



Newsletter

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From the Editor

Welcome to our December instalment of the HMinfo Newsletter. I am writing this from a chilly Tokyo while Australia I sweltering under a pre-Christmas heatwave. Tokyo is where I have been visiting the Toto research laboratory and Seksui House, one of Japan's largest manufactured housing suppliers, after presenting a paper and chairing the Housing stream at the International Universal Design Conference 2016 which was held in Nagoya and which is supported by her Imperial Highness Princess Yokho and the Japanese Manufacturing and Design Industry, supported by the Centre for Human Centered Research in Boston and the Royal College of the Arts London.

Satoshi Kose organised the visits for me as both Toto and Seksui House are now established in Australia. Both companies have specialised in Universal Design and are very keen to share their knowledge and experience. Of particular note Tokyo metropolitan council has used some land near Shinjuku one of Japans most populous areas to build a range of innovative Universally designed housing. Seksui house was founded in Japan in 1960, and having built over two million homes, Sekisui House is one of the fastest growing home builders and community developers in Japan.

After visiting with Seksui house I visited a new Universal Designed housing estate built in collaboration with Tokyo metropolitan council on council owned land in Shinjuku one of the most populous suburbs in Japan. Sinjuku station for instance has 6 million people pass through its doors every day. On display there was a range of manufactured housing, all with lifts on very small allotments but with high tech safety and design features. Examples ranged from an innovative multigenerational living home built by Seksui (Fig 1), to the Panahome (Figure2) a medium density five story dwelling that combined a ground level shop and rental accommodation as part of the family dwelling.



Figure 1: Seksuiheim's accessible entry, electronic smart door lock, full length viewing panel and electronic mobility vehicle by the front door



Figure 2: PanaHome - Panasonic manufactures medium density infill solution

The Toto laboratories that I visited the day after were fascinating; their attention to user comfort and research was astonishing. Most importantly they transformed the Japanese toilet from a post war squatting style to the high tech toilet that those that have visited Japan have grown to love, with a body temperature seat, bidet wash let and music, not to mention, easy to clean and water efficient design features.

The story of the washlet a device that is of value to everyone but is particularly helpful for those with hand and dexterity problems is fascinating and over 300 company employees participated in the research to determine the degree of slope of the spray arm. The newest toilet uses only 3.8 liters of water, the water is mixed with air and the tornado flush design makes cleaning easier too (Figure 3).



Figure 3: Toto's hybrid ecology toilet

Toto has also been closely associated with the development of sensors in other areas enabling people with limited hand movements to use taps automatically while also saving water. The evolution of the sensor tap is fascinating, the newest model from Toto has all working components within the tap itself (Figure 4).



Figure 4: Evolution of the Toto sensor tap

As another year winds to a close there is a lot to reflect on and look forward to, HMinfo undertook its first quality audit as a result of NSW government funding we reviewed by BSI as a part of the transition to new funding arrangements under the National Disability Insurance Scheme. HMinfo first conducted a self-assessment of its quality management system for compliance with the NSW Disability Service Standards. using the NSW Department of Family and Community Services; Self-assessment guide for NSW Disability Service Standards (NSW DSS) for providers of non-direct supports.

The final audit and the proceeding gap assessment took place over the last couple of weeks and the Third Party Verification report which has now been lodged with the NSW Family and Community Services has now delivered its final glowing report with 100% on all ratings. This would not have been possible without a fantastic team and a dedicated Advisory Committee all of whom were fantastic. May everyone have a great festive season and best wishes for a peaceful and creative 2017.

HMinfo Research

Regulatory Requirements for Controlling Water Temperature in Bathrooms

Controlling the temperature of heated water in bathrooms is essential for safe washing and bathing, especially for children, older people, and people with disability. Heated water that is delivered too hot, risks scald burns; heated water stored at a temperature too low, risks microbial presence, particularly legionella.

This HMinfo research project focused on temperature limiting devices for safe provision of heated water in bathrooms. These devices include thermostatic mixing valves, tempering valves, water heaters compliant with Australian Standard AS 3498, and thermostatic mixer taps. Australian Standards and regulations addressing the minimum and maximum temperatures for storage and delivery of heated water were examined, and the installation, use, and maintenance requirements of temperature limiting devices were compared. The resulting HMinfo Summary Bulletin provides information that can assist with the selection of a temperature limiting device for heated water, that will meet regulatory requirements, and suit the needs of residents and their home environment.

HMinfo Summary Bulletin: Regulatory Requirements for Controlling Water Temperature in Bathrooms 2nd ed. is available on the HMinfo website, at <http://www.homemods.info/publications-by-hminfo/summary/summary-bulletin-regulatory-requirements-for-controlling-water-temperature-in-bathrooms>

Home Modification Resources

Digital Object Identifier (DOI)

HMinfo is in the process of minting a Digital Object Identifier (DOI) for all of its publications. This is a pilot project for UNSW and we are the first centre at UNSW to be trained by the library in minting our own DOIs through their DOI service. A DOI is a unique alphanumeric string assigned by a registration agency (the International DOI Foundation) to identify content and provide a persistent link to its location on the Internet (www.apastyle.org/learn/faqs/what-is-doi.aspx). By assigning a DOI to each HMinfo publication we can ensure that the publication can be preserved indefinitely on the internet.

Journal Paper Review

Research and concern about home modification as part of the solution to a hyper ageing society is increasing.

The three most recent articles concerning home modifications all highlight the potential but underscore potential biases in implementation that mean that we are not yet maximising this intervention with consequent economic and quality of life implications for taxpayers and those who fail to receive services alike.

1. Kwon, O.-J., et al. (2016). "A Study on Industrial Trends Related to Home Modification for the Elderly- With a focus on a comparison of the cases of Korea and Japan." Journal of the architectural institute of Korea planning & design 32(5): 39-50

This research examined trends in the home modification industry for the elderly in Korea and Japan, through visits and interviews of the groups and organizations. It found, most of Korea's home modification products were relying on imports. Additionally, home modification-related products provided by the long-term care insurance system were limited to handles and solutions for any unevenness caused by steps, which are categorized into equipment in this study. Therefore, they had a narrow product range and their development was slow. For this reason, the supply market related to home modification for the elderly was not being facilitated. In contrast with this, Japan was developing a variety of devices, equipment, and products related to home modification and Japanese companies were actively participating in the development of home modification-related products. They concluded that Korea's relevant systems and policies remained inadequate, which hindered the research & development and investment of companies.

2. 2, Somerville, E., Smallfield, S., Stark, S., Seibert, C., Arbesman, M., & Lieberman, D. (2016). Occupational therapy home modification assessment and intervention. *American journal of occupational therapy*, 70(5), 7005395010p1-7005395010p3.

This was a single case-study of a woman with falls related problems living with chronic disease. It was found that OT assessment and changes to her home improved all her baseline scores and improved her quality of life overall.

3. Amin, R. (2016). The Impact of Home Modification and Other Community-Based Services on the Ability to Age in Place Among Older Blacks and Whites in Georgia.

This US thesis (currently embargoed) based on administrative data from the Georgia Money Follows the Person program, found unsurprisingly that race, the use of financial support and the utilization of many services were significant in attaining success in both Home Modification and other Community Service Support programs.

Website Review

Home Adaptation Checklist < <https://canadasafetycouncil.org/home-safety/home-adaptation-checklist>>

This Canadian website has some good tips on finding a contractor and dealing with contracts and zoning. It also has information related to maintaining Seniors' Independence Through Home Adaptations and has a link to the Canadian Housing and Mortgage's Corporation's (CMHC) free Self-Assessment Guide [download the PDF from CMHC's Web Site](#)

CMHC's has also produced a video *Maintaining Seniors' Independence Through Home Adaptations* which may be available via an inter-library loan. The video describes how seniors can adapt their homes to help them carry out daily activities and enhance their safety and comfort. In the video Canadian seniors and professional consultants present a wide variety of successful adaptations and discuss how seniors can identify and carry out those that are best for them.

Events

[ATSA Independent Living Expo 2017 - Sydney \(Sydney Olympic Park 10 - 11th May 2017\)](#)

[ATSA Independent Living Expo 2017 - Brisbane \(Royal International Convention Centre 24th May 2017\)](#)

Publications by HMinfo Team

HMinfo research

Carnemolla, P. & Bridge, C, (2016). Summary Bulletin: Regulatory Requirements for controlling water temperature in bathrooms. 2nd ed. Sydney: Home Modification Information Clearinghouse, UNSW Australia. (October) doi:10.4225/53/583e1fafd7f76. Available at www.homemods.info

Lukman, A. L., Bridge, C., & Quinn, J. (2016). Evidence Based Practice Review: Use of Colour for Safe Movement. 2nd ed. Sydney: Home Modification Information Clearinghouse, UNSW Australia. (October) doi:10.4225/53/57DA00675000F. Available at www.homemods.info

HMinfo Annual Report

Home Modification Information Clearinghouse (2016). Annual report for the period 2015-2016. Sydney: Home Modification Information Clearinghouse, UNSW Australia. (October). Available from www.homemods.info

Conference Papers

Bridge, C. E., & Barlow, G. (2016). Co-design of point of sale resources for 'Do It Yourself' (DIY) home modification. In *Proceedings of the 6th International Conference for Universal Design in Nagoya 2016: Creating Shared Value through Universal Design*. Nagoya, Japan: International Association for Universal Design.

MacLennan, H. A. (2016). Fire safety and independent living - a conundrum or not? In *Proceedings of the 6th International Conference for Universal Design in Nagoya 2016: Creating Shared Value through Universal Design*. Nagoya, Japan: International Association for Universal Design.

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