ABSTRACT:

The purpose of this research is to establish a better understanding of the practical difficulties experienced by people with Age-related Macular Degeneration (AMD) when attempting vision oriented tasks within the home. Subsequently, find and evaluate opportunities for further development and intervention.

Age-Related Macular Degeneration (AMD) causes severe vision impairment in older Australians, occurring when central vision deteriorates. Thus making reading, close work and recognising faces more difficult[1]. There are technologies present to help; it is shown that multimodal feedback is highly effective in reducing the time taken to complete simple computer functions[2]. While magnification tools are useful, they are generally cumbersome and ineffective when dealing with printed text on home appliances[3]. However magnification technology such as non-CCTV video magnifiers can improve the reading speed, comprehension and comfort for a low-vision user while positively increasing the user's experience when examined by Jordan's pleasurability framework[4].

The question arises, where else within the home can multimodal feedback technologies improve the completion of tasks for people with AMD?

Engaging in this question will require ethnographic research methods such as focus groups, **specifically expert evaluations**, as there is a need to establish a first-hand understanding of what people with AMD go through and how the professionals and organisations provide support and knowledge. After this stage, **technology probes** will be utilised to test and investigate the effectiveness of specific feedback tools. So to evaluate their potential for further development, these feedback tools will be tested in context with the expert evaluators.

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[1] (Australia, 2012)
[2] (Jacko et al., 2004)
[3] (Riazi, Boon, Dain, Bridge, & Riazi, 2010)
[4] (Harrison, 2004)

The significance of this research is to evaluate the opportunities for subsequently development, so to establish solid grounding for an intervention/solution that will improve the quality of life for people with AMD.

KEYWORDS: Age-related Macular Degeneration (AMD), Multi-modality, Technology Probes, Feedback tools, Ethnography, Quality of life (Quality of Life Index?)

BIBLIOGRAPHY:

Australia, V. (2012, 25 AUG 2010). Age-Related Macular Degeneration Fact Sheet - Resources - Vision Australia Website Retrieved 18 MARCH, 2012, from http://www.visionaustralia.org.au/info.aspx?page=605

Harrison, C. M. (2004). Low-vision reading aids: reading as a pleasurable experience. *Personal Ubiquitous Comput., 8*(3-4), 213-220. doi: 10.1007/s00779-004-0280-0

Jacko, J. A., Barnard, L., Kongnakorn, T., Moloney, K. P., Edwards, P. J., Emery, V. K., & Sainfort, F. (2004). *Isolating the effects of visual impairment: exploring the effect of AMD on the utility of multimodal feedback*. Paper presented at the Proceedings of the SIGCHI conference on Human factors in computing systems, Vienna, Austria.

Riazi, A., Boon, M. Y., Dain, S. J., Bridge, C., & Riazi, A. (2010). *Difficulties in reading small print materials on today's home appliances for people with visual impairment*. Paper presented at the Proceedings of the 4th International Convention on Rehabilitation Engineering \& Assistive Technology, Shanghai, China.