The Canterbury region, in the South Island of New Zealand, experienced two major earthquakes during 2010 and 2011. On September 4 2010 a magnitude 7.1 quake struck at 4.35 am, causing widespread damage and two serious injuries. Significant aftershock sequences followed. On February 22 2011 a 6.3 magnitude quake hit at 12.51 pm. This earthquake caused severe damage and resulted in the loss of 185 lives, making it the second worst natural disaster in New Zealand history. Like the first, the second quake has been followed by thousands of aftershocks, including two significant earthquakes on June 13th and three on December 23rd 2011.

The University of Canterbury CEISMIC Canterbury Earthquake Digital Archive draws on the example of the Centre for History and New Media’s (CHNM) September 11 Archive, which was used to collect digital artefacts after the bombing of the World Trade Centre buildings in 2001, but has gone significantly further than this project in its development as a federated digital archive. The new University of Canterbury Digital Humanities Programme – initiated to build the archive – has gathered together a Consortium of major national organizations to contribute content to a federated archive based on principles of openness and collaboration derived directly from the international digital humanities community. Two primary archive ‘nodes’ have been built by the Ministry of Culture and Heritage (‘QuakeStories’) and the University of Canterbury (‘QuakeStudies’) to collect content from the public and researchers respectively, and a ‘front window’ (www.ceismic.org.nz) has been provided by the University of Canterbury to bond the Consortium, raise funds, and provide a platform for future aggregated search functions, which will be powered by New Zealand’s bespoke cultural heritage schema maintained by Digital NZ. Other nodes in the federation include The Museum of New Zealand Te Papa Tongarewa, the National Library, Christchurch City Libraries, NZ On Screen, the Canterbury Museum and the New Zealand Film Archive. The aim is to create a permanent record of digital objects for both present and future generations. To this end the technical requirements for QuakeStudies have been reviewed by the National Digital Heritage Archive with a view to ingesting significant subsets of content (if not creating a complete dark archive) for long-term preservation. Significant attention has been paid during the design process to multi-cultural and multi-lingual requirements, to ensure content from a broad range of New Zealand communities can be ingested and researched. Future development aims to create a bi-lingual interface in English and Māori.

This paper will present an overview of the project, describing the architectural model used (a combination of federated and bespoke archives), and the role of the digital humanities in disaster management in the Christchurch context. Emphasis will be placed on the description of an open source model that could be deployed either before or immediately after natural disasters to safeguard the cultural heritage of affected communities.