



AIS SIGHCI Newsletter

Association for Information Systems
Special Interest Group on Human-Computer Interaction

Volume 6 Issue 2

November 2007

Inside

HCI Track at AMCIS'07	1-2
HCI Track at PACIS'07	2
HCI in MIS Sessions at HCII'07	2
Book Review	3
Industry Voice	4-5
SIGHCI Executive Meeting	5
Teaching with HCI	6-7
Journal Special Issues	8
Current Activities	9-10
HCI Research Tool	10
Future Activities	11
SIGHCI Sponsors	11
Acknowledgement	11
SIGHCI Advisory Board	12
SIGHCI Officers	12
Save the Dates	12

Review: AMCIS 2007 HCI Track

SIGHCI was pleased to sponsor the HCI track at AMCIS 2007 in Keystone, CO, which included 9 mini-tracks. These SIGHCI sponsored mini-tracks formed 14 paper sessions that spanned the entire conference program. There were a total of 38 papers presented within the HCI track at AMCIS 2007, with strong attendance at each session. The following paper was selected as the best paper from the HCI track and received honorable mention for the overall conference best paper award. Congratulations to these authors for their outstanding work!

"Selecting While Walking: An Investigation of Aiming Performance in a Mobile Work Context", by Martin Schedlbauer, University of Massachusetts - Lowell and Jesse Heines, University of Massachusetts - Lowell

Authors of the best completed papers were invited to submit expanded versions of their papers for fast-tracking and publication consideration in a SIGHCI-sponsored special issue of the DATA BASE for Advances in Information Systems. The special issue is expected to be published in 2008 and is co-edited by Matt Germonprez, Traci Hess, Chuck Kacmar, and Young Hwa "Gabe" Lee.

Thank you to all authors, mini-track chairs, and reviewers for providing such a good showing of HCI research. SIGHCI looks forward to sponsoring the HCI track at AMCIS 2008 in Toronto, Canada!

Track Co-Chairs:
Matt Germonprez
Traci Hess
Peter Tarasewich



Review: AMCIS 2007 HCI Track (cont'd)



Pictures taken by Weiyin Hong, Kenneth E. Kendall, Na (Lina) Li, and Hong Sheng

Review: PACIS 2007 HCI Track

SIGHCI was pleased to sponsor the HCI track at the 11th Pacific Asia Conference on Information Systems in Auckland, New Zealand on July 3-6, 2007. The HCI track included 3 full sessions of completed research papers. Research-in-progress papers were presented in other sessions. A total of 15 papers were presented within the HCI track. The following paper was nominated as best paper from the HCI track.

Motivation, Social Identity and Ideology Conviction in OSS Communities: The Mediating Role of Effort Intensity and Goal Commitment.
Weiling Ke, Clarkson University; Ping Zhang, Syracuse University

For more details, please visit <http://sigs.aisnet.org/sighci/pacis07/index.html> or <http://www.pacis2007.com>.

Track Co-Chairs: Hock Hai Teo & Kil-Soo Suh

Review: Human-Computer Interaction in MIS Sessions at HCII 2007



SIGHCI was pleased to sponsor three HCI in MIS sessions at the 12th International Conference on Human-Computer Interaction (HCII 2007) in Beijing, China on July 22-27, 2007. A total of 16 papers were presented in the HCI in MIS sessions with strong attendance. For more details, please visit <http://sigs.aisnet.org/sighci/hcii07/index.htm> or <http://www.hcii2007.org>.

Session Co-chairs:
Fiona Fui-Hoon Nah
Ping Zhang
Scott McCoy
Weiyin Hong



Pictures taken by Fiona Nah, De Liu & Jia Shen

Universal Usability: Designing Computer Interfaces for Diverse Users

Edited by Dr. Jonathan Lazar

Reviewed by Dr. Eleanor T. Loiacono

Department of Management, Worcester Polytechnic Institute, eloiacon@wpi.edu

Dr. Lazar has compiled a number of informative usability articles in *Universal Usability: Designing Computer Interfaces for Diverse Users* (John Wiley & Sons, copyright 2007). The articles cover a variety of usability issues and highlight those related to seniors, the visually impaired, and those with autism. Starting with a historical perspective, Dr. Ben Shneiderman highlights the significance of the work contained in the textbook and points out to readers the importance of such research to designers, researchers, and most importantly users.

Emphasizing the need for practical results, Dr. Lazar highlights the fact that “the goal shouldn’t be perfection. Over time, our standards related to universal usability may change. Over time, we may learn more. However, we should implement as much knowledge as we currently have that we can use in a practical way” (p.7, Lazar, 2007). Thus each chapter (19 in total) highlights a particular “hands-on” research project focusing on the practical outcome of universal usability. The topics include: usability issues faced by blind and older users, searching and browsing behaviors of children, text input and speech recognition for those with spinal cord injuries, as well as many others.

Inspired by Dr. Lazar’s words that “interfaces and applications CAN be developed” for challenged user groups, each chapter points out a different user group in need of special consideration when using interfaces and applications, how their special needs can be met, and what the implications are for users, designers, researchers, and policymakers. This format provides readers with a relevant example of what the “real” issues are users face, what can be done to address these problems, and why it is important to address such issues.

As Dr. Preece points out in the final chapter of the book “how technology improves everyone’s quality of life by helping them to overcome physical and cognitive constraints and disabilities so that they can participate more fully in the world around them. Well-designed technologies enable people with disabilities to get both the care and companionship that they need. More importantly, they can help themselves and retain some of the dignity that is challenged by being dependent on others” (p. 587, words of Dr. Jennifer Preece, Lazar, 2007). It is important to also consider the cultural differences that play a part in universal usability and to continue to raise people’s awareness of universal usability.

The book has a good flow and is easy to read by a variety of readers. The concepts are supported with previous academic literature and so provide researchers with a single, solid source of up-to-date research in the area. Designers looking to design universally usable interfaces and applications now have a source of practical solutions developed and tested by others to guide them. Advocate groups for diverse user groups, often neglected

in design phases, now have support for the social significance obtained when such groups are included in design. This book would benefit any researcher or advocate’s library—serving as a good read and source of reference.

Chapter Contents:

1. Introduction to Universal Usability
2. Designing Searching and Browsing Software for Elementary-Age Children
3. The Why and How of Senior Focused Design
4. Online Redesign of a Web Site’s Information Architecture to Improve Accessibility for Users Who are Blind
5. Listening to Choropleth Maps: Interactive Sonification of Geo-Referenced Data for Users with Vision Impairment
6. Improving the Screen Reading Experience for Blind Users on the Web
7. Web Fun Central: Online Learning Tools for Individuals with Down Syndrome
8. Using Virtual Peer Technology as an Intervention for Children with Autism
9. Evidence-Based Computer-Assisted Instruction for Autism Spectrum Disorder
10. Making Software Accessible for Users with Dementia
11. Designing a Cognitive Aid for and with People Who Have Anterograde Amnesia
12. Memories of a Life: A Design Case Study for Alzheimer’s Disease
13. Interaction Techniques for Users with Spinal Cord Injuries: A Speech-Based Solution
14. Adding Gestural Text Entry to Input Devices for People with Motor Impairments
15. The Creating Community Connections Project: Social and Cultural Approaches for Engaging Low-Income Communities
16. Implementing Community-Based Participatory Research to Reduce Health and Technology Disparities among Low-Income African-American Women
17. Evaluating the Usability and Accessibility of an Online Form for Census Data Collection
18. Internationalizing Greenstone: A Multilingual Tool for Building Digital Libraries
19. Making Universal Access Truly Universal: Looking toward the Future

Reference:

Lazar, Jonathan (ed.), 2007. *Universal Usability: Designing Computer Interfaces for Diverse Users*. John Wiley & Sons, Inc., ISBN 978-0-470-02727-1.

Integrating HCD & Software Development Processes: A Program Management Solution

E. Killian Evers

Group Program Manager, Applications User Experience

Oracle Corporation

killian.evers@oracle.com

While it is accepted in the human-computer interaction research community that incorporating human-centered design (HCD) into the structured approach to developing highly usable software, it has proven often difficult to incorporate HCD into an established system development lifecycle (SDLC) (Metzker and Reiterer 2002). The challenges to doing so can be summarized into three main areas: the actual process integration, including existing prejudices and organization politics; the ability to effectively leverage often small user experience resources; and the desire for continual process improvement to ensure optimal performance (Metzker and Reiterer 2002). A few organizations have discovered an unlikely solution to resolve these obstacles, in the form of user experience program managers.

Traditional software program managers are the guardians of the SDLC and are intimately aware of its inner workings. Program managers are responsible for defining and managing multiple, ongoing, inter-dependent projects to a successful conclusion. This includes organizing and managing resources to ensure project completion within pre-defined scope, quality, time, and cost constraints. Utilizing program managers who are already knowledgeable of the SDLC can be an effective tool for a user experience organization to leverage when integrating the HCD into the SDLC. Program managers are uniquely qualified to assist in overcoming the three barriers for incorporating HCD into SDLC:

- Process Integration
- Resource Leverage
- Continuous Process Improvement

Process Integration

In order to integrate HCD into the SDLC, the user experience organization at Oracle engaged a small team of program managers from the development community at Oracle. The program managers had significant experience at PeopleSoft, Oracle, JD Edwards, and Siebel in establishing SDLC from the development perspective, but all shared a keen interest in the usability community. Garnering these resources, the team examined the Oracle SDLC and took the opportunity to insert the key elements of HCD into the process. Prior the HCD inclusion, the Oracle SDLC resembled the most common SDLC phases and structure, including:

- **Planning** – establishing the plans for creating your software release. This includes defining the scope of what is to be developed, defining a high-level project plan and identifying the project milestones to be monitored.
- **Analysis** – documenting and then prioritizing your business requirements with the key stakeholders of your software.
- **Design** – designing the technical specifications of the software, including the underlying architecture and user interfaces.

- **Development** – building the technical architecture and the UIs to specification.
- **Testing** – testing the developed system to ensure actual outcomes match the expected outcomes.
- **Deployment** – developing the supporting training materials required and assisting implementation of the software.
- **Maintenance** – implementing changes to the software as needed and responding existing customers' questions and technical difficulties.

The usability program managers worked extensively with their user experience counterparts, learning and examining the HCD in detail. The program managers balanced the user experience and development needs to create a process mutually beneficial to all organizations. Following the HCD inclusion, the Oracle SDLC was redefined to include user experience from the very first step in the process, thereby helping to ensure its maximum impact while addressing the criticism with other attempts that the HCD is often incorporated too late in the process to provide maximum impact (Zhang, et al. 2005). The resulting incorporation could then resemble:

- **Planning** – User Input, Site Visits: as input to scope planning
- **Analysis** – User Needs Evaluations, Task Analyses: as input to requirements determination
- **Design** – User Interface Design, Formative Evaluation, and design specifications for development
- **Development** – Formative Evaluation; Design Reviews to confirm design specifications
- **Testing** – CIF (Common Industry Format) /SUMI (Software Usability Measurement Inventory) testing
- **Deployment** – User Evaluations, User Training
- **Maintenance** – Continuous improvement on all of the above steps

With this inclusion, the existing barrier of maintaining two separate processes (development and user experience) was overcome, thereby allowing development work estimates to include budgeted time for user experience design and usability activities. This resulted in obtaining a meshed SDLC and HCD approach to developing enterprise software, with user experience integrated from the very beginning of the cycle. Therefore, there is no need to create a separate structure from the SDLC, as some have suggested (Zhang, et al., 2005).

Resource Leverage

Some have asserted that the more mature a usability organization is, the more likely it is that they have a well defined HCD with enough resources to support the software development process for the company (Metzker and Reiterer 2002). All too often this is not the case, and the usability organization must determine how to leverage their existing resources in order to accomplish all of the

Industry Voice (cont'd)

tasks development teams' desire in the given timeframe. And as common in development organizations, the timeframe can be tight for the asked resources. A potential solution to this dilemma can also be aided by user experience program management in the forms of flexible approaches and resource leverage.

The challenge many user experience organizations face is the classic problem faced by most development organizations: far too few resources for the amount of work required. The program management discipline includes an extensive array of alternative software development approaches that can meet the needs of quick turnaround, low resourced projects. These approaches not only include the traditional waterfall process, but also iterative processes such as Agile, Extreme Programming (XP), and Test Driven Development (TDD). All of these processes can be intermixed with the SDLC to meet the needs of a specific project. An experienced program management team can assist the user experience organization in developing their "process bag of tricks" and applying the best fit process for any given project.

Once the process is determined, the real impact of program management can be seen in their skill in managing multitudes of projects and the resources assigned, across functional, geographic, and enterprise boundaries. Program managers are tasked to think beyond the usability organization to include partners in other parts of the larger organization. Effective partners can be found in program management, product management, strategy, development, quality assurance, technology writers, as well as in the sales and support divisions within the company. Program managers' responsibilities include leveraging resources from any of these organizations as needed to assist on projects.

Finally, program managers manage existing user experience resources by applying them to the highest yield projects for the organization. The discipline focused on detailed analysis of resource allocations for the entire organization, weighting each project for its importance to the user experience organization and the overall company. Thereby providing the user experience managers the insight into where they should best spend their precious resources.

Continuous Process Improvement

Some have argued, rightly so, that integrating user experience into a mainstream software development process must be understood as an organizational learning task (Metzker and Reiterer 2002). Thus, the resulting process integration must incorporate continuous process improvement for long-term viability. Again, while some have argued this is new to the

SDLC, it is far from new for the program management discipline (Metzker and Reiterer 2002). Indeed, process improvement is a fundamental building block for program managers. Their role is to determine the best possible way to accomplish a given task, measure the effectiveness of the method chosen, and then refine the method for future use. This applies from the highest level of the SDLC to the discrete tasks within a given project. This also applies to any waterfall or iterative process that is used within the organization.

Continuous learning happens all throughout the process, but can be examined in depth during project post-mortems. These exercises support the evolution of the SDLC with the knowledge gained from each project completion and product release. Program managers take these opportunities to continuously refine the SDLC and refine the user experience factors within the process to better support the overall objective of producing highly usability software. This also provides an opportunity to re-examine and refine the specific design and usability engineering methods as well; further ensuring that the HCD integration into the SDLC is a fruitful one.

Conclusion

For organizations seeking to integrate their HCD into the SDLC of their company, establishing program management within the user experience organization can provide a unique perspective and aid in breaking down the traditional barriers for accomplishing this goal. We have seen the successful introduction of program management at Oracle, with program managers assisting in the process integration, establishing alternative approaches for resource leverage, and focusing efforts on continuous process improvement throughout the entire development lifecycle. While much still needs to be learned, this new and exciting field provides hope for all user experience organizations.

References

- Metzker, E. and Reiterer, H. (2002). Use and Reuse of HCD Knowledge in the Software Development Lifecycle: Existing Approaches and what Developers Think. *Usability: Gaining A Competitive Edge / IFIP 17th World Computer Congress*, Montréal, Québec, Canada, 2002, pp. 39-55.
- Moallem, A. (2005). Usability Is a Culture and Not Just a Service. *AIS SIGHCI Newsletter*. Vol. 4, Issue 1, 12-13.
- Zhang, P., Carey, J., Te'eni, D., Tremaine, M. (2005) Integrating Human-Computer Interaction Development into the Systems Development Life Cycle: A Methodology. *Communications of the Association for Information Systems*. Vol. 15, 512-543.

Announcement: AIS SIGHCI Executive Meeting at ICIS'07

The SIGHCI executive committee meeting will be held on **Saturday, December 8th at 6:30 pm** in the Joillet / Duluth room at the Fairmont Queen Elizabeth Hotel in Montreal, Canada, after the conclusion of the SIGHCI Pre-ICIS workshop.

Can Learning Task Analysis and Modeling be Useful AND Fun?

Scott P. Overmyer

Director, MSIS Program

Baker College

Flint, Michigan 57268

scott.overmyer@baker.edu

This article describes a recently funded research program that is generating some enthusiasm among students and faculty alike at Baker College.

Introduction

First, I would like to point out that the “real” purpose of this research is to provide a vehicle for curriculum integration, a part of which is contributing to the teaching of each and every course in an I.S. program, including courses related to human-computer interaction (HCI). The example used here of teaching task analysis is but one facet of our overall program goal, however one that is probably of most interest to the SIG HCI membership.

In our view, accreditation bodies have led the “charge” toward curriculum reform and pedagogical accountability by forcing departments to define goals, learning objectives, and measurable outcomes for the purpose of program accreditation [e.g., 1]. There have also been smaller efforts to integrate technology and virtual worlds in to the CS/IS/SE curriculum [5,9,11,14]. These efforts are often effective and very useful in increasing program quality for existing courses, but fall short of promoting change and overall curriculum reform. These activities are what one might call “micro-enhancements” to program quality. On the other hand, what we seek in this research are “macro-enhancements” to not only program quality, but the quality and relevance of the learning experience, as well as the attractiveness of the field to potential students.

Example: Learning Task Analysis

People in various occupations may be required to interact with, and learn about unfamiliar problem domains in environments that may also be unfamiliar. The job is to derive sufficient information about the problem domain within the context of some “systems” question to be answered, in this case toward a useful and usable system. Most often one of the objectives of this task is to formulate accurate cognitive and representational models of the task domain. The problem solver then uses these models to formulate a set of context-dependent requirements that suggest possible problem solutions and courses of action, including display, task, and dialog design. Some examples of these information gathering and problem-solving occupations include: diagnosticians (in many fields), software engineers, requirements analysts, system analysts, human-computer interface designers, and architects. Some examples of techniques that people use to elicit data about user tasks and problem domains are:

- Observing and sensing the domain environment,
- Observing other people solve problems in the domain (e.g., protocol analysis),
- Learning to operate and then operating existing information systems,

- Browsing or patrolling the environment,
- Interviewing domain experts and other end users,
- Administering questionnaires and surveys to domain experts,
- Interacting with models of the problem domain,
- Listening to briefings from domain experts and managers,
- Reviewing policy and procedure manuals,
- Reviewing text domain descriptions,
- Participating in facilitated group process sessions, and
- Reviewing video and audio recordings of the problem domain.

Instructors teaching courses such as Human-Computer Interaction, Task Analysis, Usability Engineering, Requirements Engineering, or Systems Analysis and Design, in which the problem solving context is provided by domain knowledge, often have difficulty providing students access to real problem domains, and thus can have difficulty in providing experiential learning as a pedagogic device. Most commonly, students in these classes are asked to analyze written problem domain descriptions, diagrams, scenarios, and procedures, and, from them, derive the information necessary for the preparation of an analysis, design, and technical problem solution. The complexity inherent in the “real world” when interacting with “real” domain experts and other domain artifacts is missing.

Another potential solution to the “case dilemma” is to set up an actual experience for students at a local enterprise. Many universities, especially those that are small, located in remote locations, or online, do not have access to local businesses. Real-world experiences, which can be valuable, are often difficult to arrange, difficult to structure, difficult to control, and very often provide a less than satisfactory outcome for the student and the enterprise involved. Given today’s technology, it seems reasonable to combine the structural benefits of written cases with the interactive benefits of “real world” experiences in another form. It is easy to envision the creation of an interactive “adventure game” for systems analysts and other stakeholders, which is actually a high-fidelity model of a set of real-world enterprises. The continued production, use, and promising assessments of electronic learning technologies, including assessments of transfer of training from virtual worlds is encouraging, and give us reason to be optimistic about the prospects for successful use of this resource [3,7,8,10,12].

How do Students Learn in a Situated Environment?

Many professions teach new entrants to the profession through an apprenticeship, in which they progressively build knowledge of the profession through making peripheral contributions to the professionals with whom they are apprenticing. Lave and Wenger have theorized that this learning is facilitated by *legitimate peripheral participation* (LPP) within a community of practice

Teaching with HCI (cont'd)

[6]. Guzdial and Tew have suggested that this kind of learning can be extended to computational education by using an approach patterned after Disney's Imagineering approach to designing theme parks [4]. In this approach, they construct the "environment" by doing the following:

- 1) Start from the story.
- 2) Start from where the expectations are.
- 3) Pay attention to details.
- 4) Where necessary, change reality to support the story.
- 5) Pay attention to transitions.
- 6) Make the cast part of the story. [4, p 55]

By adhering to this general process, they have created a context for learning the material at hand which results in a "willing suspension of disbelief" [4, p. 57] on the part of the students. They report a dramatic increase in retention in the courses they describe in the paper. Constructivist environments are also well suited to teaching professional problem solving kinds of activities, and as previously mentioned, our intention is to utilize a constructivist model in the design of our integrated curriculum. Zualkernan [15] presents a methodology for developing "authentic" (as opposed to "in-authentic") constructivist e-Learning environments for teaching computer science topics. Combining Guzdial and Tew's work with Zualkernan's work provides a roadmap to guide the construction of the kind of environment that we intend to construct as our curriculum integrator.

Our goal in this phase of the project is to create an environment for teaching task- and requirements analysis that is consistent with the pedagogical concepts outlined above. Students can interview conversational agents who represent real people in the domain, observe how they do their job, model results using hierarchical or other task analysis representations, and obtain feedback on the accuracy of their modeling efforts, all within the 3D virtual world. Using the grocery store as an example, students may also examine domain artifacts (e.g., groceries on shelves), view demonstrations of existing systems (e.g., the cash register, closing procedures, etc.), and use this information to complete assignments as given to them by their instructor. Eventually, we envision that students will be able to construct their own enterprise online, and make it available to other students for analysis.

Status

To date, we have established "Baker Island", a private island within Second Life, and have begun construction of "Bakerville", the replication of a typical small-town commercial area with a variety of populated commercial sites and enterprises. The first of these enterprises to be operational will be the grocery store, and to that end, we have begun encoding the requisite conversational knowledge support using the artificial intelligence markup language (AIML) [2], and have developed an interface between the AliceBot [2] engine and Second Life [13].

We expect to begin empirical investigations of in-world pedagogy as soon as the grocery store is completed, and are very excited to think that our online students will have a "place" to gather, work, and play as on-campus students do, even though they are studying completely online.

Note:

This research is funded in part by NSF Grant #0741700 and by Baker College.

References

- [1] Accreditation Board for Engineering and Technology (ABET) <http://www.abet.org/>
- [2] A.L.I.C.E. Artificial Intelligence Foundation, <http://www.alicebot.org/>
- [3] Bellman, K. (1997) Playing in the MUD: Turning virtual reality into real education and training. In R. Seidel and P. Chatelier (Eds.), *Virtual Reality, Training's Future? Perspectives on Virtual Reality and Related Emerging Technologies*. New York: Plenum Press.
- [4] Guzdial, M. and Tew, A. E. 2006. Imagineering inauthentic legitimate peripheral participation: an instructional design approach for motivating computing education. In *Proceedings of the 2006 International Workshop on Computing Education Research* (Canterbury, United Kingdom, September 09 - 10, 2006). ICER '06. ACM Press, New York, NY, 51-58.
- [5] Hill, C., Shanmugasundaram, V., and Miteva, M. 2006. Agents help students in ProgrammingLand. In *Proceedings of the 11th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education* (Bologna, Italy, June 26 - 28, 2006). ITICSE '06. ACM Press, New York, NY, 183-187.
- [6] Lave, J., and Wenger, E. 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press, Cambridge, UK.
- [7] Loh, B., Radinsky, J., Reiset, B.J., Gomez, L.M., Edelson, D.C. and Russell, E. (1997) The Progress Portfolio: Promoting reflective inquiry in complex investigation environments. In R. Hall, N. Miyake, and N. Enyedy (Eds.), *Proceedings of Computer Supported Collaborative Learning '97*, Toronto, Ontario, Canada, pp. 169-178.
- [8] McBride, J.A. and McMullen, J.F. (1996) Using virtual reality for distance teaching a graduate information systems course. In: *Proceedings of the 29th Annual Hawaii International Conference on System Sciences*, pp. 263-272.
- [9] Regan, P. M. and Slator, B. M. 2002. Case-based tutoring in virtual education environments. In *Proceedings of the 4th international Conference on Collaborative Virtual Environments* (Bonn, Germany, September 30 - October 02, 2002). CVE '02. ACM Press, New York, NY, 2-9.
- [10] Regian, J. W. (1997) Virtual reality for training: Evaluating transfer. In R. Seidel and P. Chatelier (Eds.), *Virtual Reality, Training's Future? Perspectives on Virtual Reality and Related Emerging Technologies*. New York: Plenum Press.
- [11] Rodger, S. H. 2002. Introducing computer science through animation and virtual worlds. In *Proceedings of the 33rd SIGCSE Technical Symposium on Computer Science Education* (Cincinnati, Kentucky, February 27 - March 03, 2002). SIGCSE '02. ACM Press, New York, NY, 186-190.
- [12] Schank, R. (1997) *Virtual Learning: A Revolutionary Approach to Building a Highly Skilled Workforce*. New York: McGraw-Hill.
- [13] Second Life, <http://secondlife.com/>
- [14] Slay, J., Quirchmayr, G., Kurzel, F., and Hagenus, K. 2003. Adaptive learning environments for CS education: from AMLE to live spaces. In *Proceedings of the Fifth Australasian Conference on Computing Education - Volume 20* (Adelaide, Australia). T. Greening and R. Lister, Eds. Conferences in Research and Practice in Information Technology Series, vol. 140. Australian Computer Society, Darlinghurst, Australia, 257-262.
- [15] Zualkernan, I.A. (2006) A framework and a methodology for developing authentic constructivist e-learning environments. *Educational Technology & Society*, 9 (2), 198-212.

Completed: SIGHCI Sponsored Journal Special Issue

JAIS Special Theme Papers based on the 4th pre-ICIS HCI/MIS Workshop (2005)

The five best completed research papers from the 2005 HCI/MIS workshop were invited to participate in a fast-tracking opportunity with the Journal of the Association for Information Systems (JAIS). The guest senior editor is Dennis Galletta. Except one that was withdrawn after a first review, 4 have been accepted and the first three have been published.

1. *Causal Relationships between Perceived Enjoyment and Perceived Ease of Use: An Alternative Approach*. Heshan Sun and Ping Zhang. Volume 7, Issue 9, Article 24, September, 2006
2. *The Role of Design Characteristics in Shaping Perceptions of Similarity: The Case of Online Shopping Assistants*. Sameh Al-Natour, Izak Benbasat, and Ronald T. Cenfetelli. Volume 7, Issue 12, Article 34, December, 2006
3. *The Centrality of Awareness in the Formation of User Behavioral Intention toward Protective Information Technologies*. Tamara Dinev and Qing Hu. Volume 8, Issue 7, Article 23, July, 2007
4. *Contribution to Quality of Life: A New Outcome Variable for Mobile Data Services*. Minkyung Lee, Hun Choi, Kun Shin Im, and Jinwoo Kim.

In Progress: SIGHCI Sponsored Journal Special Issues

1. ISJ Special Issue based on AMCIS'06, ECIS'06, and PACIS'06

The best completed research papers from the HCI tracks at ECIS'06, PACIS'06 and AMCIS'06 were invited to participate in a special issue of the Information Systems Journal (ISJ). The guest senior editors for this special issue are Matt Germonprez, Traci Hess, and Nancy Russo. Five papers have been accepted, and the special issue will be published in 2008.

2. JAIS Special Theme Papers based on the 5th pre-ICIS HCI/MIS Workshop, ICIS'06, and HICSS-40

JAIS is fast tracking a special theme on HCI in MIS based on the best completed research papers from the following three HCI conference tracks: the 5th pre-ICIS'06 HCI workshop, ICIS'06 HCI track and HICSS'07 HCI minitrack. The guest senior editors are Ping Zhang and Bernard Tan.

A total of eight papers were invited after screening from the recommendations of the pre-ICIS'06 HCI workshop (4 recommended), ICIS'06 HCI track (5 recommended), and HICSS'07 HCI minitrack (2 recommended). Five expansions were submitted and are currently in the review process. It is anticipated that the special theme papers will be published at the end of 2007 and in early 2008.

3. IJHCI Special Issue based on HCII'07

The best completed research papers from the SIGHCI-sponsored HCI in MIS sessions at HCII'07 were invited to participate in a special issue of the International Journal of Human-Computer Interaction. Of the 17 papers accepted for presentation, six papers were invited to participate in this special issue. Five papers have accepted the invitations and are currently in the review process. The guest editors for this special issue are Fiona Nah, Traci Hess, Weiyin Hong, and Xiaowen Fang.

4. DATA BASE Special Issue based on AMCIS'07 and PACIS'07

The best completed research papers from the HCI tracks at AMCIS'07 and PACIS'07 were invited to participate in a special issue of the DATA BASE for Advances in Information Systems journal. Seven papers are currently participating in this fast-tracking opportunity. The guest editors for this special issue are Matt Germonprez, Traci Hess, Chuck Kacmar, and Young Hwa "Gabe" Lee.

5. JAIS Special Theme Papers based on the 6th pre-ICIS HCI/MIS Workshop, ICIS'07, and HICSS-41

The best completed research papers from the 6th pre-ICIS Workshop (2007), the HCI track at ICIS'07, and the Human-Computer Interaction (HCI) minitrack (offered as part of the Collaboration Systems Track) at HICSS-41 (2008) will be forwarded for publication consideration at the Journal of the Association for Information Systems (JAIS).

Current Activities Sponsored by AIS SIGHCI

The 6th Annual Pre-ICIS Workshop on HCI Research in MIS

Montreal, Quebec, Canada, December 8, 2007

Workshop Co-Chairs

Weiyin Hong, University of Nevada, Las Vegas, whong@unlv.nevada.edu

Eleanor T. Loiacono, Worcester Polytechnic Institute, eloiacon@wpi.edu

Prof. Fred Davis will be the keynote speaker.

The following papers will be presented in 4 sessions (36% acceptance rate):

Session 1

Chair: Gabriel Giordano

1. *Attitudes as a measure of acceptance: Monitoring IS implementation in a hospital setting.* B. Pynoo, P. Devolder, T. Voet, J. Vercruyssen, L. Adang, and P. Duyck.
2. *Online trust and health information websites.* C. L. Corritore, S. Wiedenbeck, B. Kracher, and R. P. Marble.
3. *Antecedents of the intention to disclose personal information on the Internet: A review and model extension.* H. Treiblmaier and S. Chong.

Session 3

Chair: Dianne Cyr

7. *The role of technology, content, and context for the success of social media.* H. S. Du and C. Wagner.
8. *Individual determinants of media choice for deception.* G. Giordano and C. Furner.
9. *Why people tag? Motivations for content tagging.* O. Nov and C. Ye.

The following posters will be presented in a poster session:

1. *Biogauges: toward more objective evaluation of biometrically-based interfaces.* Adriane Randolph, Melody Moore Jackson, and Steve Mason
2. *Evaluating the antecedents of the technology acceptance model in Saudi Arabia.* Geoffrey Hubona, Chad Anderson, and Said S. Al-Gahtani
3. *Measuring interactivity: an instrument development and initial assessment of a model of the interactivity construct.* Damon Campbell and Ryan Wright
4. *Synergistic human-computer systems for credibility assessment.* Matthew Jensen, Sean Humpherys, and Jay Nunamaker
5. *Human-computer interaction and neuroscience: the example of user satisfaction.* Rend Riedl and Friedrich Roithmayr

Session 2

Chair: Oded Nov

4. *Creating rapport and intimate interactions with online virtual advisors.* S. Al-Natour, I. Benbasat, and R. T. Cenfetelli.
5. *Understanding highly competent information system users.* B. Eschenbrenner and F. Fui-Hoon Nah.
6. *Perceived interactivity leading to E-loyalty: An empirical investigation of web-poll design.* D. Cyr, M. Head, and A. Ivanov.

Session 4

Chair: Fiona Fui-Hoon Nah

10. *Positive and negative affect in IT evaluation: A longitudinal study.* P. Zhang and N. Li.
11. *Proposing the interactivity-stimulus-attention model (ISAM) to explain and predict the enjoyment, immersion, and adoption of purely hedonic systems.* P. B. Lowry, N. W. Twyman, J. Gaskin, B. Hammer, A. R. Bailey, and T. L. Roberts.

6. *Personal health manager – designing an interface supporting health education and exercise programs.* Uta Knebel, Sebastian Esch, and Jan Marco Leimeister
7. *Users' personality and perceived ease of use: the case for resistance to change.* Oded Nov and Chen Ye
8. *The effects of identifiability, trust, and deception on information sharing behaviors in an anonymous system.* Tony Vance and Robert Sainsbury
9. *Discover group collaboration patterns in scientific laboratories.* Jing Ma
10. *Collaborative learning in engineering education.* Michelle J. Boese, Hong Sheng, and Richard Hall
11. *To the rescue – cognitive fit of traditional operations research and agent-based decision support.* Elfriede Krauth

Please visit http://sigs.aisnet.org/sighci/icis07_wksp/ for more details.

Human-Computer Interaction Track

At the International Conference on Information Systems (ICIS) 2007

Montreal, Quebec, Canada, December 9-12, 2007

Track Co-Chairs

Ji-Ye Mao, Renmin University (China), jivemao@yahoo.com

Mun Yi, University of South Carolina, myi@moore.sc.edu

For more details, please visit the ICIS'07 website at <http://business.queensu.ca/icis/>.

Current Activities Sponsored by AIS SIGHCI

Human-Computer Interaction Minitrack At the Hawaii International Conference on System Sciences (HICSS-41)

Big Island, Hawaii, January 7-10, 2008

Minitrack Co-chairs

Joe Valacich, Washington State University, jsv@wsu.edu
John Wells, Washington State University, wellsjd@wsu.edu

The following papers will be presented in three sessions.

Session 1 HCI and eCommerce/Web environments

1. *Online Purchasing of Simple Retail Goods: The Impact of EC Functionalities as a Surrogate for e-Service Quality*
Hadaya and Éthier
2. *A Conceptual Model of Wiki Technology Diffusion*
Hester and Scott
3. *Online Services, Customer Characteristics and Usability Requirements*
Massey, Khatri, and Montoya-Weiss

Session 2 HCI, Collaboration, and Communication

4. *Using Surprise in Human-Computer Interfaces to Enhance Knowledge Communication Effectiveness*
Kock, Chatelain-Jardón and Carmona
5. *An Empirical Investigation of the Roles of Outcome Controls and Psychological Factors in Collaboration Technology Supported Virtual Teams*
He and Paul
6. *Generating an Abstract User Interface from a Discourse Model Inspired, Human Communication*
Bogdan, Falb, Kaindl, Kavaldjian, Popp, Horacek, Arnautovic, and Szep

Session 3 HCI Design and Research Methods

7. *Quantitative Early-Phase User Research Methods: Hard Data for Initial Product Design*
Chapman, Love and Alford
8. *A Framework for Comparing Human and Computer Information Processing*
Whitworth

For more details, please visit the HICSS'08 website at http://www.hicss.hawaii.edu/hicss_41/apahome41.html.

HCI Research Tool

FaceReader: A New Tool for Affective Computing and Adaptive Interfaces

Lucas Noldus

Noldus Information Technology BV
The Netherlands
l.noldus@noldus.nl

Noldus Information Technology, supplier of software tools and integrated solutions for HCI research, has released FaceReader, the first system on the market capable of automatically detecting and analyzing human facial expressions. FaceReader recognizes specific properties in facial images and interprets them according to the six fundamental human emotions: happy, sad, angry, surprised, scared, disgusted, and a 'neutral state'. Using advanced computer vision algorithms, FaceReader performs the classification without the need for markers, calibration or training. The automatic classification of facial expressions is of great value for HCI research and usability testing.

Data acquired with FaceReader can be imported into The Observer XT, Noldus' software tool for the collection, analysis, and presentation of observational data. Once the data is imported into The Observer, it can then be synchronized with event logs, keystrokes, mouse clicks, digital video files, captured computer screens, eye-tracking data, and physiological signals such as heart rate. Facial expression data can be exported to analytical and database programs such as Microsoft Access, Excel, and SPSS.

Facial expressions detected by FaceReader can be accessed real-time by other applications, making the program an ideal tool for research into affective computing and the design of adaptive interfaces. In other words, FaceReader allows other software programs to respond instantaneously to the emotional state of the user.

For more information, visit www.noldus.com/facereader.

Note: FaceReader in the beta test phase was briefly announced in Vol. 6 Issue 1 of AIS SIGHCI Newsletter.

Future Activities Sponsored by AIS SIGHCI

Human-Computer Interaction Track At the International Conference on Information Systems (ECIS) 2008

National University of Ireland, Galway, June 9-11, 2008

Track Co-Chairs

Scott McCoy, College of William and Mary, scott.mccoy@mason.wm.edu
Andrea Everard, University of Delaware, everarda@lerner.udel.edu

For more details, please visit the ECIS'08 website at <http://www.ecis2008.ie/>.

Human-Computer Interaction Track At the 12th Pacific Asia Conference on Information Systems (PACIS) 2008

Suzhou, China, July 4-6, 2008

Program Co-Chairs:

Hock Hai Teo, National University of Singapore, teohh@comp.nus.edu.sg
Wayne Huang, Ohio University, huangw@ohio.edu

Submission Deadline: March 1, 2008

For call for papers and more details, please visit <http://pacis2008.cityu.net>.

Track on Human-Computer Interaction Studies in MIS The 14th Americas Conference on Information Systems (AMCIS) 2008

Toronto, Ontario, Canada, August 14-17, 2008

Track Co-Chairs

Matt Germonprez, University of Wisconsin - Eau Claire, germonr@uwec.edu
Chuck Kacmar, University of Alabama, ckacmar@ua.edu
Traci Hess, Washington State University, thess@wsu.edu
Peter Tarasewich, Northeastern University, tarase@ccs.neu.edu

Nine minitracks are included in the HCI track. For more details, please visit <http://sigs.aisnet.org/sighci/amcis08/index.htm> or <http://www.business.mcmaster.ca/amcis2008/>.

AIS SIGHCI Sponsors

SIGHCI would like to express its sincere appreciation to the following sponsors. The many past and future SIGHCI activities would not be possible without their generous support.

- Worcester Polytechnic Institute
- University of Michigan - I School
- Washington State University
- Drexel University - I School
- University of Alabama
- University of Nevada, Las Vegas
- University of Arkansas
- University of Pittsburgh
- University of Memphis
- University of Wisconsin Eau Clair

Acknowledgement

Thanks to Dennis Galletta, Matt Germonprez, Traci Hess, Weiyin Hong, Kenneth E. Kendall, De Liu, Eleanor T. Loiacono, Scott McCoy, Fiona Fui-Hoon Nah, Jia Shen, Hong Sheng, Ben Shneiderman, James Thong, Joe Valacich, Misha Vaughan, John Wells, Ping Zhang and all other SIGHCI advisors, officers and members for their support to this issue.

AIS SIGHCI Advisory Board

Izak Benbasat

University of British Columbia, benbasat@commerce.ubc.ca

Jane Carey

Arizona State University West, jcarey@asu.edu

Dennis Galletta

University of Pittsburgh, galletta@katz.pitt.edu

Fiona Fui-Hoon Nah

University of Nebraska-Lincoln, fnah@unl.edu

Joe Valacich

Washington State University, jv@wsu.edu

Jane Webster

Queen's University, jwebster@business.queensu.ca

Ping Zhang

Syracuse University, pzhang@syr.edu

Save the Dates

SIGHCI-Sponsored Activities & Events	
SIGHCI Annual Executive Meeting at ICIS'07 (6:30pm)	12/8/07
SIGHCI Pre-ICIS Workshop, Montreal, Quebec	12/8/07
ICIS'07 – HCI Track, Montreal, Quebec	12/9-12/12/07
HICSS'08 – HCI Minitrack, Big Island, HI	1/7/08 - 1/10/08
PACIS'08 Paper Submission Deadline	3/1/08
ECIS'08 – HCI Track, Galway, Ireland	6/9/08 – 6/11/08
PACIS'08 – HCI Track, Suzhou, China	7/4/08 - 7/6/08
AMCIS'08, Toronto, Canada	8/14/08-8/17/08
SIGHCI Pre-ICIS Workshop, Paris, France	12/13/08
ICIS'08, Paris, France	12/14/08-12/17/08
SIGHCI website: http://sigs.aisnet.org/sighci/	

AIS SIGHCI Officers

Chair

Weiyin Hong
University of Nevada - Las Vegas, whong@unlv.nevada.edu

Chair-Elect

Eleanor Loiacono
Worcester Polytechnic University, eloiacon@wpi.edu

Past Chair

Traci Hess, Washington State University, thess@wsu.edu

Secretary and Treasurer

Chuck Kacmar, University of Alabama, ckacmar@ua.edu

Vice Chair for Membership

Susan Lippert, Drexel University, lippert@drexel.edu

Vice Chair for Research Resources

Hong Sheng, University of Missouri-Rolla, hsheng@umr.edu

Vice Chair for Sponsorship

Robin Poston, University of Memphis, rposton@memphis.edu

Vice Chair for Teaching Resources

Xiaowen Fang, DePaul University, XFang@cti.depaul.edu

Newsletter Editor

Na (Lina) Li, Syracuse University, nli@syr.edu

Conference Planning Chair for pre-ICIS HCI Workshop 2007

Eleanor Loiacono
Worcester Polytechnic University, eloiacon@wpi.edu

Conference Planning Chair for PACIS 2007

Hock-Hai Teo
National University of Singapore, teohh@comp.nus.edu.sg

Conference Planning Chair for AMCIS 2008

Matt Germonprez
University of Wisconsin - Eau Claire, germonr@uwec.edu

Conference Planning Chair for ECIS 2008

Scott McCoy
College of William and Mary, Scott.McCoy@business.wm.edu

Conference Planning Chairs for HICSS 2008

Joe Valacich, Washington State University, jv@wsu.edu
John Wells, Washington State University, wellsjd@wsu.edu

Conference Planning Chair for HCII 2007

Fiona Fui-Hoon Nah
University of Nebraska-Lincoln, fnah@unl.edu

Webmaster

Veena Parboteeah
Eastern New Mexico University, parbotev@enmu.edu

Listserv Manager

Ping Zhang, Syracuse University, pzhang@syr.edu