shaw and Brookes used only print sources (*Home and Building* was

not yet digitised in 1999), digitised material has the potential to speed up many of the information seeking tasks, from identifying the periodical source to selecting the advertisements. Any further consultation of the print version still required then becomes targeted.

Letters

While Walsh (2011) also uses advertising, it is mainly to illustrate her book, *Inside stories: A history of the New Zealand housewife, 1890-1975*. The text of the book relies heavily on correspondence columns to portray the themes of domestic life. The objective of *Inside stories* is to provide a light hearted and nostalgic look into the lives of New Zealand housewives. The scope is quite broad with over twenty one periodical titles used to document and illustrate Walsh's often humorous narrative. The titles are those predominantly aimed at women, such as the *New Zealand Woman's Weekly*, *Mirror* and *Femina*. However, titles such the *New Zealand dairy exporter*, *Te Ao Hou* and *New Zealand Tablet* are also used.

While the intent appears humorous these paratextual elements give away many social norms and assumptions of the day. The letters from readers provide a personal touch and demonstrate the diversity among New Zealand housewives including those who cast suspicion on the credibility of some magazine stories. The methodology is historical and Walsh does not state the use of any theory. The result is a series of anecdotes kept together by a loose narrative ordered by themes such as housework and children etc. *Inside stories* appears to simply satisfy curiosity giving some context to the magazine derived images we see so often now on gift cards and fridge magnets. The popular culture angle, whether it is academic or general interest, is served well by periodical paratexts. Although, reader correspondence is mediated it preserves thoughts, comments and feelings of ordinary people. Such correspondence enriches content analysis type studies with qualitative data.

Letters to magazines are often very personal in nature and Beetham (1998) focuses on the most personal of all correspondence columns for her study: the "agony aunt". Beetham aims to explore the emergence of the "new woman" through the lens of an agony aunt column in the popular nineteenth century British women's magazine, *Woman at home* (Beetham, 1998, p.223). The objective was to analyse readers'

letters and their replies during the 1890s to understand how women viewed feminine identity in a time when journalism was a fast growing phenomenon and new roles for women were evolving.

Beetham's approach is historical with the deliberate selection of one magazine's letter column making it a case study involving "close textual analysis" (Beetham, 1998, p.224). Such an approach allows an in-depth investigation into a complex phenomenon (Leedy & Ormrod, 2014, p.141). Beetham's study is from a feminist (1998, p.223) perspective, but no specific theory is given.

The serialised nature of *Woman at home* facilitated the ongoing conversations about female identity, and the letters demonstrated some of the discourses available to women at the time (Beetham, 1998, p.226). Beetham creates credibility by recommending caution in using this type of resource, as publications often had their own agenda and editors were not always above editing or even fabricating letters themselves (Beetham, 1998, p.225). Beetham establishes validity by gaining a comprehensive understanding of the agony aunt's position on the issues of the day as well as scrutinising letters from women who challenged them (Beetham, 1998, p.227). The silences and absences (Beetham, 1998, p.229) are also noted further illustrating both the agony aunt's persona as well as the limited discourses available to women.

Correspondence is usually the within the realm of archives where databases utilise metadata about the correspondents, places, dates and subject matter of the letters. Neither Walsh nor Beetham used digitised periodicals which would have meant a lot of browsing through issues for material. In a digitised periodical source keyword functionality is common and while it may help this sort of research browsing ability is still important. The inclusion of correspondence specific metadata could manifest in search results being refined to correspondence therefore enabling efficient navigation of conversational threads across multiple issues of a magazine. It cannot be assumed that textual sources do not require an examination of the print magazines, but digitised sources can speed up the discovery and selection process.

Covers

Genette includes covers in his theory of paratext as an area where both the publisher and the author provide information (1997, p.23). The magazine cover is an obvious area for marketing to focus on, and the ways in which this is achieved are quite varied, from alignment with advertisers to a unique aesthetic.

Walsh (2011) used magazine covers to illustrate the themes in her book and Shaw and Brookes (1999, p.202) observed how *Home & Building* covers reflected the advertisers' motives of targeting women by using gendered roles. Dean's (2013) historical case study reveals that the covers of American literary magazine, *The Smart Set*, were the product of a strategic branding plan that did not compromise on style. In this essay, the covers of the physical issues (although *The Smart Set* has been digitised it appears Dean consulted the physical items) of *The Smart set* are analysed to discern how the editorial team enticed and retained their readers, and sold issues, but most of all how they got their covers to reflect their brand: cleverness (Dean, 2013, p.1). Dean claims that although a lot has been written about the content of *The Smart set*, no one has investigated the role the covers played in the overall image portrayed (2013, p.3). The main findings were that the front covers, and even to an extent the back cover advertisements, were an integral part of the contents demonstrating modern taste, fresh ideas, and of course, cleverness (Dean, 2013, p.20-26).

Dean makes the important point that the library practice of binding meant that many collections of *The Smart set*, like other periodicals held in institutions are without their covers (2013, p.3). This has consequences for digitisation as well (Dean, 2013, p.3).

In addition to attracting attention, the covers were also about identity: the point of difference from other publications (Dean, 2013, p.3) implying a full understanding can only be gained from studying the magazines as whole issues, not just analysing the articles. Furthermore, Dean discusses the value of the magazines as artefacts of aspiration in which the covers played a vital role (Dean, 2013, p.5).

By viewing magazines as historical artefacts, as opposed to current reading material, we can see the inadequacy of bibliographic records which simply state the presence

of illustrations etc. Just as we can learn from archivists how to index correspondence, we can learn from museum and art curators of the kind of information we can provide for visual elements of periodicals. In such studies where the quality of the images is important, and therefore the consultation of the physical item paramount, digital resources can act as identification tools.

The magazine as object is a consideration for exhibitions which require intact covers and unbound issues. The exhibition, *Art Between the Covers* at the Hocken Collections (19 July – 25 October 2014) showcased artists' work from books and periodicals. One of the featured artists, Russell Clark created the covers for several University of Otago *Capping books* during the 1930s (University of Otago, 1931-1968). Fortunately, the Hocken's issues are unbound and able to be exhibited side by side allowing the paratexts to become the main texts (Nelson. 1998, p.13).

Multiple paratextual elements

Bee covers many paratextual elements of magazines in order to fill the gaps in the history of sci-fi magazines (2008, April). The stories are well researched in other works, but Bee notes economic realities, editorial opinion and reader interaction played a huge part in the development (and sometimes demise) of the magazines. These aspects are not usually included in text focused analyses and Bee specifically uses Genette's theory to explain why they are an important part of the sci-fi magazine genre.

Written in the format of an historical essay, Bee's post covers multiple paratextual elements including cover art, editorials, readers' letters, author introductions and illustrations (2008, April, para.14) drawing on his own personal collection of magazines. Because Bee uses Genette's theory, he is able to discuss the function of paratexts and hence their importance, such as the editorials where readers are guided to particular stories or authors first (2008, April, para.14). Bee's findings include a strong relationship between readers and the magazines, a history of economic struggle and other constraints (such as column space), and a distinctive (if somewhat controversial) visual style.

Bee's case study approach and theoretical framework allows an in-depth analysis of several forms of paratext and the readers' interactions with them. Letters to the

editor complaining about the cover art and the editorial justification that follows is one example of multiple forms of paratext being used to flesh out the history. The stories are given context by shining a light on the entirety of the magazine.

Bee demonstrates that the stories *of* the sci-fi magazines are just as compelling as the stories *with/in*. Not only have earlier researchers overlooked the stories in the paratexts, so too have librarians. Digitisation is an opportunity to observe and respond to the changing uses of periodicals over time and to address the assumptions of past practice by creating keyword and visual access to all parts of publications.

Standards

Coyle remarks that when it comes to digitisation (books or periodicals) there are no general standards apart from the industry standards such as Portable Document Format (PDF) and Tagged Image File Format (TIFF) (2006, p.643). While Coyle suggests a process of enhanced search ability other possibilities exist in the form of conceptual frameworks.

CIDOC CRM is an ontology for cultural heritage information (The CIDOC Conceptual Reference Model, 2014, Dec.5) that puts the event at the centre of description (Le Boeuf, 2012, p.424). This contrasts markedly with current library practice that presents a “static view of library holdings” where items have always existed and have remained unchanged (Le Boeuf, 2012, p.424). As the studies reviewed show, periodicals have responded to events and culture in very dynamic ways. Library records do not have the capacity to convey these events and relationships and so it is not surprising that when libraries digitise titles they perpetuate that static state.

Surveying the users

Hill points out the scarcity of research on what users need from library catalogues and databases (2008, p.5). Addressing this gap is the OCLC survey conducted by Calhoun, Cantrell, Gallagher, and Hawk that investigated the expectations of end users and library staff of data quality in library catalogue records (2009, p.v). This is a unique study in its comparative approach to both sides of the library catalogue.

DeRidder & Matheny gathered qualitative feedback from academic researchers in the humanities on online databases (2014). The OCLC study and DeRidder & Matheny's (2014) survey begin to address the needs of end users; however, there is nothing beyond basic database functionality. Although, Calhoun et al address data quality they gloss over whether some formats are better served than others. DeRidder & Matheny (2014) include basic metadata, such as title, subject, location, and so on which serves all formats, but more specifically books. These studies were all qualitative.

Other studies investigate the information seeking behaviours of academic researchers in order to better understand the requirements of online resources. Foster (2004) takes Ellis's six stage model (1989) and creates a non-linear theory of information seeking patterns among interdisciplinary academic researchers. Foster believes interdisciplinary researchers encounter navigation issues when searching unfamiliar information environments (2004, p.232). Their queries are more numerous and scattered across disciplines than those of their colleagues who focus on one field (Foster, 2004, p.233). Tasks such as browsing and scoping are particularly important for these researchers, and serendipity, associated with browsing was found to be highly valued by the researchers interviewed (Foster, 2004, p.234).

As periodicals become historical they become interdisciplinary in nature, making them ideal primary resources for studies in popular print culture. The reliance of so many of the recent studies on print resources suggests digitised periodicals are still emerging and developing with *PapersPast* leading the way in New Zealand in facilitating research into paratexts. Julien, Pecoskie and Reed (2011, p.20) state that while information seeking behaviour research has evolved considerably in the past decade, it has yet to be incorporated into database design. This report suggests user focused research in relation to digitised periodical tools is overlooked and as a result many online periodicals resources may be lacking in metadata and functionality.

Research design and methodology

Research design

This research project is mixed methods in design combining two qualitative approaches of content analysis and a self-reporting survey comprised of mainly

open-ended questions. These approaches facilitate exploration of rich data interspersed with some quantitative data to help interpret some of the findings. Both methods were undertaken simultaneously after an initial pilot study of one online source. Because both stages were carried out concurrently both influenced each other. It meant the research problems were established early on leading to the development of matching themes in both research stages.

Ethical considerations

Ethical approval was sought and granted from the School of Information Management Human Ethics Committee at Victoria University of Wellington for the survey due to the involvement of human participants. This was made clear in the survey information messages.

Lists of email addresses were compiled for heads of departments, academic staff, and in some cases postgraduate students from university websites. Due to academic staffs' email addresses being in the public domain permission was not required from heads of departments to carry out the survey. However, out of courtesy, an email message (see appendix 3) informing them about the upcoming survey was sent out to heads of departments on the 9th April 2015. On the 12th and 14th April 2015 email requests (see appendix 4) with an online link to the Qualtrics survey were sent to roughly 300 recipients. Not all universities made their postgraduate students' emails public so an invitation was made in the survey information message to forward the email and survey link to others who may have used periodicals in their research. This meant an exact total of survey requests was not known. A reminder message was sent on the 21st April 2015.

Participation in the self-reporting survey was voluntary. The online survey was anonymous and confidentiality was assured in the event answers identified participants or their institution. No personal information or contact details were sought. Assurance was given that there was to be non-attribution of data in the report. The survey was not seeking details of research, other than periodicals used in research, types of periodical content used in research, the perceived adequacy/inadequacy of digitised resources to find that content, and the ideal

attributes of digitised periodical sites. All of these assurances were clearly stated in the survey invitation as well as the fact that participation implied consent.

Twenty three surveys were received, of which four were invalid, leaving a total of nineteen respondents. This number of responses was balanced by the quality of rich data obtained.

Online data is secure and will be deleted two years after the submission of the final report.

Research samples

Content analysis

Four New Zealand digitised periodical sources were chosen for analysis:

1. *Te Ao Hou* (TAH) a bilingual magazine that ran from 1952 to 1976, published by the Māori Affairs Department and digitised by the National Library of Zealand (NLNZ) in conjunction with the New Zealand Electronic Text Centre (now called NZETC), Māori Purposes Fund Board and the University of Waikato Library. (National Library of New Zealand [NLNZ], n.d.a). All issues have been digitised. This source was used for the pilot study.
2. *New Zealand Railways magazine* (NZR) published by New Zealand Railways from 1926 to 1940 and digitised by the NZETC in partnership with Wellington City Libraries and Alexander Turnbull Library (NZETC, 2015b). All issues have been digitised.
3. World War 1 troopship magazines published by various New Zealand regiments on their way to the war (and sometimes on the return voyage) between 1914 and 1918, digitised by the Auckland War Memorial Museum (AWMM) and the Dunedin Public Libraries (DPL) (Auckland War Memorial Museum [AWMM], 2014, July 18).
4. Saint Peter's Church of Caversham (SPCC) newsletters published by the Saint Peter's Church of Caversham from 1952 to the 1970s and digitised by the church up to May 1958 at the time of this report.

These sources were chosen for their New Zealand provenance, their open access and diversity of content covering: grey and published literature, local church community material, government publications, bilingual content and accounts of

military life. It was also important that the material was digitised and not born digital as this project is concerned with print culture research.

Survey population

The survey population was purposively chosen, but participants within that population had a choice whether or not to participate.

Disciplines that were more likely to use periodicals as primary sources for research such as history, anthropology, sociology, and media studies were identified from among five New Zealand universities.

Because there are not a lot of New Zealand digitised periodicals the survey invited scholars who had only used print sources as well to take part in the survey. These researchers were given opportunities to state what they would like to see in digitised resources if/when they used them in the future.

Data collection and analysis

Pilot study

A pilot study in the form of a content analysis of the website *Te Ao Hou* was conducted in order to gauge the types of magazine content made available, such as commissioned writing, reader contributions and paratexts. These categories became the focus and framework for the survey and the content analysis of further resources. Determining the categories was carried out by examining the online issues and other parts of the TAH website. It became evident that checking the print copy was also necessary at times to ascertain particular details, such as whether back covers were included in the online resource and how much content was originally in colour. The next step was to name the content categories and determine which were digitised and then which were scanned and/or transcribed (see table 1 on next page).

| Content categories | Digitised | Scanned Image | Transcribed |
|--------------------------|-----------|---------------|------------------|
| Front Cover | ✓ | ✓ | n/a |
| Back Cover | ✓ | ✓ | if advertisement |
| Contents page | ✓ | ✓ | ✓ |
| Articles | ✓ | ✓ | ✓ |
| Photographs | ✓ | ✓ | n/a |
| Illustrations | ✓ | ✓ | n/a |
| Image captions | ✓ | ✓ | ✓ |
| Advertisements | ✓ | ✓ | ✓ |
| Book/music reviews | ✓ | ✓ | ✓ |
| Letters | ✓ | ✓ | ✓ |
| Obituaries | ✓ | ✓ | ✓ |
| Poems | ✓ | ✓ | ✓ |
| Younger readers' section | ✓ | ✓ | ✓ |
| Crossword | ✓ | ✓ | ✓ |

Table 1: content categories of *Te Ao Hou*

In order to find the level of metadata associated with the contents access functions were explored as well. These were also coded and then cross referenced with the content categories to give an idea of the accessibility of individual components of the magazine contents and therefore the metadata associated with them (see table 2 on next page).

| | Internet search | Basic search | Advanced search | Browsing by issue | Browsing by author | Browsing by subject |
|--------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------|--------------------|-----------------------------------|
| Front Cover | ✓ | ✓ | ✓ | ✓ | x | x |
| Back Cover | As advertisement or if referenced | As advertisement or if referenced | As advertisement or if referenced | ✓ | n/a | As advertisement or if referenced |
| Contents page | ✓ | ✓ | ✓ | ✓ | n/a | n/a |
| Articles | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Photographs | via caption | via caption | via caption | ✓ | x | via caption |
| Illustrations | via caption | via caption | via caption | ✓ | x | via caption |
| Image captions | ✓ | ✓ | ✓ | ✓ | x | ✓ |
| Advertisements | ✓ | ✓ | ✓ | ✓ | n/a | ✓ |
| Book/music reviews | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Letters | ✓ | ✓ | ✓ | ✓ | x | ✓ |
| Obituaries | ✓ | ✓ | ✓ | ✓ | n/a | ✓ |
| Poems | ✓ | ✓ | ✓ | ✓ | x | ✓ |
| Younger readers' section | ✓ | ✓ | ✓ | ✓ | some | ✓ |
| Crossword | ✓ | ✓ | ✓ | ✓ | n/a | ✓ |

Table 1: access function for the content categories in *Te Ao Hou*

In addition to the tabulated data, qualitative observations were collected and recorded as prose. Both the tabulated information and commentary helped interpretation of the overall websites. This process created a methodology for the content analysis of the other resources. These tabulated and qualitative findings helped to frame the questions for the survey.

Early on in the pilot study a request was made for some basic usage statistics. Data for the top ten pages for 2014 (see appendix 2) was sent from the National Library of New Zealand along with bounce rates, page views, unique page views, average time on pages, entrance and exit rates. The site information was used because it related to the kinds of content being used, but because the statistics were not based on the activity of academic scholars the rest were not used.

Content analysis

Once the pilot study was completed and the remaining resources selected the content analysis could be undertaken. The process took place simultaneously with the construction of the survey questions and followed the process set out by the pilot study. As each site was explored, refinements were often made to the method resulting in the categories from other sites being re-examined and modified.

The content analysis helped refine the survey questions which in turn clarified things in the content analysis. The survey questions were finalised and distributed before the content analysis was completely finished.

In the case of the troopship magazines the DPL catalogue was also explored for possible links to the records in the AWMM library catalogue. The troopship magazine information page on the DPL website was likewise searched for links.

In the case of the NZR magazine some physical issues from the Hocken Collections were consulted to verify the absence of some advertising content.

The data from the content analysis was examined for themes and differences across the resources and these were integrated with the survey findings. Because the survey questions were established while the content analysis was being undertaken the themes of the two sets of data could be easily grouped together, such as, attitudes to browsing with browsing functions; and image quality and format with what researchers required of images.

Survey

A set of twenty six survey questions (see appendix 1) was created while conducting a content analysis of four digitised periodical resources. The online survey tool Qualtrics was used. There was a maximum of twenty four questions for participants to answer; the total number available depended on some of their answers (e.g. if only print periodicals were used then the question on experience of digital sources was skipped). The self-completion survey consisted of seventeen open ended qualitative questions, three quantitative, and six combined qualitative quantitative questions. As stated earlier, questions were informed by the content analysis and

vice-versa. Two of the questions about content categories were partly based on search options available in the database *C19: the nineteenth century index*.

| Question number | Number of responses |
|-----------------|---------------------|
| 1 | 16 |
| 2 | 19 |
| 3 | 19 |
| 4 | 15 |
| 5 | 15 |
| 6 | 3 |
| 7 | 18 |
| 8 | 17 |
| 9 | 18 |
| 10 | 15 |
| 11 | 18 |
| 12 | 12 |
| 13 | 2 |
| 14 | 15 |
| 15 | 15 |
| 16 | 11 |
| 17 | 10 |
| 18 | 10 |
| 19 | 15 |
| 20 | 13 |
| 21 | 14 |
| 22 | 15 |
| 23 | 14 |
| 24 | 14 |
| 25 | 7 |
| 26 | 10 |

Table 3: Number of respondents for each question

Participants were not required to answer every question and the respondent numbers for each question are shown above in table 3.

The answers were downloaded from Qualtrics in spreadsheet form using Microsoft Excel. Qualitative data was pasted into a word document and analysed. Answers to questions with very few responses, such as question 6, were included in their entirety in the findings and questions with numerous qualitative responses were broken down into themes and coded.

Quantitative data and coded qualitative data were often shown as column graphs or tables with qualitative answers used to strengthen, explain, illustrate or highlight themes depicted in the charts.

Once the survey data were analysed the content analysis from the web resources was integrated in order to show how these digitised periodical sources were facilitating paratextual research needs, to what extent, and where the gaps were.

Delimitations

Digitised periodical sources chosen were restricted to those with open access, were New Zealand published and non-academic in nature. Newspapers and born digital material were outside the scope of this project. Sources were also general in nature, i.e. not technical or profession type publications

The survey targeted humanities researchers from several New Zealand universities (academic staff and postgraduate students).

Limitations

The findings of this research will not be generalisable to disciplines other than humanities or general public information needs. Findings may also not be generalisable outside the New Zealand context.

There was no direct access to actual metadata and understanding had to be garnered from researcher's own assessments of resources.

Findings & discussion

Periodicals: a diverse range of primary resources

The survey (see appendix 1) found that humanities researchers use a wide variety of periodical titles in their research such as, student publications, government publications, theological sources, literary, art, and popular culture magazines to describe a few. Sixteen of the nineteen respondents answered this question listing a total of 45 titles including eight newspapers (see table 4 on pages 27 & 28). Several respondents cited general sources including four who mentioned *PapersPast* (see table 5 on p.28).

Latham and Scholes comment on the sheer variety of subject matter covered in individual periodical titles and that studying them requires an interdisciplinary approach (2006, p.518). A good example of this from the survey is the historical use by two respondents of the *New Zealand family doctor*. The range of titles gives us a glimpse into the diversity of research being undertaken in New Zealand. It might be natural to assume that these multidisciplinary primary sources would require comprehensive cataloguing, but as Scholes and Wulfman comment, “there is little precedent for performing detailed cataloguing on periodicals” (2010, p.221). As digitisation efforts increase these sources become more accessible, even if only by keyword search.

| Titles | Number of respondents (n=19) |
|--|-------------------------------------|
| Listener | 4 |
| New Zealand Woman's Weekly | 4 |
| New Zealand Herald (print & online) | 3 |
| North & South | 3 |
| Metro | 2 |
| Mirror/Ladies Mirror | 2 |
| New Zealand Family Doctor | 2 |
| Arachne | 1 |
| Art in New Zealand | 1 |
| Auckland Star | 1 |
| Auckland Star (online) | 1 |
| Building Progress | 1 |
| Building Today | 1 |
| Cheerio | 1 |
| Comment | 1 |
| Communication Journal of New Zealand | 1 |
| Eve | 1 |
| Evening Post (online) | 1 |
| Here & Now | 1 |
| Hilltop | 1 |
| Home New Zealand | 1 |
| Illusions | 1 |
| Islands | 1 |
| Landfall | 1 |
| More | 1 |
| New Outlook | 1 |
| New Zealand Farmer | 1 |

| | |
|---|---|
| New Zealand Journal of Media Studies | 1 |
| New Zealand journal of theology | 1 |
| New Zealand Radio Record | 1 |
| New Zealand Railways | 1 |
| New Zealand Sociology | 1 |
| Northern Advocate | 1 |
| Open Windows | 1 |
| Otautau Standard (online) | 1 |
| Pacific Journalism review | 1 |
| People's Voice | 1 |
| Phoenix | 1 |
| Te Ao Hou | 1 |
| New Zealand Truth (online) | 1 |
| Sharlands New Zealand Photographer | 1 |
| Thursday | 1 |
| Tomorrow | 1 |
| Vanguard | 1 |
| White Ribbon | 1 |

Table 4: The list of periodicals, print and online, respondents in this study used in their research.

| General sources | Number of respondents n=19 |
|--|---------------------------------------|
| Papers Past | 4 |
| Contemporary social science journals | 1 |
| New Zealand newspapers (in print, online and via papers past) | 1 |
| Missionary magazines. | 1 |
| Newspapers | 1 |
| Online newspapers | 1 |
| Student | 1 |

Table 5: General periodical sources cited by respondents.

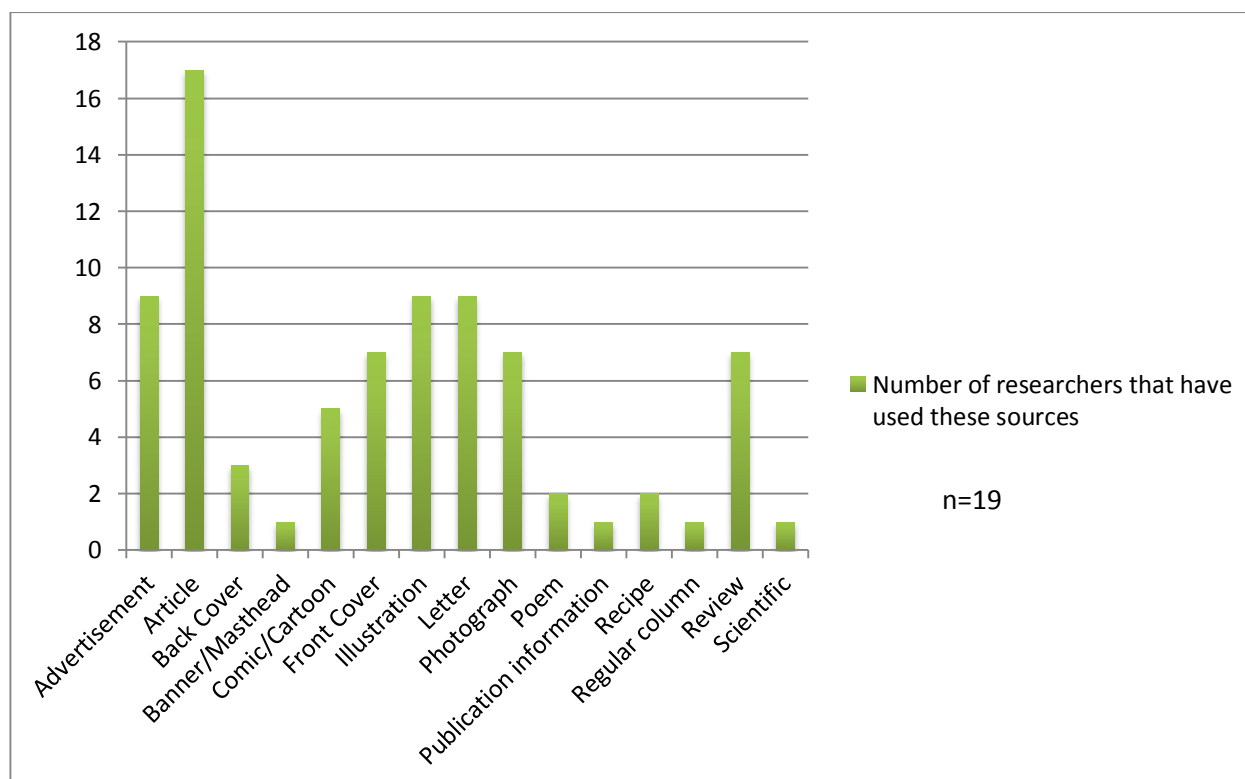
The majority of these researchers have experience of digitised New Zealand periodicals with only three respondents stating they used print periodicals exclusively (see table 6 on the next page). Many of the titles listed by respondents are not yet, or only partially digitised. New Zealand academics are moving constantly between print and digital formats, as well as navigating between digitised resources to conduct their research.

| Types of periodical format | Number of respondents (n=19) |
|----------------------------|------------------------------|
| Digitised | 6 |
| Print | 3 |
| Both | 10 |
| TOTAL | 19 |

Table 6: Periodical formats used.

Types of content used in research

All participants responded to the question about what type of content from periodicals they used (see graph 1 below). All categories provided were selected by respondents plus three additional categories suggested by participants: **Regular advice columns**, **Publication information**, and **Scientific**. This shows that researchers are using everything, not just the articles which are still very much in demand.



Graph 1: Information sources used from periodicals.

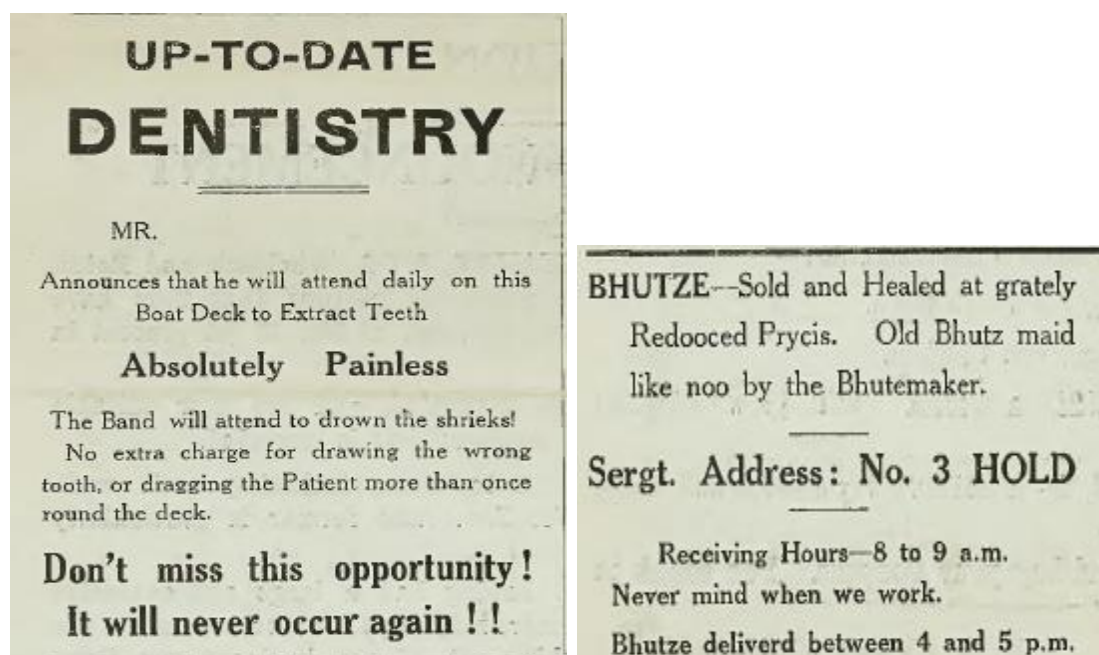
Of course, these categories do not cover all types of periodical content, but they do demonstrate the complexity of magazines and the potential difficulties in digitising such eclectic sources of information. Scholes and Wulfman point out, the name “magazine” used to mean “storehouse” (2010, p.29) and it is easy to see why when commissioned articles, editorial comment, reader contributions and advertising all sit together in one container.

Access to these components varies greatly among the sources analysed. Using the example of advertising the lack of consistency among websites, even within digitised sources becomes apparent.

Many advertisements in NZR, including all of those featured on the insides of the covers, have been omitted from digitisation. Those that have been included are only accessible through browsing: there is no keyword access. However, back covers (outside) have been digitised and usually feature advertisements. These can be found by searching for covers and refining results to images. They cannot be found by a search for advertisements or by keyword. The omission of the advertising material prevents researchers from engaging with these paratexts.

TAH is the only source analysed that has keyword searchable advertising, but the results of such searches are not categorised and nor can they be refined or sorted. Coloured advertisements in the hard copy are portrayed as black and white (colour in TAH is reserved for the front covers only). This resource enables researchers to target some paratexts as objects of study, but only in limited ways. The ability to engage with the paratexts is also facilitated through browsing the scanned pages, but again in a reduced fashion due to the lack of colour.

Advertisements can be searched to an extent in the joint AWMM and DPL troopships resource in so far as PDF searching includes every typewritten word. There are, of course, no category searches for advertisements or any other content type within the PDFs and anything hand-drawn or handwritten is not searchable at all. Because the PDFs are accessible via internet searches this resource assists researchers in finding paratexts in theory, but the lack of metadata excludes broader queries such as “advertisements”. The PDFs do, however, support engagement with the digitised paratexts from a browsing point of view.



Examples of advertisements from the troopship magazine, *The Athenian Lyre*.
 (The Athenian Lyre, 1914, p.8) from the Auckland War Memorial Museum.

In the early issues of the SPCC newsletter advertising is extensive featuring a variety of local businesses. The very first newsletter contains advertising on eleven of its twelve pages. None of the JPEG formatted newsletter content is searchable. Like the other sources, all pages are displayed separately splitting up advertisements and other features that are double page spreads. Interestingly, none of the survey respondents commented on this suggesting researchers are accustomed to separate page representation. Researchers interested in the advertising of Dunedin businesses from the time of these newsletters might engage with the advertising as text and the newsletter as paratext (Nelson, 1998, p13). However, the complete lack of metadata would prevent them from finding this resource via keyword searching.

Creating comprehensive metadata as Scholes and Wulfman (2010, p.221) recommend may be beyond the budgets of many projects, but basic keyword functionality is itself still hit and miss in some New Zealand periodical sources.

Finding digitised sources

Library tools are the most common way for researchers to find digitised resources, followed closely by internet search engines. Four respondents mentioned

colleagues and friends as ways to find digitised periodical resources, while others mentioned specific sites.

| Access point | Number of respondents n=19 |
|--|-------------------------------|
| Library catalogue | 6 |
| Library databases | 5 |
| Internet search engine | 8 |
| Word of mouth/advice/recommendations from colleagues | 4 |
| PapersPast | 2 |
| National Library | 2 |
| Google Scholar | 1 |
| Wikipedia | 1 |

Table 7: Access points for finding sources

For those who had not used digitised periodicals the question was asked, how would you go about finding them? Libraries play an important role for this group, although, they are not the only options:

“Libraries, microfilm, direct to the organization”

“Library catalogue”

“Through library catalogue initially, then if not available I would use internet search engines or even the publishers website”

Many periodicals are digitised by institutions such as national and academic libraries, but projects undertaken by community groups such as SPCC often don't register in library catalogues or resource guides. Grey literature can be hard to find in hard copy and in fact no library in New Zealand appears to have the early issues of the SPCC newsletter. While a known keyword search on the internet will bring up this resource, those researchers browsing for this kind of material may not find it easily, or at all. Libraries can potentially enhance access to these sites, but only if they know about them in the first place.

Search strategies

Researchers do rely on keyword functionality a lot. The majority of participants stated keyword or phrase as their search strategy.

“Usually keyword searches (unless I'm looking for a specific issue, in which case I might access it via an index, if available).”

“I use different search methods for different goals. Sometimes I'm using a key word, other times I'm looking by date.”

No one mentioned advanced search options specifically, but the question was broad in attempt to avoid library jargon. Because of the unintended ambiguity many answered with specific resources such as *Google Scholar*, *PapersPast*, *Index New Zealand*, *Google*, library catalogues and databases. Some used journal or article titles, and some used dates in addition to keyword.

Overseas studies show that users, including academic researchers, are familiar with and therefore, prefer the web environment (Connaway, Dickey and Radford, 2011) which includes the expected simple search box paradigm. De Rosa's U.S. study found “search engines are the preferred starting place for survey respondents when searching for information” (De Rosa and OCLC, 2005, pt.2, p.18). Usage statistics for TAH (see appendix 2) indicate users are landing on pages directly from search engines despite the site's advanced search and browsing functionality, and NZETC states in its information about the NZR resource most users land directly on pages from search engines (NZETC, 2015a, para12).

For those researchers, such as Leach, who are looking specifically for paratexts the search function is a vital tool. Clearly, the ideal path is the direct one and those sites, such as *PapersPast* that associate metadata with paratexts raise the standards for others.

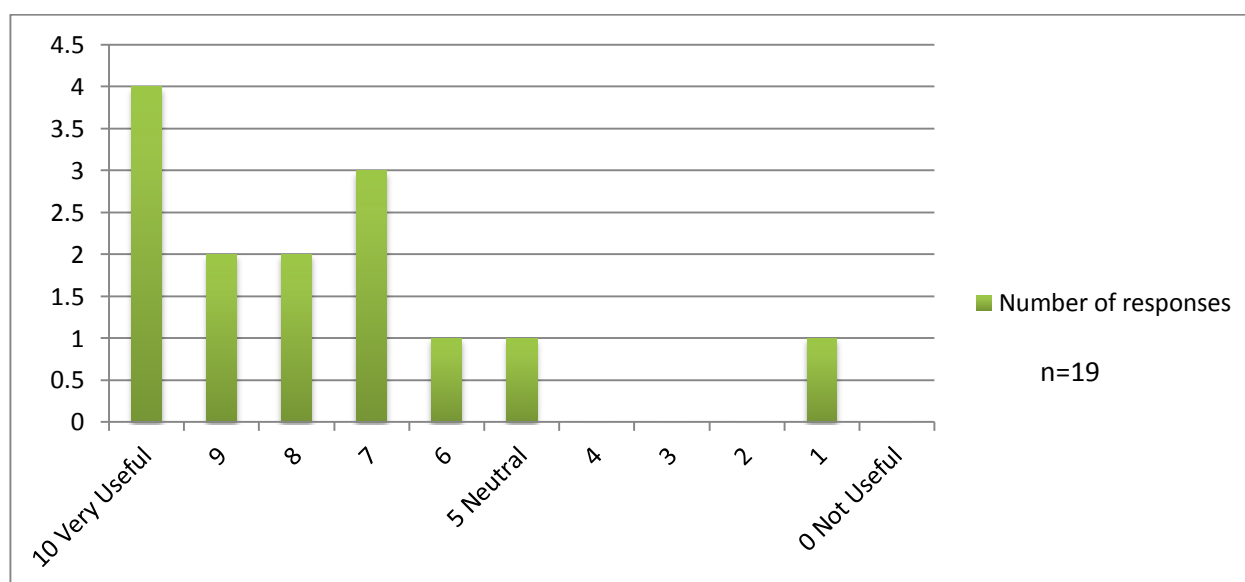
Although the respondents state their preference for the keyword search it is in response to a question specifically about searching and the survey did not ask questions about different stages of the research process. It may be that the keyword search is, as De Rosa found with internet search engines, a starting point strategy.

Attitudes to browsing functions

Another search strategy is browsing. The majority of respondents felt browsing functions were useful with comments such as, browsing being a guide to keyword choice, giving the user a sense of scope of the resource and the opportunity of serendipitous discovery. The one participant who didn't find these functions useful found their requirements met by keyword functionality.

"I find browse functions really helpful, where available, as it can prompt you to find other material (which you wouldn't always otherwise find if only relying on your keywords - as my keywords can sometimes be either too broad or too narrow)."

"10! 10! This is what I was telling you earlier: librarians don't appreciate the importance of browsing! Easy browsing is very very important!"



Graph 2: How useful are browsing functions?

Browsing is achieved in a variety of ways in the digitised resourced analysed. Page by page browsing is one of them and is analogous to turning the pages of a magazine. All of the sites have this functionality in one way or another which facilitates an engagement with the text in a different way from deliberately seeking paratexts as objects of study. From examining the themes of the survey responses viewing whole pages is what constitutes context for many of the respondents.

TAH allows browsing of the transcribed pages and the scanned pages with easy navigation between the two. It also facilitates browsing beyond simple page turning with alphabetical author and subject lists enabling users to define their search terms. The only way to consult the SPCC newsletters is by browsing issues page by page: there is no marked up text.

Once found, digitised troopship magazines can be browsed page by page, but they can only be found in the first place via a search in the library catalogue. The terms “troopship” and “magazines” will not yield the expected results, however a subject search of “World War 1914-1918” and “periodicals” will produce a somewhat browsable list (results include some items that are not troopship magazines). Narrower subject terms, such as “poetry”, or “humour and caricatures”, offer browsing in the traditional library catalogue manner. However, there remains a certain level of uncertainty as to whether all troopship magazines can be retrieved in one search unlike the pages of thumbnails for TAH and SPCC, or the list for NZR.

Textual content in NZR is transcribed only, but these pages are browsable. Topic browsing is strongly supported in the NZR resource by the underlying structure of the topic map (NZETC, 2015a). This structure links topics and their relationships. For example, an author topic map will list all works by that writer within the NZETC website, works that mention him/her, works that cite him/her, images of that person, and external links. This function allows the option of sorting by title (e.g. NZR) or project within the NZETC website.

Coyle who advocates richly marked-up text, comments on the difficulties of software errors in mass digitization projects stating that users have to search these errors (2006, p.641). Coyle’s solution is human intervention but acknowledges it is time consuming and expensive (2006, p.644). While TAH is not part of a mass digitisation project it is still not free from errors such as a photographer’s name being mistakenly recorded as “Text”, and an advertisement cut in half and listed as two in the contents page. Maxwell’s outspoken preference for browsing scanned material as opposed to searching marked up text is in part because of these sorts of errors (2010, pp.26-28).

Value of scanned material

The majority of researchers responded positively to the addition of scanned images of the original source tying in with the favourable responses to browsing. Reasons given included a need for context and a feel for the layout, not just for research but also for teaching and other presentations. Transcriptions were not seen as authentic and they cause problems with unreliable or non-existent pagination making citations difficult. There were also problems with transcription errors, including one respondent's complaint about "corrections" (see below). Scanned images of materials were viewed as very important, but poor quality was a problem for a few respondents.

If a digital resource is text only, I usually don't bother with it. I don't trust the accuracy of librarian's transcriptions. Librarians have a tendency to "correct" mistakes. I also fear political censorship. I also can't cite text-only versions, because I don't trust the pagination. I want to cite as if I'd examined a paper version. Finally, I can't screen capture them and thus can't use them as PowerPoint slides.

NZR is also the only source in this study that is not entirely scanned. As already stated some advertising material has been omitted from the digitisation process completely, while the rest of the content is either scanned or transcribed (the exceptions are image captions which are both scanned and transcribed). The option to view images "in context" does not actually mean in the context of the entire page: it simply reduces the size of the image presumably to the proportions it would be if the surrounding text were included.

TAH is easily browsed page by page in addition to the transcribed text: the sort of approach that receives praise from Maxwell (2010, p.33). SPCC newsletter contains scanned material only which is the preferred option Maxwell suggests if financial constraints prevent comprehensive digitisation (2010, p.33). However, it is a far cry from Coyle's belief that users need richly marked up text (2006, p.642 & 644). The troopship magazines are scanned in their entirety, including blank and illegible pages. The inclusion of these pages demonstrates very clearly a lack of interference and an acknowledgement of the magazine as a whole object.

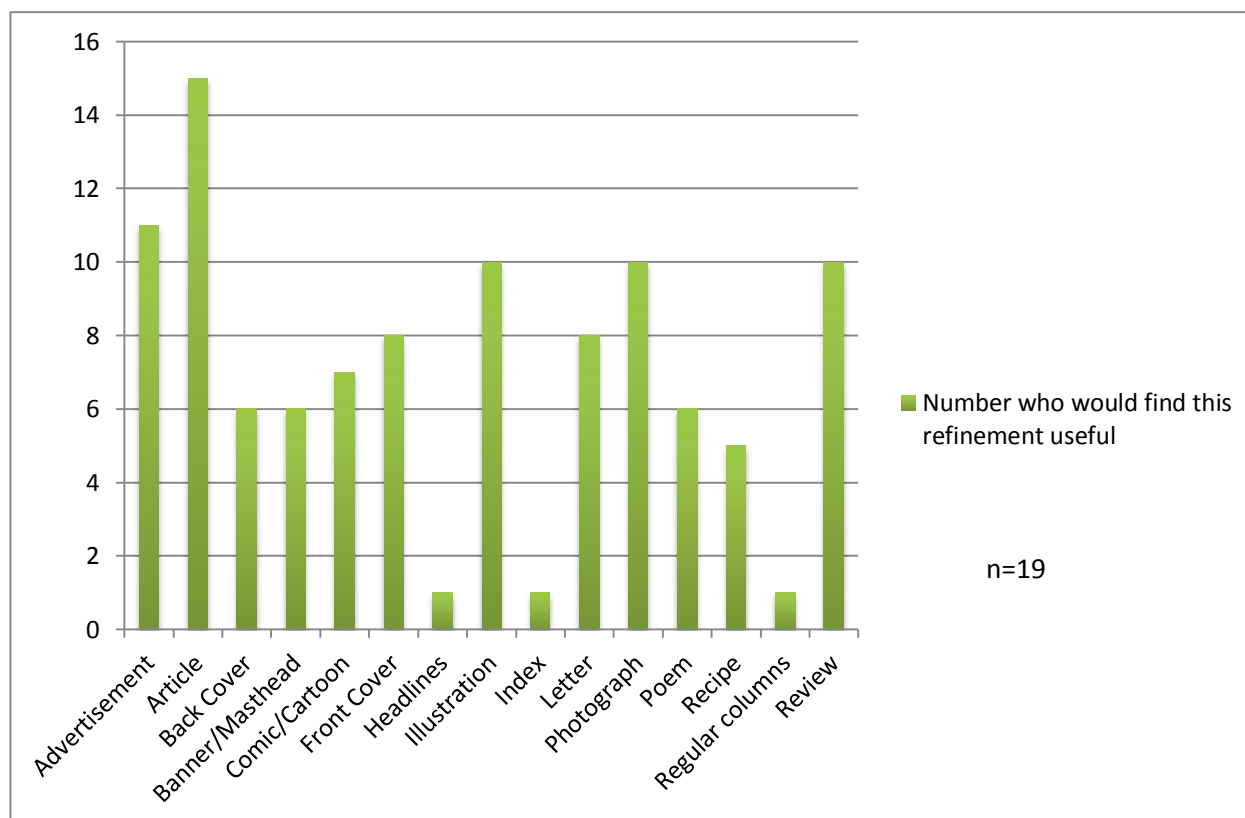
While preserving the context to the point of illegibility may seem pointless to some the absence of context renders the source unusable for historians (Maxwell, 2010, p.28). The respondents corroborate this saying they value scanned material because they need physical and historical context. Latham and Scholes observe the evolution of periodical scholarship from targeting isolated pieces of information to focusing on the whole object (2006, p.517-518). Objects from the physical world always lose some context when digitised, but scanned material is still relevant for the purposes of many researchers.

Search results and refinements

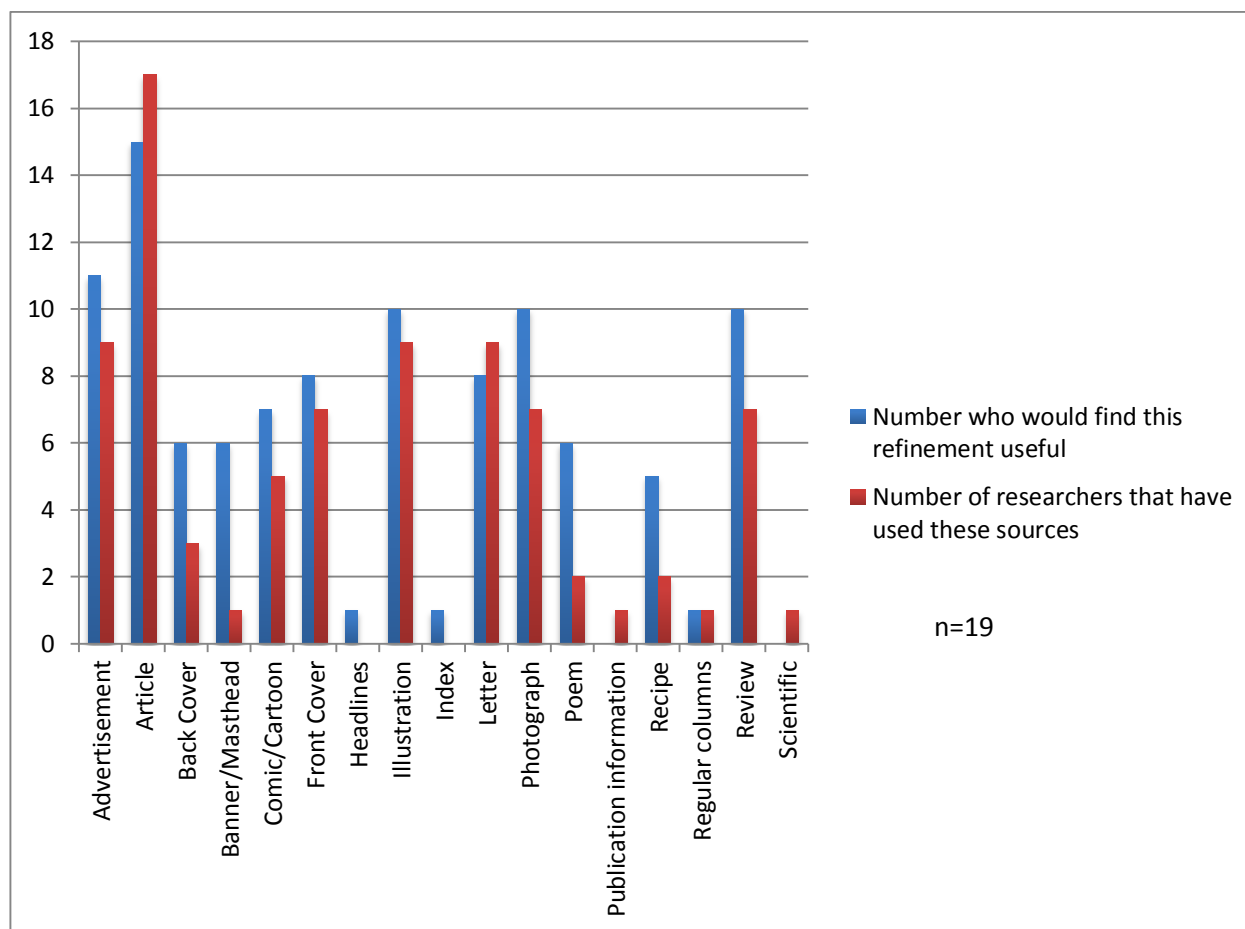
The majority of respondents wanted search results to be separated by category:

“Yes it would definitely be useful to be able to have separate categories for images etc. - in particular, I have found it frustrating sometimes when search results don't separate out the advertisements from the articles”

One respondent suggested using thumbnails to display results and two respondents emphasised the importance of date refinements. Researchers want to be able to search among numerous content categories, or at least to be able to refine their results by a wide variety of content types.



Graph 3: Useful category refinements



Graph 4: Refinement categories wanted compared to categories used

Graph 4 shows that researchers want more options than they have used themselves. For example two researchers used poems, but six thought a refinement for this category would be useful.

None of the resources analysed offer this level of functionality. NZR and TAH come the closest being the only two resources that allow searching across all issues. AWMM allows the user to modify the original query in the search screen but does not supply refinement facets on the results page. Each troopship magazine PDF is discrete with no metadata apart from basic keyword. SPCC has no search function. NZR offers a variety of refinements, but none as granular as “poem”, “letter” or “advertisement”, with the exception of images. A workaround for covers is to search by the term “covers” and refine the results to images.

TAH contains a vast array of paratexts and content categories including book/music reviews, a young readers’ section, crosswords, letters, obituaries, poems,

photographs, illustrations, numerous regular columns, advertising, covers and articles. Users may learn what keywords appear in some of these features in order to retrieve the results they want (e.g. crosswords are usually headed, “Crossword”), but there will still be a degree of manual filtering required.

Two of the survey respondents used the digitised TAH and NZR sources and both indicated they wanted more search or refinement categories, particularly: articles, advertisements, illustrations, letters, and photographs.

Comparing the content categories used by the respondents with the categories considered useful demonstrates the importance of consultation with users in addition to usage statistics when determining the needs of a research community. Connaway et al suggest convenience is an increasingly important reason behind the search for information across a range of users (2011, p.179). A growing variety of choices means users no longer have to work around libraries: libraries have to cater to user needs (Connaway et al, 2011, p.179). Julien et al note that there is plenty of work investigating user needs, but very little work into ways this information can be implemented in digital interfaces (2011, p20).

Images

As Coyle notes, the reason mass digitisation projects can produce high volumes of material is due to the minimal amount of expensive human intervention (2006, p.644). Most of the sites analysed in this study simply relied upon captions to provide access to images. In the cases of TAH and NZR the captions are often descriptive making this a relatively useful strategy. However, other information such as photographer, subjects, time and place etc. have to be gleaned from the accompanying articles making photographs harder to find than textual content. This is a potential problem for researchers as thirteen of the fifteen respondents who answered the question of whether they used images in their research or not, indicated they did use them.

Not surprisingly, the most common method of finding images in print resources is to browse page by page. One person mentioned being able to target specific sections of issues after browsing alerted them to the layout of particular titles. One person

consulted contents pages in conjunction with page by page browsing. Two respondents mentioned they often did not intend to use images and it was only after discovering them through browsing that they included them in their research. When searching online three people mentioned keyword searching either via captions or some hoped for metadata. A couple of people mentioned using *Google Images*. The majority of respondents used browsing just as with the print resources which shows that apart from avoiding the inconvenience of using physical items the digital surrogates have few advantages over their print counterparts.

Despite having established workarounds researchers indicated they still wanted images to be searchable. A keyword search specifically for images was the most common answer to the kinds of search options wanted for visual material. Two respondents mentioned searching captions would be useful, but another thought the descriptions were arbitrary and therefore of little use. One person thought basic information such as “*location, subject, photographer, date, format, colour/B&W etc.*” would be useful. Separating images from other items in results pages was suggested as was the use of thumbnails for image results and the NZR site is the only resource in this study that caters to this need by including an image refinement for results and displaying them as thumbnails. A couple of respondents were unsure of possible search option for images, suggesting they had not tried searching for them in digitised periodical sources.

Coyle’s focus on quality is based primarily on textual content and Optical Character Recognition accuracy rather than the appearance of images. Several respondents commented on the poor inconsistent quality of images in digitised periodical sources:

“When I need a better quality print of an image, when digitalization is poorly done”
[In answer to the question of when are the times you need to consult the print when using digitised periodicals sources]

TAH and NZR both appeared to use photocopied pages for the digitisation project resulting in grainy reproductions particularly for images. As these images are in JPEG format they are not as scalable as other formats resulting in pixelated displays when already grainy images are enlarged.

The troopship magazines however, have been digitised into PDFs which are better for printing and are more scalable. While PDFs allow users to enlarge images, the searching capabilities are limited to typewritten text. The AWMM have made allowances for this by including some additional information in the catalogue record, such as the artist of the sketches seen below. Information such as the provenance of the magazine, details about the troopship, its voyage, and the regiments aboard are included where possible in the record offering a much wider context for the magazine than any of the other resources analysed in this study. Not only are the paratexts preserved in the PDFs, the epitexts are included in the library record.

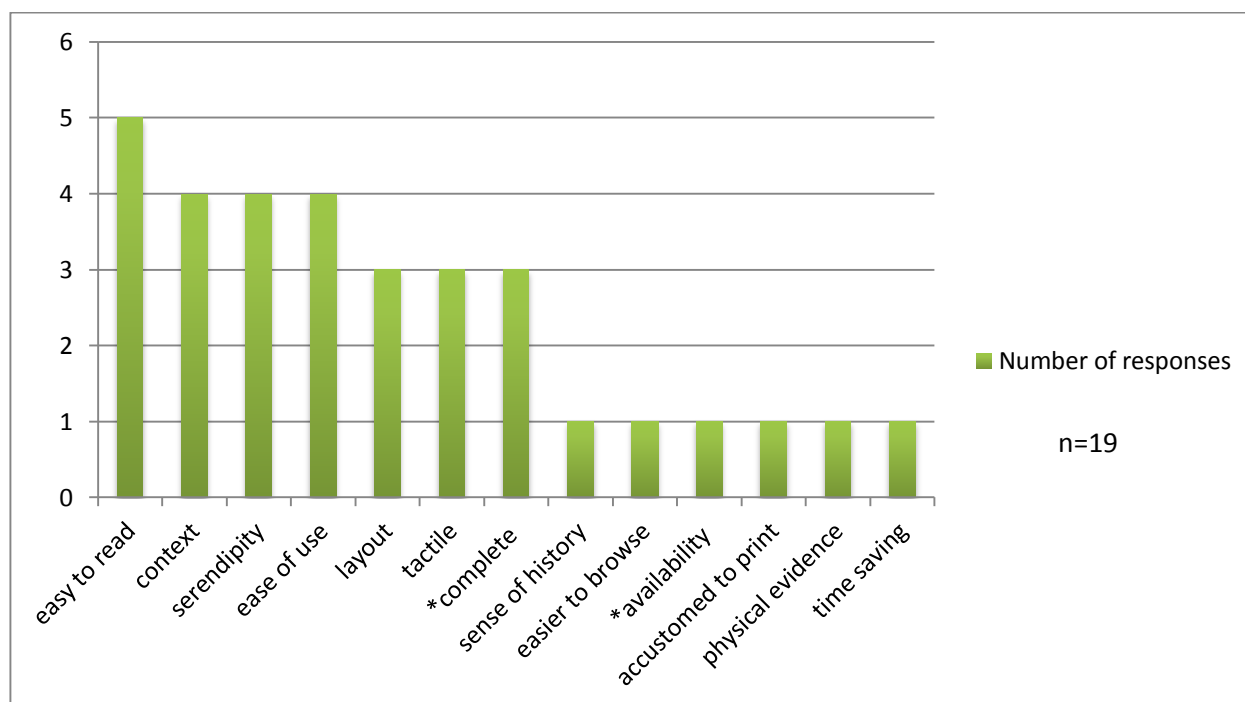


Sketches from the *Devon Windsail* by H.J. Emrys. The handwritten captions are not searchable, but the artist's name appears in the catalogue record.

(Devon windsail: for the ventilation of grievances; public, private, and otherwise, 1916, p.4) from the Auckland War Memorial Museum.

Advantages and disadvantages in using print and digitised sources

Print



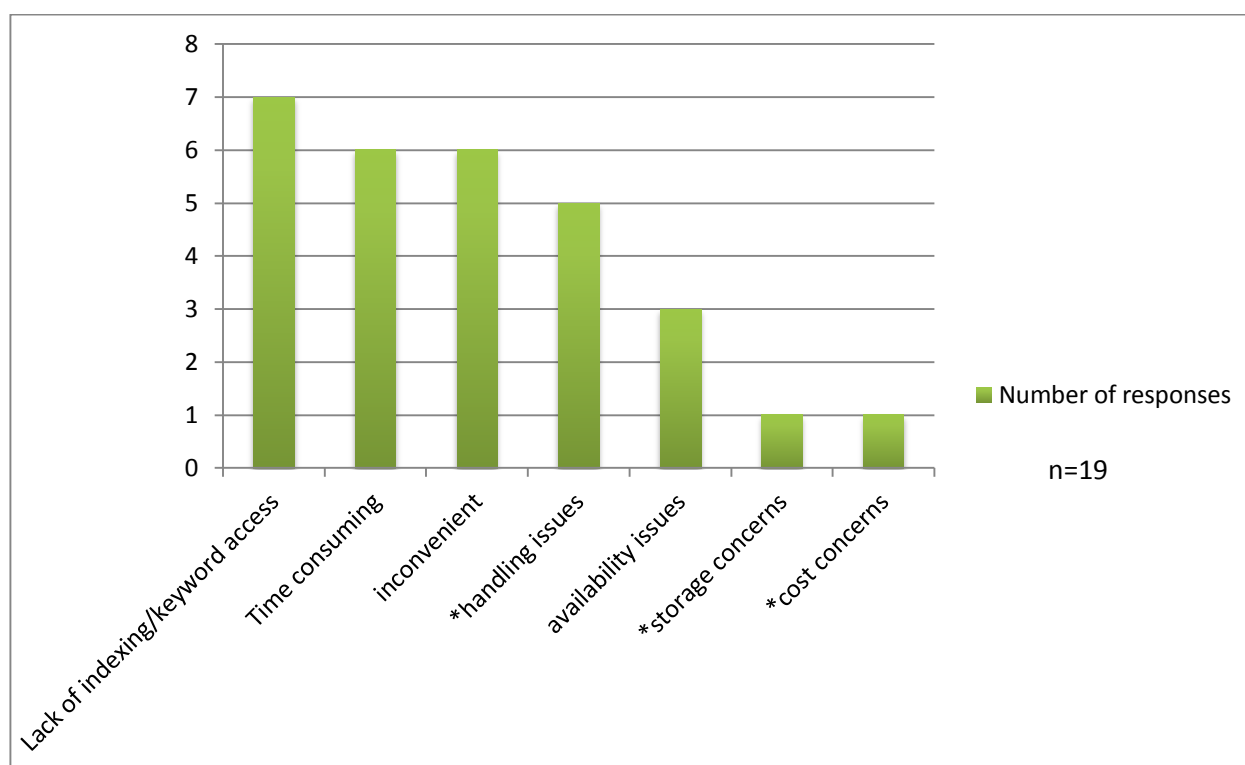
Graph 5: Advantages to using print

***Complete:** refers to the print being preferable because digitised versions are missing elements such as covers

***Availability:** refers to periodicals only being available in print as they are not yet digitised

There was a strong preference for print items with many respondents associating physicality of the periodicals with a sense of history and/or context. There was a sense digitised resources were useful tools for certain types of research but not replacements for the print material. Five respondents felt print versions were easier to read than a digitised version. Four respondents mentioned discovering things serendipitously was an advantage that print sources had over digitised. For some, computer screens were problematic, and one participant felt low resolution scans were harder to read than their own digital photographs of the original. One respondent commented on the issue of library ownership versus negotiated access to periodical titles. Three people mentioned elements were often unavailable in digitised resources: cover material, marginalia, illustrations and other pictorial content etc.

Conversely, there are disadvantages to consulting print sources (see graph 6 below). Lack of search ability, inconvenience and time constraints were some of the main barriers to using print. There were a variety of physical limitations such as, having to go to the library or libraries, limited opening hours, transporting items, unavailability of items (borrowing disallowed or checked out to someone else), fragility of older items, storage/space concerns for libraries, and difficulties in getting copies (from larger items).



Graph 6: Disadvantages to using print

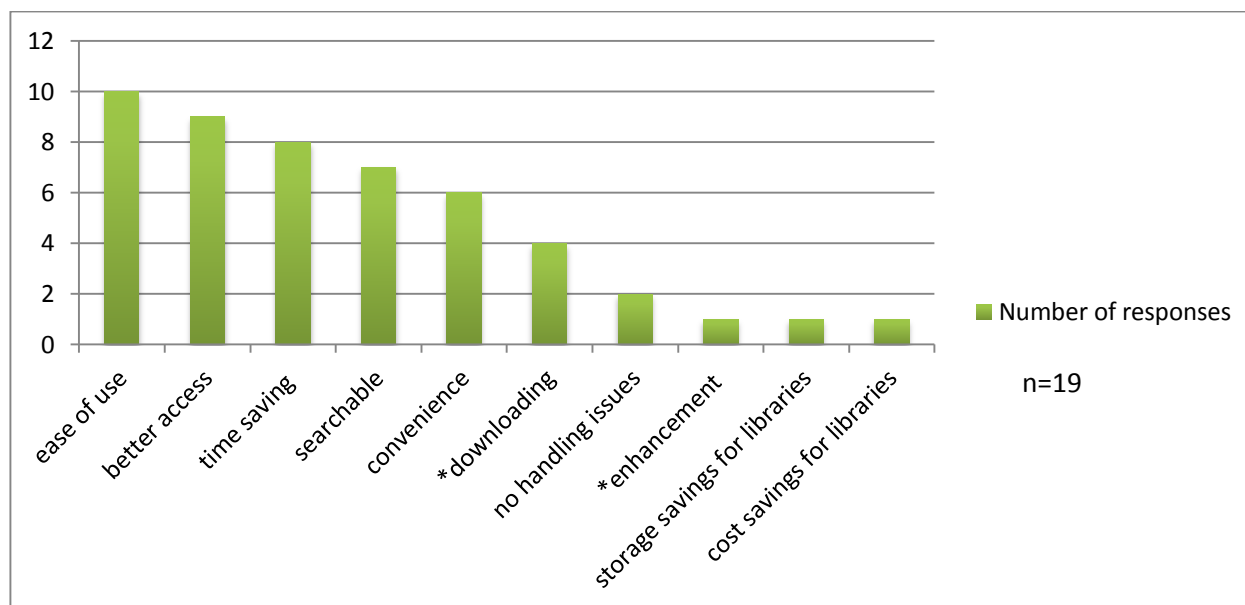
***Handling issues** include fragility of items & stress for user handling those items

*Perceived **storage and cost concerns** for libraries; lead to concerns about disposal of print

In print culture research the print artefact is always going to be of prime importance, but digitised sources are being used by scholars as well. It is theoretically possible to digitally produce easy to read pages, convey context and history, replicate layouts, facilitate browsing and serendipity with an efficient and timesaving interface. Only print resources contain the physical paratexts of paper texture, weight, smell and feel. Digitisation can only record these details at best. However, the survey

responses indicate that even print paratexts, such as cover material and marginalia, are being excluded from some digitised sources.

Digitised



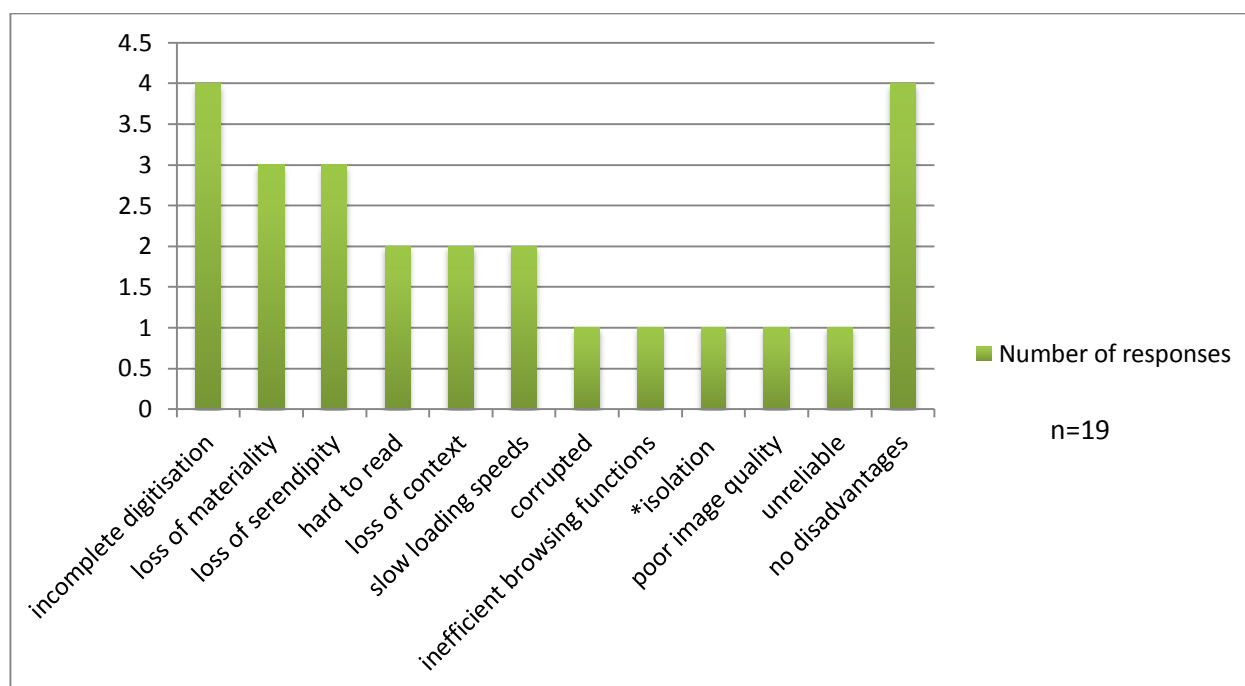
Graph 7: Advantages in using digitised periodicals

***Downloading:** refers not only to easy copying but also ease of storage

***Enhancement:** such as enlargement of text etc.

The majority of respondents felt digitised periodicals were easy to use and more accessible than the print (see graph 7 above). Further advantages to using digitised sources included search ability, convenience, downloading ability and storage of information.

Four people felt there were no disadvantages to using digitised periodicals. Several people commented on incomplete digitisation being a disadvantage to using digitised sources with some mentioning specific omissions such as ephemeral material, contents and index pages. Loss of materiality was cited several times as was loss of serendipitous discovery. Difficulty reading the digitised material and loss of context were each mentioned twice. Other concerns were: isolation of sources from similar or related subject areas; unreliability; corruption of scans; poor image quality; and inefficient browsing.



Graph 8: Disadvantages in using digitised sources

* **Isolation** of sources from similar or related sources

Many of the disadvantages in using the digitised sources can be overcome. The themes used in describing the disadvantages indicate there are some fairly poor resources around.

The theme of context came up repeatedly in the survey responses. Historical context and physical layout can be conveyed in a digitised resource, but the frequent omission of content hampers these features. Paratexts become the litmus test for whether resources are complete and therefore reliable. The archival practice of preserving provenance can be emulated in digitisation projects and extended to offering transparency for whatever limitations are present, such as stating reasons for missing material.

The biggest advantage of the SPCC newsletters is access, i.e. their scarcity in print form. Another advantage is the easy browsing aided by thumbnails and simple navigation. The context provided by the rest of the website gives the newsletter its provenance. The issues are scanned in their entirety and the collection is complete so far. Intentions to digitise one issue per month make it clear what to expect. The only real disadvantage is the lack of search ability.

TAH's main advantage is that it offers browsing and searching and is completely scanned. The lack of colour only affects the advertising material. While the quality of the images is not ideal it only affects those wanting high quality images. The text is perfectly readable. There is some context provided in the form of an introduction and some historical background taken from the *Oxford companion to New Zealand literature* (as cited in National Library of New Zealand, n.d.a).

NZR's advantages lie in its search ability, legibility and context. An introduction, historical background and numerous other works to simultaneously search make up the layers of context provided in the NZETC website. The two main disadvantages are missing content and the lack of scanned page browsing. The site can also be slow to load at times.

The troopship magazines at the AWMM are tricky to browse as a group. Access is through the library catalogue and the search terms are quite controlled. The main advantage of this resource, however, is the amalgamation of two collections of fairly rare material. Another advantage is the completely scanned items leaving interpretation of handwriting and smudged type completely up to the user. The PDFs are the most flexible format used by the resources examined in this project. The connections with other archival collections provide the most comprehensive historical context of all the resources analyzed. Unfortunately, the site can be frustratingly slow at times.

Digital used with print

Digitised sources are not replacements for print sources for many researchers; rather they are research tools used in conjunction with print versions. Sixteen respondents indicated they needed to consult the print object when using digitised resource.

Again, broader context and actual physical layout were mentioned by respondents as reasons to turn to print when using the digitised version. There was a sense that researchers are using digitised versions as index tools and consultation of print is an almost inevitable part of the research process. Respondents mentioned problems with material being excluded from digitised sources, whether due to copyright,

assumptions or other reasons. The theme of serendipitous discovery being more likely with the print was expressed in the hopes of finding more information from a particular time period or title:

“I did find one or two articles available online, but I then went to the print version of the magazine in order to be able to examine the magazine in its entirety - I needed to understand the broader context which included advertising, editorial content etc.”

“Yes sometimes I've stumbled across something in digitised form and it has led me to carry out a wider review of the print periodical (when available) to look for similar information from around that time.”

Only two respondents felt using both print and digitised versions was unnecessary. One respondent said they usually use digitised sources for informational content and was not concerned with the physicality of item. The other respondent stated the sources they used were too fragile to handle and so the digitised sources were their only option.

TAH is the only source in this study to list institutions that hold the print versions. The concern from respondents that libraries will dispose of material once it is digitised stems from the equal need for both original and digital formats:

“Please recall that the mission of libraries includes preservation, not just access! I hope that you are not one of those vandals looking for excuses to digitize source and then dispose of the original copies!”

“I can see they are important [digital sources] - but we need to ensure they complement and do not replace print holdings and accessibility”

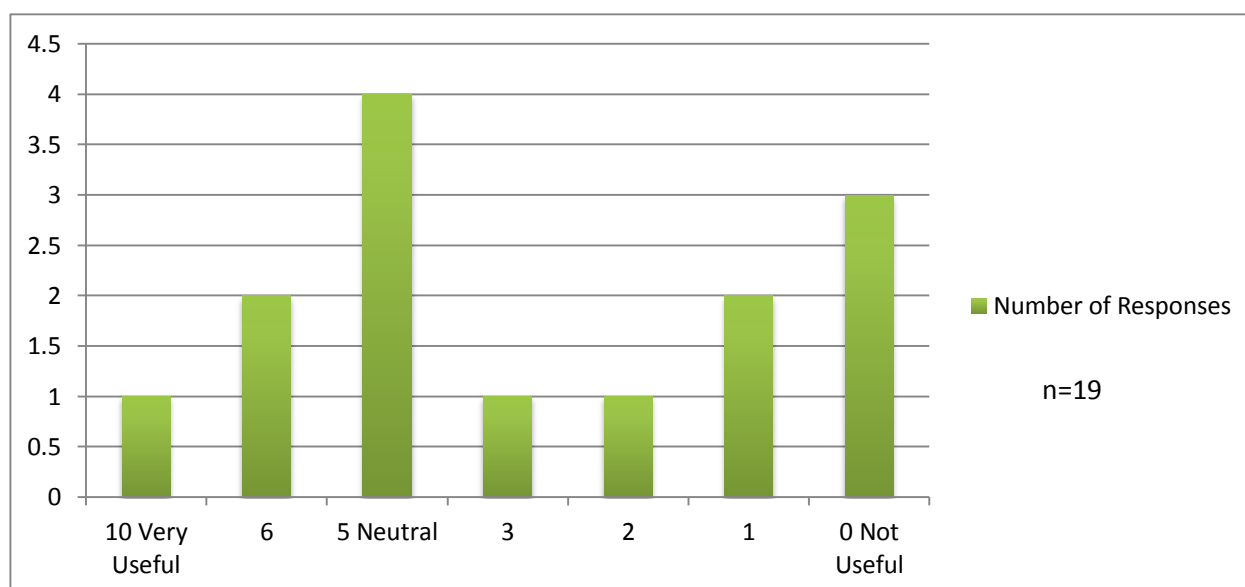
“I think there should be great care taken to ensure if print versions are superceded they are still readily available. It would also be idealistic, but important, to try and keep the costs of access to periodicals more in tune with user requirements than profit motivations, but obviously this will vary enormously in terms of the kind of periodical and its ownership.”

User-generated information

Most researchers disliked or were neutral about this feature (see graph 9 below) using phrases such as; “ambiguous”, “cluttered”, “another layer to sift through”, “intrusive”, and “not interested”. Examples given in the survey question were: crowd-sourcing, comments and tags. Three respondents thought it might be useful, but would prefer it to be an optional application.

None of the digitised sources had this functionality. They are all open-source sites and do not require logins to access the digitised material.

As already discussed, some magazine features are crowd-sourced: student writing, letters from readers, drawings from soldiers and so on. So it is possible that researchers in the future may be interested in the 21st century layer of user-generated information or comments. As Maxwell asserts, “Since no one knows what future historians may find useful, *historians reflexively oppose any pruning of library collections*” (2010, p.25). With the current proliferation of social commentary online it may appear to future historians as a form of pre-emptive pruning to exclude it from particular digitised sources. The suggestions to make this functionality optional may be the compromise needed between serving current and future researchers.



Graph 9: How useful is user-generated information?

Links to external sources and contextual information

Most of the respondents had not experienced links to other sources within a digitised periodical resource, but a few were open to the idea:

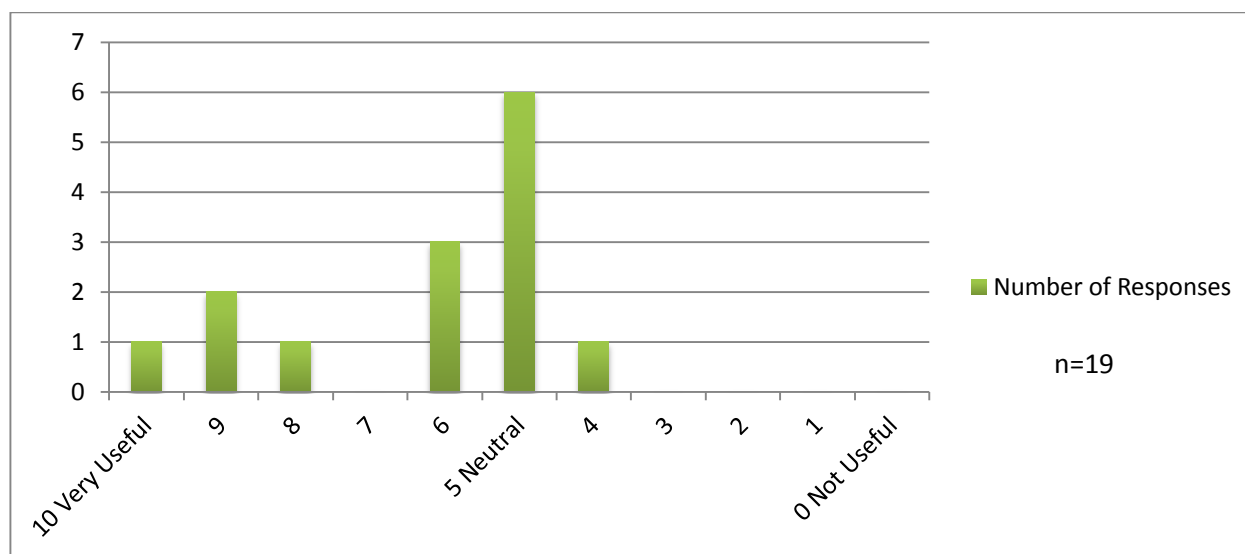
“Hard for me to judge in the abstract”

“Could be useful; it would depend on context of the search”

“Could be useful sometimes but usually google is sufficient”

“If the links were current and accurate, I think I'd find them useful”

“Situation dependent”



Graph 10: How useful are links to external sources?

In the age of linked data it was interesting to note many researchers were unsure if they would find it useful. This suggests many may not have experienced it in an academic library setting, perhaps influenced by authoritative, yet isolated databases. The tentative responses may also be due to the fear of links to less trustworthy sources.

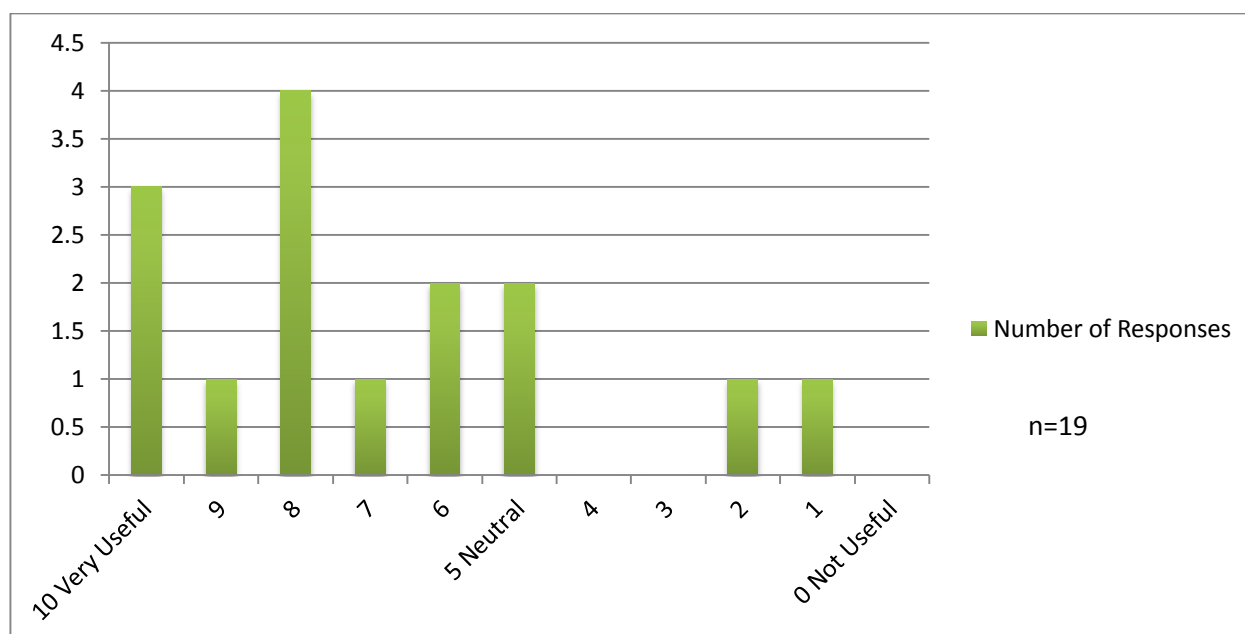
Le Boeuf’s (2012) suggestion of libraries incorporating the museum standard CIDOC-CRM to create interoperability between cultural heritage institutions has possibilities for digitised sources. Linked data between heritage collections could broaden the historical context of digitised periodicals for humanities researchers in an authoritative way.

Although the troopship magazines are a joint project between DPL and AWMM (Auckland War Memorial Museum, 2014, July 18) there is no mention of the project

or a link to the AWMM catalogue in the DPL troopship magazine information webpage (Dunedin Public Libraries, n.d.). There are also no links from the DPL bibliographic records to the digitised sources in the AWMM catalogue. However there is a link to the DPL homepage from the troopship introductory page as well as acknowledgements of DPL sources in the library record notes fields. It is likely many users would appreciate and benefit from more links between the catalogues of the project partners.

The AWMM has a lot of information about the troopships and provides a special search page for them. Although the magazines appear in the results there is no link to the bibliographic records and associated PDFs forcing the user back to the library catalogue search page which can be a slow process for this website. This awkwardness between the AWMM's own sources demonstrates how interoperability between archival and library records would make navigation far smoother.

Unlike library catalogues, online resources have an opportunity to contextualise a digitised collection with histories and introductions. Of the people who responded to the question of how useful these overviews were the majority felt they were useful (see graph 11 on next page). One person stated that the introductory material was important for subjectivity reasons and others felt it gave context for both the original and digitised sources. Only one respondent from the negative/neutral group commented, saying they would just skip over this material, leaving it unclear why they and the others did not want it.



Graph 11: How useful are short histories/ introductions

Most of the resources analysed provide fairly brief introductions to their digitised holdings. The introduction to TAH is short. It outlines the scope of the resource and provides basic information such as the bilingual nature of the magazine and it acknowledges the Māori Purposes Fund Board for permitting the digitisation of TAH (NLNZ, n.d.b). The introduction includes a link to an extract from the *Oxford companion to New Zealand literature* (as cited in NLNZ, n.d.a) providing some historical context to the original magazine.

The NZR introductory page is brief too, but there is also a link to an excerpt from Atkinson's *Trainland: How Railways Made New Zealand*, (NZETC, 2015c). Atkinson offers historical focus for the magazine, while the introductory page informs the user of the scope and constraints of the digitisation project (NZETC, 2015b).

The troopship magazines have a brief introduction to the project which explains what the troopship magazines were, which institutions are involved, and what the scope of the project is (AWMM, 2014, July 18).

SPCC has no real introduction to the old newsletters apart from the comment that the discovery of their existence in 2011 led to the digitisation project (Saint Peter's Caversham, 2015, April 22). Context is provided by the rest of the website and this

implies the newsletters are intended primarily for the interests of parish members, but not exclusively so as demonstrated by the open access.

Suggestions for further research

Some interesting themes emerged from this research that would benefit from further investigation. Research into defining paratexts in periodicals would create a useful framework for further studies in this area.

The technological side of the digitisation process was not examined in this report. The kinds of functionality researchers want include equal quality reproduction of text and image content in a full page context. Page turning technology, common in e-books did not feature in any of the sites analysed, but it would enable the original double page spread of so many periodicals. Research into the innovations in these areas would be useful.

How institutions select material to be digitised would complement this study. Another angle would be to investigate what titles researchers would like to see digitised.

There was a perception among survey participants that libraries disposed of material once it was digitised. An investigation into this side of the digitisation practice in New Zealand could be of interest to researchers and librarians.

There are still relatively few digitised New Zealand periodicals. An investigation into why would be useful in identifying the main constraints institutions are facing.

Conclusion

One of the most important themes to emerge from this research was the value of consultation with research communities in the digitisation process. Usage statistics of online sources only show half the story; what users want is equally important. In the broad interdisciplinary world of humanities, academic researchers are using periodicals in new ways. They are studying the periodicals as objects as well as sources of content. This opens up a wide variety of possibilities that call for complete digitisation free of preconceived ideas about what users need. Future scholars may

have fewer choices as physical sources become more fragile putting more pressure on digitised sources to deliver.

New Zealand periodical research is varied, detailed and interdisciplinary in nature. All parts of periodicals are study material for someone and yet opportunities to make this material more accessible are not always taken. There appears to be a bias towards textual content in periodicals particularly editorial content in some digitised sources. Paratexts are often the first casualties of omitted content serving as a measure for reliability. Even sites with strong search capabilities do not support advanced searching of paratexts or visual material due to a lack of metadata. Researchers indicated they would prefer more refinements in this area.

A strong theme in the site analysis and survey responses was inconsistency in functionality and quality of digitised periodical sources. Sites were strong in some areas, weak in others and no two were the same. The lack of overall standards for digitisation demonstrated in the literature was apparent in this study. Researchers expressed frustration over shortcomings but were happy to comment on their positive experiences as well. They offered praise for some current sources and suggestions for future digitisation projects.

Despite a heavy reliance on print formats researchers are very keen to see more material get digitised with pleas for better legibility. Quality was very important to researchers for both images and text, and a lack of it can even undermine sites offering the most advanced searching and browsing tools. Researchers want equal attention to searching and browsing functionality as they play complementary roles in the research process.

Context is vital to periodical researchers. It is physical, historical, local, national and international. Digitisation does not have to result in static and isolated resources. Standards that focus on events and relationships open up possibilities for resources to be reconnected with the world they were once part of.

There are implications for libraries or other groups wanting to digitise collections. Researchers want a lot and digitisation, particularly high quality digitisation with comprehensive metadata, is costly and labour intensive. The development of standards for periodical digitisation can offer bottom line options with interoperability

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between collections bolstering content and adding context. Most importantly, those standards must include consultation with target user groups.

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Appendices

Appendix 1: Survey questionnaire

Non-academic periodicals such as popular magazines, community newsletters and literary journals often become primary sources of information in academic research. This survey seeks to understand whether digitised versions of these periodicals are facilitating research that uses periodicals in this way and what academic researchers would like to see in an ideal digitised periodical resource. Your participation in this survey will help to highlight the importance of consultation with research communities in the digitisation process.

1. What New Zealand periodicals have you used in your own research?

2. What kinds of information sources from periodicals you have used for your research? Choose as many as you need:

| | | | |
|--|--|-------------------------------------|--------------------------------|
| <input type="checkbox"/> Advertisement | <input type="checkbox"/> Cartoon/Comic | <input type="checkbox"/> Photograph | <input type="checkbox"/> Other |
| <input type="checkbox"/> Article | <input type="checkbox"/> Front cover | <input type="checkbox"/> Poem | |
| <input type="checkbox"/> Back cover | <input type="checkbox"/> Illustration | <input type="checkbox"/> Recipe | |
| <input type="checkbox"/> Banner/Masthead | <input type="checkbox"/> Letter | <input type="checkbox"/> Review | |

(Comment box under **Other**)

3. What periodicals format did you use?
 - Digitised
 - Print
 - Both

4. How do you search when using digitised periodicals? (Only displays if **Digitised** or **Both** chosen in question 3)

5. If you have used digitised periodicals for your research how did you discover them (eg. through library catalogue, internet search engine etc.)? (Only displays if **Digitised** or **Both** chosen in question 3)

6. If you have not used digitised periodicals for your research how would you go about finding them (e.g. through library catalogue, internet search engine etc.)? (Only displays if **Print** chosen in question 3)

7. Are there advantages to using print periodicals over the digitised versions? If so, what are they?

8. Are there disadvantages to using print periodicals over the digitised versions?
If so, what are they?

9. Are there advantages to using digitised periodicals over the print version? If so, what are they?

10. Are there disadvantages to using digitised periodicals over the print version?
If so, what are they?

11. Are there times when the use of digitised periodicals might prompt investigation of the print version?

- Yes No

12. Can you describe the instances when using a digitised periodical source prompted the investigation of the print version? **(Only displays if answer to question 11 is Yes)**

13. Can you state why you think you would not need to consult the print version if using the digitised resource? **(Only displays if answer to question 11 is No)**

14. Would you find scanned images of the original print source in addition to the transcribed text useful? Please state your reasons:

15. Have you used images from periodicals in your research?

- Yes No

16. Please state how you would go about finding images in a print resource:

17. Please state how you would go about finding images in a digitised resource:

18. What sorts of information would help searching for images in a digitised periodical resource?

19. Which of the following would a keyword search be useful for? Choose as many as you need:

- | | | | |
|--|--|-------------------------------------|--------------------------------|
| <input type="checkbox"/> Advertisement | <input type="checkbox"/> Cartoon/Comic | <input type="checkbox"/> Photograph | <input type="checkbox"/> Other |
| <input type="checkbox"/> Article | <input type="checkbox"/> Front cover | <input type="checkbox"/> Poem | |
| <input type="checkbox"/> Back cover | <input type="checkbox"/> Illustration | <input type="checkbox"/> Recipe | |
| <input type="checkbox"/> Banner/Masthead | <input type="checkbox"/> Letter | <input type="checkbox"/> Review | |

(Comment box under Other)

20. In a digitised periodical resource what would be some useful ways to display search results (e.g. separate categories for images, articles and covers etc.)?

21. In a digitised periodical resource, how useful would/did you find browse functions (i.e. looking through lists of issues, authors or subjects instead of a keyword search)? 0 is not useful, 5 is neutral and 10 is very useful. Please comment:

(Slider scale 1-10 for usefulness, and comments box)

22. How useful are short histories/introductions about the publications digitised? 0 is not useful, 5 is neutral and 10 is very useful. Please comment:

(Slider scale 1-10 for usefulness, and comments box)

23. How useful would you find user-generated information in a digitised periodical resource, such as tags, comments, crowd sourcing etc.? 0 is not useful, 5 is neutral and 10 is very useful. Please comment:

(Slider scale 1-10 for usefulness, and comments box)

24. How useful would you find links to external sources (e.g. links for photographer of magazine covers to other works etc.)? 0 is not useful, 5 is neutral and 10 is very useful. Please comment:

(Slider scale 1-10 for usefulness, and comments box)

25. Are there any other points you would like to make about your experiences using digitised periodicals? (Only displays if **Digitised** or **Both** chosen in question 3)

26. Are there any recommendations you would like to make for future periodical digitisation projects?

Thank you very much for your participation!

Appendix 2: Te Ao Hou usage statistics

| Top ten sites visited in Te Ao Hou for 2014 | | Issue | Bounce rate |
|---|---|------------------------|-------------|
| 1 | Ngā whakataukī: Māori proverbs and sayings, by Bill Parker | No.54 (March 1996) | 88.98% |
| 2 | The story of Rangi and Papa | No.45 (December 1963) | 83.81% |
| 3 | Big brother little sister, by Witi Ihimaera | No.75 (March 1974) | 83.66% |
| 4 | The story of Paikea and Ruaptapu | No.40 (September 1962) | 82.65% |
| 5 | The story of Hinemoa and Tutanekai | No.39 (June 1962) | 78.83% |
| 6 | The legend of Hatupatu and the bird-woman | No.53 (December 1965) | 82.29% |
| 7 | Warfare of the Māori, by E.G. Schwimmer | No.36 (September 1961) | 88.55% |
| 8 | How to make a rourou or food basket, by Catherine Brown | No.59 (June 1967) | 67.99% |
| 9 | The Māori art of moko, by Margaret Orbell | No.43 (June 1963) | 91.28% |
| 10 | Proverbial and popular sayings of the Māori/Ngā whakataukī me ngā pepeha Māori, na H.T.M. Wikiriwhi | No.13 (December 1955) | 81.40% |

Appendix 3: Courtesy email to Heads of Departments



Dear Head of Department,

I am a Master of Information Studies (MIS) student at Victoria University of Wellington. As part of this degree, I am undertaking an INFO 580 research project to complete my studies. This research seeks to understand how well digitised periodicals serve New Zealand academic researchers.

I am writing to you as a courtesy to let you know I am intending to send out a survey to your staff next week. The survey is about the effectiveness of digitised periodical resources in New Zealand for academic researchers. I am seeking academic staff and postgraduate students who have used New Zealand periodicals in their research. Whether print periodicals or digitised periodicals have been used participation in this survey would be greatly appreciated. Some of the questions relate to what researchers would like to see in digitised resources. Other questions are about the kinds of periodical sources (articles, cover, letters etc.) used in research. For those who have used digitised periodical resources there some questions about their experiences with them. The survey consists of a maximum of 24 questions and should only take 15-20 minutes to complete. I believe results from this survey will help to highlight the importance of consultation with research communities in the digitisation process.

Victoria University requires, and has granted, approval from the School's Human Ethics Committee.

By submitting the questionnaire, participants are agreeing to take part in this research. The questionnaire has been designed to be anonymous. Information provided will be combined with other responses from academic staff around New Zealand. Any information that could reveal participants' identities and/or place of

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work will be anonymised to ensure privacy. Survey data collected will be destroyed two years after the conclusion of this research project. The findings will be documented in a report that will be submitted to the School of Information Management in June 2015 and will be deposited in Victoria University's Research Archive. They may also be presented at a conference or in a scholarly journal.

If you have any questions or would like to receive further information about the project, please contact me at or telephone, or you may contact my supervisor Dr Sydney Shep at or telephone

Thank you very much for your consideration.

Megan Vaughan
MIS student
Dunedin

Appendix 4: Survey information email



SCHOOL OF INFORMATION MANAGEMENT

TE KURA TIAKI, WHAKAWHITI KŌRERO

LEVEL 5, RUTHERFORD HOUSE, PIPITEA CAMPUS, 23 LAMBTON QUAY, WELLINGTON

PO Box 600, Wellington 6140, New Zealand

Phone +64-4-463 5103 Fax +64-4-463 5446 Email sim@vuw.ac.nz Website www.victoria.ac.nz/sim

Dear member of university staff,

Have you used non-academic New Zealand periodicals in your research? Do you think the needs of academic researchers are being met by digitised periodical resources?

I am a Master of Information Studies (MIS) student at Victoria University of Wellington. As part of this degree, I am undertaking an INFO 580 research project to complete my studies. This research seeks to understand how well digitised periodicals serve New Zealand academic researchers.

This survey is about the effectiveness of digitised periodical resources in New Zealand for academic researchers. Academic journals are well established online resources, but what about non-academic periodicals such as, popular culture magazines, literary journals, and community newsletters? This survey seeks to understand:

- How digitised periodical resources facilitate research using not just articles, but other sources from periodicals, such as letters to the editor, advertisements, recipes and covers etc.
- What areas in these digitised resources are working well for academic researchers?
- What researchers would like to see in these digitised resources?

Even if you have only used print periodicals your participation in this survey would be greatly appreciated. Some of the questions relate to what researchers would like to see in digitised resources. Other questions are about the kinds of periodical sources (articles, cover, letters etc.) you have used in your research. For those who have used digitised periodical resources there some questions about your experiences with them. The survey consists of a maximum of 24 questions and should only take 15-20 minutes to complete.

Victoria University requires, and has granted, approval from the School's Human Ethics Committee.

By submitting the questionnaire, you are agreeing to participate in this research. The questionnaire has been designed to be anonymous. Information you provide will be combined with other responses from academic staff around New Zealand. Any information that you provide that could reveal who you are or where you work will be anonymised to ensure privacy. Survey data collected will be destroyed two years after the conclusion of this research project. The findings will be documented in a report that will be submitted to the School of Information Management in June 2015 and will be deposited in Victoria University's Research Archive. They may also be presented at a conference or in a scholarly journal. If you have any questions or would like to receive further information about the project, please contact me at or telephone, or you may contact my supervisor Dr Sydney Shep at or telephone

To take part in this survey, please click on this link:
.....

If you know of any other academic staff members or postgraduate students who have used New Zealand periodicals in their research and haven't already received this survey please forward this email to them.

Thank you very much for your participation!
Megan Vaughan
MIS student
Dunedin

Megan Vaughan

INFO580: Research report

Word Count: 13383

(Excludes title page, acknowledgements, table of contents,
references section, and appendices)