



February 2006: e-newsletter

IDEA Staff Participate at International Conference on Aging, Disability and Independence Conference

The third International Conference on Aging, Disability and Independence (ICADI) was held at the St. Petersburg Florida Hilton, Feb 1-5, 2006. The conference brought together researchers, practitioners, consumers and policy makers to discuss a wide range of issues



related to maintaining aging individuals' independence. Topics included assistive technology, housing, home modifications and universal design, injury prevention, robotics, smart homes, telehealth and transportation. The IDEA Center was a Conference Partner and many staff members participated in the proceedings.

Edward Steinfeld, Director of the IDEA Center and Co-Director of the RERC on Universal Design and the Built Environment (RERC-UD), was the program chair and organized the Housing, Home Modifications and Universal Design track of the conference. About 50 presentations were included in this track which had a truly international flavor. Edward Steinfeld also gave the keynote address at the Universal Design Workshop. As part of the conference he also organized an International Symposium on Home Modifications Policy and Practice with contributions describing the state of the art in the U.S., UK, Sweden, Australia and Germany. In Sweden, for example, anyone who needs modifications to accommodate disability can receive them with no cap on the cost. Decisions on eligibility for services are based on need. In Germany, payroll deductions, separate from health insurance, are allocated to long term care insurance. Part of this money is used for financing home modification services.

The IDEA Center had additional representation at the conference with a presentation on developing universally designed (UD) model homes. Danise Levine, Assistant Director of the IDEA Center, and Richard Duncan, an associate at the USC National Resource Center on Supportive Housing and Home Modification and a Senior Project Manager at the Center for Universal Design, presented "Building Universal Design Demonstration Homes In Your Community". The discussion was based on the notion that UD homes in local home shows have proven to be an effective method for educating the public on the advantages of incorporating UD features. It provided examples of existing demonstration homes, strategies for getting demonstration homes built in other communities, as well as insight into some obstacles designers, architects and advocates currently face in trying to incorporate Universal Design.

In a Program Models and Model Programs Session, Jordana Maisel, Director of Outreach and Policy Studies at the IDEA Center, presented "Proactive Strategies for Housing America's Aging Population: A Look at Visitability". This presentation explored the growing need for accessible

housing in the United States and the recent emergence of visitability as an affordable and sustainable design strategy aimed at increasing the number of accessible single family homes and neighborhoods.

Dr. Alex Mihailidis, Assistant Professor in the Department of Occupational Therapy at the University of Toronto and a Project Lead in the new RERC-UD, presented “An Automated Tool for Detecting and Preventing Unsafe Stair Use by Older Adults”. This presentation demonstrated work completed on an automated intelligent tool that can monitor a person during stair use and determine if unsafe events have occurred.

To obtain a copy of the conference program go to:

http://www.icadi.php.ufl.edu/pdf/conf_program_print.pdf

To obtain a copy of the conference proceedings go to:

<http://www.icadi.php.ufl.edu/includes/fpdf/proceedings.php>

Partners from the Ontario Rehabilitation Technology Consortium (ORTC) Present Research Findings on Reducing the Difficulties Associated with the Use of Winter Coats for Older Adults

Many older individuals report having difficulties dealing with winter clothing because it is typically too heavy and requires too much flexibility, dexterity, strength and time to put on. These difficulties are problematic enough for some that they sometimes cause them to decide not to go out of the house in the winter when they otherwise would have.

Researchers from ¹ Health Care, Technology and Place, University of Toronto, ² Centre for Studies in Aging, Sunnybrook and Women's College Health Sciences Centre, ³ Toronto Rehabilitation Institute, and ⁴ University Health Network, Toronto, Ontario, Canada have undertaken an interview and survey research project with older adults, gerontology researchers and clinicians, and passersby in two area hospital lobbies in order to inform a design project to develop a prototype of a winter coat aimed at reducing cold exposure, increasing safety, and reducing the physical challenge of using the coat. The objectives of the interview and surveys with the research participants were to further understand the apparent difficulties older adults have concerning the use of winter coats, and to explore the perceived usefulness and attractiveness of novel winter coat design features detailed in concept sketches. This process informed the design and fabrication of a prototype winter coat.

The researchers—Brandi S. Row^{1,2,3}, Sonja E. Wenk³, Monique A.M. Gignac^{1,4}, Geoff R. Fernie^{1,2,3}—have evaluated the prototype in a subset of three older adult subjects by assessing muscle activity and perceived ease of use while donning the coat in order to determine whether the coat reduces the physical challenge of donning it for individuals with differing functional impairments – particularly while putting on the sleeves, and while fastening. The subjects' own winter coat was used as a reference condition.

The results suggest that certain design features – while not perceived to be desirable or useful for all subjects interviewed – do reduce the demands on the associated musculature for older adults while donning or fastening the prototype, compared to condition where the subjects used their own winter coat. However, use of the design features did not reduce the perceived exertion of donning the prototype. The novel design features of the prototype winter coat have demonstrated the potential to reduce some of the physical challenges older adults experience when donning a coat. Nonetheless, some issues regarding the design features' perceived usefulness remain to be solved before such an approach could impact the lives of older adults.

The researchers have presented this research at:

- the Falls and Mobility Network annual meeting, November 2005.
- the *Design for the Cold* Research and Design Exhibition and poster competition, Design Exchange and Health Care, Technology, and Place, Toronto, ON, November 2005.
- the Aging and Veteran's Care Showcase, Sunnybrook and Women's College Health Sciences Centre, October 2005.
- the Toronto Rehabilitation Research Day, October 2005.



Postdoctoral research fellow, Brandi Row, uses electromyography (muscle activity recordings) with a research subject to assess whether the novel design features embedded in the winter coat prototype serve to reduce the physical challenge of donning and fastening a coat.

Photo courtesy of Jim Atkinson/MediMedia Group

For additional information on this research, please contact Brandi Row (Brandi.Row@swri.ca) or Geoff Fernie (Fernie.Geoff@torontorehab.on.ca).

Steinfeld Wins Award and First Patent

Edward Steinfeld received an award from the State University of New York (SUNY) Research Foundation for receiving his first patent for the Universal Bathroom. The Universal Bathroom is an innovative suite of bathroom fixtures and accessories that allows the user or a household to adjust fixture positions to accommodate individual and household needs. Co-patent holders include Abir Mullick, who is now Chairman of the Design Department at Georgia Tech, and Drew Kelley, an independent industrial designer. Dr. Steinfeld also received word that a paper titled "Evacuation of People with Disabilities" was accepted for publication in the *Journal of Security Education*.

For more information on the Universal Bathroom go to

<http://www.ap.buffalo.edu/idea/Brightideas/Bathroom/UniversalBathroom.asp>

Movable Fixtures



Movable Panels



Ed Steinfeld Publishes Article for The World Bank



In the fall of 2005, Ed Steinfeld wrote an article for the World Bank titled “Education for All: The Cost of Accessibility”. The article was written in response to the World Bank’s Education for All (EFA) program, which aims to provide universal access to primary education throughout the world. To accomplish this ambitious goal, as many as 10 million classrooms will be built in developing countries by 2015. The article discusses the needs, costs and guidelines for designing accessible schools and ensuring that no child is denied access to education because of disability.

The complete article can be read at:

http://siteresources.worldbank.org/EDUCATION/Resources/Education-Notes/EdNotes_CostOfAccess_2.pdf

Scholarship Opportunity Available:



The Toronto Rehabilitation Institute announces the

TD Bank Financial Group Scholarship in Rehabilitation-Related Research for Graduate Students with Disabilities

The goal of Toronto Rehab is to advance rehabilitation and enhance quality of life by pushing the frontiers of rehabilitation science. As a fully affiliated teaching and research hospital of the University of Toronto, we advance rehabilitation knowledge and practice through research. Research is an investment in the future. Scholarships are also an investment in the future. As researchers, we embrace the concept of consumer participation; we believe that people with disabilities should be active participants in planning and conducting research. Thus, with the generous support of TD Bank Financial Group, Toronto Rehab has established this award to further the active involvement of people with disabilities in rehabilitation-related research. The *TD Bank Financial Group Scholarship in Rehabilitation-Related Research for Graduate Students with Disabilities* will be awarded to full-time or part-time student(s) in good standing to support their education and training. Applicants must have a disability. Candidates must plan to be enrolled in a graduate program leading to a master's or doctoral degree at the University of Toronto. Fields of study must relate to rehabilitation but are not limited to any particular discipline and, for example, may include but are not limited to rehabilitation sciences, health administration, and engineering. The scholarship will be for the period from September 2006 to April 2007, and will be renewable for an additional year depending on satisfactory performance. The scholarship will be for \$20,000; an individual supplement will be provided to help meet special costs of attending graduate school that are incurred as a result of disability.

The application and additional information will be available at a later date in the Research section of the Toronto Rehab website at www.torontorehab.com. In the meantime, please forward your contact information to Research Administration and you will be informed when the application is available:

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Opportunities to Participate in Universal Design Research

One of the research projects of the new RERC on Universal Design and the Built Environment involves evaluating the effectiveness of universally designed environmental features and providing evidence to support universal design guidelines. To identify priority needs for increased accessibility and usability of environmental features and to therefore determine which built elements they should study, researchers will launch a website where people of all abilities can log in and document what kinds of activities they feel are the most problematic. The Online Survey will be conducted so that willing participants can rate the usability of typical design features in three different domains. These domains include public outdoor spaces (i.e. sidewalks and crosswalks), public buildings (i.e. office buildings) and housing. Those types of features receiving the greatest number of responses will be identified as high priority needs for universal design and will then become the focus of the effectiveness study.

Please stay tuned for more information on how to participate in the Online Survey.

If you have any questions or would like additional information on this research project please contact Jordana Maisel at jlmaisel@ap.buffalo.edu.



The IDEA Center Proudly Supports Global Universal Design Educators Online News

Beginning with the November/December 2005 issue, the Global Universal Design Educators Monthly Online News (GUDEON) is now being published with support from the IDEA Center. The quarterly publication is produced and distributed for the Global Universal Design Educator's Network by Elaine Ostroff, Editor and Publisher, and Diane Richard, Researcher and Editorial Assistant. The Network is a loose coalition of people committed to universal design education. In addition to reaching the Network's 300 subscribers, a link to the most recent edition of the GUDEON and its table of contents will now be distributed to the IDEA Center's E-Newsletter subscribers. The GUDEON will also be translated into Japanese and reprinted in the quarterly print *Universal Design Magazine*.



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For the November/December 2005 issue of the Global Universal Design Educators Monthly Online News go to http://www.universaldesign.net/GUDEON_NovDec_2005.pdf

For links to other archived issues go to http://www.universaldesign.net/gudeo_news.htm

Members of the RERC-UD Participate in Standard Revisions

Ed Steinfeld, Eleanor Smith, Head of the RERC-UD's Consumer Advisory Panel and Korydon Smith, a faculty member in the School of Architecture at the University of Arkansas and a participant in the RERC's Universal Design Education Consortium, are members of the Dwelling Unit Task Group of the ICC/ANSI A117 Standard Committee. They are participating in developing recommendations for revising the dwelling unit requirements in the ICC/ANSI A117.1 Standard.

The ICC/ANSI A117.1 Standard is the consensus standard referenced by building codes in the U.S. as the source of technical requirements for achieving accessibility. The Task Group is currently deliberating the development of standards for accessibility of single family housing. These standards could provide guidance from a reputable and authoritative source on designing new accessible homes and renovating existing homes.

Suggestions and ideas on how to improve current dwelling unit standards and guidelines can be emailed to the IDEA Center (idea@ap.buffalo.edu). Watch for information on the deliberations of the Task Group and the Committee in upcoming issues of the E-Newsletter.



IDEA Center Collaborates With Team To Complete A Website On Bus Stop Accessibility and Safety

For the past year, the IDEA Center served on a diverse team of experts assigned to develop a comprehensive toolkit to help transit agencies, municipalities and advocates improve the accessibility of bus stops. The “Toolkit for the



Assessment of Bus Stop Accessibility and Safety” is intended to be a convenient resource that can be used to enhance the accessibility of specific bus stops, or help in the development of a strategic plan to achieve system-wide accessibility. Funded by [Easter Seals Project ACTION](#), an organization committed to promoting cooperation between the transportation industry and the disability community, [Nelson\Nygaard Consulting Associates](#) created the Toolkit with assistance from the Project ACTION Advisory Committee and Team. Committee and Team members represented the diverse interests of transit agencies, people with disabilities, and various local, state and federal agencies.

The Toolkit can be used for multiple purposes:

- Determine minimum ADA requirements
- Enhance bus stop accessibility through universal design
- Inventory bus stops
- Develop a strategic plan for system-wide accessibility
- Advocate for improvements

In addition to providing overall content and feedback on issues related to accessibility and universal design, the IDEA Center was responsible for creating an online version of the Toolkit. The completed online Toolkit will be available from the Project ACTION website shortly. A link to the online Toolkit will also be available from the [IDEA Center](#) website. Please stay tuned for its posting.

For additional information on this project please contact Jordana Maisel at jlmaisel@ap.buffalo.edu