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Critical Factors in Community Informatics

A thesis presented in partial fulfilment of the requirements for the degree of

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ABSTRACT

Community Informatics is a new field of research that studies how information and communications technologies can be used to improve the quality of life of communities.

The use and acceptance of technology is unpredictable. Early Community Informatics research found that deploying information technology with the aim of improving communities was seldom successful. Research has been done to identify the factors that might have a bearing on the outcome, but no definitive answer has emerged, and little work has been done on evaluating the effect of the methodology on the outcome. This research set out to establish what the critical factors were, and to determine whether a specific community informatics methodology could be designed.

The objective of this research was to design a Community Informatics methodology, a way of introducing ICT into communities, that would ensure a successful economic outcome. The strategy was to use tourism as the catalyst for economic growth. The outcome sought was a self-sustaining, locally owned and scalable tourism product which would provide jobs initially and in the longer term would bring money into the local economy and lead to a revitalisation of the community.

The research was in two parts. The first part consisted of prototyping ecommerce Internet sites of increasing scope and complexity using a participative methodology within the socio-economic computer systems design paradigm. The work involved four organisations: the Katherine Mansfield Birthplace, the Spa Association of New Zealand and two large hotels. The outcome was a generic ecommerce model and a participative methodology for implementing that model.

The second part of the research involved applying the prototype methodology to communities in isolated parts of New Zealand. The communities involved were located in North Hokianga, Mahia and East Cape. The final outcome was a community-owned and maintained ecommerce Internet site that could form the basis for a tourism-led economy.

This research has shown that by using the right methodology it is possible to create a viable community-based ecommerce application, and that there are four critical factors in Community Informatics: leadership, motivation, consensus and the methodology used.
Acknowledgements

I wish to express to the Doctoral Research Committee my appreciation of the work of Professor Don Barnes on my behalf, and his unfailing help and support throughout the research.
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Note on terminology

Throughout the thesis the spelling has been standardised for some common terms:

When the Internet is being referred to directly it has been spelled with a capital. When the word is being used as an adjective, for example 'internet technologies' it is shown in lower case.

The term Community Informatics is shown capitalised when the text is referring to the academic discipline. When the term is being used as an adjective, or to refer to community informatics generally, it is shown in lower case.

The term 'ecommerce' is spelled thus throughout, as opposed to alternatives such as eCommerce, Ecommerce or e-commerce.

The spelling 'website' has been adopted throughout in preference to 'web site'.