Capturing commemoration: the 1916 Easter Rising web archive project

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ABSTRACT
This paper outlines a collaborative project between three UK Legal Deposit Libraries, the Library of Trinity College Dublin, University of Dublin, the Bodleian Libraries, University of Oxford, and the British Library, to create a web archive collection of material relating to the one hundredth anniversary of the 1916 Easter Rising. From a curatorial perspective, it discusses the potential of themed web archive collections for researching commemorative events, outlines the evolving understanding of archival material, reviews the project, and explores the technical, legal, and methodological problems and opportunities that emerged as the project progressed. It highlights the challenges that arose from collaborating across multiple jurisdictions with differing arrangements surrounding non-print legal deposit, and the impact of institutional and legislative frameworks on collection building.

The 1916 Easter Rising Web Archive was a collaborative project in 2015/2016 between the Library of Trinity College Dublin, University of Dublin, the Bodleian Libraries, University of Oxford, and the British Library. The project aimed to identify, collect, and preserve online resources that can contribute to an understanding of the causes, course, consequences, and commemoration of the 1916 Easter Rising, and help to enable critical reflection on the Easter Rising and the diverse ways it was commemorated and engaged with in its centenary year in 2016. The context for the project was the UK legal deposit environment in which the six Legal Deposit Libraries\textsuperscript{1} (LDL's) work together to help preserve the UK’s knowledge and memory. In 2013, the legal deposit remit was extended from printed material to include non-print, electronically published material, which means that the LDL’s may now capture and archive any freely available websites that are published or hosted in the UK. This happens in the Legal Deposit UK Web Archive, with the British Library providing the technical and curatorial infrastructure, and all LDL’s contributing at both the strategic and planning level, and through curating themed collections.

While in the first instance the project was designed to produce a web archive collection, resulting in a corpus of 300+ seeds, it was also a test case for effective collaboration.
between two university libraries amongst the UK Legal Deposit Libraries to enable the
curation of evolving types of collections, and helped to explore how themed web archive
collections can be used to promote the value and potential of web archives to a wider
audience. This paper will outline the potential of curated web archive collections for
researching commemorative events, review the project, and explore the problems and
opportunities that emerged as the project progressed. In particular, it will highlight
the challenges that arose from working across multiple jurisdictions, as well as the
implications of different legislative frameworks for archive curation, and ultimately, for the
content and structure of web archive collections.

Context

Our understanding of what constitutes source material must now include material pro-
duced on a range of new media platforms, which requires a renewed appreciation of the
role that digital content will play in current and future efforts to produce scholarly work
on a range of contemporary issues. The importance of projects and initiatives aimed at
collecting digital artefacts lies in the broadening of the archival base by preserving a wider
range of materials. Researchers will rely upon these materials in analysing events such as
the 2016 Easter Rising commemorations, and by extension, these will have significant
implications upon the production of historical knowledge. As Winters (2017, p. 173) has
noted, “after little more than a quarter of a century, the web already constitutes an
unprecedentedly rich primary source, combining information from personal blogs, to for-
mal reportage, to the communications of local and national government.” The preserva-
tion, availability, and accessibility of the evidentiary base that web archives represent are
a necessary prerequisite for the emergence of disciplinary formations that can utilise
them to formulate new research paradigms and to reimagine traditional ones. The con-
ception of archival material is in constant evolution and has been the subject of much
revaluation. What may once have been considered ephemeral with little historical value
and of limited importance in archival collection policies may now be vital source material
for research, and this has involved broadening conceptions of texts to incorporate a wider
variety of objects and materials (Manoff, 2006, p. 312). The understanding of the archive
itself has also been problematised and explored as both an active producer of meaning
and as an instrument of power. Derrida (1996, p. 17) argued that technology is an active
agent in the creation of knowledge and the archive “produces as much as it records the
event.” Foucault (1972, p. 129) argued that archives actively structure the historical record
as “the archive is first the law of what can be said” and through the preservation and cata-
loguing of records, archives ensure that material is “grouped together in distinct figures,
composed together in accordance with multiple relations, maintained or blurred in ac-
cordance with specific regularities.” It is clear that new forms of communication enable
new forms of knowledge transfer and “require different practices of knowledge making”
(Manoff, 2006, p. 323), as new forms alter the knowledge that is produced. Manoff (2004,
p. 12) has noted that,

the methods for transmitting information shape the nature of the knowledge that can be pro-
duced. Library and archival technology determine what can be archived and therefore what
can be studied...if the archive cannot or does not accommodate a particular kind of informa-
tion or mode of scholarship, then it is effectively excluded from the historical record.
Web Archives produce a new type of primary source material, creating new types of archival records and new types of archival representations of events, developments and movements, and as such, they will be a rich resource in attempting to understand these events, developments and movements: “[...] The internet is the site of vibrant commemorative efforts that researchers must engage to understand contemporary historical memory” (Bernstein, 2016, p. 424). Indeed, scholars from a multitude of disciplines are already consulting online sources to research aspects of personal and public memory, the memorialisation and commemoration of events, groups and individuals, and the construction of historical narratives. Some earlier studies on web-based memory and memorialisation focused on the numerous memorial and commemoration websites that were created in the aftermath of the terrorist attacks in the United States on September 11, 2001 (Foot, Warnick, & Schneider, 2005; Haskins, 2007). In more recent examples, Heimo (2014) has examined the commemoration and representation of the 1918 Finnish Civil War on the internet from a Folklore Studies perspective, while Brand (2016) has investigated the aesthetic and narrative strategies of interactive websites commemorating aspects of the Algerian War in 1961 from the viewpoint of a French literary scholar. Nguyen (2015) looked at how the war dead in Vietnam are mourned and remembered on the internet, while Knudsen and Stage (2012) and Danilova (2014), from a media studies and political science perspective, respectively, analysed the virtual commemoration of Danish and British soldiers fallen in Iraq and Afghanistan. Interestingly, all these studies are based on live online material, and few of the researchers reflect on the ephemeral nature of their sources. To be able to, in the future, reproduce this kind of research, or add a historical perspective, the source material needs to be preserved in web archives.

But apart from preserving internet content, web archives are also snapshots of the state of “the Internet” itself, providing indicators of how the Web as a communication medium and social sphere changes over time, and ultimately, how changes in online communication and interaction impact on social and cultural practices, traditions and beliefs. By producing new types of archival material – or even being a new type of archive itself – the internet changes the way public memory is constructed, and via its Web 2.0 incarnation in particular, in the eyes of many it is bound to produce a more interactive, inclusive, diverse, and more democratic commemoration culture. Others argue that online memory and commemoration structures mostly reflect or actually reinforce the characteristics of their offline counterparts, with, at closer analysis, similar themes, protagonists and audiences, equivalent limitations of expression, and the perpetuation of dominant narratives (Foot et al., 2005; Marshall, 2013; Todman, 2010). Apart from these considerations of power and participation, the internet as a medium is evidently changing public and personal commemoration and memorialisation practice, as well as the notion of what constitutes adequate remembrance of political, military and social events and the groups and individuals involved. Digital monuments and commemoration websites, for example, are now recognised as meaningful memorials, with their interactive “changing and living” characteristics even making them more effective in their functions for the communities concerned, than some traditional memorials and ceremonies (Faro, 2015, p. 173ff). Higgins (2013), in her analysis of the construction of public memory and historical meaning during the fiftieth anniversary of the Easter Rising, highlighted the impact of the availability of television and live broadcasting in 1966, and the role the then new medium played in transporting parts
of the commemorative experience into the virtual sphere, as no less than “reframing the story of the Easter Rising for a new generation” (Higgins, 2013, p. 17). Similarly, the internet as the dominant medium in the hundredth anniversary commemorations of the Easter Rising will produce an impact on how the centenary is experienced and remembered.

However, using archived web resources as primary sources introduces many theoretical and methodological challenges, especially for those coming from traditional humanities perspectives (see Brügger, 2012; Brügger & Finnemann, 2013). One challenge is that with web archives, more than in traditional paper archives – and even other types of digital collections – the archiving process, with all of its sub-processes from identifying, capturing and describing to preserving and making available the “records”, impacts on what constitutes “the archive” (see Brügger, 2012, pp. 756–761). Consequently, researchers aiming to use web archives not only need to master the concepts, methodologies and tools necessary to utilise this type of material, they also need awareness of how the material was collected, and which factors, from curatorial and methodological decisions, to organisational, technical and legal particularities, determined the scope, structure, content and accessibility of a web archive.

Likewise, archivists and curators need to develop new theories and methods for the digital age (Ketelaar, 2007). Many types of web materials challenge fundamental concepts of archival theory: Can a Tweet, a Facebook comment, an online game, a stylesheet… constitute a “document” or a “record”? Where is the “provenance” in shared, embedded or reused material? What does “authenticity” mean in an environment shaped by dynamic content, hyperlinks and algorithms? While traditional archives are usually structured along organisational and intellectual hierarchies, questions arise as to how complex and decidedly “un-hierarchical” web materials can be arranged and described. In order to meet the practical challenge of creating a meaningful archival image of the Web, archivists need to establish effective policies and processes and sustainable organisational and technical infrastructures. There has been criticism that “the internet is not being archived very well” (Thomas, 2017, p. 168) and that current web archiving efforts by various institutions worldwide are uncoordinated and unregulated, creating fragmented collections and unnecessary duplication at the same time. As resources are scarce and methods and standards still being developed, closer collaboration through pooling of resources and expertise seems to be the answer. This includes collaboration between archives and libraries across institutional frameworks and borders, but also a closer cooperation with technical experts, researchers and potential web archive users across disciplines.

While these are all important areas for consideration in the creation and utilisation of web archives, this paper focuses on the curatorial aspects of producing a web archive and the practical, legal, and technical issues that emerged, which exerted a considerable impact upon its scope and content. First, we will outline some of the material preserved as part of this project and highlight the diverse content produced throughout the 1916 Easter Rising centenary.

**Collection strategy, scope, and content**

As many of the 2016 reflections and debates about the legacy of the Easter Rising took place on the internet, commemorative websites, online news, blogs and social media content will be invaluable primary resources of the future for those attempting to analyse
how people interpreted and engaged with the Easter Rising in its centenary year. We aimed to reflect the variety of ways that the Irish and British states, cultural and educational institutions, as well as communities and individuals, approached the centenary events, by including a wide range of material such as official commemorative websites, the websites of museums, archives, heritage, cultural and education institutions, traditional and alternative news media websites, along with community websites, blogs, social media and even online shops.

The Bodleian Libraries primarily collected UK websites under the provisions of UK electronic legal deposit legislation, while The Library of Trinity College Dublin focused on websites in the .ie domain. Since no legislation exists in the Republic of Ireland to ensure that the .ie domain is preserved, websites within the .ie domain were collected on a voluntary basis, that is, with the express formal permission of the website owners. In addition, websites from overseas, notably from the USA, were selected to reflect areas where the Irish diaspora has a strong presence; again, these websites were collected on a permissions basis. The scope of the collection included both websites specifically concerned with the Easter Rising, and websites containing significant material on the topic. Also included were a number of individual online news items with the relevant comment section, as well as pages relating to lectures, concerts and other events.

Websites identified for inclusion in the collection were curated and annotated utilising the British Library’s web archive annotation and curation tool, W3ACT. The tool allows curators to enter the URLs of websites to be included in a collection, add descriptive metadata (e.g. Title, Subject, Author(s)), provide information about the selection process (e.g. curator), and set a crawl policy and schedule (e.g. scope and depth of crawl, crawl frequency, start and end date) for each seed. W3ACT also provides functions to initiate and administer the permission process, and to monitor crawl results for quality assurance purposes. The resulting web archive collection, which was started in July 2015 and ended in December 2016, contains 318 seeds, i.e. websites or sub-sections of these. Of these 318 websites, 112 (35%) were selected by the Library of Trinity College Dublin, 190 (60%) by the Bodleian Library, and 16 (5%) by curators at the British Library. 118 (37%) of the websites were from the .ie domain, 172 (54%) were from the .uk domain, and 28 (9%) were associated with other areas, predominantly the USA. For all websites outside the UK (146), formal permission was sought from the website owners, resulting in 61 licenses to archive, and make the archived copies publicly available. This means an overall permissions rate of 42% (with the rate for websites in the .ie domain being even higher, 51%), exceeding the average response rates (18%–30%) usually experienced by both the National Library of Ireland and the British Library.

A description of a sample of websites selected and captured will provide an indication of the scope of the collection, the variety of material included, and the potential of web archive resources for learning, teaching, and research. Traditional newspapers have for some time shared news through multiple platforms, with printed newspaper articles being reproduced online. Web archiving not only collects the digital equivalents of traditional paper archive resources, but also preserves the added functions that online platforms provide, such as the opportunity to directly comment and debate, thus revealing further information about how content is viewed and shared. Increasingly, news media is being created solely in a digital environment with news portals offering alternative sources of information and, again, providing a forum for discussions and indicators of how this...
material is engaged with. Some of these portals have moved from collecting and sharing to featuring interactive elements, such as an online poll conducted by "TheJournal.ie", an Irish online news website, asking readers if they would be attending an Easter Rising centenary event which garnered over 12,000 responses, or linking to photo and video sharing websites such a Lego stop-motion film created by a primary school in County Cork as an example of how children in Ireland engaged with the centenary through school projects. On the whole, the links between online news resources and social media have become increasingly bidirectional: social media feature links to news items, while news items themselves show a tendency to rely on social media content for information and opinion.

The range of websites included in the web archive also reflects the varied ways in which the Irish and British states, cultural and educational institutions, as well as communities and individuals, approached the centenary events. We have preserved some of the Irish state's efforts to provide an inclusive programme of events and also reflections on the centenary events from key individuals such as the Irish Ambassador to Great Britain and the President of Ireland. A range of community sites were created for the centenary which reflected the diverse approaches that have been adopted to reflect on the Easter Rising. These new media platforms, such as blogs, reflect how people engage with historical events in a time of major transformations in communications.

Within Ireland community projects such as the “1916 Sackville Street Art Project” focused on the deaths of civilians during the Rising and featured imaginative artistic approaches to the centenary. There are also a range of activities reflecting on the Easter Rising through theatre and film and our web archiving project offered the opportunity for this diversity to be preserved and consequently to provide a broader picture of the undertakings that can complement official commemorative programmes. The numerous websites based on primary source material, produced by cultural institutions as well as amateur enthusiasts, illustrate how web archives are a new conception of what constitutes archival material requiring an awareness of the increasingly significant role played by digital technologies in historical research. The “Richmond Barracks” website focuses on discrete aspects of the Easter Rising such as the imprisonment of those arrested, as well as on aspects that had for a long time been neglected, such as the role of women in the Rising. Similarly, websites have been created by family members of those involved in the Rising and contain personal accounts and digitised images of primary documents. Blogs and social media also provided a medium and a space for groups and individuals to engage with traditional archive resources in imaginative new ways. An example is the “1916 Live” project, which turned hundreds of 1916 Dublin Police Telephone Reports as archived in the papers of Sir Matthew Nathan, held at the Bodleian Library, into a series of live tweets, vividly recalling the events of the Easter Week 2016 “as they happened”, by the minute, 100 years after the reports were hastily scribbled down. The Easter Rising web archive collection has preserved a number of major digital initiatives such as the “Century Ireland” project. This is funded by the Irish Department of the Arts, Heritage and the Gaeltacht and hosted by RTÉ, the Republic of Ireland's national broadcaster, and is an online historical newspaper that tells the story of the events of Irish life a century ago. Also included in the archive is an Irish Research Council funded project to record and analyse historical graffiti from Kilmainham Gaol in Dublin where many of the leaders of the 1916 Easter Rising were imprisoned.
The Library of Trinity College Dublin engaged in a number of initiatives as part of the programme of centenary events. Foremost amongst these was the “Changed Utterly: Ireland and the Easter Rising” blog, a series of weekly blog posts in the year leading up to the centenary based on their archival holdings. This site forms part of the web archive and will ensure that the material created will be digitally preserved. The blog contains contextual information as well as digitised copies of both documents and images from the Library’s collection. What has been produced is primary research born in a digital environment and existing in no other format and it is material such as this that is amongst the most vulnerable from a preservation perspective. The eventual value of material such as this will of course relate to their content but also how the material is preserved and curated. The blog and the web archive help enable Trinity College to maximise the opportunities offered by new digital platforms to extend the accessibility of collections and forms part of The Library of Trinity College Dublin’s wider strategy to accelerate access to digital content in order to catalyse new avenues of scholarship (The Library of Trinity College Dublin, 2015).

The internet has helped enable the production and widespread dissemination of multiple discourses. These include the traditional framers of national commemorative practices such as memory institutions like libraries, museums, archives, as well as political parties and a variety of state apparatuses. Their interpretative processes have always been an area of contestation and the internet has enabled the wider dissemination of dissonant voices who seek to challenge a variety of hegemonic interpretative practices that constitute official narratives. Physical objects have been the traditional materials that constitute archival collection policy and form the basis upon which narratives are formed and limits the narratives that can be constructed to material that has been preserved. Web archives can be a vehicle for further extending this narrative and aid in constructing multi-voiced narratives which can serve to diminish the undue influence of cultural or political elites. Online commemorative practices incorporate diverse producers, and Haskins (2007, p. 418) has argued that this can potentially “mitigate against the ideological ossification associated with official memory practices and the fragility of vernacular memorial gestures.” Ian Milligan (2016, p. 93) has noted that the internet provides access to “voices from a more diverse body of people, furthering the goals of social historians to write their histories from the bottom up, to move our stories away from the elites and dominant players of society to the everyday.” His conclusion is that “web archives are not going to have a slight impact on the practice of history: they are going to force a profound shift.” The user-generated content enabled by the internet has the potential to enrich – or even be at the centre of – researchers’ attempts to understand contemporary life and will be an indispensable tool in reflecting upon an extensive range of research questions. The internet’s ability to facilitate a multitude of competing agendas and provide a platform for a range of opinions may make more accessible those voices that have often been relegated to the margins of historical orthodoxy, at times due to a lack of appropriate source material.

Providing access

Technically, the websites archived in the Easter Rising collection are available via two different routes: while permission cleared material becomes available, under licence by the
website owner, in the publicly accessible – or open – UK Web Archive (https://www.webarchive.org.uk/ukwa/), .uk websites archived under UK legal deposit regulations can only be accessed on the premises of one of the six UK Legal Deposit Libraries, and through a dedicated secure interface. This means that in 2015/2016, when the Easter Rising archive was curated and publicised, there was no way to present a corpus including both UK (legal deposit) and non-UK (licence-based) content as one collection – users would have to access and search two different archives, via two different platforms, to find the resources in the Easter Rising Web Archive.

As a temporary solution to the problem, a bespoke website was created for the Easter Rising project as a gateway for integrating the two access routes. The website provided links to selected Easter Rising resources from both collection streams and gave an overview of the wider Easter Rising web archive project, as well as a brief introduction to web archiving initiatives and resources in the UK. The website was set up in January 2016 – at a time when the web archive collection was still under way. While this timing meant that we could only provide a “snapshot” of the project at a very early stage, it was crucial to link the web archive project with other Easter Rising commemoration initiatives and academic activities, and aided in publicising the web archive during the exhibitions and events taking place at Trinity College and the Bodleian Libraries during the main centenary period. Between mid-January and 30 May 2016, the 1916 Easter Rising Web Archive project pages were viewed more than 2800 times. At the time of writing, the UK Web Archive website is undergoing redevelopment to establish an integrated search interface for all UK Web Archive resources across the legal deposit/licence divide. A beta version is available at https://beta.webarchive.org.uk/en/ukwa/, with the Easter Rising Web Archive forming one of the themed Special Collections (https://beta.webarchive.org.uk/en/ukwa/collection/469).

The wider project

The web archive collection was just one part of wider projects at the Library of Trinity College Dublin and at the Bodleian Libraries to mark the centenary of the Easter Rising. At both locations, the web archive curators played a central role in the “analogue” activities, such as the curation of physical displays of both libraries’ archives and special collections holdings, and in events and public outreach. One of the outputs of the project were two exhibitions, held at the University of Dublin and at the University of Oxford, of both physical and digital material. “Changed Utterly: recording and reflecting on the Rising 1916–2016” was displayed at Trinity College Dublin from the 1 March to 30 April 2016 and “Easter Rising: Responses and Reflections 1916-2016” was displayed at the University of Oxford from the 1 February to 3 April 2016. The two exhibitions had a common approach: to trace methods of recording and reflecting on the Rising from the initial scramble to gather information and interpret the events as they happened in 1916, to the commemorative activity of 1966, through to our current project to capture and preserve the 1916 related websites produced in 2016. A central digital feature of both exhibitions was information about, and demonstrations of, the 1916 Easter Rising Web Archive. The digital aspect was the first attempt by both institutions to display a web archive aimed at the general public. Both libraries liaised with a variety of stakeholders to temporarily install a digital display, but for legal and technical reasons we were not able to provide “live”
access to the web archive collection. Instead, we presented a pre-recorded “guided tour” of the 1916 Easter Rising Web Archive page, with screenshots of sample websites in the collection. The presentation, run on a touchscreen computer, provided background information on the 1916 Easter Rising Web Archive project, and an introduction to the “why” and “how” of web archiving, along with an overview of web archive resources and initiatives in the UK and beyond. A postcard to pick up at the touch screen terminal not only provided a popular free souvenir of the exhibition visit, but also the web addresses of the project website and other web archive resources to take home.

The display and web archive were further promoted by two events at the Bodleian Library: The official launch of the 1916 Easter Rising Web Archive by the Irish Ambassador to Great Britain, His Excellency Dan Mulhall, at a public talk with more than 200 guests in February 2016, and an academic colloquium on Easter 1916 with nearly 100 participants, hosted at the Bodleian Library in collaboration with the University of Oxford History Faculty in March 2016. Both events featured presentations on the Easter Rising web archive project combined with a more general introduction to web archives. These presentations showcased web archives as an information resource for the general public and their potential for teaching, learning, and research.

**Challenges and opportunities**

Themed web archive collections will invariably be limited in size, at least when compared to the vast amount of resources automated crawls can generate. These will also be affected by bias, introduced through the manual selection and description process or through external factors like the legislative environment for web archiving. While the size and structure of curated collections may limit experienced web researchers aspiring to build their own corpora from large funds of “neutral” data, smaller selective collections like the 1916 Easter Rising Web Archive have the advantage of highlighting the potential of web archives to new audiences. Themed collections are more manageable and accessible for academics coming from a traditional research perspective, and have the potential to appeal to non-academic users, who are more likely to browse a curated selection of resources, than to engage in complicated searches or data analysis. With these varied audiences in mind, the integration of web archive initiatives into other activities or events can help in raising the profile of web archives amongst a broad range of users. In the case of the 1916 Easter Rising project, hundreds of visitors came to see an exhibition of the Bodleian’s or Trinity College’s archives and manuscripts, or to hear the Irish Ambassador speak about “Easter 1916: what happened, why and how did it change Ireland?” – and went away with increased awareness of web archives, and guides to more information.

From the inception of the project at the Legal Deposit Libraries’ Head Librarian’s annual conference in Dublin 2014, via collection planning and building through to exhibitions and events, it became evident that web archiving activities were aided by integration into the wider programme of public outreach activities and strategic development plans undertaken by academic libraries, and not least by the support of senior library management. Equally important was intra-institutional collaboration such as coordinating physical and digital display content (curatorial and exhibitions staff), liaising about digital infrastructure (IT and digital library departments) and organising outreach activities and events (communications and events teams). Working with partners in the wider institutions, such
as university history departments, and involving external partners like the Irish Embassy in Great Britain provided additional input and support. This collaborative approach within and across institutions was not only essential to delivering the Easter Rising project, but also created new expertise, provided valuable new contacts and laid the foundations for similar initiatives in the future.

The project demonstrated the challenges of managing a web archive project across multiple jurisdictions with differing legislative arrangements around non-print material. Web archiving is primarily carried out in Ireland on a permissions basis as a result of the lack of a legislative framework. The creation of a themed web archive collection requires multiple levels of manual input from both the curatorial and technical aspects. Identifying and selecting websites and manually adding descriptive metadata, carrying out quality assurance of crawl results, ingesting the data, and finally making web archive resources publicly available is a resource intensive undertaking – and initiating and administrating any permission or licensing process adds a very time consuming extra layer of complexity. This may include identifying individual website owners and their contact details to be able to send an initial permission request, answering questions by larger organisations who in principle agree with their website being archived but are themselves unsure who controls the copyright of their web content and can make decision to grant licences, or simply following up unanswered permission requests.

The initial responses to our requests were usually positive, but we have noted that, for some, the terms of the licence agreement were a deterring factor due to the restrictions imposed by the UK legislative framework in which we were operating. In the main, in the Republic of Ireland organisations and individuals were cognisant of the need for website preservation but were unsure about the mechanisms to achieve this, and were heartened by our contact offering to provide an infrastructure in which this could take place. The existing legal framework in which the project operated presented challenges both in terms of the content and structure of the collection. A number of websites in the .ie domain were identified as valuable contributions to the project but if the permissions route had been exhausted – in many cases, because there was no reply from the website owner and therefore no permission to archive, or simply because no website owner could be identified and contacted in the first place – the lack of an explicit legislative mandate covering non-print material in the Republic of Ireland prevented these websites from being included in the collection. This highlights one of the differences between our project and a similar project undertaken independently by the National Library of Ireland. The National Library of Ireland seeks permission from website owners and operates on a model where it is presumed that website owners agree to their website being archived and made publicly accessible on an open access basis if no response to the contrary is received from them, or if they provide informal permission via email or verbal communication. If a website owner does not wish for their website to be preserved then it is not included in the web archive. Our project, as it is covered by UK legislation, legally required us to operate within a permissions framework where explicit formal permission was required to allow any .ie material to be archived and to be made publicly available. This included a licensing agreement confirming the website owner had the authority to give permission and had not included any material that infringed the copyright or intellectual property rights of any third party, if the website was to be made publicly accessible on an open access basis.
This adds an extra layer of bias as, for example, there are less .ie domain websites in the overall collection than originally selected for archiving, whereas content from Northern Ireland is likely to be over-represented on the grounds that this material could be easily included under the UK legal deposit mandate (see Figure 1). On the other hand, material for which permission has been cleared can be made accessible in the open access web archive, while the current arrangements for access to legal deposit web archive material in the UK limit the way such resources can be viewed and used. Ultimately, such legislative barriers hinder our ability to build collections purely based on curatorial decisions from collection scoping to content selection and access. This is an issue that researchers need to be aware of in any utilisation of the collection and demonstrates the influence that external factors can have on the scope and structure of the collection. It also demonstrates one of the challenges in collating web archive resources that are compiled from across multiple legal jurisdictions with differing legislative arrangements which necessitates multiple access routes and limits the creation of a holistic collection (see Figure 2).

Despite this, projects such as ours, and the web archive of the National Library of Ireland, advance web archiving in the Republic of Ireland and demonstrate what web archives can contribute to future research interests, as well as teaching and learning. Advocacy will play a major role in advancing any potential legislation and requires interested parties to become advocates among their peers, raising the profile of web archiving, and promoting its advancement in the Republic of Ireland. Our project reinforces the experience of other researchers in the area (Maemura, Becker, & Milligan, 2016; Winters, 2017, p. 174) regarding the importance of legislative frameworks which have significant impact upon which sources can be captured and made publically available. In 2017, the Irish Department of Jobs, Enterprise and Innovation (DJEI) began the process of preparing amendments to the Copyright Act. The existing copyright legislation makes no provision for digital content and is thus an impediment to a more comprehensive collection of online content than can be achieved by themed projects such as the 1916 Easter Rising collection. Earlier this year the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, acting on behalf of the National Library of Ireland, held a period of public consultation to ascertain views on digital legal deposit which will hopefully provide an impetus to

![Figure 1. Websites selected vs. websites archived after permission process.](image_url)
legislative changes. In the Republic of Ireland there is a necessity for a national legislative framework and digital infrastructure within which non-print material can be captured and preserved if we are to avoid an archival lacuna that will have serious effects on our ability to preserve digital era material, explore new scholarly methods, and envisage and develop new disciplinary frontiers.

Conclusion

The emphasis upon the lived experience of ordinary individuals impacted by the Easter Rising has increasingly been the subject of research. McGarry’s The Rising. Ireland: Easter 1916 (2010) and Rebels-Voices from the Easter Rising (2011) focus on the experience of active participants in the Easter Rising through an examination of 1,773 witness that are part of the Bureau of Military History, a project by the Irish state between 1947 and 1957 to assemble primary documentation on the revolutionary period in Ireland. Similarly, the experience of neglected participants, and of civilians, especially women and children, was a central theme of the 2016 commemorations, and the initiatives centred on these areas were complimented by research on these topics (e.g., Duffy, 2015; Foster, 2015; Paseta, 2013).

Other aspects such as the visual and material aspects of the Easter Rising comprising ephemera such as buttons and souvenir postcards demonstrate that novel approaches to the history of the Rising continue to be produced (Godson & Brück, 2015). Researchers such as Daly and O’Callaghan (2007) and Higgins (2013) have reflected on the events organised on the fiftieth anniversary of the Easter Rising in 1966 and how these events were framed, the aspects that were championed, and the critical viewpoints denied expression. In a similar way, the records that are now in the process of being created will be an essential resource for future researchers in their attempts to analyse how the generations of 2016 engaged with the legacy of the Easter Rising and the approaches and themes adopted as well as the pluralistic tone that characterised much of the commemorative activities. This collaborative project demonstrates how the fusion of digital methodologies and traditional historical research can help create a space for the exploration of new avenues of scholarship. Themed collections contain manageable amounts of

Figure 2. Permission and access routes for 1916 Easter Rising Web Archive collection.
curated data and act as an example of how enterprising changes in archive curation and management can aid in enhancing the credibility of web resources as a source of primary material.

The dramatic changes in the production of an exponential range of potential source material through the utilisation of a rapidly expanding range of information and communications technologies have posed significant challenges to our capacity to preserve digital artefacts. However, their preservation will form the platform from which new methods of analysis will emerge and evolve, and these will exert a significant impact upon future teaching and learning efforts at enabling and equipping researchers with new skills and competencies to navigate, and engage with, this digitally oriented material. This will prove a significant challenge as researchers, with more regularity, write histories on subjects of the late twentieth and early twenty-first centuries, for which web archives will be a substantial source of primary material. Yet, many researchers “have proven reluctant to engage with the histories of the web and the Internet, to explore web archives, [and] to learn how to work with a new kind of source” (Winters, 2017, p. 174).

As the role of libraries is “defined by the needs of the societies that create them” the demand for access to websites no longer available on the “live web” will only grow as researchers examine our contemporary world from an historical perspective with greater frequency. For this to occur requires long term thinking and continued investment in the technical and human infrastructure which will enable preservation and access. This involves adequate and efficient planning and an understanding of the evolving information needs of all users – from academics to the general public – who will have “new and different expectations than library users in the past” (Rubin, 2016, pp. 23–24). This challenge at the same time provides an opportunity for research libraries to both to effectively embed themselves within academic research departments, and engage with new, wider audiences. The navigation of an increasingly complex and rapidly evolving resource that web archives represent will require library and information professionals to develop more proactive partnerships with a diverse range of colleagues to aid in their utilisation as a scholarly resource through exploring pedagogical training opportunities and emerging research needs. Their existing skills in digitally oriented initiatives can prove an important asset in aiding users as their informational needs change and provide instruction in the navigation of this resource and facilitate “the integration of libraries into critically important teaching, learning, and research processes” (Frank, Raschke, Wood, & Yang, 2001). The integration of the web archive project into a wider series of events such as those organised by both Trinity College Dublin and the University of Oxford also aided in promoting web archives amongst researchers and the wider public. The valuable partnership created between the three institutions on this project, utilised Oxford’s inclusion in non-print UK legal deposit legislation, the technical infrastructure and expertise of the British Library, and merged these with the wealth of material available in the .ie domain which Trinity College made available on a permissions basis. Collectively, these served to deepen and strengthen the historic bonds between the UK Legal Deposit Libraries and reimagined those bonds for the digital age. This development of more diverse collaborative networks can facilitate mutually beneficial partnerships that are based on our collective commitment to devise innovative approaches to emerging digital opportunities.
Notes

1. The six UK Legal Deposit Libraries are as follows: the British Library, the National Libraries of Scotland and Wales, Bodleian Library (University of Oxford), Cambridge University Library, and The Library of Trinity College Dublin (University of Dublin).

2. Full documentation, including a comprehensive W3ACT user guide, is available at https://github.com/ukwa/w3act/.

3. Applying the UK legal deposit definition, a website is considered to be in the UK domain when its URL has the .uk suffix (or any other top level domain attributed to the UK; e.g. .cymru), is hosted in the UK, OR a substantial part of the website creation and publishing process takes part in the UK.

4. The permission process for websites not covered by UK legal deposit legislation technically includes two separate permissions or licences: the permission to capture and archive a copy of the website, and the licence, given by the website owner as the copyright holder, to make the archived version publicly available. UK websites, under UK legal deposit law, can be captured and archived without the website owner’s permission. However, access to these archived websites is subject to legal deposit regulations, which, for example, only allow access onsite at a UK Legal Deposit Library, and via a dedicated interface. If a website archived under legal deposit is to be made publicly available, a licence agreement from the website owner has to be signed, in the same way as licence to publish and archive a copy has to be acquired for non-UK websites (For the different permission and access routes for UK and non-UK websites see Figure 2.). This permissions-based framework is in line with the UK copyright and legal deposit legislative environment, which currently does not allow for a notice-and-takedown approach in web archiving.

5. Of the 112 websites contributed by the Library of Trinity College Dublin: Permission cleared: 57, Permission not received: 55 (of which no response to permission request: 52, permission denied: 3). The main reason for denying permission to archive was that website owners were unsure whether they could act as the copyright owner of all content included on their website, as it is required by the terms of the licensing agreement to make the archived version of a website publicly available.

6. Comprising 27% of the Easter Rising collection – 86 items for which licence has been cleared, either through the permission process for non-UK websites, or via existing licences for UK websites, e.g. government websites.

7. Two identical versions were available under http://www.webarchive.org.uk/easter_rising/tcd.html and http://www.webarchive.org.uk/easter_rising/bodleian.html. An archived copy can be found in the UK Web Archive.

8. Some of the technical reasons included issues such as no Ethernet socket being available close enough to the display cases, or a standard computer terminal not complying with historic venue guidelines in a heritage listed seventeenth century building. Legal reasons included IT security concerns about providing internet access from public areas without individual user login/identification.

9. Ca. 400 postcards were picked up by exhibition visitors, around 300 were handed out at related events, and further 250 were distributed via the Irish Embassy in London.

10. The National Library of Ireland project “Remembering 1916, Recording 2016” archived 455 websites which are all publicly available via the NLI web archive at http://www.nli.ie/en/web_archive.aspx. The Internet Archive, which operates a notice-and-takedown policy rather than obtaining formal permission to archive, will have captured a large amount of web content relating to the Easter Rising centenary in the course of its extensive and largely automated crawls. However, the Internet Archive does not present this as a cohesive collection, and a Wayback Machine search, as of 19 February 2018, returns only 51 results for a keyword search “Easter Rising” – of which less than half (24) are at some degree relevant to the 1916 event in Irish history. An advanced search for ‘Easter Rising’ across the Internet Archive’s resources yields 198 results, of which 194 are individual texts (such as e-books), sound files or images.
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