

Final Report: UC CEISMIC InternetNZ Joint Project

Preamble

The UC CEISMIC Canterbury Earthquakes Digital Archive, the Canterbury Museum, Lincoln University Applied Computing, the HITLab NZ, the NZ Historic Places Trust, the Macmillan Brown Library and the University of Canterbury Art History Department would like to thank InternetNZ for their generous support of archiving initiatives in the Canterbury region. While we still feel there is much to do, your support has produced an innovative and very broad ranging set of outputs that have significantly aided the process of cultural heritage recovery in the region. Support was offered at a crucial time, and the flexibility that went along with it is sincerely appreciated.

Overview

The UC CEISMIC InternetNZ Canterbury earthquakes archiving project has worked extremely well, providing a much-needed boost to digital cultural heritage activities associated with the Canterbury earthquakes. A website commemorating the High Street precinct has been created, the Canterbury Museum has a new digital archive to store earthquake-related digital content, Lincoln University has developed innovative analysis techniques that will assist in the design of the city rebuild and produced a framework that will allow us to more easily build additional UC CEISMIC web channels, a joint project between the Macmillan Brown Library, UC CEISMIC and the HITLab will see a Masters student build a cutting-edge map-based search tool, the HITLab CityView AR mobile application has had a significant upgrade, 1500 rare slides of Christchurch's architectural history have been digitised, and a UC CEISMIC Digital Content Analyst has spent several months immersed in the technical and cultural details of quake-related digital preservation.

UC CEISMIC Canterbury Earthquakes Digital Archive

InternetNZ funding has been used to hire a University of Canterbury graduate as a Digital Content Analyst. Lucy-Jane Walsh has been working under the guidance of the UC CEISMIC Programme Office manager for three months, gaining excellent work experience in content curation, risk analysis and stakeholder management. Her main task has been to work with the New Zealand Historic Places Trust to assess and gather archaeological reports and register reports of historic Christchurch buildings lost through the earthquakes. Lucy-Jane then loaded these reports into the UC QuakeStudies digital archive, including detailed metadata, as one of three showcase go-live collections. Her role has also involved significant amounts of user-acceptance testing of the UC QuakeStudies archive itself, which is now live at <https://quakestudies.canterbury.ac.nz> and 'feeding' into both DigitalNZ and <http://ceismic.org.nz>. Thanks in part to InternetNZ the UC CEISMIC archive is now fully operational, and contains a seed collection of ~20,000 items. Projections indicate that it will hold 100,000 items by the end of 2013.



UC CEISMIC Digital Archive, Canterbury Museum, Lincoln University Applied Computing, HITLab NZ, Historic Places Trust

Canterbury Museum Digital Archive

The Canterbury Museum's new digital archive has been partially funded from InternetNZ, and will offer a significant new digital asset for the people of Canterbury. All content stored in the archive will be surfaced on ceismic.org.nz via DigitalNZ. A Canterbury University Summer Intern was employed to research content information for the 2010-2011 earthquake collection, historic earthquake and digital collections and to write content. A Project Administrator was employed to co-ordinate the project, oversee the intern, to report regularly to the team and to keep this on task and to meet all deadlines. A vendor has been engaged, technical requirements completed, and all quotes finalised. Work is scheduled to begin in the coming weeks. With the groundwork completed, photographing of objects is scheduled to begin early next month. 802 objects have already been completed, with 85 more in the pipeline along with approximately 30 new items just received in from CTV building. This archive provides crucial balance to the UC CEISMIC federation and can be expected to continue to contribute to digital preservation of the earthquakes for many years to come.

UC Art History Architectural Slides Collection

A Research Assistant has completed work digitizing and describing over 1800 slides from the University of Canterbury Art History Department collection. These slides were taken of important Canterbury houses and commercial buildings over several decades from the 1970s and were at risk of being lost through natural processes. The collection is of a high quality, both in the value of the images themselves, but also in the quality of the human-curated metadata associated with each image. They will be stored in the Art History Department's database, but also in UC QuakeStudies, and made publically available through that channel, DigitalNZ, and ceismic.org.nz.

Macmillan Brown - CEISMIC MHIT

Funds originally tagged for digitization of architectural drawings held in the University of Canterbury Macmillan Brown Library have been redirected towards a MHIT (Masters of Human Interface Technology) scholarship, supervised by the HITLab. This project will build a leading-edge map-based search tool that will ideally be added to ceismic.org.nz to help users navigate the growing collection. In this way, it will enhance the user experience of all contributing UC CEISMIC archives, as well as providing a student with an excellent project and, naturally, a Masters degree. A student has been identified and will be starting work in April. This is the one project that will not be delivered within the timeframe originally envisaged.

HIT Lab NZ augmented reality mobile application

Through this project, the Human Interface Technology Laboratory New Zealand (HIT Lab NZ) at the University of Canterbury has worked on improving the CityViewAR application (<http://www.hitlabnz.org/cityviewar>), a smartphone application that can show geo-located information using various visualization methods, including an interactive digital map, immersive panorama pictures, and augmented reality (AR). The project team at HIT Lab NZ focused on three aspects of improving the application: (1) web-based content server and authoring tool, (2) content collection and interface improvement, and (3) 3D sound content support.



UC CEISMIC Digital Archive, Canterbury Museum, Lincoln University Applied Computing, HITLab NZ, Historic Places Trust

Compared to the older version of CityViewAR, the software now has a feature to stream content from a web-based content server through the Internet. This feature enables the application to provide more content without getting bound to the storage limit on a mobile device. The content server also provides a web-based authoring tool to support novice users to upload their own content to the server. By sharing their content through this web-based authoring tool, the users can contribute to improving the content of the CityViewAR application. While developing the new feature, the project team has also revised the user interface of the application and collected more historic content of the buildings in Christchurch, including stories and pictures. The collected historic content is also provided to the UC CEISMIC QuakeStudies Archive. The project team is now preparing for the public release of the new version of the CityViewAR application, along with the web-based authoring tool.

In order to support sound clips and recorded interviews from New Zealand Historic Places Trust, the project team also added 3D sound feature to the software. The software now can provide geo-located sound within the AR view, ready to provide sound clips and recorded interviews along with other types of content collected around the High Street Precinct. As the content from the NZHPT gets ready for release, the team will release a version of CityViewAR application dedicated to the High Street Precinct project by the NZHPT.

NZ Historic Places Trust website

The High St Precinct website ('High Street Stories') will be live by the end of April 2013. A local web development company are currently building the site which includes 90 individual stories about the history, architecture, businesses and social life of the High Street precinct. These stories will be accessible by theme and / or location and will be plotted on a map for users to journey around and experience life as it was pre- earthquake. The website will be accompanied by an Augmented Reality app created by Hitlab which will feature geo-tagged audio stories. A Facebook page devoted to the project, and used to elicit contributions, has been set up:

<https://www.facebook.com/Highstreetprecinctproject>. Content from the site will be made available through DigitalNZ and ceismic.org.nz as well as the main portal.

Lincoln University Google Street View solar exposure analysis and UC CEISMIC web tool development

The Lincoln University project, which aims to produce a solar exposure map of Christchurch, has progressed well. An internship student was employed to develop the software to capture the pre-quake imagery and perform solar exposure calculations.

The software has been developed, tested and deployed within our distributed computing environment to collect the required data. The data collected is in the process of being further analysed to produce an initial solar map of Christchurch City.

The interface to the QuakeStudies archive is being developed as a toolkit that can be used with the Digital New Zealand repository now that the content from QuakeStudies is being aggregated through



UC CEISMIC Digital Archive, Canterbury Museum, Lincoln University Applied Computing, HITLab NZ, Historic Places Trust that platform. This is well underway with development continuing now that QuakeStudies content is live in the DigitalNZ.