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Making Waves

– a Design Concept for Reactive Tsunami Education

an exegesis submitted in partial fulfilment of the Master of Design
at the Institute of Communication Design, Massey University, Wellington,
New Zealand

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Abstract

In New Zealand the public has access to a range of educational material to assist with understanding tsunamis and their inundation zones. However much of this material is hard to find, is of limited availability, and is also likely to be limited in its effectiveness because of its non-interactive design.

This applied design research project explores the capacity of communication design to deliver clearer information about tsunamis to the general public. It uses animated information graphics and mobile media in the design of an educational tool for disaster awareness.

The new tool developed during the project offers the current generation of technologically-enabled users more ways to learn, and access to more information, about tsunamis. The tool also combines an educational function and a warning function. Design aspects are based on an evaluation of how warning messages are received and understood by intended audiences. The project has focused on the use of existing warning material for visual communication.

The project is based on research into information design theory: how a rich texture of data in a comparative context can be implemented in a complex arena such as disaster education, and how good design can cater for diverse cognitive reception or learning styles. The project incorporates this theory into the design of an interface with the objectives of

(I) offering an alternative and attractive way of visualising inundation zones and other information to an audience that may be indifferent to existing information and advice about tsunamis, and

(II) utilising mobile devices and its distinct technological advantages of location and communication access to enable the dissemination of warning messages.

These objectives combine to offer future potential as an additional communication channel for a directed and immediate warning through use of GPS data and geo location, plus reactive user interface design adapting to an emergency situation.

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