Serendipitous Moments: Building a Geo-located Mobile Application for the *Letters of 1916*

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Introduction

This paper discusses the importance of physical spaces, as a source of context, with relation to electronic resources. The presented arguments are based on a geo-located mobile application (due for launch in November 2016) developed for *the Letters of 1916* project that allows users to see letters from the collection near them. The application is available for the Android platform and allows users to read letters from the *Letters of 1916* based on the device's geolocation providing a different way to engage with the resource. While the abstract considers a wider perspective, the presented paper will focus more on the implementation of the application and the means of access it provides.

Context

The *Letters of 1916* is Ireland's first public engagement, digital humanities project. It collects, digitises, transcribes, encodes, and makes available through its electronic platform epistolary documents written about Ireland between 1 November 1915 and 31 October 1916. The goal of *Letters of 1916* is to reassess the narrative of this period through the collection of letters (including postcards and telegrams) with a tangible link to Ireland. The year 1916 was one of transition for Ireland: between its involvement in the Great War and the rise of militant nationalism, the country was divided by sentiment, separated by ideals. The rhetoric of the letter presents personal perspectives and individual memory traces; the collected letters provide an insight into those fragmentary stories that, inspected together, constitute a collective consciousness.

While the project uses its Explore database to provide a traditional interface (including search and browse functions as well as the ability to view the letters sorted by location, topic, institution, and author's gender, etc.) to engage with the collection, the mobile application is limited to discovery through geo-location. The motivation behind such an application is to provide a different way to engage with the resource through a dynamic-content interface.

Framework

As a project born out of humanities research, it is important to ground the mobile application within a framework that provides clarity about its function and design. The application addresses questions of access and investigates the following three key areas:

Re-inserting space

Archival objects are decontextualised artefacts that are removed from their place of origin and collected within resources outside their purpose and provenance. The importance of providing geographical positions to objects within collections, both as means of providing access and as a method of context-attribution, has been discussed broadly (Harekama 2012; Cusworth et. al. 2015). Mapping objects to digital maps is a common practice in collection building and may be seen in projects like Mapping the Republic of Letters or Photogrammar, for instance. The objects in the *Letters of 1916* collection are written between individuals within a historic context and a spatial context. Letters are spatially-aware objects — written from a place and to a place; their understanding is deeply grounded within the geographical spaces they occupy. It is, then, obvious that their experience should be enhanced by providing them with geo-locations. The mobile application presents these letters within the spaces they are created or written to; the experience of reading a letter standing on the same street as it was composed is different to reading it on a screen detached from its physical space.

Serendipity

Collections are only as good as the access they provide. Most digital collections provide access through text-searches, which, at some level, always assume that the user knows what she is looking for. Even with faceted searches, the sense of discovery is limited by a prior knowledge of the collection. A geo-located retrieval of content is not mediated by textual input but through the user's own existence in physical space. That tangible sense of discovery, or rather, that serendipitous moment of coming across a piece of

history is mediated, not by some prior knowledge of the collection, but as a consequence of the user's location in the world.

Aura, magic, and history

Stanley Cavell (1979), while discussing photographs, tries to find the relationship between the subject and the image of the subject. His exploration attempts to address that connection between the physical object and its representation; he explores ideas of aura (Benjamin 1969), magic (Barthes 1977), and history (Tagg 1988) to think about the experience of seeing the physical object and the impression of it; while he identifies that there is a differences, he struggles to describe quite what that is. Building on this line of inquiry, I would like to argue that reading a letter within the space it is conceived or received provides a mode of perception that cannot be found if it is read outside of it. Whether we choose to call that aura, magic, or history, the importance of connecting the object to its physical space lends a multi-sensory engagement that is lacking in other forms of digital interfaces.

Implementation

This mobile application is designed with input from two rounds of internal user testing and feedback in 2016. A focus-group is planned for summer 2017 to further test and enhance the user experience from both software and conceptual perspectives.

The *Letters of 1916* has multiple moving parts and the application is designed and conceived within that existing framework. The project invites the public to transcribe and encode images of the collected letters. These machine-readable documents are then put through a rigorous editing phase which create valid TEI (Text Encoding Initiative) files. The sender's and receiver's addresses (that are present in the letters) are given unique identifiers and, consequently, geo-coordinates. Specific fields(title of the letter, sender's location, and link to the letter) found within the edited TEI documents are extracted and converted into a JSON object. This is the data structure and format that the application uses to dynamically pull information. The mobile application is built using the Adobe PhoneGap framework (for the Android platform). The application reads the user's device geolocation; it uses the haversine formula to calculate the distance between the user and the letters. The application calculates the distance between two points on the earth's surface and measures the distance between them in metres. This distance orders the letters from the least to the greatest (see Fig. 1). It is then possible to display the letters closest to the device's geolocation. Clicking each object opens an in-app browser that makes the text of the letter available in a mobile-friendly interface (see Fig. 2).
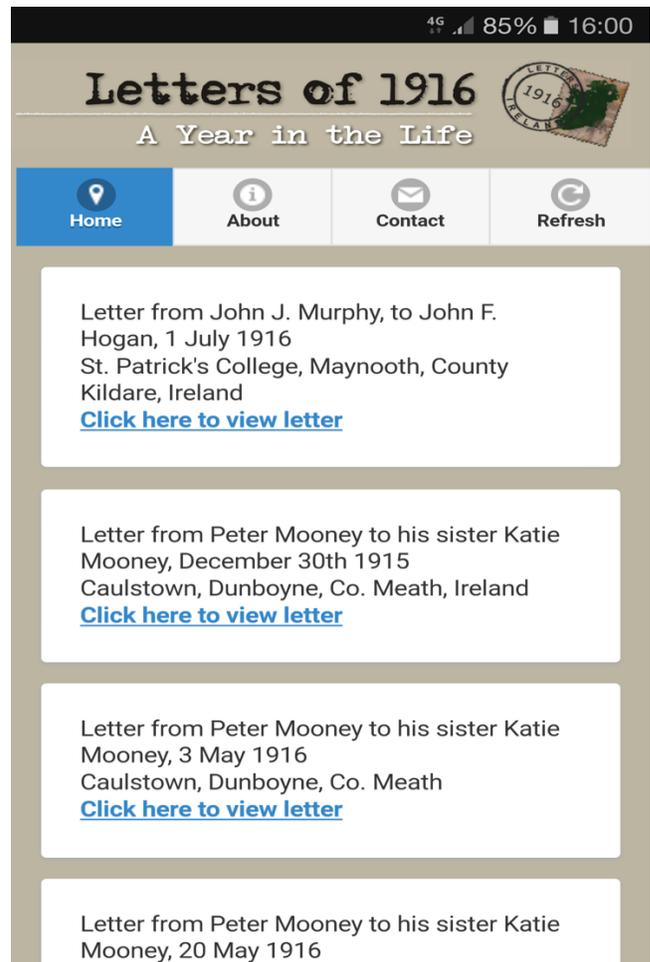

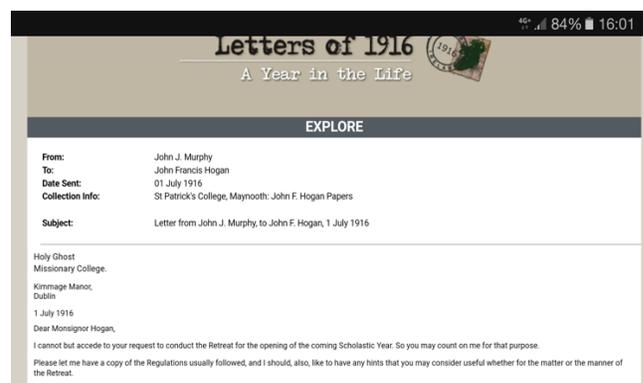Figure 1. The Letters 1916 mobile application user interface

Figure 2. Mobile-optimised letter-view for Letters 1916

Conclusions

The presented mobile application takes electronic resources outside the paradigm of the desktop computer and provides a meaningful way of engaging with the resource. The presented paper will consider how this application is built and the means through which it makes resources accessible. It will also consider the drawbacks and limitations of such a system opening up to discussion the use of mobile technology in the experience of cultural resources.

Acknowledgements

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