Human Factors Update: 
New Journal Enhancements

By William S. Marras, Human Factors Editor in Chief

The world of publishing is changing rapidly, as you may have noticed. If we look beyond the human factors/ergonomics arena, we see an explosion of journals, many of them online-only publications, providing new options for authors considering where to publish and for readers considering what to read. We live in an information-packed world in which busy people need to glean knowledge from these publications quickly and efficiently. These are the main reasons behind some recent changes in Human Factors. You may have noticed some of these changes, and there are more on the way.

Précis, Key Points, and Structured Abstracts

Beginning with the June 2010 issue, we will feature two additions designed to save readers time. The précis is a 50-word “teaser” about the article in the newly redesigned table of contents and will appear below the title and authorship of each article. The addition of the précis means that the table of contents will no longer fit on the front cover of the journal. So, as you may have seen, the contents page is now found inside each issue.

The second new feature is a bullet list of key points at the end of each article. These bullet points will aid readers who need to find the article’s “bottom line” quickly.

Introduced in 2009, the structured abstract is a highly efficient way to summarize the content of the paper using subheadings (objective, background, method, etc.) that roughly correspond to the major sections in the full article. To make these abstracts even easier to read and absorb, each subheading will begin on a new text line. (Previously, the abstract was a single paragraph.)

New Cover Design

Moving the table of contents inside the journal gave us the opportunity to incorporate a more visually interesting cover. We began using the new cover design with the first issue of 2010.

Length Guidelines

It is much more difficult to write short than it is to write long. U.S. government granting agencies have drastically reduced the word limits for proposals, as have many high-impact journals. Therefore, in the interest of trying to improve the scientific standing of Human Factors, we have revised the length limitations for the most commonly submitted article types in order to keep manuscripts to a reasonable length. At the same time, we have lifted the limit on figures and tables, and we now accept other forms of communication besides straight text. The aim here is encourage authors to use the best reporting mechanism for their work.

Complete details may be found in the Instructions for Authors, but here they are in brief:

- **Research Articles** report original research that is experimental (field or laboratory based), methodological, or theoretical in nature. Example: a single experiment or concept that is fully developed and includes a statistical analysis (when appropriate). Length: 4,500 words, excluding the abstract, key points, references, tables, and figures.

- **Extended Multi-Phase Studies** report on a sequence or series of closely related original studies that are best discussed collectively instead of through multiple original articles. Examples: more than one experiment or a mixture of experiments, observational studies, modeling, surveys, and ethnographic studies. The series must have a theoretical underpinning that makes its inclusion in the same report a logical progression. Each component (experiment) of the sequence of studies must be able to be statistically evaluated independently. Length: Multi-experiment series are limited to 4,500 words plus 3,000 words for each experiment.
(or model) beyond the first experiment, excluding the abstract, key points, references, tables, and figures.

- **Brief Reports** are for reporting preliminary observations in a timely manner, new and unique interpretations of previously published data, simple new techniques or new methodological approaches, or points of historical interest. These rapid-communication mechanisms for emerging ideas should have adequate data sample sizes to demonstrate statistical significance. *Length*: 1,500 words.

- **Review Articles** present a synthesis of previously published work on a specific topic of interest to the human factors/ergonomics community. These articles are intended to scientifically analyze a body of literature and synthesize the information in an original manner. Review articles must provide an original perspective on the literature, not merely summarizing but also extending knowledge on a topic. Review articles are solicited by invitation. Those interested in submitting a review article should contact the Editor in Chief prior to submission.

**Publication Timing**

You may have noticed that the journal is running several months behind. Several factors have contributed to the delay. In recent years the journal’s frequency was increased from four to six issues per year in order to eliminate a publication lag. This increased capacity has eliminated the backlog of accepted manuscripts, and time to publication has been shortened dramatically. However, we do not have a sufficient number of accepted manuscripts to fill the issues in a timely manner. Several initiatives are forthcoming that should help us get back on track. These include several planned special issues, special invitations for submissions, new classes of articles, and a soon-to-be-announced competition.

**Conclusions**

In summary, we have begun to make changes to both the content structure and image of our journal that will place *Human Factors* in a stronger competitive position. We expect that these actions will result in a higher Impact Factor in the coming years. Although it may take time for authors to become comfortable with some of these changes, we strongly believe that we are building a stronger journal that will benefit all of us.

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**ANNUAL MEETING**

Matthew B. Weinger To Present Arnold M. Small Lecture in Safety

*By Michael J. Kalsher, Technical Program Committee Guest Lectures Chair*

The 23rd Annual Arnold M. Small Lecture in Safety will be presented by Matthew B. Weinger, MD, on Wednesday, September 29, from 1:30 to 3:00 p.m. In his talk, “If Not by You, Then Who? Human Factors Contributions to Perioperative Patient Safety,” Weinger will discuss the issues that affect the safety of patients undergoing surgical procedures, with an emphasis on how a lack of attention to human factors/ergonomics contributes to unsafe perioperative care, emphasizing the importance of greater involvement of HF/E practitioners in the health care domain. Weinger will argue that the active participation of HF/E professionals in the patient safety movement will have direct positive effects on our health care system.

Weinger holds the Norman Ty Smith Chair in Patient Safety and Medical Simulation and is a professor of anesthesiology, biomedical informatics, and medical education at the Vanderbilt University School of Medicine. He also serves as vice chair for Academic Affairs in the Department of Anesthesiology. For the Medical Center, he is director of the Vanderbilt Center for Perioperative Research in Quality and director of the Simulation Technologies Program of the Center for Experiential Learning and Assessment. Weinger has been a Department of Veterans Affairs (VA) physician for more than 20 years and currently serves as senior staff physician at the Geriatric Education Research and Clinical Care (GRECC) Center at the Middle Tennessee VA Healthcare System.

Weinger has been teaching and conducting research in anesthesia patient safety, human factors engineering, and clinical decision making for more than two decades. He received the James S. Todd Memorial Award for Patient Safety Research from the National Patient Safety Foundation in 1998. He is associate editor for health and health systems for *Human Factors* and is on the editorial board of *Simulation in Healthcare*. He is cochair of the Association for the Advancement of Medical Instrumentation (AAMI) Human Factors Committee, which is responsible for developing American National Standards for all medical device user interfaces. He also serves as an adviser for the Food and Drug Administration and for the Agency for Healthcare Research and Quality.
Mosier's Presidential Address To Focus on Human Factors in Aviation

During the Opening Plenary Session, HFES President Kathleen L. Mosier will present “Human Factors in Aviation: A Brief (and Selective) History.” The address will outline the progression of human factors research in the aviation domain, providing background for Captain Chesley B. “Sully” Sullenberger’s keynote address.

Mosier is a professor of psychology at San Francisco State University. She received her PhD in industrial/organizational psychology from the University of California, Berkeley, and her training in aviation human factors at NASA Ames Research Center. She has been conducting research in expert decision making for almost 20 years as a senior research scientist at NASA Ames and currently as a principal investigator on NASA- and FAA-funded research. Her focus has been on the impact of automation on air transport pilot decision-making processes. She coined the term automation bias to refer to errors that result from using automated aids as a heuristic replacement for vigilant information seeking and processing. Her most recent work examines coherence and correspondence in high-tech environments, and the influence of automation and operator state on decision processes.

Ergonomics Pioneers Discuss Work on NIOSH Guide

Almost 30 years have passed since the National Institute for Occupational Safety and Health first published Work Practices Guide for Manual Lifting (1981). The guide offered, for the first time, a practical method to estimate the acceptable weight of lifting based on scientific analysis.

Since its publication, this guide has been used by ergonomists worldwide as a powerful tool for task design and injury prevention in industrial practice. To highlight this accomplishment, a special panel session at the HFES 54th Annual Meeting will bring together authors of this landmark ergonomics tool. The seven panelists – M. M. Ayoub, Don. B. Chaffin, Colin G. Drury, Arun Garg, Gary Herrin, Karl H. E. Kroemer, and Stover H. Snook – will discuss what they knew at that time, how the guide was developed, what they learned in the process, and considerations for future work.

“Pioneers in Ergonomics: Original Authors of the 1981 NIOSH Work Practices Guide for Manual Lifting” will take place on Wednesday, September 29, from 1:30 to 3:00 p.m. in Grand Ballroom C. The session is sponsored by the Industrial Ergonomics Technical Group, the HFES Council of Technical Groups, the Liberty Mutual Research Institute for Safety, and the Safety Technical Group. It will be followed by a reception in the Market Street Foyer.

HFES Welcomes New Officers and Executive Council Members

HFES is pleased to announce the results of the 2010 election and congratulates the following newly elected officers and Executive Council members. Their terms will begin at the 2010 HFES Annual Meeting in San Francisco.

President-Elect
Mica R. Endsley
SA Technologies, Inc.

Secretary-Treasurer-Elect
Valerie J. Rice
U.S. Army Medical Department Center and School

At-Large Executive Council Members
Nancy J. Cooke
Arizona State University
Paul A. Green
University of Michigan Transportation Research Institute

Daily Newsletter Items Wanted

The HFES 2010 Annual Meeting newsletter, The Cable Car Post, is now accepting items for publication. Topics may include any of the following:

- descriptions of demonstrations or exhibits
- dates and locations for university reunions/gatherings during the Annual Meeting
- features on invited speakers, other special guests, and HFES members
- previews of panels, debates, and unique sessions
- information on student-related sessions and activities
- announcements of new academic programs
- information on Technical Group special sessions and business meetings
- news of upcoming events, conferences, and books of interest to attendees.

We encourage e-mail submissions before the meeting; however, we also welcome submissions from all attendees on site. Please submit dates and locations for university reunions or other meetings as early as possible.

If you would like to submit an article or learn more about how you can become involved with The Cable Car Post, please contact Newsletter Editors Lena Urdaneta at pixelada@gmail.com or Celeste Adamson at celeste.adamson@gmail.com. The Cable Car Post also invites exhibitors and any other interested parties to advertise. Contact HFES Communications Director Lois Smith at 310/394-1811, lois@hfes.org, for details.
NATIONAL ERGONOMICS MONTH

NEM Is Just Around the Corner

By Raegan M. Hoeft, NEM Committee Chair

September has arrived, and that means National Ergonomics Month (NEM) in October is almost here. NEM is now in its eighth year! Have you participated in NEM events in the last eight years? If not, there’s no time like the present to get started.

NEM Expo

This year, we’ll kick off NEM with the first-ever NEM Expo at the HFES Annual Meeting in San Francisco. Instead of our usual lecture format, this year we’re changing things up by giving organizations and individuals space for interactive booths where attendees can participate in and learn about outreach activities that have been carried out in previous years. We also plan to solicit ideas from you via some creative methods.

The NEM Expo will be held on Monday, September 27, from 4:45 to 6:15 p.m., just prior to the Gala Opening Reception. Throughout the entire session participants and volunteers will be available to perform demonstrations and engage attendees in interactive activities. The NEM Contest winners will also be announced. We hope that you will swing by, have some fun, collect some tips on conducting outreach activities, and be inspired to participate in NEM.

Post Your Events on the NEM Web Site

The NEM Web site has a page for upcoming events. We encourage you to submit information about your upcoming events to raegan.m.hoeft@lmco.com so that we can post them. Posting your upcoming events will increase public awareness of your events, allow for possible collaborations with other events, and inspire others to conduct their own NEM events. Remember that you do not need to limit your events to the month of October. As World Usability Day (WUD; November 11, 2010) continues to expand, we continue to collaborate with local Usability Professionals’ Association chapters for these November events, so we welcome WUD and other HF/E outreach event postings on the NEM Web site as well.

Request NEM Materials

If you are planning to hold an NEM event, we can provide you with NEM logo trinkets to give away. We will be passing these out during the NEM Expo, but you can also request them at any time. For more information, please visit our Web site at www.hfesnem.org or contact me at raegan.m.hoeft@lmco.com.

Put Your Stamp on NEM

No idea is too great or too small. Help us celebrate NEM 2010. Do not put constraints on the meaning of NEM; instead, embrace all possible opportunities to promote HF/E to whom-ever you can and whenever possible. And of course, have fun doing it!

MARINE ACCIDENT INVESTIGATOR--HUMAN FACTORS

The National Transportation Safety Board has an opening in its Washington, DC, headquarters for a specialist to develop, document, and analyze facts pertinent to human factors issues in marine accident investigations.

Candidates should have knowledge of or experience in the marine industry and graduate training, preferably a Ph.D., in human factors engineering, psychology or a related field.

Access the vacancy announcement at http://www.ntsb.gov/Vacancies/listing.htm or contact Leslie McClam at leslie.mcclam@ntsb.gov, or 202-314-6224, for a copy of the vacancy announcement. Interested applicants should complete the application no later than October 1, 2010. US citizenship required.

CHAPTER NEWS

Local Chapters: Current Status and Future Directions

By James P. Bliss, Internal Affairs Division Chair, & Carlos de Falla, Director of Membership Services

An important hallmark of success for any scientific organization is the degree to which it regularly engages with its members to facilitate professional networking and placement opportunities, disseminate research findings, and provide other benefits. Organizations that interact with their members regularly are usually more successful, enjoying consistent growth and a marked impact on the scientific community in general. One way in which HFES meets such needs is through its local chapters. These chapters reflect both regions (such as the Tri-State and Tennessee Valley Chapters) and particular cities (such as the Atlanta, Houston, and San Diego Chapters). As HFES has grown to include members outside the United States, chapters have been formed that represent large areas such as Europe and China.

Over the years, local chapters have varied with regard to their health. Some chapters have successfully attracted members, have held popular events, and have been perceived as generally effective by their members. Others have struggled to maintain mem-
bership; numbers and members’ interest have declined. Some have even ceased to exist because of lack of interest. In the last five years or so, the perception among some has been that an increasing number of local chapters have suffered from inactivity. This has led the HFES Executive Council to seek input from the chapters themselves about their membership and activities and the perceived viability of the local chapter concept.

In May 2010, HFES sent a blind paper survey to presidents of each of the 23 active local chapters to help the Society understand each chapter’s status. The survey included questions about membership, programs, services, and the future. In addition to helping HFES understand chapters’ relative health levels, the survey also served to guide chapter leaders through a process of examining their operations, services, programs, and activities. Ultimately, chapters were encouraged to identify successful areas to bolster and challenges to address. Sixteen responses were received, representing a 70% return rate. Results of the survey are presented below.

Membership
In the area of chapter membership, respondents answered questions about recruitment and retention success, perceptions of chapter size, and strategies used to encourage members to renew their local chapter membership. Respondents were also asked to identify types of service, support, or resources that could help their chapter increase its membership. Most responding chapters (88%, n = 15) indicated that they are not successful in member recruitment and retention. Furthermore, most chapters (65%, N = 11) believe the size of their chapter is too small. Seven chapters consider their current recruitment efforts to be successful; however, 3 chapters do not devote specific effort to member recruiting.

Most responding chapters agreed that some form of program assistance is needed to help their membership grow. Specific services of interest included access to HFES member addresses in a certain geographic area, templates for membership marketing and needs assessment, centralized HFES assistance for signing up local members and referrals, ability to host Webinars for monthly chapter meetings, and closer coordination with related organizations. Many of these strategies are currently in progress or have been considered by the HFES Executive Council.

Most responding chapters use a variety of methods to encourage renewal of membership; only 2 chapters have no program in place for this. Those methods include marketing members-only events to nonmembers, implementing a renewal program, holding renewal drives, reminding members about renewal through Facebook and Web page statements, and encouraging renewal at hosted events.

Strategies identified for chapters to increase membership include closer coordination with related organizations, automatic local chapter referral upon joining HFES, and use of Webinars to reach out to interested professionals. Respondents emphasized the importance of a needs assessment to determine benefits of interest to potential members.

Programs and Events
Respondents were asked to characterize chapter events and programs as successful or unsuccessful, to indicate the degree to which local chapters collaborated with student chapters, and to name factors that contributed to accomplishing event attendance goals.

The vast majority of responding chapters (94%, n = 16) believe their chapters’ events are successful. Most chapters also claim to meet attendance goals (63%, n = 10). However, there is no standard practice as to when or how often events are held; this ranges from monthly to annually. About 65% of chapters (n = 11) do not have an opportunity to collaborate with a student chapter; however, all those that do have the opportunity take advantage of such collaboration. The most important predictors of event success appear to be related to members’ availability (time of the day, week, or month) and cost; the least important issues include specific topics or speakers featured.

Chapter Services
Questions about chapter services revolved around perceived benefits to the chapter’s members and whether those benefits were believed to be adequate. Specific items concerned the availability of an events calendar (and, more generally, a newsletter), whether a chapter Web site is maintained and what it offers, and the degree to which the chapter successfully recruits volunteers to perform necessary tasks.

Most responding chapters do not publish an events calendar (80%, n = 12); more than half (53%; n = 8) publish no newsletter. All but one chapter maintain a Web presence linked to hfes.org. The sites are used to accomplish much of what newsletters would traditionally do: list leaders and contact information.
mation, program dates and topics, and membership renewal information. Most responding chapters (60%; n = 9) seem to lack sufficient volunteers to handle necessary work. The modal method for recruiting volunteers is personal discussion, though some chapters advertise positions or announce positions at meetings. Volunteers who serve are typically thanked publicly, but they are not compensated with awards or gifts of any kind.

Some chapters have attempted creative solutions to increase meeting attendance and enhance chapter health, such as recruiting sponsors, inviting exhibitors to attend meetings, and accepting donations.

Future Outlook

Perhaps the most important perspective concerns the future of local chapters. Because of the variability surrounding chapter viability and apparent success, we considered answers in this area to be important barometers of membership interest in maintaining the local chapter in its current state. We asked respondents to indicate whether the local chapter concept is viable in today's environment and whether merging local and student chapters might be an acceptable strategy to ensure chapter longevity. We also asked respondents to offer suggestions about ways in which HFES might assist local chapters.

Interestingly, even though many chapters are finding it difficult to recruit members, the responding chapters unanimously agreed that local chapters are indeed a viable structure. They also overwhelmingly supported the idea of merging with student chapters to share resources.

In response to the offer from the Society to provide assistance, chapters indicated that the parent organization could assist local chapters with recruitment, provide leadership development programs, give technical assistance for chapters' Web applications and tools (including hosting chapter Web sites and collecting membership fees centrally), help chapters connect with other professional organizations and corporate sponsors, and assist with officer succession.

Summary and Conclusions

From the responses we received, several conclusions may be reached. First, although some data may suggest that chapters are generally too small and not successful with recruitment or retention, it is clear that chapters are in favor of keeping some sort of local chapter model and even merging local and student chapters if necessary. Second, the data indicate that successful chapters have tried valiantly to increase the diversity of their activities and benefits to members; however, it is difficult to find willing volunteers. Assistance from HFES would be of considerable help. Third, local chapters are relying on electronic means (Web, e-mail) to recruit and advertise. This is fairly successful but requires volunteer labor for maintenance. Fourth, hosted events are viewed as successful; lack of attendance may be attributed to member time constraints or financial limitations. Finally, local chapters would generally welcome increased central control to assist with recruiting and volunteer duties.

At this point, the Executive Council will consider the data presented here and contemplate steps to ensure the long-term viability of chapters. We welcome additional comments from all members at jbliss@odu.edu.

FAA Commercial Space Transportation Initiative To Include HF/E

The Federal Aviation Administration’s newly established Center of Excellence for Commercial Space Transportation, announced by U.S. Transportation Secretary Ray LaHood on August 18, will focus in part on human factors/ergonomics aspects of this growing area.

The center brings together academic institutions, companies in the space industry, and NASA research centers to create a world-class consortium to address current and future challenges for commercial space transportation. Led by New Mexico State University on the academic side, the center includes Florida Institute of Technology, whose College of Aeronautics will contribute to research associated with air traffic management concerns and human space flight issues such as the mitigation of g forces to avoid the need for extensive training and exposure and thereby expand the potential customer base, protocols to address the medical/physical requirements of space flight, and the development of special personal equipment for passengers.

HFES Member John E. Deaton, director of research for the College of Aeronautics, stated, “The Center of Excellence for Commercial Space Transportation provides opportunities for both HF/E researchers and practitioners to contribute novel approaches to the challenges of future commercial space transportation. In some cases, this will involve more than the application of past or current technologies. Innovative approaches will no doubt be required to ensure the safe operation of a new generation of aircraft and a specialized customer base.”

The center’s partners will focus on four research areas: space launch operations and traffic management; launch vehicle systems, payloads, technologies, and operations; commercial human space flight; and space commerce (including space law, space insurance, space policy, and space regulation).

According to the FAA press release, the agency “will enter into 50-50 cost-sharing cooperative agreements to establish the partnerships, with plans to invest at least $1 million per year for the initial five years of the center’s operations.”

Also part of the consortium are Stanford University, New Mexico Institute of Mining and Technology, the Florida Center for Advanced Aero-Propulsion at Florida State University, the University of Colorado at Boulder, the University of Texas Medical Branch at Galveston, Space Florida, Virgin Galactic, SpaceX, Qinetiq North America/Analex, Florida Turbine Technologies, International Space University, Starfighters, and NASA’s Kennedy Space Center and Glenn Research Center.

See You in San Francisco!
Take Advantage of the On-Site Career Center

The HFES Career Center will be available during the upcoming HFES Annual Meeting to assist employers and job seekers. The On-Site Career Center hours are Monday, September 27, 1:00 to 6:00 p.m.; Tuesday and Wednesday, September 28 and 29, 8:30 a.m. to 6:00 p.m.; and Thursday, September 30, 8:30 a.m. to 5:00 p.m. Here you’ll find details to plan your job recruitment or search.

Interview Space Still Available

Limited space is still available to conduct interviews in the On-Site Career Center at the HFES 54th Annual Meeting in San Francisco. Reserving a booth or table enables you to talk to job seekers directly. Download a reservation form or contact HFES by phone (310/394-1811) or e-mail (placement@hfes.org). The scheduling of formal or informal interviews at the Annual Meeting is the sole responsibility of the prospective employer.

Advance Preparation for Interviews

Employers: post job openings in the online Career Center prior to the Annual Meeting if you plan to conduct interviews. Candidates (members only): post your résumé and search for jobs in the online Career Center or at the Annual Meeting. If you plan to be available for interviews at the Annual Meeting, bring copies of your résumé to the meeting and visit the Online Career Center to see a listing of employers conducting on-site interviews. Check back often, as this list will be updated frequently.

New One-Month Option for Employers

The Career Center is already a great value for employers who want to post job openings and search the résumés of HF/E professionals. But now, in addition to the current options for three-, six-, and 12-month packages, it’s possible to post a job in the Career Center or gain access to the database of résumés for one month at reduced prices: It is just $250 for a single, one-month job posting or $350 for one month of unlimited access to the résumé database.

Compare this with the fees on other online job services: A one-month job posting on Monster.com is $395 for multiple locations, and on CareerBuilder.com it’s $419. To search résumés for one month, Monster charges $2,300 and CareerBuilder charges $1,000. The HFES Career Center not only offers a substantial savings over these other services, but you can be sure that you are targeting HF/E professionals exclusively.

Visit the Online Career Center today and select the options and packages that suit your needs. For more information, contact Carlos de Falla, director of Member Services, at carlos@hfes.org.

Job Notices at the Annual Meeting

HFES will collect résumés for companies with a job posting in the Career Center but not interviewing at the Annual Meeting. The charge for this service is $150.

Accidents just happen. Practice makes perfect. Has your organization become error-tolerant? We attribute accidents to human failure believing that the processes in place are fundamentally safe. Gain a new view of the human error and workplace safety at Rethink Safety Symposium.

Register in September to save at http://www.asse.org/education/rethinksafety/