Context 2.0

User Attitudes to the Reliability of Archival Context on the Web

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Abstract

The representation of context is the foundation of archival practice. With the phenomenal growth and popularity of Web 2.0 archival institutions are increasingly making their collections available online through wikis and photo-sharing sites. However, the structure of Web 2.0 sites and the inclusion of user contributed content have changed both the content and presentation of contextual information. This paper examines attitudes to the reliability of archival description online, including the role of user contributed content to the understanding of context, and draws conclusions on the function of archival contextual information online and its impact on users’ understanding of context.

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1. Introduction

The documentation of context is the foundation of archival arrangement and descriptive practice, and is acknowledged as being integral to maintaining the authenticity and evidentiary value of archival records. Despite varying arrangement and descriptive processes worldwide for recording and presenting archival information, national and international standards acknowledge the primary importance of context in the understanding and interpretation of archival records.¹ The modern electronic recordkeeping environment has necessitated an expanded, more comprehensive, and inclusive view of both the nature of context and those who can and should interpret it. In addition to the increasing role of archivists as sources of knowledge, there is the recognition that archival users collectively may have more knowledge about

¹ Some examples of standards which recognize the importance of context in archival description include: RAD (Rules for Archival Description), ISAD-G (International Standard for Archival Description, General), ISAAR-CPF (International Standard Archival Authority Record for Corporate Bodies, Persons and Families), DACS (Describing Archives: A Content Standard), and the Commonwealth Records Series system.
archival records than an archivist, and that there are many possible and constantly changing interpretations and provenances that can be ascribed to every archival record.

The online electronic environment has provided archivists with the opportunity to make their institutions and collections more visible and accessible to wider audiences. Yet in the race to make collections accessible, many institutions have changed the way in which they present and structure archival descriptions online. Web 2.0 has been heralded as a great opportunity for archivists to increase their visibility and serve an increased number of users. In reference to Web 2.0 sites such as Flickr, “the implications of this phenomenon are significant in that patrons will have increased information and description of a resource, an enhanced ability to find resources through search and browsing, and use of the resource as a connector to additional materials on the web.” Additionally, the openness and inclusivity of Web 2.0 is seen by many scholars as a means of permitting multiple voices and interpretations to enter archival descriptions, and provide a more comprehensive understanding of the nature and context of archival records. Yet as the archival community’s involvement in Web 2.0 initiatives grows, the completeness and accuracy of the contextual information become increasingly important.

Through an analysis and survey of case study websites, this paper will examine the impact of Web 2.0 practices on the presentation and ultimate perceived reliability of contextual information online.

2. Literature Review

Knowledge and understanding of context have long been recognized by the archival community as essential to the complete understanding of a record’s structure and content. As early as the late 1800s, historical investigation was used to provide an understanding of a record’s meaning. This meaning imbues records with the reliability, authenticity and usability required to be trusted and understood sources of evidence. In order for users to assess the validity of a record, users must be able to access the contextual information pertaining to the creation, custody and use of the record.

The nature of digital records has challenged archivists’ traditional understanding of the extent of context. Digital objects, unlike physical ones, lack the history and context of interaction and association that

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4 The terms ‘context’ and ‘provenance’ will be used interchangeably in this paper. Despite the significance of the principle of provenance to all aspects of archival practice, there is no consensus as to the extent of the term and the best way to apply it. See Shelley Sweeney, “The Ambiguous Origins of the Archival Principle of “Provenance”,” Libraries & The Cultural Record, 43 (2008): 193-213. While the traditional notion of provenance was limited to the origins of the record, many modern archival scholars, including Terry Cook, "Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era," Archives and Manuscripts, 22 (1994): 300-328., and Laura Millar, "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," Archivaria, 53 (Spring 2002): 2-15., have argued for an expanded and more elastic view of provenance, and appear to use the terms “context” and “provenance” interchangeably. In addition to highlighting the lack of professional consensus regarding the meanings of both context and provenance, this suggests that concern over distinguishing between the two terms in the literature may be unnecessary.
provides valuable information to the user and interpreter of the object. The ability of digital records to be imperceptibly changed and easily integrated into many different contextual environments affects both the nature of the context that needs to be documented, and the manner in which it is recorded. Additionally, the lack of transparency associated with the creation, alteration and use of digital records has resulted in a recordkeeping environment that is increasingly reliant on both context and trust as measures of the authenticity of a record. In assessing the integrity of a digital object, researchers must “examine the provenance of the object…and the extent to which [they] trust and believe this documentation as well as the extent to which [they] trust the custodians themselves.”

Initially, the archival presence online was characterized by the online finding aid. It is not only the finding aid, though, that is now being made available on the Internet. Archival and non-archival repositories alike are presenting digital representations of their holdings online. Some scholars suggest that the Internet provides a venue to allow records to be interpreted in multiple ways, which serve to “reveal complex and shifting meanings without abandoning a foundation from which such meanings can be gleaned,” thereby recognizing the complexity and constant meaning-making associated with all records. Other scholars note that Internet research relies on ad-hoc classification and associations, which shift based on the search parameters. This may result in search results and associations that are determined more by the search terms than by a record’s context.

The growth of Web 2.0 has continued to alter the role and priorities of archives online and resulted in a change in the content and presentation of context. “Using social media tools, archivists even invite user contributions and participation in describing, commenting, and re-using collections, creating so-called collaborative archives.” Collaborative archives are seen as a means of including the voices and interpretations of those unrepresented or under-represented within the archival record, thereby creating a more holistic view of the record and a shared identity and sense of community. Current recordkeeping and archival descriptive systems do not support multiple, simultaneous provenance or co-creatorship involving the exercise of mutual rights and responsibilities in records by all participants in the transactions they document. The more openly structured environment of Web 2.0 may be more conducive to supporting and representing simultaneous provenance.

The characteristics and possibilities of Web 2.0, in particular its inclusivity of multiple voices and interpretations, are seen by many archivists as a panacea for the singular authoritative voice of the traditional archival finding aid. MacNeil considers the Web as an ideal vehicle for transcending the artificial limits imposed by current descriptive practices and for exploiting an expanded vision of archival description; one that unseats the privileged status currently accorded to the standards-based finding aid and repositions it as part of a

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complex network of hyperlinked and interactive documentation relating to the history, appraisal, preservation, use, and interpretation of a body of records over time. Proponents of collaborative archives argue that user contributed content allows for discussion and discovery, and provides memories and knowledge about records which would otherwise go uncaptured. This is particularly true of communities that do not share their knowledge with outsiders, including a professional archivist. Yet the increased facility of discovery and discussion of records also threatens to weaken the role of context. The indexing of user contributed comments, which are then searchable by search engines such as Bing and Google and result in researchers being directed to archival resources and related user comments, may pose a problem if the comments the researchers were directed to view are inaccurate. The exporting or copying of the archival records to external, personal collections, or other secondary sites such as Wikipedia, is also problematic, because within these sites the original context of the record, as presented by the archives, may be lost or altered. Even when links between abridged Web 2.0 descriptions to more complete Web 1.0 finding aids are created to provide context to users, research suggests that there was considerably less redirection than expected. These results suggest that providing contextual information only in the Web 1.0 environment and linking to it in the Web 2.0 environment may not be sufficient to give researchers the necessary context.

Folksonomies, often created by ‘tagging’, are a common method for archives to elicit user contributed content, though there is much debate surrounding the relevance and value of this content. One of the primary values of tagging is that it permits many voices, experiences and interpretations to be reflected in descriptions. As Weinberger notes, “an author is an authority when it comes to what she intended her work to be about, but not about when [sic] it means to others. When it comes to searching, what a work means to the searcher is far more important than the author’s intentions.” Yet, if understanding an author’s intent is essential to the understanding and preservation of context, it has yet to be determined how well folksonomies will be able to represent this context of creation. Bearman and Trant note that “museum collections remain relatively inaccessible even when ‘made available’ through searchable online databases” due to the professional terminology employed. The use of folksonomies, written in the language of the user, may increase the user’s ability to retrieve the required records, but it is unclear whether folksonomies assist the user to understand the records better once retrieved.

User comments and notes are also frequently cited in the literature as a means of allowing multiple voices and interpretations to be heard.

13 See Andrew Flinn, "'An Attack on Professionalism and Scholarship'?: Democratizing Archives and the Production of Knowledge," *Ariadne* (2010), http://www.ariadne.ac.uk/issue62/flinn/. See also Huvila, "Participatory Archive: Towards Decentralised Curation, Radical User Orientation, and Broader Contextualisation of Records Management."
14 Flinn, "'An Attack on Professionalism and Scholarship'?: Democratizing Archives and the Production of Knowledge."
The user searching for an image likely has little or no concept of the context in which the tag was submitted, and therefore may be presented many results in a search that are in fact not relevant in context. In contrast, the comments and notes we studied appear to be meant almost entirely intended to add context to an image.18

By allowing other perceptions and interpretations to describe context, there is the worry that inaccurate or poor descriptions may result; descriptions that threaten the authenticity and reliability of the records in question. The anonymity of user contributed content “makes it difficult to determine whether information is biased, since users cannot know the motives for information provision, and the lack of cues about the expertise of contributors similarly inhibits users’ capacity to determine the accuracy of information provided.”19 While archival descriptions are by no means objective there is an attempt on the archivist’s part to be aware of their own bias. Popular or public interpretations of the records may lack this awareness. Additionally, the archivist likely has access to more information about a record’s context than does an online user, who determines his or her tags on an item level, or at best, based upon a small sampling of documents belonging to a much larger whole. If the descriptions presented are wholly inaccurate, or inflammatory, there is little guidance in the literature about how the public evaluates the interpretations of context presented and how these various interpretations impact the overall authenticity of the archival record. At present, the vast majority of contributors to archival sites participate at no more than a cursory level to the archival descriptions, identifying individuals and correcting errors. Few extrapolate or expand upon an existing record description. This paucity of user contributed information may not be enough to represent reliably the multiple voices that the archives is seeking.

3. Research Methodology

To determine the presentation of context online, and attitudes towards this presentation, this paper poses the following research questions:

RQ1: What differences exist in the representation of context between Web 1.0 and Web 2.0 pages?

RQ2: What differences exist between patterns of use in Web 1.0 and Web 2.0 pages?

RQ3: What user attitudes exist towards the representation of context in the case study pages?

This research was carried out within an integrated post-custodial and post-modern theoretical framework as elaborated upon by Terry Cook.20 The recognition of the fluidity and complexity of archival context forms the foundation for the role and importance of Web 2.0 and user contributed content in archival description. There is no common position among archivists regarding the extent of information required to document a record’s context properly, or to represent this context online. What can be asserted is that the following types of documentation enable users to make sense of the context of records online:

1. Creator Documentation: information that explains the circumstances surrounding the creation of the record. This can include the name of the record’s creator, the function, mandate and

20 Cook, "Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era," highlights the importance of context to provide meaning to archival records and to make visible the actions, agendas and functions which lead to and explain a record’s creation. Cook also identifies the need for archivists both to recognize and to include the multiple contexts and understandings of archival records within archival description.
administrative structure of the record creating body, and the social, political and economic environment in which the record was created.

2. Relationship Documentation: information that documents the relationships between the record creator, the record users and the record custodians. This can include information about associated records.

3. Control Documentation: information that documents the custodial history of the record. This can include control or other identifying numbers, transfer dates and agents, history of arrangement, and information pertaining to the creation, revision or deletion of retrieval tools.

4. Records Documentation: information that documents the chronology and use of the record. This should include the date of creation and specifics of reproduction and re-use.

User contributed content was considered contextual description for the purposes of this study, presuming that the content of the descriptive information fell into one of the documentation types outlined above. User contributed content consists of digital images, text, tags or any other form of content supplied by individuals external to the archival institution.

The research was conducted in two stages. Due to the exploratory nature of the research, the small number of subject websites, and the number of features on each to be examined, a case study methodology was used in Stage One. Attitudinal measurement was used in Stage Two. In Stage One, case study Web 1.0 and Web 2.0 sites were evaluated using a survey (scale) that measures features of the content design and execution in the representation of context. In Stage Two, user attitudes to Web 1.0 and Web 2.0 depictions of context online were evaluated using a Likert scale based on archivist and user cohorts.

3.1 Stage One: Research Design

In Stage One, to ensure consistency of evaluation, a Web 1.0 page was paired with the equivalent Web 2.0 page that documents the same record. Each pair of sites also represents a different example of Web 2.0 expression – a mash-up, a photo sharing site, and a wiki.

3.1.1. National Archives of Australia (NAA)

Web 1.0 – NAA Record Search: B2455, BUTCHER R T
The National Archives of Australia’s “collection mainly documents Australian government activities since Federation in 1901.” Its online catalogue, called RecordSearch, provides information about the records held by the Archives. Records are arranged hierarchically into functional series; item level, related records, and recording and controlling agency descriptions are provided via links at the series level description. Users to the site can perform basic or advanced keyword and subject searches or search by photograph, name or passenger arrivals index. The catalogue includes digital reproductions with some record descriptions, however the description was not accompanied by an electronic copy for the subject record of this paper.

Web 2.0 – Mapping our Anzacs: Ralph Thomas Butcher
Mapping Our Anzacs is a mash-up, participatory website managed and hosted by the National Archives of Australia. In 2007, the National Archives of Australia released online copies of all the records in Series B2455 which contained the records of the men and women who served in the armed forces during

World War I. Mapping Our Anzacs provides access to these 375,971 service records as well as related user contributed content including biographies and photographs of veterans. Users to the site can add notes and photos to the virtual scrapbook or build a tribute to a loved one. Geographical searching is the primary means of accessing the records. Users to the site can search by place of birth or enlistment or by veteran name.

The idea behind Mapping Our Anzacs is to use that place-based information to provide a new pathway to the records. We thought that a spatial pathway into World War I service records would make sense for local communities where, in many cases, a World War I memorial is central to the town and the community...It is the place-based information in each record title that give the records a structure. We have attempted to map each place name to a global position, so you can now find records by browsing the maps rather than by searching. You no longer need to know in advance what you are looking for, and you can see the relationships between records, rather than seeing each one in isolation.22

Due to the arrangement of the records on the site and the method of enlisting and collecting user contributed content, the site is less focused on providing context to the service record; rather the service record and user content are made available primarily to provide context and biographical information about the individual military service person about whom the service record is written.

3.1.2 Library and Archives Canada (LAC)

Web 1.0 – LAC Archives Search: Dog Child, a North West Mounted Police scout, and his wife, The Only Handsome Woman, members of the Blackfoot Nation

Library and Archives Canada’s online collections catalogue is called Archives Search. The catalogue provides descriptive and contextual information about the records held by Library and Archives Canada. Users to the site can search textual, photographic, iconographic, audio, philatelic, cartographic, architectural and other documents by performing a basic, advanced or image search. Basic searching is done by keyword, material type, hierarchical level and whether the item is digitally reproduced online. Advanced searching includes all basic search categories as well as date, and source fields. Image searching is by keyword and material type. Similar to The National Archives, records are arranged hierarchically into fonds or collections. Descriptive content is based upon the level being described and is not repeated at lower levels of description. Some descriptions include a link to a digital reproduction of the record.

Web 2.0 – Flickr: Dog Child, North West Mounted Police scout, and his wife, The Only Handsome Woman, members of the Blackfoot Nation

Library and Archives Canada also holds a pro account with the photo management and sharing site, Flickr. Flickr has over 10 million active groups and 60 million photographer users.23 Library and Archives Canada uses the site to exhibit and make available digital reproductions of photographs from their archival collection. In many cases these photos are grouped into photostreams based upon a common category or theme. The subject item, a photograph entitled, Dog Child, a North West Mounted Police scout, and his wife, The Only Handsome Woman, members of the Blackfoot Nation, is grouped into

the Pride and Dignity photostream. Images making up this photostream were originally part of an exhibition entitled, Aboriginal Portraits.

### 3.1.3 The National Archives (UK)

**Web 1.0 – The Catalogue: Item CO 137/350/52**

The National Archives’ online catalogue contains “11 million descriptions of documents from central government, courts of law and other UK national bodies, including records on family history, medieval tax, criminal trials, UFO sightings, the history of many countries and many other subjects.” Its mandate is to make available information pertaining to the holdings of The National Archives. Information pertaining to the holdings is made available through keyword, date range and department or series code search capabilities. While the online catalogue provides important contextual information for the researcher about the Archives’ holdings, the site does not contain digital reproductions of any archival documentation, thereby requiring the researcher to visit the Archives in person to view and use the records. Catalogue descriptions are arranged and described hierarchically with the department functioning as the highest level of description, followed by division, series, sub-series, sub sub-series, piece and item. The content of the description is based upon the contextual information at the level described. This information is not repeated at the lower levels of description. Catalogue descriptions are written by Archives staff.

**Web 2.0 – Your Archives: Inside Kingston Lunatic Asylum: the case of Ann Pratt**

One of The National Archives’ web 2.0 initiatives was the wiki, Your Archives. The wiki was launched in 2007 as a means of “providing an online platform for users to contribute their knowledge of archival sources held by The National Archives and other archives throughout the UK.” Since that time over 31 000 people have registered and contributed or updated articles, over 21 000 articles have been created, almost 260 000 edits have been made, and there have been over 6 million visits to the site with more than 50 million page views. User contributions to the wiki are intended to enhance the archival descriptions provided by Archives staff in The Catalogue, research guides, Documents Online and The National Register of Archives. Users can search or browse by the subject or content of the articles.

As redirection from a Web 2.0 site to a Web 1.0 finding aid is a common practice among archival institutions for providing fuller contextual descriptions, it was also necessary to identify whether the contextual information was presented through primary or secondary means. Primary presentation will be defined as information that is immediately available to the user on the Web 2.0 case study page. Secondary presentation will be defined as information that requires the user to perform an additional action, such as clicking on a link, in order to be viewed.

### 4. Stage One: Results

#### 4.1 Presentation of Context

A review of the Web 1.0 sites and their Web 2.0 equivalents revealed a number of things about the presentation of context. In general, the mandate of each site determined the extent and nature of

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26 Ibid.
Mapping Our Anzacs, for example, placed the soldier as the focus of the description rather than the archival record presented on the site. As a result, the user contributed content is heavily biographical in nature. Regardless of the mandate of the site, there were some general commonalities in descriptive practice. None of the sites, either Web 1.0 or Web 2.0, provided significant amounts of contextual information through primary access. Within online catalogues this is likely due to the hierarchical descriptive practice within most archival traditions. As a result, much of the contextual information is not located at the record or item level, but instead can be found at the series or higher levels of description. In each Web 2.0 site archivists provide a hyperlink back to the item level of description in the online catalogue. By these means any user has access to fuller contextual descriptions should they be prepared to follow the required number of hyperlinks. The most common fields of description completed at the primary level, regardless of Web 1.0 and Web 2.0 environments, were control number (all sites save one – Mapping our Anzacs), date of creation (all sites), and creator name (excluding the two NAA sites). When this seemingly basic information is lacking, it may be due to descriptive tradition and the more biographical focus of the Web 2.0 site. The least common fields of description completed at the primary level were information pertaining to record control, specifically custodial information, such as transfer agents and dates. This may be due to archival descriptive tradition and the fact that the information is made available at a higher level. Specifics of reproduction, which one would expect to be described at the item level, were also excluded on most subject sites.

4.1.2 Creator Documentation
On most sites contextual documentation concerning records creators and creating agencies was limited to the name of the record’s creator. All the sites, with the exclusion of the two National Archives of Australia sites, provided primary access to the name of the body responsible for the creation of the subject record. For the most part, primary access was not provided to additional information concerning the creator’s function, mandate, personal history, or administrative or family structure. Only the Your Archives wiki provided personal background documentation concerning Ann Pratt, the author of the subject record.

4.1.3 Relationship Documentation
Only one online catalogue, that of the National Archives, provided primary access to information about associated records and this information was very limited in its scope, consisting of an arrangement structure with hyperlinks to the higher levels of description. The pamphlet by Ann Pratt is also mentioned at the item level in association with the government’s response document, Official Documents on the Case of Ann Pratt, the Reputed Authoress of a Certain Pamphlet… The Library and Archives of Canada’s online catalogue provided secondary access to documentation concerning associated records in a variety of ways, depicting a multiplicity of relevant contexts. The photographer’s name is hyperlinked, providing the user with the ability of associating the subject photograph with others taken by the same creator. The ‘show arrangement structure’ link also allows users to associate the item with other records within the same fonds and series. A notation regarding the subject photograph’s inclusion in an exhibition entitled, “Aboriginal Portraits,” under the additional information field, not only provides users with the record’s context of re-use but also documents new associations and relationships that have come about during LAC’s custody of the record.
Documentation surrounding the context of association was more prominent on the Web 2.0 sites than in the online catalogues. All three Web 2.0 sites attempted to situate the subject record within a wider scope of related records. This context of association, however, did not always mirror the associations provided by the online catalogue. The Mapping Our Anzacs site states that by mapping geographically and browsing maps rather than by searching, “you can see relationships between records, rather than seeing each one in isolation.” While the Web 2.0 site links the records spatially, the NAA online catalogue links and associates records according to the office of creation, use and transfer. Similarly, LAC has situated its subject photograph within a folder entitled “Pride and Dignity.” In both instances the Archives has, arguably, situated the record within an artificially constructed context that does not necessarily mirror the record’s original context of association. It may, however, reflect the record’s more modern context of use.

4.1.4 Control Documentation

Documentation concerning records control and custody both in online catalogues and in Web 2.0 was incomplete. All sites provided primary access to the record’s control number, but only The National Archives’ online catalogue provided primary access to additional control information. Evidence of the arrangement of the pamphlet within the larger record series is illustrated at the item level, though an explanation of the arrangement of this record and its associated series is only available at the higher levels of description through secondary access.

The majority of control documentation, such as evidence of arrangement, transfer agent and transfer date, is available at higher levels of description. In most cases this information is available to users of the online catalogues through secondary access via hyperlinking to the series or collection/fonds level descriptions. Access to this same control documentation is also available to users of the Web 2.0 sites via hyperlinks to the online catalogue, but the contextual information is that much more removed from the user, requiring multiple navigation actions on the part of the researcher.

4.1.5 Records Documentation

Records documentation, such as the date of creation, specifics of reproduction and record re-use, are not prevalent within either the online catalogues or the Web 2.0 sites. The date of creation was the only contextual information to be provided on all sites, with the exception of Mapping Our Anzacs. There is some discrepancy regarding the date of the photograph, Dog Child, a North West Mounted Police scout and his wife, The Only Handsome Woman, members of the Blackfoot Nation, between the LAC online catalogue and the Flickr site. While the LAC catalogue lists the date of creation as ca. 1890, the Flickr site gives a more specific date of 1890. This may be the result of a conscious decision by LAC to simplify information for Web 2.0 users. An examination of other photographs within the same folder suggests that LAC is deliberately omitting the word “circa” from its Web 2.0 descriptions. Another photograph in the same folder, Innu (Montagnais) woman, probably taken at North West River, Labrador,
ca. 1930, has also had the “circa” removed from the date of creation field in Flickr, though the date in the
online catalogue includes the word. 30 Regardless of the motivations behind the date change, the
discrepancy provides two potentially different contexts of creation for the same record. If, in fact, the
context was amended to simplify information for Web 2.0 users, it raises a number of concerns about the
impact, and appropriateness of the simplification of context for Web 2.0 users.

It could be expected that since digital reproductions of the subject record are available on each of
the Web 2.0 sites, some contextual information regarding reproduction and re-use would be more
prominent on these sites. This does not appear to be the case, however, as none of these sites provide
primary access to this information. Two of the three sites, Flickr and the Your Archives wiki, do provide
varying degrees of contextual reproduction and re-use information at the secondary level. Your Archives
contains two digital reproductions, one of the subject record and one of an associated record, each of
which includes a file history field, available by clicking on the digital image. The file history records
image specifics such as preview and full resolution size, file size and MIME type. It also indicates when
the file was uploaded to the site, its dimensions and the creator or source of the reproduction. A note on
the re-use of the LAC photo appears on the home page for the Pride and Dignity exhibit on Flickr.

Only LAC provides information about the re-use of its photo in its online catalogue. This
documentation is available under the ‘additional information’ heading of the item description. Under this
heading the photograph’s inclusion in an exhibition entitled, “Aboriginal Portraits” is mentioned.

4.1.6 User Contributed Content

Due to the diversity of sites chosen for this study, the nature of the user contributed content varied
considerably between the sites. The wiki provided the contextually richest user contributed content, with
users responsible for supplying the entirety of the record description. The mash-up and photo-sharing
sites provided details specific to the subject and mandate of the site but did not necessarily add greatly to
the context of the record.

The mash-up provided photos and biographical information which contributed to an understanding
of the soldier about whom the record was written. While this biographical information is both interesting
and important, it adds little to the context of the service record displayed on the page as the soldier was
not responsible for the record’s creation and later use. It can be argued however that the biographical
information has some contextual utility as it further authenticates the validity of the record.

Comments left by users on LAC’s Flickr page featuring the photograph of Dog Child also have
limited contextual utility. The majority of the comments centre on the origins or type of sword that Dog
Child is holding and how he came to acquire it. Similar to the mash-up, the additional information may
be useful to further validate or invalidate the authenticity of the image, but it is not particularly
contextually rich. It is notable that Flickr users also put forward theories as to how Dog Child acquired
the sword. The users do not question the truth of the image before them, or that the image was, in any
way, staged with props according to the photographer’s aesthetic. Instead they make guesses as to how
Dog Child could have acquired such an item. These guesses, which do not appear to be based upon any

30 Compare Library and Archives Canada, "Innu (Montagnais) Woman, Probably Taken at North West River,
Labrador, Ca. 1930 / Femme Innu (Montagnais), Probablement Photographiée À North West River (Territoires Du
with Library and Archives Canada, "Innu (Montagnais) Woman, Probably Taken at North West River,"
46.
research, not only threaten to recreate a biographical history for Dog Child, but they also highlight users’ unquestioning belief in the truth of the record presented to them.

4.2 Discussion

The results of the examination and comparison of the Web 1.0 and Web 2.0 sites suggests a number of trends regarding the presentation of context. First, archivists rely heavily on hyperlinks to furnish users with contextual information. Hyperlinking is used in both online finding aids and Web 2.0, though for arguably different purposes. Hyperlinking in Web 1.0 is used to provide access to higher levels of contextual description in order to facilitate a more complete contextual understanding and to eliminate the need for duplication of information between levels. By contrast, the practice of hyperlinking back to the online catalogue from Web 2.0 appears to be practised as a means of eliminating the need to provide anything more than a bare-bones description within Web 2.0. The expectation and reliance by archivists on users to seek additional contextual information through hyperlinking may not be justified, however. The Smithsonian’s experience using Flickr suggests that there is little redirection by users from the Web 2.0 site to the archives’ online catalogue.\footnote{Martin Kalfatovic et al., "Smithsonian Team Flickr: A Library, Archives, and Museums Collaboration in Web 2.0 Space," 272-273.}

A second trend in the presentation of context is the difference in the contextual mandate between online finding aids in Web 1.0 and Web 2.0. In one study, Yakel observed that in different environments “archival information and records are uncontextualized, or at the very least differently contextualized.”\footnote{Elizabeth Yakel, "Impact of Internet-Based Discovery Tools on Use and Users of Archives" (paper presented at the XXXVI Roundtable on Archives (CITRA) Meeting, France, 2002), 195.} While her study noted the differences in descriptive practice between online and analogue finding aids, it is fair to suggest that a further difference exists between Web 2.0 descriptions and that of online finding aids.

Online finding aids in Web 1.0 are more likely to focus on information associated with traditional ideas of context, such as the context of record creation, while Web 2.0 sites appear to be less concerned about the origins of the record and more focused on generating and presenting newer meanings. By grouping records geographically, in the case of the Mapping Our Anzacs site, or by subject, in the case of the Flickr site, the Archives are visually presenting a context, based not upon the origins of creation, but instead upon a consciously-curated mandate. While the context of creation remains accessible through hyperlinks, it is the newly-created context which is given the pride of place and predominance.

The relationship between context and trust was also highlighted through this site examination. It appears that users believe in the truth of what they see regardless of the amount of context provided by the archives. This suggests that while contextual information can be used to provide authenticity to a record, it is not necessarily a requirement for Web 2.0 users. Perhaps Web 2.0 users value archival records merely for their aesthetics and care little about their wider context. Schwartz notes that,

traditional item-level description of photographs, indexed by subject and credited to the photographer, but without adequate contextual information about their functional origins and provenance, or clear links to such contextual information, transforms photographic archives into stock photo libraries, reducing photographs to their visible elements and conflating photographic content and photographic meaning.\footnote{Joan Schwartz, "Coming to Terms with Photographs: Descriptive Standards, Linguistic 'Othering', and the Margins of Archivy," Archivaria 54 (2002), 157.}
Alternatively, users may unquestioningly believe in the accuracy of the archival record simply because it was made available to them by a trusted archival repository. Yakel’s research suggests that for researchers, “the presence and placement of the finding aid in the archives is an implicit sign of authority.”

A final trend noted through this examination was the possible simplification of context on the Web 2.0 sites. This can be seen in the comparatively smaller descriptions provided on these sites as well as the removal of the word ‘circa’ from photograph dates on Flickr. While it is unclear why LAC chose to remove this word, its practice of doing so raises many questions. Is the online catalogue considered the only authoritative source of information and therefore all other arenas of access are not required to be accurate as long as they point back to the authority record in the online catalogue? If, in fact, the word ‘circa’ was removed as a simplification for Web 2.0 users, why is the word considered appropriate for the online catalogue? Without understanding the mandate of LAC’s Flickr presence it is difficult to answer these questions. This practice does suggest, however, that not only do the Web 1.0 and 2.0 sites have different mandates, but it is expected that they will have different audiences, each of which requires a different type and quantity of contextual information. Duff and Harris state, “what we choose to stress and what we choose to ignore is always and unavoidably subjective, and the value judgements that archivists made affect in turn how our researchers find, perceive and use records.” The conscious decision to simplify, alter, or omit contextual information will affect users’ understanding of archival records.

5. Stage Two: Research Design and Results

The second part of the research consisted of a quantitative analysis evaluating attitudes of archivists and patrons of archival services towards the contextual information presented on the case study sites. The target population consisted of professional archivists and users accessed from listservs and discussion lists in North America and Australia. A usable sample of 71 respondents comprising 40 Archivists (n1 = 40) and 31 users (n2 = 31) was constructed using snowball sampling. Data collection was carried out through the use of an online survey tool created through the Qualtrics online survey service. Each question had a link to the specific website to be evaluated. Questions were closed-ended and employed an ordinal scale (coded Strongly Disagree = 1; Strongly Agree = 5) to measure attitude. Question order was also randomized. Demographic questions were used to identify different user groups within the samples. The largest age cohort by percentage was 40-49 with a greater proportion of respondents in the younger age ranges (20-29, 30-39 and 40-49) as opposed to the older ranges. The most common level of education among respondents was a Masters Degree with a greater proportion of respondents possessing higher university degrees at the Masters and Doctorate levels. Variance within the samples was based upon familiarity with archival records and retrieval tools, and the type of archival research generally conducted. The two most predominant categories of research conducted by users were academic and genealogical. The mode for use of archival facilities was 1-5 times in the past year with the predominant preferred method of accessing archival records being through a combination of both online and in-person visits.

Stage Two of the research tested the following hypotheses:

H1: Attitudes to the reliability of contextual metadata are related to the host page type (Web 1.0 or Web 2.0).

H2: Attitudes to the reliability of contextual metadata appearing on Web 1.0 and Web 2.0 pages are related to whether a person is an archivist or user.

H2.1: Attitudes of archivists to the reliability of contextual metadata appearing on Web 2.0 sites differs from that of users.

H3: Attitudes to the use and reliability of comments and tags to understand contextual metadata appearing on Web 2.0 pages are related to whether a person is an Archivist or user.

Survey participants were asked to respond to four statements regarding the reliability of the contextual data on the case study sites.

S1. The information on this page about the record’s creator is reliable.
S2. The information on this page about when the record was created is reliable.
S3. The information on this page documenting how and why the record was created is reliable.
S4. I think the content supplied by users on this page is reliable.

For each statement, respondent data for each of the six case study sites was imported to SPSS with additional data describing the nature of the sites (Web 1.0 or Web 2.0) and the respondent type (archivists or users). The Wilks Shapiro statistic and a normality plot showed all data to be abnormally distributed.

5.1 Data Screening and Analysis: H1

Overall respondents considered information about context reliable across Web 1.0 and Web 2.0 sites. The skew is much less pronounced for Web 2.0 across each of the statements, indicating that respondents are less positive about the reliability of contextual information describing the record’s creator, when the record was created and how and why the record was created. This finding is most notable in the context of S3.

For each of the first three statements, the data was further explored using cross tabulation and a Mann-Whitney U Independent Samples test. Across S1, S2 and S3, the cross tabulation showed that both archivists and users regard Web 1.0 as more reliable than Web 2.0. Statistically significant differences at the 95% (α=0.05) confidence level were demonstrated with statements S1 (p=.000), S2 (p=.000), and S3 (p=.031). These differences were significant enough to reject the H1 null hypothesis in relation to statements S1, S2 and S3.

5.2 Data Screening and Analysis: H2

Further testing was conducted to see if significant difference existed in attitude between archivists and users. Generally, respondents considered the information presented to be reliable. The skew is significantly less pronounced among both archivists and users for S3, suggesting that both groups were less positive about the reliability of information concerning how and why the record was created. Additionally, a markedly higher skew amongst archivists’ in response to S2 indicates that they were more positive than users about the reliability of information about when the record was created.
For each of the first three statements, the data was explored using cross tabulation and a Mann-Whitney U Independent Samples test. Statistically significant differences at the 95% ($\alpha=0.05$) confidence level were demonstrated with statement S2 ($\rho=0.028$) resulting in a rejection of the $H_2$ null hypothesis for this statement. The low $\rho$-value of S1 ($\rho=0.069$), while not statistically significant, suggests that further study, employing a larger sample size, may be indicative of an attitudinal difference between groups. Overall, users are less positive towards the reliability of contextual information, particularly information pertaining to who and when the record was created (S1 and S2 respectively) than are archivists. There is no marked difference in attitude between archivists and users towards the reliability of contextual information pertaining to how and why the record was created (S3).

Additional Mann-Whitney tests were conducted on all three statements to test $H_{2.1}$. Statistically significant differences at the 95% ($\alpha=0.05$) confidence level were not demonstrated with any of the statements. Therefore $H_{2.1}$ is rejected for all three statements. The $\rho$-value for S1 ($\rho=0.055$) and S2 ($\rho=0.061$) do suggest the possibility that there may be a difference in attitude between archivist and users to the reliability of contextual information pertaining to the record’s creator and when the record was created on Web 2.0 sites. A larger sample size is necessary to evaluate this possibility further.

5.3 Data Screening and Analysis: $H_3$

Additional testing was carried out to determine if significant difference existed in attitude between archivists and users to the reliability of user contributed content. The data displays a negative skew, indicating agreement among both archivists and users that comments and tags are reliable. The more pronounced negative skew and higher mode among users suggests that they are more positive about the reliability of comments and tags than are archivists.

The cross tabulation shows that the majority of both archivists and users neither agree nor disagree that comments and tags are reliable. Few respondents display strong agreement with the statement and both groups have some variation in attitude among respondents regarding the reliability of comments and tags. Statistically significant differences at the 95% ($\alpha=0.05$) confidence level were not demonstrated with statement S4 ($\rho=0.728$) resulting in a retention of the $H_3$ null hypothesis. The low $\rho$-value of S1 ($\rho=0.069$), while not statistically significant, suggests that further study, employing a larger sample size, may be indicative of an attitudinal difference between groups. Overall, users are less positive towards the reliability of contextual information, particularly information pertaining to who and when the record was created (S1 and S2 respectively) than are archivists. There is no marked difference in attitude between archivists and users towards the reliability of contextual information pertaining to how and why the record was created.

5.4 Discussion

Statistical testing reveals that both archivists and users are inclined to find the information on a Web 1.0 site to be more reliable than information found on a comparable Web 2.0 site. In addition, there is evidence to suggest a difference in attitude to the reliability of contextual information between archivists and users. Specifically, archivists are more likely to find contextual information about the record’s creator and when the record was created to be reliable than users. While no statistically significant differences were noted between the attitudes of archivists and users to the reliability of contextual information on Web 2.0 sites, the results of statistical testing do suggest the possibility that a difference in
attitude may exist. Further testing, employing a larger sample size, is required to determine the extent of attitudinal differences between archivists and users and whether this difference is equally present amongst Web 1.0 and Web 2.0 sites.

Statistical testing also reveals that both archivist and user groups are not strongly disposed to agree or disagree that comments and tags are reliable. There was some variation of response between both groups of respondents indicating that there is little consensus of opinion regarding the use of comments and tags as contextual information.

Overall, the perceived reliability of contextual information is significantly different between Web 1.0 and Web 2.0. This may be due, in part, to users’ reluctance to trust user contributed content and sites which contain this type of information. Flanagin and Metzger have noted that perceived low-expertise sources are considered less credible and therefore less trustworthy.

The lack of author identification makes it difficult to determine whether information is biased, since users cannot know the motives for information provision, and the lack of cues about the expertise of contributors similarly inhibits users’ capacity to determine the accuracy of information provided.36

The inherent lack of credibility of user contributed content, irrespective of the content on the specific survey case study sites, was also suggested by the survey results, which indicated that the Your Archives wiki was not considered reliable, despite the fact that its content was written predominantly by a National Archives archivist. Survey respondents, both archivists and users, were neutral towards the reliability of user contributed content as contextual information and this suggests the possibility that archivists do not consider contextual information on Web 2.0 to be as authoritative as information in the Web 1.0 finding aid. These results, particularly among archivists, are surprising given the scholarly recognition of the potential of user contributed content to broaden and enhance record descriptions.

6. Conclusion

A review of relevant literature has indicated that authors have written extensively on the fact that context is integral to the evaluation of archival records for authenticity and the establishment of user trust. Context has been recognized as incorporating not only the original provenance of creation but also subsequent interactions and use by both users and archivists.37 In a digital environment, context becomes particularly important as researchers must evaluate a copy of the original record, often in isolation from contextual clues such as physical associations between records and documentation of digital reproduction. The mandate and structure of Web 2.0 adds a further level of complexity to the nature and evaluation of

36 Flanagin and Metzger, "From Encyclopaedia Britannica to Wikipedia ," 258.
contextual information. While the opportunity exists for user contributed content to enhance context by permitting multiple voices and interpretations of the record to be recognized, Web 2.0 is largely unmediated, allowing both accurate and inaccurate information to exist side by side, thus blurring, rather than enhancing, contextual information.

The intent of this study was to examine the differences in the presentation of context between Web 1.0 and Web 2.0 sites and measure differences in attitude towards the reliability of this information among archivists and users. Though only a preliminary study, the study found variation in the way in which institutions described context online and significant differences in attitude towards the presentation of context on Web 1.0 and Web 2.0.

It is clear, both from the site analysis and attitudinal survey, that the presentation of context, and attitudes towards the reliability of this information, are significantly different between Web 1.0 and Web 2.0. Despite the opportunities that Web 2.0 provides for broader, richer, contextual information, archivists do not appear to place much stock in the reliability of this information. Perhaps it is this distrust of user contributed content among archivists that has resulted in Web 2.0 sites serving a different mandate than their Web 1.0 counterparts, with Web 2.0 sites functioning less as sources of contextual information and more as outreach and awareness tools – places where select archival collections can be highlighted and new contexts and associations created. Through the creation of artificial contexts or displacement of original contexts, archivists are changing the contextual framework within which records will be evaluated. The resulting lack of contextual clues and the online search tools and item-level tagging and description threaten to present archival records in isolation without both physical and intellectual clues as to their history and reason for inclusion online, weakening the perceived reliability of the contextual information presented and ultimately undermining the authenticity and integrity of the archival records.