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This Belt's for You, America

By William C. Howell

Did you realize that the United States trails most of the civilized world in one of the simplest, easiest, most effective safety practices imaginable? One that, if practiced as religiously as, say, the French or the Brits or even the Canadians do, would save on the order of 5,000 lives, hundreds of thousands of serious injuries, and billions of dollars in medical and other injury-related costs *each year*? Well, if so, you're not alone. Like most Americans, I, too, believed that we were way ahead of those speed-crazed European drivers when it came to behaving rationally in the interest of self-preservation.

I did, that is, until I got a call from the National Academy of Science's Transportation Research Board (TRB) asking if I would chair a committee to study technologies for increasing the use of auto seat belts. I pointed out that my knowledge of seat belt technology pretty much ended with engaging the buckle on my Camry, and my grasp of highway safety issues was only slightly more profound, but to no avail. The caller explained that the committee would be interdisciplinary but was lacking a general human factors perspective and a chair. So I signed on and wound up engaged in what proved to be one of the more enlightening and rewarding experiences of my career.

Among other things, I learned about an archaic federal statute that has helped keep 20% more American motorists unbuckled (and at risk) than their counterparts in places like Germany, Sweden, and Australia; and I got to participate in a project that could lead directly to its amendment – along with some important new human factors research. But let's not get ahead of the story, which takes us way back to 1964.

Auto seat belts became standard equipment that year, and two years later, Congress passed a law giving a federal agency (ultimately the National Highway Transportation Safety Agency, NHTSA) authority to set national safety standards, including mandatory installation of seat belts. However, hardly anybody used them, so in 1972, NHTSA added a requirement for flashing lights and buzzers to remind drivers to buckle up. But these reminders didn't help much either, so in 1974, NHTSA got tough, mandating a much more intrusive (but effective) starter-interlock technology. At that point, all hell broke loose! Outraged consumers descended upon their elected representatives, and before the year was out, a beleaguered Congress passed a hastily conceived statute prohibiting NHTSA from mandating interlocks or anything more intrusive than an 8-second buzzer to promote belt use. Like many political decisions, the 8-second duration had no basis what-

soever in evidence of either effectiveness or user acceptance; it was just pulled out of thin air in the rush to get something passed.

Justified or not, however, that 1974 statute, along with its prohibition against mandating anything more intrusive than an 8-second reminder, remains the law of the land. Nevertheless, prompted by a number of other developments – notably, state laws requiring motorists to use belts, various educational and promotional campaigns, and improved design – belt use shot up to over 60% by the early 1990s. Over the next half-dozen years, belt use eked out an additional 10% gain. But there it has remained, leading Congress to wonder why we're stuck at around 75% while so many other countries have zoomed ahead, and to ask whether anything might be done to stimulate renewed growth.

Upon revisiting the 1974 statute, Congress wondered whether its stringent constraints might be stifling effective technological innovations that today's motorists would find acceptable. So it came to the National Academy of Sciences for an answer, requesting an authoritative study of the effectiveness and acceptability of "technologies designed to increase belt use," and advice based on the study's findings. Hence the formation of our study panel. The panel was composed of distinguished scientists representing a variety of disciplinary perspectives (sociology, economics, statistics, survey research, HF/E) and high-profile organizations (including AAA, the Consumer's Union, and the Insurance Institute for Highway Safety), plus four technical experts from the automotive safety community with comprehensive knowledge and experience in seat belt technology.

The Panel's Work

Since Congress needed an answer quickly, it was necessary to rely heavily on available information rather than comprehensive new research. Nevertheless, the existing evidence converged so tightly that the committee felt confident in rendering a very strong set of recommendations. The final report (TRB Special Report #178, *Buckling Up: Technologies to Increase Seat Belt Use*) was released on October 14, 2003. Its bottom line advises Congress to amend the 1974 statute by lifting the 8-second restriction on "reminder systems," thereby encouraging the auto industry to continue developing (and voluntarily implementing) more effective technologies, and granting NHTSA the authority to institute requirements, should that be deemed necessary following evaluation of enhanced systems in the field.

How did we arrive at this conclusion? Basically, we considered

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the results of several empirical studies that, though limited, showed that compared with the relatively useless 8-second reminder we're all familiar with, a more intrusive (much longer lasting, intermittent) system being installed on Fords produced statistically significant increases in belt use. In addition, we considered survey, interview, and focus group data gathered by NHTSA in both its annual surveys and projects designed explicitly for the present study, along with information from auto industry representatives and belt manufacturers, and direct experience with several of the enhanced systems.

The survey data of greatest interest strongly suggested that enhanced reminder systems would be readily accepted by the driver population segment (70%) who buckle up regularly and, more important, by the 20% who do so only occasionally. The latter segment is the most promising target for reminder systems – consistent with the observational studies – and these drivers reported overwhelmingly that the enhanced systems would alter their behavior. The roughly 4% so-called hard-core nonusers – those who refrain consistently for philosophical reasons – would likely be unaffected by any technology short of interlocks, and that view was reflected in their survey data. The interlock concept, incidentally, was considered by *all* population segments to be overly intrusive. Therefore, on user acceptance grounds, we considered it practically unfeasible at this time.

Somewhat surprisingly, we found the auto industry generally positive toward enhanced reminder systems, particularly in view of the minimal cost involved and the growing evidence that intrusive reminders do not adversely affect sales. Some even welcomed the prospect of federally mandated standards. Although Ford's Belt-Minder™ is the only such system currently deployed, most of the other manufacturers are in the process of developing their own versions, and NHTSA is encouraging them to do so. Removing the roadblock from the 1974 statute would enable stronger forms of "encouragement," should that prove necessary, and, even without it, would likely speed up universal adoption. Given the absence of strong industry resistance, the outlook for the necessary legislative action appears bright and is being promoted actively by a number of advocacy groups.

HF/E Research Needed

So how does HF/E fit into this picture? Well, at present, there's no empirical basis for specification of an optimal reminder system. As with that notorious 8-second buzzer, nothing but intuition has guided development of any systems currently fielded or on the drawing board. We know the 8-second reminder is virtually useless, and Ford's BeltMinder™ is a lot better, but that's about it. Therefore, research is sorely needed to sort out design concepts and parameters, as well as to evaluate alternative systems once they hit the market. We emphasized these needs in the panel's report. In fact, we're calling for a \$5 million annual investment for that very purpose – a clear opportunity for HF/E, if it materializes.

Okay, so bells and lights hardly constitute space-age technology, and finding the best way to use them to promote something as simple as buckling up may seem pretty mundane. As, perhaps, does the idea of a big TRB study just to persuade Congress to amend an obviously ill conceived law. But mundane or not, opportunities to save thousands of lives and billions of dollars each year don't come along every day.

William C. Howell is retired and holds adjunct professorships at both Arizona State and Rice Universities. He was editor of Human Factors and associate editor of American Psychologist and The Journal of Applied Psychology. Howell also served as HFES president in 2000–2001.



ANNUAL MEETING


Share your Teaching Techniques in 2004

By Nancy J. Stone & William F. Moroney

Educators in human factors and ergonomics, whether in industry or academia, need good examples that demonstrate the underlying psychological or ergonomics principles *and* how these principles are applied to human factors/ergonomics problems. We are seeking proposals to form a Special Sessions presentation for the 2004 Annual Meeting. The session will provide practitioners and educators with easily implementable teaching techniques, strategies, and demonstrations. We wish to draw on the techniques used not only by educators but also by individuals who educate in nonacademic settings.

The proposed symposia/demonstrations are a continuation of our 2002 interactive session. The presentations included:

- Discussion/demonstration on the role of peripheral vision and the impact it has on elderly drivers and helicopter pilots who use night vision goggles.
- Computer-enhanced demonstrations illustrating the effects of reaction time and Fitts' law in the design of ATMs or other computer-controlled devices.
- Presentation on the impact of complex information processing on decision time in a visual inspection task.
- Strategies for teaching about causation, causal reasoning, and investigation bias as they investigate a hypothetical accident.



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Proposed effective teaching techniques, strategies, and demonstrations should meet the following criteria: (a) require active participation of the students, (b) explain HF/E principles *and* demonstrate the application of these principles, (c) help students understand the application of the psychological or engineering principles to human factors and ergonomics, (d) make the HF/E principles more relevant, (e) cost under \$100 (better if they are free or “downloadable”), and (f) require little more than everyday equipment available in most academic departments (e.g., PCs).

Proposals should be submitted in the following format: title; abstract; concept(s) to be demonstrated and the link to human factors/ergonomics; apparatus/facilities (including where the material can be obtained or accessed, specifying the platform required and operating system if software is used, cost, etc.); demonstration procedure and in-class discussion (description of demonstration; expected results, probability, and possible explanation of other results; discussion of results, how you involve students in the discussion, how learning improves; application to HF/E and why this application is important); and references (both theoretical and applied).

Innovative sessions are encouraged: for example, demonstrations comparing competitive product designs or perhaps a minitutorial on strategies for determining usability. Possible themes include strategies and pitfalls of utilizing Web-based instruction in classrooms.

Your techniques may come from graduate or undergraduate, HF/E, or other relevant courses. Perhaps you have a demonstration for methodology, information input (the senses), speech communication, manual materials handling, motor skills, controls, hand tools, workplace design, environmental conditions, or computer systems/Internet. The teaching techniques would be submitted as a symposium presentation format and directed to Special Sessions. All Annual Meeting proposals are due **February 9, 2004**. E-mail Bill Moroney (moroney@dayton.edu) or Nancy Stone (nstone@creighton.edu) with any questions, ideas, or suggestions by *January 30, 2003*.

Universal Design Session Being Formed

The Environmental Design Technical Group and the Consumer Products Technical Group are requesting proposals for a joint session on the topic of universal design. Submissions can focus on any aspect of universal design. We welcome both research- and practitioner-oriented proposals. For more information, please contact Michele Marut at mrm15@prodigy.net.

Call for Special Sessions Proposals

By Ron Boring, Special Sessions Chair

Special Sessions offer the opportunity for organizers to present novel forums at the Annual Meeting. They may introduce alternative presentation formats to research talks, posters, and panels.

New formats for presenting human factors/ergonomics efforts are strongly encouraged. Participants are invited to submit proposals including case studies, debates, demonstrations, competitive product designs, videotapes, new methodologies, and on-site experiments. We encourage innovative proposals for presentations that will engage, entertain, and educate attendees at the Annual Meeting. When submitting your proposal via the on-line submission system (<http://submissions.miracd.com/hfes2004>), be sure to select Special Sessions. ☒

STUDENT VIEWS

2003 HFES Annual Meeting Reflections

By Mat Mason, George Mason University

Attending a professional conference for the first time can be pretty overwhelming for a graduate student. Suddenly, you are thrust into a situation in which all the people in the field whom you have read about, heard about, or dreamed of meeting are standing right in front of you. There is a vast array of academic and professional expertise and only a few short days to experience it all.

As a first-time attendee, I'm writing this to tell my fellow students that the event is not as overwhelming as it may seem. The 47th Annual Meeting was filled with a variety of activities and opportunities that, if properly taken advantage of, can contribute immensely to the professional and intellectual development of anyone seeking a future in human factors and ergonomics.

One of the key concepts I came to understand at the Annual Meeting was best illustrated in the opening address by Barry Beith. HFES truly is a unique organization that encompasses the great diversity of human factors research and application. Despite my own primary interest areas, I was able to attend talks on subjects I had not known about or even considered. This was a tremendous opportunity to learn about the variety of directions that my human factors interests could take, from virtual reality and HCI to ergonomics and automation. Often the particular interests of our faculty shape our perspectives, and the Annual Meeting was a great way of learning what else is out there in the field.

As a student, my perspective was also greatly enhanced by meeting faculty and students from other programs. It was very informative to talk to students with similar interests and learn how differently their programs approached training on these issues. The experience can show you both the benefits and gaps of a particular perspective. As an M.A. student, I also found it a great way to gain a more personalized insight into possible Ph.D. programs.

Whereas the meeting provided many formal professional development avenues and opportunities for students through the job placement service and panel discussions, it was what went on between sessions that taught me the most. In the world of a student, where successful academics and big company representatives

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National Ergonomics Month 2003 in Review

By Haydee Cuevas & Ron Shapiro

National Ergonomics Month (NEM) 2003 was introduced to HFES members during the first NEM General Session on Monday, October 13, at the 47th Annual Meeting in Denver, Colorado. The session began with presentations from President-Elect Betty Sanders, HFES Executive Council members Mica Endsley and Michelle Robertson, and Diversity Committee Chair Grayson Cuglock-Knopp. Following these speeches was an abbreviated version of "Games to Explain Human Factors: Come Participate, Have Fun!" The purpose of the games presentation was to demonstrate how to reach out to a non-human factors community by using a set of participatory games that communicate basic human factors/ergonomics (HF/E) principles. Most of these games used common, everyday items; were low cost; were easily transported; and required minimal preparation time.

Attendees were encouraged to become involved in NEM activities this year by presenting HF/E to a school or community group (possibly utilizing the games presentation), discussing the field with corporate leaders or the media, and/or sharing their ideas for future NEM activities. A summary of their ideas will be presented in an upcoming *HFES Bulletin* issue.

At the Student Reception on October 14, awards were presented to student groups that participated in the NEM Best Action Plan Contest during the month of September. The plans were judged based on how effectively they promoted NEM in their communities and increased people's awareness of what ergonomics is, how it can benefit them, and the consequences of bad ergonomics. The first place award went to the Old Dominion University (ODU) HFES Student Chapter for its proposal, "Sharing the Knowledge of Human Factors and Ergonomics through a Safety Slogan, NEM Games Presentations, and Habitat for Humanity." The chapter's multifaceted action plan targeted several audiences, including the campus community, local high school students, and the Norfolk, VA, community, which directly borders the ODU campus.

Two HFES Student Chapters tied for second place. The University of Central Florida (UCF) won for its imaginative action plan, "Human Factors Is the Name, Creative Solutions Are the Game: Reaching Out, Raising Awareness, and Instigating Change." UCF's efforts involved community outreach to local junior high, high school, and undergraduate students, as well as local businesses. The other second place winner, Georgia Tech, also emphasized student outreach in its proposal, "A Four-Pronged Outreach: Age-Appropriate Exposure to the World of Human Factors and Ergonomics." Georgia Tech's student chapter will implement different activities, including hands-on demonstrations, presentations, and lectures specifically designed to interest and expose students to human factors at various education levels. Julia A. Kalish from Purdue University received the third place award for her fun

and innovative action plan, "Office Workstation Olympics," whereby business representatives and students work together to apply HF/E principles creatively to real-world problems.

Four student groups were recognized for their participation in this contest. The Waterloo Computer-Human Interaction Group, from the University of Waterloo, proposed the "UW Design Challenge," an engaging activity aimed at bringing students and usability experts together in a productive, cooperative setting to learn about the design process through active participation in design exercises. In its thought-provoking proposal, "Investigating the Columbia Space Shuttle Disaster: Lessons in Accident Investigation and Safety Culture of Organizations," the new MIT Student Chapter sought to address the human factors issues involved in this recent national tragedy. The proposal submitted by the Tufts University Student Chapter focused on a topic closer to home – "Bringing Awareness to the Tufts Campus of Human Factors and Ergonomics." The goal was to approach students at Tufts, regardless of their major, and ask them if they know what human factors is and to receive an affirmative answer. Finally, the HFES Student Chapter at the University of Toronto continued with its ongoing efforts to get students from different universities together to present their research, as evident in the title of the action plan, "Exchanging Ideas: The 4th Annual Inter-University Workshop on Human Factors."

Special recognition was also given to the members of the selection committee who reviewed these action plans: Anthony D. Andre, Tracey M. Bernard, Melanie Diez, and Michelle Robertson.

Other NEM activities at the 47th Annual Meeting included a competition held during the Student Reception to test students' networking savvy, consistent with NEM's theme, "A Time for Teaching, Learning, Networking, Service, and Fun!" Students were queried on various networking strategies, such as how many new contacts they made at the previous evening's Gala Reception, did they offer and/or request business cards, and do they attend Technical Group business meetings. Two "network champions" emerged from this lively competition: Sandra K. Garrett from Purdue University and Ronald L. Boring from Carleton University.

The NEM Web site was officially launched at <http://hfes.org>. Our hope is that the general public will request speakers on HF/E topics through the Web site and that teachers and HFES members will use presentations to explain HF/E in their communities. A special thanks goes to Jennifer Kremer and Cindy Lu for designing the site, Christina Mendat and Margarita Posada for developing materials for the site, and Kim Sherman for cochairing our NEM Speakers Committee.

Congratulations to our winners and to all who participated in NEM activities! Please send a note to Ron Shapiro (rshapiro@us.ibm.com) or Haydee Cuevas (ha651622@ucf.edu) describing your NEM 2003 activities for inclusion in our annual report. Also, please begin to think about your 2004 NEM activities. We encourage all of you to actively promote the science and profession of HF/E this year. President Betty Sanders will initiate this effort in a special article in an upcoming issue of the *HFES Bulletin*. ☒

An Encomium for Ray Eberts

By Peter Hancock & Dan Fisk

It is with great sadness that we must report the untimely death on August 4, 2003, of our friend and colleague Ray Eberts. We each knew Ray for more than two decades, since the three of us were graduate students at the University of Illinois. There are many ways to recount Ray's manifest talents, but one of the earliest and fondest of memories was of his presentation of an unusual skill in Jack Adams's motor skills seminar: Ray gave the whole of his talk while spinning a basketball on one finger!


Ray was an officemate of Dan's. He was always available to listen and to calm the fears of an often overly emotional graduate student. He was always unwavering in his support of his friends even when he had to disagree with the position they took, whether it was professional or personal. Such was typical of Ray Eberts – quiet and considerate, yet ever surprising us by his extraordinary capabilities. These qualities were to flower into full bloom at Purdue University, where Ray fitted well with an already enviable lineup of human factors luminaries. His intellectual growth was equally evident to the wider community through a series of innovative and insightful contributions.

We were collectively most fortunate to benefit from Ray's fecundity. For example, he framed his now famous *Four Approaches to HCI* in a chapter for a book edited by one of us. This original chapter burgeoned into a book that has become standard reading for students in human factors. Subsequently, Ray devoted much of his effort to the pedagogical arena; his many wise and significant insights into human factors and the wider educational process motivate and pervade the field today. We recall the outstanding presentation he made

at the 2000 Congress in San Diego, which shaped and directed collective thinking on the topic to the present day and promises to do so well into the future.

We can ill afford to lose scientists of such caliber and quality – but especially because Ray was always willing to embrace the vital but less popular topics of our collective enterprise. His insightful comments on the power of lifelong education can still be found on the Purdue Web site, at which institution he was about to be promoted to the position of executive director of Continuing and Professional Engineering Education. It is ironic that Ray was taken from us in a rear-end traffic accident – a circumstance which his article on the misperception of small cars gave definitive understanding.

During a remembrance celebration of Ray's life at Purdue, Dean Linda Katehi spoke of the extraordinary person he was. Ray was involved in rebuilding Kabul University in Afghanistan. Katehi said, "I warned him that it was too dangerous. But his desire to help those who couldn't afford an education was so strong he ignored my advice." Ray's journal entries give even more insight into the deep concern he had for all people. Katehi read one of Ray's journal entries when he was in Kabul: "Imagine a world where hardly anything works. Imagine a world where a little something is a great big something, because you have nothing." We echo the words of his Purdue colleagues: We have lost an important colleague, a dedicated and effective educator, and a dear friend.

We extend our deepest and most sincere sympathies to his wife, Cindy, and his children, Wescott and Russell, as well as his extended family and friends. It is evident that the good people do lives after them. Ray did so much good, and we are hopeful this provides some condolence to all who share in the grief of his loss. A husband, a father, a scientist, a colleague, but for us above all a friend. Valette, Ray – we'll miss you. 


Student Views

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have a sort of celebrity status, it can be very intimidating to approach these individuals. However, my experience was that many of the people I met at the meeting were very open, friendly, and as eager to talk to me as I was to talk to them. The truth is that as much as a student is looking for opportunities in the professional world, professionals are often looking for the right student to fit the opportunities they have or may have in the future.

Ironically, most of my experiences meeting various professionals were accomplished by sitting at a table for hours as a volunteer. Volunteering can create the opportunity to meet many of the individuals attending the meeting as well as getting some perspective on how HFES works and how it can work for you. I highly rec-

ommend it to any student thinking about attending future annual meetings.

The final piece of informal education that I received at the Denver meeting was that HFES truly is a very close community. There were many people there whom I had met previously on internship interviews or seen as speakers – some had even authored my textbooks. I realized very quickly that the people attending the meeting were going to be my colleagues for many years to come. I would be seeing them almost anywhere my professional and intellectual development took me. There were many exciting aspects to the Annual Meeting, but the best one was the opportunity to become a part of that community. 

Proposed TG Forming: Human Performance Modeling

By Wayne D. Gray & Dick Pew

We propose a Human Performance Modeling Technical Group (HPM TG) that will be concerned with the development and application of predictive and reliable quantitative models of human performance. Distinct from other approaches to behavioral and cognitive modeling, human performance modeling considers the human, engaged in some goal-directed behavior, in the context of a designed task environment.

Models of interest to the proposed technical group encompass the scope of systems of interest to HFES. Hence, we would equally promote models of isolated aspects of human performance, models of integrated cognitive systems, and integrative ergonomic modeling. The TG will promote and disseminate (a) the basic science foundation of such models, (b) engineering research needed to apply human performance models to human factors applications, (c) new formalisms for human performance modeling, and (d) techniques for evaluating the predictive success of such models.

We see the TG as a forum for testing modeling approaches that are emerging from the basic research community against the hard realities of human factors problems. Conversely, we see the identification of challenges faced by the human factors community in human performance modeling as providing significant feedback to basic researchers on the problems to be overcome and the opportunities for improvement of the research base.

The Growth of Human Performance Modeling

As the power and predictive validity of modeling techniques have improved, recent years have seen an upsurge of interest in computational approaches to performance modeling. Unfortunately, there is no professional organization or technical group within a professional organization that is devoted to human performance modeling. The closest is the Systems, Man and Cybernetics Society of the IEEE, and that group appeals largely to a different audience. Although many of those who do human performance modeling are members of HFES, many are not. We believe that a technical group devoted to human performance modeling would attract a significant number of new members.

Although there is interest in human performance modeling among HFES members, there is as yet no home for such a group. This point is reinforced by the fact that the two most recent Annual Meeting symposia to have a solid human performance modeling emphasis (Pew's in San Diego and Gray's in Denver) were sponsored as General Sessions. We do not see an HPM TG as directly competing for members with existing TGs but, rather, as providing an outlet and forum for members who see human performance modeling as part of the reengineering of human factors. (See Byrne and Gray's introduction to their special section in the Spring 2003 issue of *Human Factors*.)

Newell and Card (1985) warned the human factors community that the way to deal with scientists, engineers, and designers was not through the use of platitudes or by advocating the empirical testing of an infinite number of design alternatives but, rather,

through the use of predictive and reliable quantitative techniques. We see the proposed HPM TG as a way of bringing modern efforts in quantitative techniques home to HFES.

Scope of Interest

Some social scientists use the term *model* to refer to verbal-analytical models. Sometimes block diagrams that describe the flow of information, material, or action are considered models, as are physical reconstructions of reality. We specifically **exclude** these uses of the term *model* from what we intend this TG to be about. The TG will promote models based on abstractions that involve explicit mathematical or computer-based formalisms and that have an executable or computable representation.

Models that are useful in human factors work capture some aspect of human behavior in a task-related setting. That is why we refer to them as human performance models. The psychological literature is full of examples of theories and models of highly compartmentalized but computable representations of memory behavior, learning behavior, perception, and movement. However, only some of these have the potential to be useful as we strive for larger, more integrative representations of human task behavior. Computational models of mental workload, human response to stress, and cultural variants on behavior are clearly relevant and useful.

We explicitly include models of human performance based on *cognitive architectures*. Through cognitive architectures, theories of the control of cognition and theories of functions such as memory, attention, perception, and action are embedded in software. Models written using this software are executable computer programs. They are the main source of models that truly integrate perception, cognition, and action in a task context.

Human performance modeling also includes integrative ergonomic modeling. Digital human models and virtual dynamic manikins that represent the anthropometry, movement capabilities, and sometimes strength of people are clearly relevant. Also relevant are part-task models (such as models that predict excessive physical stress) that have the potential to integrate with integrative ergonomics models.

In summary, this TG will encompass all quantitative executable representations of human performance that are potentially useful in human factors research or application.

How to Join

A new TG may be formed if 150 people express an interest. Half of these must be current members of HFES; the rest may be nonmembers. With more than 150 names in hand plus a formal proposal, we can approach the Council of Technical Groups and ask for their support for the new HPM TG.

Members (and nonmembers) interested in supporting this new technical group should go to <http://www.cogsci.rpi.edu/cogworks/HPM-TG>. At that Web page you will find a form to fill out and more information regarding the TG. Also included at that page is the current draft of our proposal to the Council of Technical Groups.

References

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Newell, A., & Card, S. K. (1985). The prospects for psychological science in human-computer interaction. *Human-Computer Interaction*, 1(3), 209–242.

Wayne D. Gray has been an HFES member since 1982 and is an associate editor of Human Factors. In addition, he is chair-elect of the Cognitive Science Society and a professor of cognitive science at Rensselaer Polytechnic Institute. Dick Pew is a principal scientist at BBN Technologies. He has been involved with work related to human performance modeling for more years than he can count, both at the University of Michigan (1960–1974) and at BBN (1974–now).

User-Centered Consumer Product Design Award

During 2003, the HFES Consumer Products Technical Group (CPTG) conducted its second product design competition for innovative and user-centered approaches to human factors and industrial design. The award committee (Dianne McMullin and Stan Caplan) received 12 outstanding nominations for a variety of dif-

ferent product types. Seven judges evaluated the nominations on three design and three methodology criteria.

The award was presented at the HFES 2003 Annual Meeting in Denver to Microsoft Corporation for the Microsoft Office Keyboard. Hugh McLoone, the Microsoft team leader for the project, accepted the award and presented a paper about the product and its development at a well-attended CPTG session.

Thanks go to CPTG members Dave Aurelio, David Clarke, David Gilmore, Bill Lee, Jay Pollack, Nicole Prioux, and Rob Tannen, who diligently evaluated the nominations for both the design and the methods used to achieve the design. Design considerations were functional obviousness, ease of operation, and creativity. Research and methodological criteria considered how users were incorporated into concept development, design, and evaluation phases of the design process.

The call for nominations for the 2004 award will be published in the February issue of the *HFES Bulletin*. In the interim, contact Dianne McMullin (dianne.l.mcmullin@boeing.com) or Stan Caplan (scaplan@usabilityassociates.com) for details. ☒

AWARDS

Nominations for Awards

Each year during the HFES Annual Meeting, the Society honors outstanding persons who have made significant contributions to the human factors/ergonomics discipline. Nominations are requested from members for five of these awards, and technical groups are especially encouraged to nominate exceptional colleagues. Nominees are not required to be HFES members.

Submissions are due by or before *April 26, 2004*. This deadline is necessary to allow time for (a) subcommittee review and decision, (b) Executive Council action, and (c) HFES President Betty Sanders to inform the winners and invite them to participate in the awards ceremony at the 48th Annual Meeting in New Orleans. Students are encouraged to compete for the Alphonse Chapanis Student Paper Award by submitting a paper for the meeting with an award application form, available in the Author's Kit mailed to accepted authors in May.

To submit a nomination for one of the awards, the nominating party must

- submit a résumé or curriculum vitae, a nominating letter, and at least two and not more than three letters of support (from individuals who know the candidate well enough to assess his or her candidacy in terms of the award's criteria), and
- send all nomination packages to HFES, c/o Lynn Strother, P.O. Box 1369, Santa Monica, CA 90406-1369; lynn@hfes.org.

Nominations are sought for the following awards:

Distinguished International Colleague Award: This award recognizes a non-U.S. citizen who has made outstanding contributions to the human factors/ergonomics field. Gathering supporting information on individuals who live abroad may be slow and difficult, so early attention by potential sponsors is suggested.

Paul M. Fitts Education Award: This award identifies a person who has made exceptional contributions to the education and training of human factors specialists. Candidates considered for this award should include persons currently or previously engaged in college or university teaching of human factors material and/or those who have written significant textbooks in the human factors field. The principal criteria for evaluation should be the influence that the candidate has had on students and/or how extensively the candidate's work has been used by educators in general. In addition to the foregoing nomination requirements, if the criterion for the award is student influence, not more than five testimonials from current or previous students may be submitted.

A. R. Lauer Safety Award: This award recognizes a person for outstanding contributions to human factors aspects in the broad area of safety. This includes human factors work that has led to reduced accidents and injuries in industry, aviation, surface transportation, and consumer products, among others.

Alexander C. Williams, Jr., Design Award: This award is intended to recognize those who have made outstanding contributions to the conception or design of any product, service, or system that has had a significant impact on users and exemplifies the excellent use of empirical human factors design principles. In addition to the foregoing nomination requirements, other evidence of the success of the design – such as testimonials from users, performance evaluations, or evidence such as papers or reports indicating the extent to which it is based on experimentally derived human factors design principles – will be accepted.

Jack A. Kraft Innovator Award: This award honors a person for significant efforts to extend or diversify the application of human factors principles and methods to new areas of endeavor. ☒

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Thank you!