

IDEA Center Staff Lecture and Present Research Nationally and Internationally

April

In April 2006, Victor Paquet, Associate Professor of Industrial & Systems Engineering and a RERC on UD Project Director, gave a talk on “Ergonomics in Universal Design” at an invited seminar given to the Human Factors Engineering and Ergonomics Center of the Grado Department of Industrial and Systems Engineering, Virginia Polytechnic Institute and State University.

June

The Interagency Committee on Disability Research recently announced the publication of two reports with contributions by Edward Steinfeld, Director of the IDEA Center. The first report is entitled Wheeled Mobility and Accessible Transportation – 2003 Conference Proceedings and Dr. Steinfeld’s paper is “Ingress and Egress from Vehicles.” This article advances the case for universal design in public transportation. The conference proceedings also include an article by Aaron Steinfeld entitled “Accessibility and Intelligent Transportation Systems.” Aaron is a Human Factors Engineer at the Robotics Institute at Carnegie Mellon University and Edward Steinfeld’s son. This article focuses on the promises of intelligent transportation systems and the need to ensure that it is accessible to all. The second report is titled Emergency Evacuation for People with Disabilities from Buildings: 2004 Conference Proceedings. The Proceedings include research recommendations to improve available data, building and life safety codes, evacuation technologies, and evacuation practices for people with physical disabilities. Dr. Steinfeld presented findings from the IDEA Center’s Anthropometry of Wheeled Mobility research program and their implications for design for emergency evacuation. Links to these articles are available at <http://www.icdr.us/pubs.html#wheeled>.



Wheelchair user exiting bus.
Source: ICDR

Eleanor Smith and Edward Steinfeld participated in a workshop on accessible housing at the XIV Congress for the New Urbanism meeting in Providence Rhode Island, June 1-4, 2006. They were joined by Brad Grant from Hampton University, Richard “Rocky” Marcoux, Commissioner of the Department of City Development for Milwaukee, and others. During the conference, a task force meeting on accessible housing gathered to identify problems with implementation of accessible housing in New Urbanist communities and develop an action plan to improve knowledge amongst New Urbanists about accessible housing. Presentations from the workshop will be available through the Congress of New Urbanism or the IDEA Center in the near future.



Providence, RI

Edward Steinfeld and Gary Scott Danford completed a paper for the Living in our Environment – The Promise of the International Classification of Function (ICF) conference in Vancouver, June 5-7. Dr. Danford presented the paper entitled “Universal Design and the ICF” at the conference. This paper describes the advantages of reconciling the definition of universal design and the Principles of Universal Design with the ICF and the presentation is now available on the conference website at [http://www.icfconference.com/New%20Presentations/Tuesday%20\(York%20Room\)/1030-1200%20-%20Environmental%20Factors/STEINFELD%20&%20DANFORD'S%20UD%20&%20THE%20ICF.pdf](http://www.icfconference.com/New%20Presentations/Tuesday%20(York%20Room)/1030-1200%20-%20Environmental%20Factors/STEINFELD%20&%20DANFORD'S%20UD%20&%20THE%20ICF.pdf)

Edward Steinfeld, James Lenker, Danise Levine and Jordana Maisel, along with members of the collaborating Ontario Rehabilitation Technology Consortium (ORTC), including Alex Mihailidis and Jen Boger, participated in the 2006 RESNA conference titled Thriving in Challenging Times: The Future of Rehabilitation Engineering and Assistive Technology June 22-26 in Atlanta, GA. Danise Levine and Jordana Maisel co-taught a preconference instructional course titled “Towards Inclusive Housing”. Ed Steinfeld, Jordana Maisel and Dave Feathers participated in the poster session and presented their research “Wheeled Mobility Space Requirements and Maneuvering: An International Comparison of Standards and Research”. James Lenker, a member of the RESNA Board of Directors, led a workshop on “Clinical AT Outcomes Research: Making it Happen, Making it Better”, and Alex Mihailidis co-chaired the Special Interests Group on Cognitive Disability and Technology (SIG-20).



July

Dr. Paquet will present a paper titled, “The New Role of Ergonomics in the Universal Design of Products and Environments” at the 16th World Congress on Ergonomics of the International Ergonomics Association. The conference will be July 10-14th in Maastricht, The Netherlands. For more information on the conference and the International Ergonomics Association go to <http://www.iea2006.org/>.

Jordana Maisel will present her research on visitability at the Universal Design & Visitability Conference: From Accessibility to Zoning Conference (July 13-14, 2006). The goal of this conference is to educate planners, designers, and others on the incorporation of universal design principles into planning and design. This conference is being hosted on the Ohio State University campus and simultaneously on-line for those who would prefer not to travel. For more information please visit <http://knowlton.osu.edu/ped/universaldesign.htm>

Fall 2006

Dave Feathers, Research Assistant Professor in Rehabilitation Sciences and a Research Associate of the RERC on UD, will present a paper titled, “Three-Dimensional Variability of Static Anthropometric Dimensions: Considering Anatomy, Behavior and Process” at the *Human Factors and Ergonomics Society 50th Annual Meeting* in San Francisco this fall.

Jue-Feng will present a paper based on a research project supported by the RERC on UD titled “A quantitative methodology for assessment of wheelchair controllability” at the *Human Factors and Ergonomics Society 50th Annual Meeting* in San Francisco this fall.

National Endowment for the Arts Symposium on the Universal Design Identity Project

The National Endowment for the Arts and the Center for Inclusive Design and Environment Access hosted a Symposium on the Universal Design Identity Program on June 1 and 2, 2006 in Washington D.C. The purpose of the meeting was to gain the feedback and guidance of key UD experts on a multisensory identity program for universal design. The project, co-directed by Beth Tauke, an IDEA Center associated faculty member and Alex Bitterman, a former staff member who is now teaching at Rochester Institute of Technology, is a Universal Design Leadership Program sponsored by National Endowment for the Arts.

The Universal Design Identity Program was initiated to promote increased understanding, acceptance, and use of universal design by a broader audience of consumers, design professionals, industry leaders, government leaders, and academics.

UD-id originated as a result of several meetings on universal design sponsored by the National Endowment for the Arts. Findings from these meetings substantiated the critical need for a clearer understanding of the universal design concept, and noted the need to create projects that work to overcome confusion, and common misconceptions associated with universal design.

Co-investigators Tauke and Bitterman explored public perceptions and attitudes towards universal design, and used this information to develop an identity program. They developed options for an international multi-sensory symbol to identify products, media, graphics, and built environments that are universally designed.

Three major tasks were established for the project. First, through literature reviews, international online surveys, and focus groups, Tauke and Bitterman investigated a) public awareness and opinions about universal design and b) sensory preferences (shape, color, form, sound) and the cultural connotations associated with these preferences. Second, they used the results of their findings coupled with the Seven Principles of Universal Design to develop options for a multi-sensory symbol to identify UD products and systems. (Fig. 1) Third, surveys of consumers and experts were completed to gain feedback on whether the symbols conveyed the idea of universal design.



Figure 1. Four examples of prototype international UD symbols. Note: All symbol prototypes are copyrighted so that they will not be used in unintended ways. When the final identity program is approved, The IDEA Center will make it available for use.

Participants in the symposium included designers, architects, students, educators, universal design experts, disability specialists, consumer experts, government services representatives, corporate executives, and a patent examiner. This group discussed the challenges associated with the development of a successful UD identity program; critiqued the symbol prototypes, attendant graphic/sensory standards proposals, and public service announcements; recommended dissemination and adoption methods, and suggested next steps for funding and further development. A report of this

symposium will be posted on the National Endowment for the Arts website <http://www.arts.gov/resources/Accessibility/DesignResources.html> after September 1, 2006. The symposium participants agreed that the promotion of a worldwide Universal Design Identity program will help to clarify and understand the concept, assist consumers in recognizing the value of universally design products and services, and, therefore, could become a factor in consumer decision making. Ultimately, a Universal Design Identity Program could foster the link between good design and inclusion, and, in that way, could contribute to a built world that works better for everyone.



Universal Design works for everyone.
This symbol means it works for you.

The website for the project is <http://www.ap.buffalo.edu/idea/udidweb/home.html>



NATIONAL
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Architecture Studio Designs Cabins

During the spring 2006 semester, Edward Steinfeld taught a University at Buffalo graduate architecture studio that designed a new cabin prototype for Cradle Beach Camp, an overnight camp on Lake Erie that serves kids with disabilities and underprivileged youth. The camp intends to construct two of the cabins in the fall and spring next year to replace existing dilapidated cabins. Dr. Steinfeld will continue work with the Camp next spring that will focus on developing a master plan using universal design concepts and a new building design project.



Full scale mockup of part of the cabin under construction.

Upcoming Opportunities to Participate in Universal Design Research

We all know from first hand experience how easily the built environment can frustrate the performance of even the simplest activities. Whether it is making our way through the entrances of public restrooms, crossing streets at intersections or just putting away groceries in our kitchens, good design can ensure that the built environment makes performance of such activities easier for all of us.



One of the research projects of the new RERC on Universal Design and the Built Environment involves identifying those environmental design features that are the most problematic for everyone. If we can identify the most problematic environmental design features, it will help us set priorities for their redesign that will make life better for all of us.



An initial survey will ask participants if they occasionally have problems performing activities routinely encountered in three built environments:

- 1) Public Buildings (office buildings, retail stores and government buildings);
- 2) Public Streetscapes (sidewalks, street furniture, intersections and transit stops); and
- 3) Residential Environments (houses and apartments).

After completing the survey, participants will be given an opportunity to join others in message board discussions about the environmental design features that make performing specific activities problematic.

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 May 2006 issue of the Global Universal Design Educators Monthly Online News go to http://www.universaldesign.net/GUDEON_MAY06.pdf.

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