UNSW AUSTRALIA

Home Modification Information Clearinghouse

Never Stand Still   Built Environment

Newsletter

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From the Editor

Welcome to the December instalment of the HMinfo Newsletter.

This last newsletter for 2018 is devoted to research, events and other useful material for people with vision impairments.

The needs of people with vision impairments often go unnoticed, as most of us consider they are more independent than people with mobility issues, such as wheelchair users, and that they would probably not need home modifications. This is a wrong assumption as simple home modifications could improve the lives of the vision impaired significantly.

According to the World Health Organisation, approximately 1.3 billion people live with some form of vision impairment, globally. Many vision impairments are age related. The loss of the most important human sense is a significant change in an individual's life, which is often accompanied by decrease in functionality, social participation and emotional suffering.

During the past few months, the HMinfo team has been working on the second edition of the Evidence Based Practice Review: Lighting your way into Home Modifications. This study aimed to review all relevant resources on the lighting systems for residential hallways, in order to enable safe and independent movement of people with vision impairments. Even though this type of publication is mostly addressed to specialists (researchers, OTs, etc), it is particularly important, as it can be translated into design and building practices as well as information for consumers in future publications (Consumer Factsheets, Summary Bulletins, etc).

During 2019 HMinfo will publish more material for home modifications for people with vision impairments. Also, one of the following research projects will be about home environments for people who display aggressive or self-injurious behaviour. This is a subject many of the HMinfo subscribers are interested in and often request resources about.

From all the staff at HMinfo we would like to thank our readers and wish you a Happy New Year.

HMinfo Research

- Lighting your way into home modifications: Lighting for people with vision impairments
- Designing home environments for people who experience problems with cognition and who display aggressive or self-injurious behaviour

Home Modification Resources

Journal paper - Treating depression in people with vision impairment, by Dr B. Sturrock

The impacts of vision impairments on the physical and emotional wellbeing of people can be significant. Their quality of life is deteriorating as they are less able to perform daily tasks, to take care of their physical health, participate in the community and be as independent as people with normal vision. According to the journal *article Treating depression in people with vision impairment* by Dr B. Sturrock, people with vision impairments often suffer from depression. Depression is an additional impairment, preventing people's participation in medical and psychosocial treatments. The diagnosis and treatment of depression for people with vision impairments would have beneficial outcomes if there were appropriate screening and referral programs. However, the implementation of such programs is prevented, according to the author, by the unproductive allocation of funds.

The author recommends a depression screening program along with psychological support services within health care services. For more details on the seven steps problem-solving approach proposed by the author, you can download the full article here.

Sturrock, Bonnie. Treating depression in people with vision impairment [online]. InPsych: The Bulletin of the Australian Psychological Society Ltd, Vol. 40, No. 1, Feb 2018: 48-51. Availability: <https://search.informit.com.au/documentSummary;dn=482940740076748;res=IELAPA>

Apps review - Apps for people with vision impairments

Smartphones and tablets have changed the way we communicate, work, entertain or even perceive the world around us. Especially for people with vision impairments, specialized apps can significantly promote independency and inclusivity. The following apps are some of most popular and useful free apps for people with vision impairments.

BeSpecular is an App through which people with normal sight (*sightlings*) can provide assistance to people with vision impairments (*VIPs*), by recognizing objects and scenes around them. The person with vision impairment takes a photo of what he needs assistance with and attaches a question. This data is published to the BeSpecular community and the available sightlings can provide answers and descriptions of what is in the photo, through a text or voice message. The users' reviews are very good and the App seems to have helped many people get the information they needed. You can get more information about BeSpecular in the following link: <http://www.bespecular.com/en/>

Be My Eyes is an App very similar to BeSpecular. Since 2015, Be My Eyes connects people with vision impairments to volunteers through video calls. More than 1.8 volunteers and 108,000 people with vision impairments are currently using the App. To download the App, visit the following link: <https://www.bemyeyes.com/>

TapTapSee is an App that does not rely on volunteers but on technology and more specifically on image recognition API. The vision impaired user point their device at a 2D or 3D object they want to identify and take a picture or a video. TapTapSee analyzes and identifies the image or object at any angle within seconds and then the device's VoiceOver speaks the identification aloud. TapTapSee has received the American Foundation for the Blind Access Award and you can download it from the following link: <https://taptapseeapp.com/>

CamFind is another App that helps with objects' recognition and search of related web content. Even though it is not only addressed to people with vision impairments, it could prove to be very useful to them. The user takes a picture of an object and CamFind uses mobile visual search technology to describe the object. At the same time, the App searches for related images, videos, local shopping results or web results which can then be shared with the person's contacts. To download CamFind follow the link: <https://camfindapp.com/>

Seeing AI is an App which promises to help people with vision impairments in many ways. It can speak handwritten or typed text that appears in front of the camera, recognize the text and formatting of documents, provide audio guidance to locate product barcodes and identify the product, describe people

around the user, describe colour and give an indication of the amount of light around the user, etc. The App can be downloaded here: https://www.microsoft.com/en-us/seeing-ai/

Events

Exhibition

UNSW event: Sensory Scientific Exhibition & Discovery Day
On December 11, 2018, blind people and people with low vision had the chance to explore scientific and medical discovery through shapes, textures, sounds, spoken word, and smells at the Sensory Scientific Exhibition & Discovery Day hosted by Single Molecule Science at UNSW Medicine.
Access to research developments is often difficult for the public and almost impossible to people with disabilities. "Communicating ideas behind science such as size, scale, infection, immunity and resolution requires more than just spoken words. We have deliberately developed experiences that we hope will bring these concepts to life in a unique and simple way that can be appreciated without depending on visual effects", said Dr David Jacques, who leads the Structural Virology Group at Single Molecule Science.
The event also included a seminar on 'Infection & Immunity' by Professor Jamie Rossjohn of Monash Biomedicine Discovery Institute, art by legally blind artist Dr Erica Tandori, and sessions with hands-on activities, tactile displays, sculptures, and 3-D & kinetic models.
The material for this event item was taken from the UNSW Disability Innovation Institute website.

Seminars

2019 NCC Seminars
The 2019 NCC Seminars will be presented by the ABCB and Standards Australia in February and March 2019. Registration is now open!
Representing the culmination of the first three year amendment cycle, the Seminars will inform practitioners involved with designing, approving or constructing buildings about important changes included in the latest edition of the NCC. Presentations will be held in all capital cities and this is your opportunity to hear about BCA focussed changes - don't miss out!
Standards Australia will also outline details of changes to Australian Standards that are referenced in the NCC.
At the conclusion of the Seminars, two webcasts will be available; one covering amendments to the BCA and the other on amendments to the PCA.
For more information about the dates and venues for the 2019 Seminars, please click here.
Link

Publications by HMinfo Team

HMinfo research

Evidence Based Practice Review: Lighting your Way into Home Modifications, 2nd ed.
The aging process causes changes in the human visual system that lead to significant decrease in mobility performance. Older people with age-related vision impairments and younger people with vision

impairments often struggle to walk around and orientate, not only in new but also in familiar environments, such as residential hallways. Lighting is one of the environmental parameters that can either improve or impair the mobility of people in residential hallways.

The new Evidence Based Practice Review by the HMinfo Clearinghouse, is named Lighting your Way into Home Modifications and is the second edition of the original study, by Pitch and Bridge (Pitch, M., & Bridge, C. (2006). 'Lighting your way into home modifications. In International Conference on Aging, Disability & Independence, IOS Press, Orlando, FL (pp. 181-91)), published in 2006. The aim of this Review was to identify the characteristics of the lighting system(s) that would enable independent and safe mobility of older people and people with vision impairments in a residential hallway.

117 studies were considered for the Review. After a systematic review and assessment process, 27 scientific studies, 1 legislative document, 3 Australian Standards, 2 International Standards and 3 industry guides were included in the Review. The outcomes of the review highlight the need for adaptation of the lighting of residential hallways to the time of day and the needs of the users, to provide safe and independent movement, without disrupting the daily rhythms of people. Hybrid lighting systems, comprising of low ambient lighting and wayfinding elements seem to be effective for mobility in mesopic and scotopic conditions.

The purpose of this type of publication is to identify potential subjects for further research, and to gather information for publications addressed to consumers and the industry, such as home modification providers, OTs, etc. So, more publications for home modifications for people with vision impairments will follow within 2019.

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HMinfo Team

Professor Catherine Bridge - Director
Hamish MacLennan - Adjunct Associate Professor
Konstantina Vasilakopoulou - Research Associate
Vincent D'cruz - Research Program Administrator
Helmut Hoss - Website Developer