Assessing the usability of online grocery systems to improve customer satisfaction and uptake

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Assessing the Usability of Online Grocery Systems to Improve
Customer Satisfaction and Uptake

A thesis submitted in fulfilment of the
requirements for the award of the degree

DOCTOR OF PHILOSOPHY

from
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by

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“Ooh, they have the Internet on computers now” – Homer Simpson

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Abstract

This thesis assesses the usability of Online Grocery Systems (OGSs) in order to improve both customer satisfaction and uptake. This assessment was conducted in three phases using two different types of Usability Evaluation Methods (UEMs). Phase 1 was conducted using an expert review of 14 OGSs through heuristic evaluations and checklist/framework evaluations. Phase 2 was conducted using usability testing at one OGS that was deemed to be (based on the expert review in Phase 1) an OGS with good usability. The expert review was conducted by 54 participants with varying levels of online shopping experience.

The results from the expert review (Phase 1) showed that the usability of the major Australian OGSs was comparable with those from other countries. The results from the usability testing (Phase 2) revealed usability issues with the OGS identified as having good usability, shown through the errors made by participants.

The recording of errors in regards to the usability of systems has traditionally focused on safety-critical systems and business support systems. This study applies Zapf et al.’s ‘Taxonomy of Errors’ to a non-work related context: the OGS. The taxonomy was found to show that similar types of errors were made by all users of such systems. However, the number of errors that were recorded by different user groups varied. This finding was in contrast to previous studies, and supported the common perception that beginner users make a greater number of errors than more experienced users.
Based on the results of both the expert evaluations and the usability testing, this research has created a **Normative Task Model (Phase 3)** to map a user’s interaction with an OGS.
Certification

I, Mark Freeman, declare that this thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the School of Information Technology and Computer Science, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Mark Freeman

............................

10th November 2006.
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List of Publications

* Note: The publications that are relevant to this thesis are marked with an asterisk (*)


* **Freeman, M.** (2006) “Perceptions of the ordering process of online grocery stores”, *Association of Internet Researchers (AOIR) Conference 7.0, Internet Convergences*, September 27-30, Brisbane, Australia. (Forthcoming)


