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## In This Issue ...

<i>From the Editor:</i> World Tour! .....	3
<i>From the Chairs:</i> International HCI and the Local SIG .....	4
<i>Computers and Kids:</i> Impacts of Media and Violence on Children and Youth .....	5
<i>HCI Education:</i> the right mind? .....	6
<i>Local SIGs:</i> How New Local Chapters Work: The Experience of Czech SIGCHI .....	7
<i>Standards:</i> When Should Standardization Take Place? Part 2: User Benefit and Maturity of the Technology .....	8
<i>HCI and the Web:</i> Web of Confusion, Part 1 .....	9
<i>Visual Interaction Design:</i> Whither Visual-L? .....	10
<i>CHI 2001 Conference Preview -- Special Section</i> .....	11
<i>Workshop and Conference Reports</i> .....	15
<i>AVI 2000: Advanced Visual Interfaces: International Working Conference</i> .	15
<i>Report on CHI 2000 Workshop on Future Mobile Device User Interfaces</i> . . .	16
<i>Book Review:</i> Review of <i>GUI Bloopers: Don'ts and Do's for Software Developers and Web Designers</i> .....	17
<i>SIGCHI Minutes</i> .....	18
<i>Events</i> .....	21
<i>Real World:</i> Managing sound .....	23

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## SIGCHI BULLETIN EDITORS

*Editor-in-Chief* ([chi-Bulletin-Editor@acm.org](mailto:chi-Bulletin-Editor@acm.org))  
Joseph A. Konstan, University of Minnesota, USA

*Online Editor* ([chi-Bulletin-Online@acm.org](mailto:chi-Bulletin-Online@acm.org))  
Alan Rea, Western Michigan University, USA

*Assistant to the Editor*  
Kristi Wollenzien, University of Minnesota, USA

### **Contributing and Department Editors**

*Book Reviews* ([chi-Bulletin-Pubs@acm.org](mailto:chi-Bulletin-Pubs@acm.org))  
Larry Wood, Brigham Young University, USA

*Computers and Kids* ([chi-Bulletin-Kids@acm.org](mailto:chi-Bulletin-Kids@acm.org))  
Allison Druin, University of Maryland, USA

*HCI Education* ([chi-Bulletin-Education@acm.org](mailto:chi-Bulletin-Education@acm.org))  
Alan Dix, aQtive limited and Lancaster University, UK

*Local SIGs* ([chi-Bulletin-Local-SIGs@acm.org](mailto:chi-Bulletin-Local-SIGs@acm.org))  
Richard Anderson, Usability/Design/Discovery Adv., USA

*HCI and the Web* ([chi-Bulletin-Web@acm.org](mailto:chi-Bulletin-Web@acm.org))  
William Hudson, Syntagm Limited

*News and Events* ([chi-Bulletin-Events@acm.org](mailto:chi-Bulletin-Events@acm.org))  
Ronald Laurids Boring, Carleton University, Canada

*Real World* ([chi-Bulletin-Real-World@acm.org](mailto:chi-Bulletin-Real-World@acm.org))  
Lon Barfield, University of West England, UK

*Standards* ([chi-Bulletin-Standards@acm.org](mailto:chi-Bulletin-Standards@acm.org))  
Harry E. Blanchard, AT&T, USA

*Visual Interaction Design* ([chi-Bulletin-VID@acm.org](mailto:chi-Bulletin-VID@acm.org))  
Frank M. Marchak, Veridical R&D, USA

*World-Wide CHI* ([chi-Bulletin-Int@acm.org](mailto:chi-Bulletin-Int@acm.org))  
David G. Novick, University of Texas, El Paso, USA

## About the Authors

**Joseph A. Konstan** is editor of *SIGCHI Bulletin* and Associate Professor of Computer Science and Engineering at the University of Minnesota.

**Marilyn Mantei Tremaine** is Chair of SIGCHI.

**Wendy Mackay** is Executive vice-Chair of SIGCHI and Director of Research at INRIA in France.

**Debra Lieberman** is vice president of research at Click Health, where she develops the content and instructional design for interactive health games, conducts user testing, and leads outcome studies and clinical trials. Her research and product development work has focused on improving the ways interactive media can support and enhance learning.

**Alan Dix** can be contacted at [alan@hcibook.com](mailto:alan@hcibook.com) or see what he is up to at: [www.hiraeth.com/alan/topics/chi-ed](http://www.hiraeth.com/alan/topics/chi-ed) or [www.aqtive.com/community/research](http://www.aqtive.com/community/research).

**Pavel Slavik** is an Associate Professor and **Bozena Mannova** is an Assistant Professor at Department of Computer Science and Engineering at Czech Technical University in Prague - Czech Republic. Slavik's research interests include computer graphics and special interfaces. He is Czech SIGCHI chair. Mannova's research interests include telematics, HCI and virtual university. She is Czech ACM Chapter chair.

**Harry E. Blanchard** is a Principal Technical Staff Member at AT&T Labs and a member of the ANSI/HFES 200 Committee. He has been writing about standards for *SIGCHI Bulletin* since 1996.

**William Hudson** is moderator of the CHI-Web mailing list. He is a principal of Syntagm Limited, a consultancy based in Oxford, England. He has over 25 years of software design and development experience.

**Frank M. Marchak** is a principal at Veridical Research and Design, a human factors consulting firm specializing in basic and applied research in visual perception and cognition, human computer interaction design, and usability engineering services.

**Larry Wood** is Professor of Psychology and Professor of Instructional Psychology & Technology at Brigham Young University. His research focuses on user-centered design of computer applications.

**Ronald Laurids Boring** is a Ph.D. student in Cognitive Science at Carleton University in Ottawa. He is conducting research on cognitive aspects of HCI.

**Lon Barfield** ([lonwen@hotmail.com](mailto:lonwen@hotmail.com)) is an interface consultant and lecturer based in England and Holland. He is the author of 'The user interface, concepts and design' (Addison Wesley 1993) his next book will be about web and multimedia design.

# From the Editor

Joseph A. Konstan, Editor-in-chief  
chi-Bulletin-Editor@acm.org



## World Tour!

This issue I have the pleasure of writing a purely personal, self-promoting column. And of course the obligation to disguise it as something deep and insightful. Or is it the other way around?

Seriously, though, this is the column where I announce my world tour. While I'm no musician traveling to packed concert halls, as an academic I have the opportunity to take a sabbatical year to reflect, recharge, and refocus. I've decided to spend much of that year trying to find out what is happening in HCI around the world, in hopes of finding new, interesting, but as yet unsolved problems to work on for the next decade or so.

Like many Americans, I've mostly been exposed to what's going on in the U.S., some of what happens in Canada, and the small part of global work that gets published in U.S.-centered "international conferences." That's the goal behind a world tour: to go to places where interesting things happen--things I don't know about. Of course, the next question becomes "how do you know where to go, when you're looking for things you don't know?"

The answer to this Dr. Seuss-like rhyme is -- "just go." My plans are simple, and have three basic components: surprise, serendipity, and sanity.

The surprise is that I will actually take up many of the offers I've received to "let me know if you're coming to Japan/China/Germany/France/etc.; I'll have you come give a talk and visit for a couple of days." If you meant this as a catch-all pleasantry (just as we American's often ask "how are you" expecting no more detailed reply than simply "fine. how are you?"), then SURPRISE! You may have just won a visit! Check your mailbox regularly for updates.

The serendipity is an attempt to find other people and places I don't already know. I will spend my CHI 2001 living up to the theme of the conference. Who will I try to meet? Where will I visit them? The answer, of course, is: anyone. anywhere. I plan to "invite myself" to meet new and different people. If your badge says something other than USA or Canada, watch for me. If you're part of a local SIG around the world, please come say "hello!"

Finally, I know I have to keep some semblance of sanity. Much as I'd love to go anywhere. anytime., I plan to try to keep trips with some degree of geographical coherence. As a good computer scientist, I know that the traveling salesman problem is NP-complete (that's a fancy term for hard, for the non-CS folks). But I'm not selling anything. The traveling learner problem has the advantage that you can leave out places, add new ones, and still learn a whole lot.

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### Editor's Note about the Online Bulletin

As many of you know, SIGCHI Bulletin online ([www.acm.org/sigchi/bulletin](http://www.acm.org/sigchi/bulletin)) lags behind print editions. Several people have written asking about this delay, so I thought I should report to the readership on the status of the website and online edition. I am aware of the delays, some of them caused by lack of volunteer time, others caused by technical challenges. Knowing that late print issues might simply not get mailed has forced me to focus first on getting issues to the printer, but I realize that the online delays have become unacceptable. Working with our new online editor, Alan Rea, I have a three-stage plan for bringing the online edition back to the quality and currency you expect and deserve:

- Stage one -- essential content. By early December 2000, we will have all issues on-line as full-issue PDF files, along with all continuations on-line as PDF or HTML files.
- Stage two -- direct article access. In January or February 2001, we will have direct access to all individual articles, together with tables of contents for each issue.
- Stage three -- full redesign. As part of the ongoing redesign of the SIGCHI web site, we will undertake a complete restructuring of the Bulletin web pages to provide easier access to content, appropriate indexes and/or search facilities, and better integration into the overall SIGCHI web site. This will take time, and we will not have a target delivery date until after more design work is complete.

Thank you for your patience; it will be rewarded soon.



## From the Chairs

Marilyn Mantei Tremaine and Wendy Mackay  
{chi-Chair;chi-Executive-VC}@acm.org

### **International HCI and the Local SIG**

In recent years, SIGCHI has experienced significant growth in many new locations, especially Europe. The growth outside of North America has been so large, that the SIGCHI Executive Council revisited its policy regarding local SIGs at its August board meeting. The main issue is one of local SIGs forming in new countries. There may already be an organization that claims HCI as one of its primary areas that exists in the country. Thus, chartering a local SIG with SIGCHI may fragment the community and the available volunteers for what could be an already fragile start for HCI.

These requests to be a Local SIGCHI SIG when a national HCI organization already exists can happen for a variety of reasons. It may be that a very healthy HCI organization exists, but that a disgruntled offshoot of this group requests to be a Local SIG in SIGCHI because they are unhappy with various policies in their country's organization. HCI may also exist as part of a very traditional ergonomics society with interface designers being chagrined by the group not embracing web design and interaction analysis. They therefore apply to be a Local SIG with SIGCHI in order to interact with a community that is more like they are. It may be that the people making the request do not know about a national organization in their country. It also may be that there are three or four competing organizations within a country, all claiming ownership of HCI with the applicants for a Local SIG seeing this approach as the best way to stay out of the battles.

Fortunately, we are seeing the formation of our local SIGs as being quite amicable. Some of them have two affiliations, one within their own country and the local SIG affiliation with SIGCHI. However, we have experienced several instances where this has not been the case and have therefore taken a look at our policy of accepting all applications to be a Local SIG. We created an initial draft that stated that we, as volunteers could not really know what toes we were stepping on. After a large outcry from other national HCI organizations, our October meeting has approved the following policy stating that SIGCHI needs to start behaving more diplomatically. It states:

*SIGCHI encourages new or existing groups of HCI professionals to become Local SIGs. Before local SIGs are approved, their potential members and area of service should be discussed with any overlapping Local SIG or cooperating society. There should be evidence of mutual discussion among the overlapping groups before an overlapping chapter is approved. SIGCHI wishes to avoid both enforced monopolies over membership groups as well as unnecessary fragmentation of the membership. It is hoped that members in a locality will work out what is best for HCI in their area. Applications should be directed to the Adjunct Chair for Local SIGS.*

SIGCHI's main goal is to promote the growth and development of HCI. Sometimes this works by us putting our strength behind a small starting group of people who form a Local SIG. At other times, we do better in promoting growth and information exchange by forming a cooperating society relationship with an existing organization. The important point to keep in mind is one of building a worldwide HCI community forming whatever ties are appropriate for the people interested in HCI.



## Impacts of Media Violence on Children and Youth

by Debra A. Lieberman, Ph.D.

Does violent media content harm young people? This concern is nothing new, but lately the debate has heated up as our media have become more graphic and interactive, and as portrayals of violent acts have become more horrific and more easily accessible by children. Often these days we see news coverage on the issue of media violence, with reports about crimes such as the Columbine shootings, congressional debates about regulating content, and ratings systems and technologies that would give parents tools to evaluate and control what their children see.

Thousands of research studies—mostly dealing with TV violence—have examined the effects of violent media content on children and adolescents, and the conclusions are very clear. Exposure to violent content increases their aggressive thoughts, feelings, and behaviors, both immediately after exposure and in the long term, and influences their attitudes and emotions in other undesirable ways. The effects are cumulative. Not every youngster is affected seriously, but on average, in the aggregate, after children are exposed to media violence we can find significant psychological and behavioral impacts. Here are a few of them:

- **Violent behavior.** Young children often imitate violent behavior they see portrayed in the media. Over time, the more violence children and teens see in the media, the more likely they are to behave aggressively toward others. While home life and peer influences are important factors affecting a child's likelihood of behaving violently, research shows us that exposure to violence in the media is one of the major contributing factors.
- **Hostility toward others.** After being exposed to media violence, there is an increase in children's hostility toward others, thoughts about aggression and retaliation, and suspicions about the motives of others and how others are likely to deal with conflict.
- **Desensitization.** Witnessing violent acts in TV, movies, and video games causes children to become less sensitive to the pain and suffering of others. They are not as outraged by real acts of violence as children who are exposed to very little media violence. And, they are less likely to be empathetic toward others, to engage in pro-social behaviors, or to help others who are victims of violence.
- **Fear and anxiety.** Youngsters who watch a lot of violent media content tend to be more fearful and anxious, and tend to overestimate the chances that they will become victims themselves.

With interactive video games, there is even more reason for concern. Game players identify strongly with their game character because they are often able to select which character they will play and what traits the character will have. Also, players are active participants and exert control over their character's actions. They experience the game, and this includes experiencing positive or negative consequences for their choices

within the game. In many popular games, when they opt for violent actions they receive rewards, such as points, cool animations, great sound effects, and access to new levels of the game, so this reinforces them for selecting violence as a way to solve problems. Video games are repetitive, so children experience game events thousands of times, and this may amplify the impact of these activities. Several studies have found immediate negative impacts of violent video games on the aggressive thoughts, feelings, and behaviors of children and adolescents. No long-term studies of the effects of video game violence have yet been done.

In spite of its clear-cut negative impacts, media violence is attractive and exciting to youngsters and lucrative to producers. There are several things we can do about this:

- **Provide more information to parents.** Many parents are unaware of the potential harm of violent content in the media and have no easy way to assess the level of violence. More parents would monitor their children's media use if they had easier access to information and to tools that would help them block violent content from coming into the home. Tomorrow's forms of digital media could include interactive links to pertinent information about a media product's content, at point of purchase and within the product itself.
- **Teach media literacy to children.** Many excellent media literacy resources exist today, but this topic is not usually taught at school or at home. More could be done to reach children directly, with information and attractive interactive content to help them become more savvy and selective consumers of media.
- **Create exciting, action-packed media content WITHOUT violence.** Producers should leave out of their media productions the gratuitous, glorified violence that does so much harm to kids. Instead, they should engage and excite children with action, challenges, adventures, information, wonderful characters, and compelling stories. It is certainly possible to succeed in the media marketplace and attract enthusiastic customers without adding to the relentless stream of media violence that confronts our children today.

To learn more about the impacts of media violence, take a look at:

Dill, K.E. & Dill, J.C. (1998). Video game violence: A review of the empirical literature. *Aggression & Violent Behavior*, 3, 407-428.

Huesmann, L.R. & Miller, L.S. (1994). Long-term effects of repeated exposure to media violence in childhood. In L.R. Huesmann (Ed.), *Aggressive behavior: Current perspectives* (pp. 153-186). New York: Plenum Press.

Potter, W.J. (1999). *On media violence*. Thousand Oaks, CA: Sage Publications.



## the right mind?

It was some years ago and I was lecturing an undergraduate class on the basics of screen layout. I was explaining the importance of space for separation, grouping and emphasis and had various blocks on the slide representing areas of text 'clearly' in various groups. I then got a group of people to stand at the front and by minor adjustments to their relative position made them appear to be in different groups. After the lecture one of the students, who has Asperger's Syndrome came to me and explained that although he could understand the *rule* that bigger gaps acted as separators, he couldn't just *see* it. The gestalt visual understanding I had taken for granted was just not there.

Asperger's is a form of cognitive disability related to Autism. Like Autism, Asperger's is associated with poor social skills including lack of eye contact, weakness in establishing understanding and a corresponding high ability to deal with detail. Autism can be disabling, stopping sufferers from taking a full part in society, and limiting them to all but the most basic education. In contrast, Asperger's are often high attainers and relatively common amongst university computing students; indeed in one UK computing department, an Asperger's student recently won the first year prize.

Asperger's, autism, dyslexia and other syndromes that affect learning or cognitive processes are commonly known as cognitive disabilities. There is even an 'opposite' condition to Asperger's called Williams syndrome the symptoms of which include high social functioning, but low technical ability. Some of these syndromes, such as severe autism, can be debilitating, but many merely hamper or change the academic progress of the individual (try a straw pole for dyslexia amongst your faculty).

I think we are all aware of the importance of catering for physical disability and perceptual disability, such as colour blindness, both in the HCI we teach and in the way we teach it. Not only do I tell students not to create interfaces with red text on a green background, I also avoid using such a combination in a slide when teaching.

However, until the incident described above, the only cognitive disability I had ever considered was dyslexia, which I knew affected all kinds of ordering tasks, not just reading and writing. I think I am not alone in my ignorance of cognitive differences and disability. Steve Green and Elaine Pearson have recently written a briefing paper on cognitive disability for web delivered learning materials for DISinHE, an official UK group that organises information on disability in general at University level, but such documents appear to be rare.

The shocking thing was that the screen design guidelines I was describing in my lecture were the same as those I'd use during the layout of my own teaching materials and so severely reduced their accessibility to the Asperger's student. Indeed, I know I'm not alone in this ignorance. In preparing this column, I spent some time talking with someone with Asperger's, I'll call him Andy. Andy confided that when he was at University, the lectures he attended were only useful if he knew the material already!

Of course, the very elements that cause Asperger's problems are 'good' practice and it would be foolish not to use them. However, just as we would modify our teaching style if we have a blind student (e.g. taking care to describe a diagram, not just show it), we can make similar adjustments. Most such adjustments will benefit other students as well. Andy suggested that whenever grouping was being shown by physical arrangement on a slide, then I should also include a small line between the groups. Redundant visual cues are of course pretty good general HCI advice. Andy also mentions cluttered screens, problems with high contrast and very bright lights and, for some Asperger's, intolerance of particular colours, particularly yellow.

The term 'cognitive disability' is itself problematic. Those with Asperger's excel at certain things, not in spite of, but because of the syndrome As Andy said "We aren't disabled, we just think differently." This is very important as the specific 'disabilities' associated with the syndrome also have corresponding specific strengths. Asperger's are particularly strong in technical areas, have an eye for detail and good at learning rules (although not facts).

This also reminds us that all our students and users are different. We are all aware of, often contentious, left-brain/right-brain distinctions and gender related differences; and, of course, every student has a unique way of seeing the world. Most mathematicians are very visual thinkers – indeed brain scans show that the part of your brain recruited for mathematical reasoning is usually the same part used for spatial reasoning. However, this is a generalisation and one colleague, a strong formalist, is almost solely a linguistic thinker – formulae are manipulated as they are, not for what they represent. My colleague is aware that his students do not necessarily think like this, and so draws diagrams (and is good at it). Am I as considerate of the non-visual thinkers amongst my audiences and students?

*For more information and links for Asperger's, Dyslexia and cognitive disability see: <http://www.hcibook.com/alan/hci-education/>*

# Local SIGs

Richard Anderson, Editor

chi-Bulletin-Local-SIGs@acm.org



<http://www.acm.org/sigchi/local-sigs/>

## How New Local Chapters Work: The Experience of Czech SIGCHI

Pavel Slavik & Boba Mannova

Czech SIGCHI & Czech Technical University, Prague, Czech Republic

In 1998, the Czech SIGCHI chapter was established. The idea was to bring together people in the Czech Republic who are active in the field of HCI. As HCI covers a wide spectrum of activities, people were working in their particular areas without being aware of related activities that had roots in other disciplines of computer science. There are many areas of computer science where lack of interaction has been a key issue. These areas include computer graphics, multimedia, special interfaces for users with special needs, distance learning, and some marginal topics (e.g., mobile computing). A common motive in all of these areas is development and implementation of user interfaces that comply with up-to-date requirements of new applications. The results achieved have been presented in various forms during the last four annual CHI conferences.

The main challenge is that the potential community is not very big. One of reasons for establishing the Local SIG was to create a platform for distributing knowledge about HCI in a broad sense (fundamentals, traditional applications, potential applications etc.). Another important area of interest was HCI education. Courses dealing with HCI issues are taught at all major universities in the country. One of tasks of the Czech SIGCHI should be coordination of the content of these courses. Also, the distribution of information about educational materials developed by SIGCHI should be one of the key activities of the Local SIG.

Since the potential community is rather small, it was necessary to define a way for the people to communicate. The idea was that Czech SIGCHI should serve as a sort of communication hub where people can exchange information about their topics of interest. This communication should have various forms. Besides the most common form of regular meetings, workshops on various topics have been organized. There should also be organized discussion forums in electronic form concerning some important topics related to HCI.

Czech SIGCHI works as a part of a national ACM chapter, so it is possible to use the ACM chapter's infrastructure. The main use has been the establishment of an HCI library in the ACM office. Besides books dealing with HCI topics, a set of proceedings and tutorial notes from recent HCI conferences is available for members. Information about conferences in related fields that take place in the Czech Republic is also distributed. This includes conferences from the field of computer graphics [3] and voice communication. The latter has a growing importance in the field of HCI; a special section dealing with general HCI issues is gaining more and more importance [2]. Also, information about international conferences is distributed.

Members of Czech SIGCHI try to integrate with the international SIGCHI community by taking part in annual HCI conferences. This participation has taken various forms, beginning with writing papers for the conferences, taking part in development consortia, and being involved in program committees.

Czech SIGCHI has been an organizer or co-organizer of several events during the past few years. The first type of these events was dedicated to multimedia and virtual reality. The second type was dedicated to distance education, which has growing importance in the Czech Republic (indeed, these events are now organized on a regular basis). The largest event of this type is an annual conference where teachers from basic and high schools gather together to discuss topics and experiences concerning the use of modern information technologies in education (including experience with the usability of the software used) [1]. A special emphasis has been put on the use of distance education methods. A very important fact is that the number of participants is about 200. In this way, it is ensured that the information is distributed into every area of the country. From this point of view, this activity has been the most successful activity performed within the framework of the Local SIG. The schemes used should be applied to other HCI areas as well.

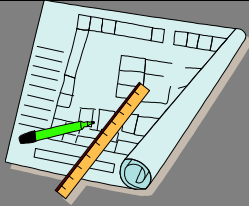
These events were mostly events with international participation (distinguished speakers gave talks informing a local audience about the latest achievements in their respective fields). This sort of event has links to the current state of HCI education in the country at the university level. At the present time, there are three universities in the country that offer several courses in the field. Existing informal contacts should be more formalized in order to exchange experiences with different approaches towards HCI education.

Another very important activity concerns the cooperation between the Czech ACM Chapter - where Czech SIGCHI plays an important role - and governmental institutions. In the past year, a representative of the Czech ACM Chapter became a member of Forum for Information Society, which is a governmental institution. This representative is responsible for topics in the field of distance education and life long learning. These activities have been supported by Czech SIGCHI for several years. Recently, courses on new information technologies for seniors have been organized in collaboration with Czech Technical University. Moreover, a group of seniors was established that is active as a consultant body for the Forum for Information Society. Their expertise is used first of all for the area of the use of new information technologies by elderly and handicapped people.

*continued on page 20*

SIGCHI Bulletin

January/February 2001



## When Should Standardization Take Place? Part 2: User Benefit and Maturity of the Technology

*The following article is a continuation from last issue. It is based on the results of a panel presentation by Harry Blanchard, Steven Lewis, and Susan Pearsall, "Software Usability Standards for the Next Millennium" held during the HFES/IEA joint conference in August 2000. The issue under discussion from last time: have the right decisions been made on what user interface domains are chosen for standardization?. Four questions should be evaluated by standards makers before deciding that an area needs the benefit of a standards document:*

- Can a standard be reasonably implemented or accepted by the industry, i.e. is it worth the effort?
- Can a standard be developed which is specific enough to be useful to developers of products and services?
- Can there be a demonstrable benefit to at least some user populations for specific standardization efforts?
- Should we be aggressive and standardize when a user interface technology is new or wait until it is "mature"?

The first two questions were discussed in the last issue of the Bulletin. The third question I find to be a problematic one: can we demonstrate that a standard will result in a benefit to users (i.e. will some technology in their lives be easier to use)? What immediately comes to mind is a failed standards project: IEEE P1201.2. This standard had the virtue of being very specific and definite: it attempted to define how specific elements of window systems worked. For example, it defined how the control for closing a window works and where it should be placed. The goal was to make some essential controls consistent for different window systems (e.g. between Unix, Apple, and Microsoft systems). There's plenty of general research that shows consistency among user interfaces can facilitate learning new UIs. But there's no specific research that says, for example, that people have trouble adapting to different methods of closing a window. IEEE had to rely on educated guesses, and, I suspect, they simply tried to choose elements to standardize which were amenable to standardization and had some chance of being accepted by the (at that time) warring vendors of window systems. Was it worth attempting to standardize window system elements without fundamentally understanding what specific usability problems customers really encountered? Again, it's a difficult judgment that must be made. In some cases, it might well be worth a try without such knowledge, if the industry is ripe for standardizing a user interface domain, and consistency has some reasonable change of helping, and not hurting users. However, in the end, the IEEE stan-

dard failed not because of this issue, but because it could not be practically accepted by the industry: companies could not come to agreement to change.

The final issue is one of timing: is the success of a standard determined by whether it is introduced early or late in the evolution of a user interface technology (a "technology" here might be character user interfaces or multimedia)? One argument is that UI standards are most successful when developed as early as possible in the life of a technology. The logic here is that standardization needs to be established before competing solutions to the same design issues take hold. This diversity becomes a problem for users as they begin to use multiple products or services with inconsistent UI. And in addition, once there is more than one UI design solution, each solution has a significant engineering, commercial, and user base, which exerts resistance to standardization.

The opposing argument is that standardization should wait until the technology and the design space are sufficiently mature so that the standard can offer an optimal solution to design issues. Early in the technology cycle, there is not enough knowledge, user data, or agreement to produce a good standard. Designers, users, and researchers must have sufficient experience with a new technology, in order to know what should be standardized, and what those standards should recommend. Waiting to standardize allows design solutions and experience to emerge, and those solutions can be considered candidates for standards implementation.

Obviously, the answer to the timing of standardization depends on the specifics of the technology and the standards being proposed. For example, when alternatives being considered for a standardized implementation are relatively equivalent (e.g. should help be F1 or F10?), early standardization may make sense. But when user interface experts see different solutions to design issues in a new technology, early standardization may be ineffective.

In sum, several interacting factors should be weighed in deciding if and when to standardize a user interface technology. Perhaps discussion on these questions might someday lead to a decision model to guide us in when to standardize.

# HCI and the Web

William Hudson, Editor  
chi-Bulletin-Web@acm.org



## Web of Confusion, Part 1

### UI 2001 Conference, 30 Oct - 1 Nov 2000, Boston

Back in the mid 1990s the World Wide Web showed enormous promise, but quite a few rough edges. I had great hopes that as it progressed, developers would learn from their mistakes and provide sites that were easier to use. In reality the rapid pace of development, coupled with pressure to provide greater and more elaborate functionality, has left usability at a virtual standstill in the wired world. This lack of improvement in allowing real users to get real things done via the web was the theme of Jared Spool's keynote talk at UI2001. I doubt that I was the only one in the room not surprised by his revelations (more of which follow).

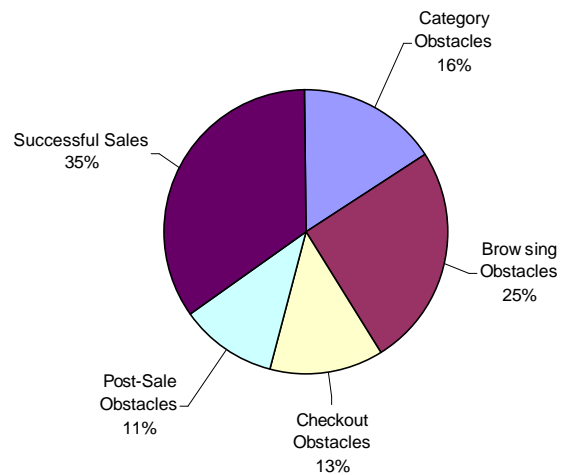
The conference was a relatively small affair by CHI standards, consisting of eight day-long tutorials over two days, with a "sampler" day sandwiched in between. This meant that you could attend two tutorials in their full form and another four in condensed, 90-minute versions. I thought that this approach was very effective and would certainly like to see similar arrangements at other conferences.

As it turned out, organizing my travel and accommodation via the Web was almost as educational as attending the conference itself. I needed flights, car parking and accommodation. I tried to arrange all three of these via the web – and failed. I am a patient man when it comes to technology, and I have been using the web since NCSA Mosaic was the only browser available. I tried very hard, much harder than the average consumer, to make these arrangements online and could not.

While I do not want to spend too much time on my tale of woe, here is the catalog of web disasters that occurred:

- The American Airlines web site would only offer me flights from London to Boston *via Chicago*.
- My lastminute.com flight reservation had the wrong return date (they did not provide flight details on the final confirmation page).
- The Marriott hotels reservation site repeatedly discarded all of my address details as invalid (they later explained that punctuation in the city or telephone number fields could cause this).
- Parking Express gave a very convincing impression of having worked. However, when the printed voucher arrived it was for the wrong airport.

This is a pretty sorry state of affairs and whilst not typical of the average web experience, not unusual either. Jared reports that in usability testing conducted at User Interface Engineering, users only achieve their self-selected goals 42% of the time. A particularly worrying aspect of this figure is that it has not changed significantly since they started collecting data in 1996. The situation is even worse in UIE's studies of web purchasing, with only 35% of sales succeeding. UIE have found and classified over 250 obstacles to success in this area.



These obstacles raise a fundamental issue concerning the definition of usability. For example, in my catalog of disasters, is it a *usability* problem that the parking voucher that arrived was for the wrong airport? In a strict sense, probably not. But whatever we decide to call the problems users are facing, we need to decide how to identify and address them. This was the purpose of the tutorials presented at the conference:

- Scenario building
- Visual literacy
- Goal-directed design
- Information design
- Inventing interfaces
- Field study techniques
- Designing with the mind in mind
- Screen design and layout

...and the subject of the second part of this article.



# Visual Interaction Design

Frank M. Marchak, Editor  
chi-Bulletin-VID@acm.org

## Whither Visual-L?

Visual Interaction Design is a Special Interest Area of SIGCHI focusing on the visual aspects of interaction in interface design. The goals of the Visual Interaction Design Special Interest Area are to act as a focal point for visual interaction design interest within SIGCHI, to advance visual interaction design as an integral component of HCI, and to integrate visual interaction design with the rest of SIGCHI.

*Visual-L*, the Visual Interaction Design ListServ group, was originally established to address the needs of the visual interaction design community by providing a forum for the exchange of ideas and thoughts on all aspects of the field. Over the years the traffic has waxed and waned, but as of late, it's been heaviest on the wane side of things. With an initial base of over 900 subscribers, the membership rolls have sunk to fewer than 450. Messages have shrunk to occasional job posting and conference announcements, and discussion has all but disappeared.

Because of this lack of use, and an inordinate number of bad email addresses, the list maintainer posted a message of his intent to disband the list at the end of October 2000 in the absence of strong arguments to the contrary. Unfortunately, no such arguments appeared. Ron Rice provided what I thought was a good idea to start an on-line bibliography and subject index for books and journal articles related to visual interaction design. He even offered to serve as the web designer/developer and host the project on one of his domains. This stimulated a few responses, but in general, things returned to their state of stasis. In an effort to keep the infrastructure of *Visual-L* in place, Ken Friedman suggested the possible use of an academic and professional host service such as Mailbase.

After investigating the options available to us, I have volunteered to take over maintenance of the list and move it to an ACM-based server. Starting in November 2000, the functions of the *Visual-L* list will be taken over by *chi-visual@acm.org*. All current subscribers to *Visual-L*, as well as new subscribers, are welcome to join us there. To subscribe to the new list, send email to *listserv@acm.org* with the single line in the body of the message:

**subscribe chi-visual <your name>**

replacing <your name> with your real name, not your email address. Remember that all administrative commands need to be sent to *listserv@acm.org* and NOT to *chi-visual@acm.org*, which is only for postings intended for the group. Also, please save the response that you get from the listserv after joining, as it provides all the information you need for unsubscribing, as well as other useful command references.

While this solved the logistics problem of keeping the *chi-visual* list alive, we still need a way to revive the list to make its existence worthwhile. So I once again ask you for your thoughts and suggestions, this time directed toward ways to make this list alive again. What do you feel are the reasons for the current lack of use? Are folks subscribed to so many other lists they just don't have time to post to ours? Are there other lists that so overlap our topic area that have become merely a redundant channel? Is VID no longer a distinct area in the field of human-computer interface design and perhaps we really don't need this list?

From observations of other lists to which I subscribe, it appears that a small subset of the subscribers carry the bulk of the message traffic, with numerous lurkers (myself included) benefiting vicariously from these interactions. I can't believe that there's a dearth of opinion among the VID-ers out there, or that there are no topics that would be of interest to our group. In an attempt to stimulate discussion, I will begin to post topics gleaned from other sources and perhaps some rants of my own. My hope is that others will find enough of interest to contribute and maybe we can get a critical mass going again. In the worse case, perhaps I can annoy enough people to at least post messages telling me to stop.

Talk to me. Let me know what you think and what I can do to help foster the use and usefulness of this medium. Send your thoughts directly to the list. I would like to think that the apathy that often colors much of the lack of participation in political issues in the United States is not indicative of our own community. So besides remembering to "get out and vote." try to remember to "get out and post." It's true that YOU can make a difference.

# CHI 2001 Preview: Special Section



**Thanks to Stanley Kubrick, the year 2001 evokes images of evolution in human thinking and development. At the risk of sounding like a cliché, CHI 2001 is striving to make a mark in the evolution of human-computer interaction. Our reoccurring monolithic image is a computer screen and our leap forward in thought focuses on how technology, usability, and accessibility will change mankind.**

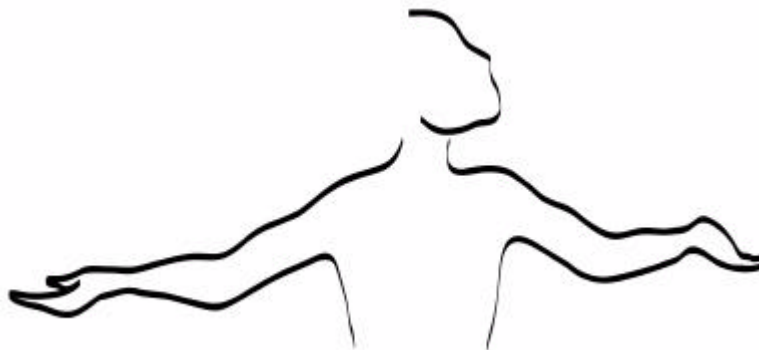
CHI 2001 will be significant for many reasons. First, it is being held in Seattle, Washington, USA, one of the world's most innovative technology areas. And while innovation in human-computer interaction is why we go to CHI, being in an innovative and exciting city

that is surrounded by natural beauty and is home to attractions like the new Experience Museum or the Museum of Flight is not lost on the CHI audience. Not to mention the fact that Chairman of Microsoft, Bill Gates, will be our opening plenary speaker.

But, first and foremost, ideas and innovations will abound at CHI 2001. CHI attendees will have the benefit of both nuts and bolts instruction and futuristic and innovative thought. Our hope is that sparks will fly as the energy of our event and of the location combine and synergistically raise the level of professional discourse and discovery at CHI 2001.

**anyone. anywhere.**

A lot of thought goes into the development of a theme and a conference logo each year. The theme, of course, drives submissions, but also reflects the innovative thinking that is going on. Technology is driving access. Yet as the world becomes more and more "technologized", it seems smaller. What to do about those who are on the far reaches of the planet, and cannot gain the insight that technology provides? We wonder about that too, and feel that is an important topic that needs discussing. Experts will be providing insight on planning and carrying out cross-cultural user studies and interfaces that support universal access and usability. What



about those with physical disabilities, what does technology mean to them? We also wonder, and invite discussion and innovation that will ultimately level the playing field for those who are immobile, or whose hearing or sight are

impaired. According to the instructors of the tutorial, "Designing for Users with Special Needs," we are all disabled in some way, thus interfaces should be designed for all users.

Our logo is intended to reflect the theme, and thus we have included what we have come to refer to fondly as "Sky Guy" – our human form that is looking to the heavens with arms outstretched to communicate the world of possibilities created by the realm of computer-human interaction. As you will note, he moves from place to place in our communications, often seen behind the skyline of Seattle in the advertising, as we want to show that he could and should be anyone. anywhere.

# CHI 2001 Preview: Special Section

## NEW TUTORIALS FOR CHI 2001

There will be several new CHI tutorials this year, as well as evolved versions of previous tutorials and the most popular classics that have improved with age! Because the underlying effort throughout the preparation of this conference was to spark imaginations and create a platform where ideas grow and expand throughout the exciting six days of CHI, we have made a special effort to invite new submissions.

InContext Enterprises representatives will provide concrete and practical techniques for creating innovative design based on field research in the tutorial titled *Driving Invention from Field Data*. A Human Interface Technology Labs team will provide an overview and demonstrations of augmented vision and mixed reality concepts and scanned light displays that will be of great interest to developers and human factor specialists in the area of 3D-interface technology. An Intel Architecture Lab representative will offer two tutorials. One is an introduction to VoiceXML and the other will discuss advanced VoiceXML and the W3C speech user interface, an advanced tutorial targeted to web designers who anticipate developing web-based voice sites and voice por-



tals and human factors practitioners who develop and apply voice dialog guidelines. Google, Inc. will be on hand to provide insight into the architecture, algorithms, and processes of modern search engines and interface design. An Oracle Corporation representative will be focusing on the concept of movement and how to incorporate meaningful movement into interactive software and enhance communication. Dray & Associates will be showing you how to plan an international user study, providing practical exercises for those with experience doing user studies in their own country. The author of *GUI Bloopers: Don'ts and Do's for Software Developers and Web Designers* will be providing insight on how to spot common GUI design errors, and how to correct and avoid them, a tutorial targeted to software designers and developers who do not have several years of experience. An ICS-Forth team will discuss the challenges that universal design poses for HCI in the context of our global community, providing methods and tools that support unified user interfaces. A Microsoft representative will provide a host of solutions to solve interface design problems, offering a practical approach to fixing web or software based interaction design problems.

Industry usability and interface gurus from around the world will be at CHI 2001 to launch their ideas, ask more penetrating questions, and seek answers that could lay the foundation for tomorrow's innovations.

## Tutorials Featured at CHI 2001

Human-Computer Interaction: Introduction and Overview  
How to Solve User Interaction Design Problems  
Introduction to VoiceXML  
Understanding User's Work in Context  
Driving Invention from Field Data  
Designing Systems that Adapt to their Users  
Web Sites that Work  
Cross-Cultural User-Interface Design  
The Usability Engineering Lifecycle  
Common Look & Feel: Cross-Production UI Design for Web Sites and Applications  
Cognitive Factors in Design: Basic Phenomena in Human Memory and Problem Solving  
Designing for Users with Special Needs  
Current Advance in Augmented and Mixed Reality  
Designing Interfaces for Handheld Computers  
Advanced VoiceXML and the W3C Speech User Interface Framework  
Web Search Engines: Algorithms and Other Interfaces

# CHI 2001 Preview: Special Section

## WEBBISH-NESS

**A Dilbert cartoon shows the boss looking over Dilbert's shoulder saying, "The web site needs to be more webbish." In the next frame the boss continues, "But not too webbish." And in the third frame he says, "How long will that take?"**

CHI 2001 has a full spectrum of tutorials that will address how to make the web more "webbish," which we choose to interpret as "more usable". Of course, that means there is no such thing as being too "webbish" – as the more usable and accessible the better. A team from User Interface Engineering will reveal unpublished research results on eye tracking and usability and discuss links, page layout factors, and site navigation. Usability engineer Deborah Mayhew will be sharing war stories from her extensive consulting practice. The top-rated tutorial "Drawing on the Right Side of Your Brain" is back by popular demand, and will shift the paradigm regarding visual and perceptual modes of thinking.



New technologies that will affect web development in the very near future will be discussed. Web-based voice applications are quickly developing and will open a new world of interface for web designers to work with. Search engines and how they can enhance performance and the limitations of the web as a medium of information retrieval will be highlighted. Experts will be discussing a scenario-based design process for creating usable web sites along with effective evaluation methods.

## STATE OF THE SCIENCE

The population is aging. As a result, a higher number of people will have limited accessibility to technology and physical impairments that will become increasingly important issues in the field of HCI. That's why CHI 2001 will feature a two-day *State of the Science Exchange on Modality-Independent Interaction* the Sunday and Monday prior to the technical program at CHI 2001. Researchers and leaders in the disability access field will exchange ideas about technology and its impact on users. Issues such as "implantable" systems; speech, face or gesture recognition technologies; virtual reality and virtual presence, and artificial intelligence will be some of the topics discussed. The world's foremost experts will be on hand to lead working groups and presentations.

## Tutorials Featured at CHI 2001

Drawing on the Right Side of the Brain  
Designing Movement in Interactive Multimedia: Making it Meaningful  
Test Design and Statistical Data Analysis for Usability Evaluation  
Usable for the World: A Practical Guide to International User Studies  
Collaboration Technology in Teams, Organizations, and Communities  
Interviewing Skills for Usability Evaluators  
GUI Bloopers: Recognizing and Avoiding Common GUI Design Errors  
Designing Speech User Interfaces  
Design and Rapid Evaluation of Usable Web Sites  
Scenario-Based Usability Engineering  
Developing Universally Accessible Use Interfaces: Concepts, Methods, and Tools  
Goal-Directed Methods for Great Design  
Information Visualization  
Visual Design for E-Commerce and Performance Tools  
Web Site Usability: The Big Picture

# CHI 2001 Preview: Special Section

## NEW FEATURES OF CHI 2001

For those of you who have been to several CHI conferences, you might also be interested in the new venues being offered at CHI 2001. The Design Expo offers a unique opportunity for designers to present new ideas and innovations to the CHI community. Designs will be presented in a moderator-discussant format, and authors will be available for questions. CHI 2001 will also feature Interactive Video Posters this year. This new venue will combine the attributes of an interactive poster presentation with a video presentation, and will spark a highly interactive exchange of ideas and breakthroughs in the HCI community. CHI 2001 will also feature an enhanced recruiting area for those who like to use CHI as an opportunity to broaden their networking skills and career opportunities..

For more information about CHI 2001, go to [www.acm.org/chi2001](http://www.acm.org/chi2001). You can review the pre-conference events, which include the tutorials, the workshops, and the consortium. You can also review the entire technical program planned for the conference along with the special events and activities including tours. You can register online. Please note that the early registration deadline where you will receive the greatest discount on the conference fees is February 15, 2001.



# Workshop and Conference Reports

## AVI 2000

### Advanced Visual Interfaces: International Working Conference

George G. Robertson and Wendy E. Mackay

#### Overview

AVI 2000 was the fifth International Working Conference on Advanced Visual Interfaces, held in Palermo, Italy in late May. AVI is a small single-track conference designed to bring together experts in various areas of computer science with a common interest in design and implementation of visual interfaces. The first AVI was held in Rome in 1992, AVI'94 was in Bari, AVI'96 was in Gubbio, and AVI'98 was in L'Aquila. AVI'02 will be held in Northern Italy.

AVI attracts participants from all over the world. The 49 presentations (papers, panel, posters, demos, and tutorials), came from 17 different countries. No one country dominated the conference, and a number of countries had multiple presentations, including the USA, Germany, Italy, Japan, UK, Finland, and Israel. The diversity was refreshing and exciting!

#### The Conference Organizers

Stefano Levialdi did a superb job as conference General Chair. Laura Tarantino was Program Chair and put together a first rate program. Vito Di Gesu, Emanuele Panizzi, and Domenico Tegolo rounded out the conference committee. The steering committee consisted of Tiziana Catarci, M. Francesca Costabile, Stefano Levialdi, and Giuseppe Santucci. All of these folks deserve many thanks for creating a successful and memorable conference. Continuing in the tradition established at previous AVI conferences, AVI'00 enhanced a great technical program with an exception social program. Participants saw performances that highlighted fascinating local customs and history and enjoyed the wonderful local food and wine.

#### Content

Over one-third of the presentations addressed Information Visualization, ranging from novel visualization techniques to evaluation of visualizations based on eye-tracking studies. Anyone in the Information Visualization field should take a careful look at the proceedings, as this is the richest collection of papers outside of the Information Visualization conferences.

Another 20% of the presentations explored visual interface design, ranging from papers on design principles and guidelines for design to particular design techniques and evaluation of them. Other topics included graph drawing techniques, novel input, animation, VR, visual query systems, visual interaction, interface evaluation, CSCW, multimodal interfaces, and adaptive interfaces.

About one-quarter of the presentations included quantitative evaluations based on some usability testing. This is a significant increase over AVI'98, and represents a healthy trend.

#### Invited Speakers

The mix of paper presentations, demos, and posters was punctuated by three invited talks and an invited panel. One of your reporters (George Robertson) gave a talk on hierarchy and polyarchy (intersecting multiple hierarchy) visualization. Daniel Thalmann gave a talk on the use of virtual humans as multimodal interfaces. And Thomas Green gave a talk on the cognitive aspects of programming. In addition, Constantine Stephanidis lead an invited panel discussion of universal access issues, a topic that is becoming more and more important in our field.

We agree with the earlier AVI trip reports (Hartson, 1998, Pirolli, 1997, Shneiderman et al., 1994): this is a small, single-track conference held in beautiful surroundings that allows participants many opportunities for discussion about a rich set of research topics. Participants leave with new colleagues, new ideas and fond memories of an enjoyable, fascinating experience.

AVI 2002 promises continue in this tradition, with warm, Italian hospitality and a great technical program. See you there!

#### References

Hartson, H.R.(1998). Trip Report, AVI'98, An International Workshop. SIGCHI Bulletin, 30 (4)

Pirolli, P. (1997). Trip Report, AVI '96, An International Workshop. SIGCHI Bulletin, 29 (1), 23-24.

Shneiderman, B., Badre, A., & Santos, P. (1994). Trip Report, AVI '94, An International Workshop. SIGCHI Bulletin, 26 (4), 54-55.

# Workshop and Conference Reports

## Shaping the Future of Mobile Devices

### Results of the Workshop on Future Mobile Device User Interfaces at CHI 2000

Satu Ruuska-Kalliokulju, Matthias Schneider-Hufschmidt, Kaisa Väänänen-Vainio-Mattila, Bruno Von Niman

#### Introduction

Telecommunication is merging with information processing, intersecting with mobility and internet technology, creating the New Telecoms World.

Communication devices will be the largest consumer product segment in the world. Since we believe that it is necessary to increase and deepen research efforts to lay the foundations for "good" user interface design for this class of devices we organized a workshop during CHI 2000 which addressed the issue of UI design for future mobile devices.

User interface design for mobile communication devices has not been a central research topic in the past. Future communication devices will incorporate much of the functionality of today's information processing devices preserving important characteristics like the fact that the devices must be personal and highly individualized and increase the quality of life for their users.

Mobile communication and information processing is different from stationary communication and information access in its inherent nature of variable contexts of use, affecting the way in which the terminal is operated via its user interface, the quantity and quality of the content which user needs to access through the terminal, and the interconnections to other devices and services in users environment.

Currently a number of trends can be seen in the field of mobile communication which open up new design dimensions for mobile communication user interfaces:

- New applications and services such as mobile Internet access become possible.
- Communication networks become global. Devices are expected to react in an individualized manner.
- Convergence of information processing and communication.

What will tomorrow's communication devices look like in the context of these trends? Will we see a trend towards multifunctional devices or will there be many different personal information appliances with different user interfaces? And how will these future communication devices interact?

#### Topics of the Workshop

Four major topic areas were covered in the workshop, in order to answer the questions above. These areas have significant effect on the use of personal mobile devices.

Moreover, they are the major factors that differentiate mobile devices from the stationary office-based systems.

*1. Context of use.* Physical, social and cultural contexts affect the way in which the terminal is operated via its user interface. The quantity and quality of the content which users need to access through the terminal, and the interconnections to other devices and services in the users environment have their implications to the UI design. Being able to use the device anywhere, anytime is one of the major factors that differentiate mobile personal devices from stationary office-based devices like PCs.

*2. Personalization* of mobile devices is a central design issue. Mobility allows totally different degrees of personality even to the extent that new paradigms of personal computing seem to be arising. However, there seems to be very little research so far on the nature and extent of the personalization of devices. Moreover, the effects of the context of use on the personalization have not been explored before in relation to personal mobile products.

*3. Applications and services* are the driving force from the end user perspective. The variety of individual needs implies the necessity to offer tools to fulfil users' "mobile needs" such as fun, work and personal communication.

*4. Connectivity and inter-working* of communication appliances. We do not believe that there will be one "universal communication appliance" in the future, but a variety of communication appliances that are operating in harmony supporting users in their everyday life [2]. Communication and personal computing devices get more task specific, increasing the need for inter-device communication as the only way to simplify the task of the user in the most transparent way.

#### Topics of the Workshop

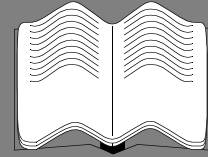
The workshop was held as a one-day event. During the first phase, the 4 topic areas described above were discussed. The second phase included work in groups on a design exercise for the mobile user interface of the future.

*this article is continued on-line at:*

<http://www.acm.org/sigchi/bulletin/2001.1/mobile.html>

# Book Review

Larry Wood, Editor  
chi-Bulletin-Pubs@acm.org



## Review of *GUI Bloopers: Don'ts and Do's for Software Developers and Web Designers*

by Jeff Johnson

Review by Larry E. Wood

Johnson, J. *GUI Bloopers: Don'ts and Do's for Software Developers and Web Designers*. Morgan Kaufmann. ISBN: 1-55860-582-7.

Like most usability professionals, Jeff Johnson fantasizes about a world in which software developers and managers actually listen to and learn from usability professionals. Indeed such lofty thoughts were the inspiration for his book. Jeff suggests two reasons why previous books on UI design haven't been effective in influencing developers. They are: (1) the guidelines presented are too abstract, and (2) most programmers believe they are already User Interface experts. Jeff concludes that his experience in that regard suggests "that a book focused on design errors and how to avoid them might be more effective than many previous user interface design books have been, or at least would be a useful complement to such books." In that spirit, his book describes mistakes (referred to as "bloopers") that software developers frequently make when designing graphical user interfaces.

Considering the title, one might suspect that the book is simply a list of common errors and proposed "fixes" without much rationale to support them. However, I was pleasantly surprised to find that as background for discussing interface bloopers (henceforth referred to simply as "bloopers"), Jeff lists and discusses eight basic principles that underlie effective user interface design. They are:

1. Focus on the users and their tasks, not the technology
2. Consider function first, presentation later
3. Conform to the users' view of the task
4. Don't complicate the user's task
5. Promote learning
6. Deliver Information, not just data
7. Design for responsiveness
8. Try it out on users, then fix it!

These principles are elaborated as sub-principles with accompanying examples and other amplification.

The "principles" chapter is followed by seven chapters in which the author discusses common bloopers in the

following categories: GUI Component Bloopers, Layout and Appearance Bloopers, Textual Bloopers, Interaction Bloopers, Web Bloopers, Responsiveness Bloopers, and Management Bloopers. I might quibble about the order of the chapters (e.g., I would prefer the chapter on Interaction Bloopers to be first), but fortunately, the chapters are sufficiently independent of one another that the order can be varied without serious disruption of the content.

Each of the Bloopers chapters follows a format of a description of the blooper, its accompanying variations (if relevant), examples from real software applications, a design rule for avoiding the rule, and one or more examples proper use of the rule.

In addition to the chapters describing bloopers, Jeff includes a chapter on software reviews and one titled "War Stories of a User Interface Consultant." In the Reviews chapter, the author provides reviews of Eudora Pro (a popular email program) and Kodak Picture Disk (an application for viewing digital photographs) in the style and form he uses in consulting activities. In addition, he references the design flaws to specific bloopers discussed in previous sections of the book.

In the final chapter, Jeff shares some of his experiences as a usability consultant. I found the two cases particularly interesting because they are not typical desktop GUIs or Web interfaces. One was an interface to an interactive movie game, and the other to TV set-top box for controlling reception of digital satellite TV broadcasts. Both posed some very interesting design challenges.

In summary, the more I read, the more I liked the book. While seasoned usability professionals probably will find little they haven't already encountered, it is an excellent resource for those entering the field, and for the audience to which it is directed (i.e., those developers we work with). The only major item missing from the book is some magic formula usability professionals can use to get those developers and managers out there to read and heed it.



Complete minutes can be found in the on-line edition at:  
<http://www.acm.org/sigchi/bulletin/2001.1/minutes.html>

**Meeting of the SIGCHI Executive Committee**  
August 11-13, 2000

## Operations

Dan Olsen updated the Extended Executive Committee (EEC) on activities regarding awards. He solicited nominations for the SIGCHI Achievement Awards and for SIGCHI Fellows. The goal is to induct ten initial fellows at the CHI 01 conference. There is also an effort to get SIGCHI people nominated for ACM's Fellows positions. This is being done by contacting ACM Fellows who belong to the CHI community. ACM Fellows are responsible for nominating new Fellows.

## Membership

Teasley circulated a draft version of the new membership brochure showing the proposed layout and wording. The letters to new members and to lapsed members have been created, but are not being sent out. The problem is waiting for ACM to complete input of the data for new members that joined as part of the CHI conference. Once the membership database has been created, Kristina Hook will send out the letters.

## Education

Bob Mack reported that no local SIGs have followed through on a request for Tutorials to Go. It appears they need help with the planning and arranging needed to carry off the event. Don Patterson has volunteered to advise in this capacity.

## Cooperating Societies.

Tremaine received an email in response to her recent email to IFIP TC 13 chair about SIGCHI's plans not to hold a CHI conference in Europe in 2003. 2003 is the date when INTERACT '03 is to be held in Zurich, Switzerland. She also told the chair, Judy Hammond, that CHI would be held in Europe in 2004 and 2007.

## Conference Management Committee (CMC) Report

Kevin Schofield is serving as the CMC liaison to CHI 01. The CHI 02 co-chairs, Dennis Wixon and Loren Terveen, have met in Minneapolis to conduct a site visit and make personnel selections. The selection of chairs for CHI 03 is under consideration, with the goal of having this done by mid-September. Site selection is underway for 04, which will be in Europe. Advice is being sought from local SIGs in Europe, and requests for bids have been sent out. Marian Williams is the CMC liaison to small conferences.

## Local SIGCHI

Richard Anderson reported that there are currently about 50 local chapters in operation. [N]o CHI Local SIGs have any current problems with their legal status in their home countries. ACM has not stepped up to the task of creating software tools for local SIGs to use in their operations (e.g., membership databases, balloting, mailing lists). Many local SIGs already have or are developing such tools. Anderson is con-

ducting a survey to determine what tools are available, and is looking at the prospects of sharing them across local SIGs. The idea of having a SIGCHI-sponsored award for leadership at the local SIGs level will be discussed with local chapters.

The issue of how SIGCHI relates to its local chapters and to non-ACM-related local organizations was discussed. Our goal is to support groups of people who wish to organize around a common interest in HCI in whatever way is most convenient and beneficial to them, while still supporting the growth of SIGCHI. To this end, a resolution concerning affiliate societies was created and voted on. The resolution distinguishes between chapters and affiliate organizations. Chapters are "local" SIGs that are formally associated with ACM SIGCHI, and must comply with ACM and SIGCHI bylaws. A chapter's members need not be geographically co-located. That is, a chapter's area may cover a whole country, as well as a region or city. Affiliate organizations are otherwise independent organizations that choose to affiliate with SIGCHI. Affiliates are not part of ACM or SIGCHI. Both entities – chapters and affiliates – maintain a relationship with SIGCHI for the goal of exchanging information between their members and SIGCHI. They will be listed on the SIGCHI web site and in the SIGCHI Bulletin, and their activities will be promoted in those venues, as well. SIGCHI will provide announcements and membership information to chapters and affiliates, and may provide educational and reference materials, when available. Joe Konstan moved (Anderson seconded) that the policy be enacted. The motion passed unanimously, 8-0-0.

As part of the ongoing effort to improve relations with CHI Local SIGs, the EC met with the BayCHI Steering Committee for several hours on August 10. BayCHI offers a large number of programs and services, and has a database of 2000 interested persons, of whom approximately 1100 are paid members. The EC learned much about what makes BayCHI so successful. Some of the lessons learned can be applied to SIGCHI operations and philosophy.

## Publications

The last print run for *interactions* was over 10,000. This was well over the usual size of the run, because extra copies were printed to hand out at the SIGGRAPH conference. The last copy of *interactions* went out with the new version of the *Bulletin* enclosed. Konstan moved (Pemberton seconded) that the *Bulletin* be published on the web at the same time the paper version is published. The vote was unanimous in favor (7-0-0). Tremaine will be working with Alisa Rivkin to send a letter to all SIGCHI members describing the changeover to *interactions* as the member publication, with the *Bulletin* as an insert.

Tremaine will approach the ACM SIG Board to see if the money the SIG Board earns from the digital library can be used to improve the IT service at ACM. She will also assess whether other SIGs feel that the IT service from ACM needs to be improved.

### **Image Analysis Opportunity**

SIGCHI has been offered the opportunity to have an image analysis done as a class project for the Institute of Design in Chicago. Suggestions are made on how to better match the projected image with the actual goals and philosophies of the organization. Olsen moved (Konstan seconded) that we allocate \$6K for the project to be used at the chair's discretion. The vote passed unanimously, 8-0-0.

### **Bylaw Changes**

Mike Atwood has been working on a revision of the SIGCHI bylaws. Once the EC approves the changes, the SIG Board must approve them. The proposed changes include adding new elected positions to the EC, and making certain positions appointed rather than elected. After discussion by the EEC, the consensus was that there should be a total of six elected positions, as follows: Executive Chair, Executive Vice Chair, Vice Chair for Finance, Vice Chair for Communications, and two Vice Chairs-at-Large. The appointed positions should include: Director of Conferences, Director of Publications, Director of Electronic Media, and Director of Chapters. These positions provide a balance among the concerns of stability in the positions, having the members select the officers via voting, and making sure people with the right qualifications fill the positions. The At-Large positions allow members to vote for candidates whose proposed programs appeal to them. The appointed positions allow the EEC to select people with appropriate backgrounds and experience. Because the bylaws change process takes time, the new configuration of officers will not be in effect until after the upcoming 2001 election.

### **Membership**

Concern was expressed that the Usability Professionals Association (UPA) is growing steadily, and that this might be an indication that we are not serving the needs of these people within the SIGCHI organization. Atwood and Scholtz will meet with UPA officers to discuss potential cooperation. The issue of allowing student members of SIGCHI to vote was raised. [T]he over-riding charter of ACM may not allow student members to vote. Tremaine will check with ACM to find out what would be involved in franchising student members. Jonathon Arnowitz agreed to create a committee to design and oversee the creation of the SIGCHI booth that will be used at the CHI conference and other conferences.

### **Working Group on Web Site Needs**

A working group from the EEC met during the meeting to discuss specific needs and potential actions regarding SIGCHI's web site maintenance. The group concluded that the web site infrastructure needs substantial work, independent of the web site content redesign effort that is going on in parallel. They proposed that a professional firm be hired to perform the assessment. The firm would be expected to produce a communication model, a data model, the presentation form, and an request-for-proposal for actually rebuilding the infrastructure. The goal is to have a system that is built by professionals, but can be run by volunteers. It will be important to keep the information separate from the presentation form. The estimated cost is \$80K. The process will likely need to be repeated in four years or so, due to changes in technology and in SIGCHI's focus. Pemberton moved (Mack seconded) that up to \$20K be budgeted to perform a professional assessment of the current web site, with the objective of producing a plan to rebuild the infrastructure. The vote was unanimous in favor, 7-0-0. Keith Instone will be contacted for advice on this project.

### **Working Group on Outreach**

A working group discussed ways that SIGCHI can accomplish outreach to members from countries that have soft currencies and/or countries that have an emerging interest in HCI. The group felt that the Development fund, currently in place, should cover financial support to get people from either outreach category to conferences, workshops, etc. However, the availability of funds is not well-advertised. Konstan, Anderson and Tauber will come up with a proposal for a scholarship program that can be advertised via the conference-related publications. The group also proposed that we mirror ACM's membership discount program that is offered to soft-currency countries. However, while ACM requires five people to share member publications, we will require only one. Konstan moved (Gerrit van der Veer seconded) that this policy be enacted. The vote was unanimous in favor, 7-0-0. Konstan and Kristina Hook will let ACM know about our new membership policy. [Editor's Note: ACM subsequently notified Hook that this policy change would require approval by the SIG Governing Board; such approval is being requested.] The idea of having live language translation services available at the conference was also discussed. Tauber will follow up.

### **Design Community Working Group**

Elizabeth Dykstra-Erickson, Adjunct Chair for Design, chaired a working group meeting with Jonathon Arnowitz, Austin Henderson and Wendy McKay. The Adjunct Chair for Design is charged with representing the needs of designers in the CHI community, and proposing new ways to serve this constituency. Some of the ways these needs are being met is through the introduction of an annual design issue of *interactions*, a regular design column in *interactions*, a design column in the *Bulletin*, a how-to column in *interactions*, and a Design Expo track at CHI 01. In the future, the group proposed that there be design activities at the CHI conference such as a design gallery refereed at a higher level than regular posters, an interactive experience or live performance in an evening entertainment format, a hands-on user experience lab, an enhanced demo lab, and peer-to-peer workshops. A CD-ROM may be necessary to allow conference attendees to take away the design presentations. The group does not want to create a "design ghetto" at the conference. Instead the idea is to foster integration and exposure to difference ideas, and give people a different perspective on HCI and design. Tauber will work with the CHI 02 co-chairs regarding creating and staffing the position of Design co-chairs.

### **Vision**

A vision statement for SIGCHI was discussed and a draft version was created. The statement is as follows:

SIGCHI is the premier international society for the research, practice and community of HCI.

SIGCHI provides support for the diversity and cross fertilization of HCI viewpoints, disciplines and communities.

SIGCHI provides channels for dissemination of ideas in the field of HCI through conferences and workshops, publications, electronic media, geographic chapters, and interest-based chapters.

SIGCHI advances the field of HCI through education, communication, public policy, and outreach activities that go beyond the organization.

### **Minutes of Prior Meetings**

Olsen moved (van der Veer seconded) that the minutes of the June, 2000 SIGCHI EEC meeting be approved. The vote was unanimous in favor (8-0-0). Konstan moved (Olsen seconded)

that the minutes of the July, 2000 meeting be approved. The vote was unanimous in favor (8-0-0).

### **Upcoming Elections**

The biannual election of the SIGCHI Executive Committee is scheduled to occur in the second quarter of 2001. Atwood agreed to serve as the chair of the nominating committee, and he will find others to also serve on the committee by no later than October.

### **Upcoming Meetings**

Monthly conference calls will continue to be held in months when a face-to-face meeting is not scheduled. The meetings will be at noon EST/EDT on the second Wednesday of every month. The next conference call meeting will be September 13. The December meeting will be face-to-face somewhere in Europe. The dates are December 14-17.

### **Conference Call Meeting of the SIGCHI Executive Committee September 13, 2000**

#### **Conference Tutorials**

For a number of years the CHI conferences have been paying the same honorariums for tutorials. The amounts are \$1,000 for a half-day tutorial, and \$2,000 for a full-day tutorial. The fees are no longer in line with market value. If the honorariums were doubled, the budget impact would be about \$30K. Dan Olsen moved that, recognizing that tutorial honorariums are low, the CMC be asked to work toward making the honorariums more competitive by no later than CHI '02, with a total additional cost not to exceed \$30K. Scholtz seconded the motion, which passed with a unanimous vote (6-0-0).

#### **Finances**

Jean Scholtz noted that the 1999 fiscal year has now closed out. One highlight of the year-end report is that income from the conferences was almost twice the predicted amount. Interest income was also higher. Expenses for the EEC were over the predicted amount by \$16K, and the CMC was over their \$155K budget by \$79K. Although special projects were allocated \$268K, only \$75K was spent.

#### **Operations**

Bob Mack has been working with Tremaine and Alisa Rivkin on the online tutorial project. The vendor they are using is Visionary Systems, Inc. They have decided to use a CD/Web hybrid to distribute the tutorial, as using the Web alone does not allow for the speed and sophistication that a CD will allow. Negotiations are going on with Jared Spool to provide the content for the first release.

Mack reported that they are in discussions with Argus, Inc. to carry out the proposed assessment of our Web infrastructure.

#### **Conference Management Committee**

Michael Tauber reported that the CHI 01 budget is in and looks solid. The number of submissions is down from last year, which is partly due to the non-European location. Training for the CHI 02 leaders is underway. Selection for the CHI 03 chairs is moving along. European advisors are being hired to help with selection of the European site for CHI 04

#### **Publications**

Alan Rea, from Western Michigan University, has taken on the publication of the online version [of SIGCHI Bulletin].

Currently, the print version is out ahead of the online version, and it should be the other way around. Konstan does not have a good sense of what it is costing to put out the Bulletin in its new format. He has requested the figures from ACM and will report back.

As noted at the August meeting, the publication of interactions on line has come after the paper version is sent out, while the order should be the other way around. There has now been a reorganization of assignments at ACM headquarters which should help solve this problem.

Olsen reported that nominations are closed for SIGCHI Fellows and achievement awards. The committee is working on picking the final awardees. After the CHI 01 awards are taken care of, the committee will contact ACM Fellows, as appropriate, to encourage nomination of other HCI people.

#### **Adjunct Chair Updates**

Tremaine created the position of Adjunct Chair of Mentoring, and has appointed Robin Jeffries to the position. Mentoring is offered to people who wish to make submissions to SIGCHI conferences, but feel they need help in presenting their ideas effectively due to language or cultural issues. It was announced that Allison Druin has resigned as Adjunct Chair of Education Policy, and Morten Kyng has resigned as Adjunct Chair for European Policy.

### *Czech SIGCHI -- continued from page 7*

Future activities should include creation of a database of people active in various areas of HCI. By means of this database, it will be possible to intensify mutual communication. Another important activity that should be developed would be a closer link with the international HCI community. This might be achieved by inviting distinguished speakers from abroad to give lectures about the current state of the art in various areas of HCI.

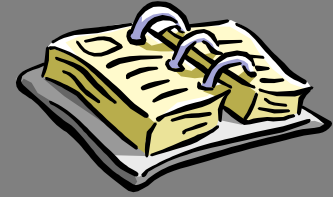
The communication channels will also be broadened. A web site currently exists (<http://hpk.felk.cvut.cz/czechi>) where basic information is displayed, but the volume of information should be extended. Another channel will be a bulletin that will in a regular way inform people about activities of the Local CHI chapter. These channels should serve to distribute information among various groups that are oriented towards a diversity of topics. Inviting distinguished speakers from abroad should attract more attention among potential members.

A lot effort will be devoted to bringing Czech SIGCHI to a level that could be comparable with Local SIGs elsewhere that have existed for a longer period of time.

1. Conference POSKOLE: <http://hpk.felk.cvut.cz/POSKOLE>
2. Conference TSD 2001 : <http://www-kiv.zcu.cz/events/tsd2001>
3. Conference WSCG2001: <http://wscg.zcu.cz>

# Events

Ronald Laurids Boring, Editor  
chi-Bulletin-Events@acm.org



## Upcoming Conferences

**January 14 – 17, 2001**

### **IUI: Intelligent User Interfaces 2001**

International forum for presenting research on intelligent user interfaces.

Sante Fe, New Mexico, USA  
<http://www.iuiconf.org>

**March 13 – 17, 2001**

### **IEEE Virtual Reality 2001**

Conference featuring research on all aspects of virtual reality, from hardware implementation to 3-D CHI.

Yokohama, Japan  
<http://www.vr2001.org>

**March 31 – April 5, 2001**

### **CHI 2001: Human Factors in Computing Systems**

SIGCHI's annual conference focused on all aspects of computer-human interaction.

Seattle, Washington, USA  
<http://www.acm.org/sigchi/chi2001/>

**April 10 – 12, 2001**

### **Ergonomics Society Annual Conference**

Conference intended to support the professional development of practitioners in ergonomics and human factors.

Cirencester, Gloucestershire, UK  
<http://www.ergonomics.org.uk/events/confcall01.htm>

**May 11 – 13, 2001**

### **EHCI: IFIP Working Conference on Engineering for HCI**

Conference on strengthening the engineering and scientific foundations of user interface development.

Toronto, Ontario, Canada  
<http://www.cs.queensu.ca/~ehci01>

**June 25 – 29, 2001**

### **UPA: Usability Professionals' Association**

Annual conference focused on exchange of ideas among usability professionals.

Lake Las Vegas, Nevada, USA  
<http://www.upassoc.org/>

**July 9 – 13, 2001**

### **INTERACT 2001: IFIP Conference on HCI**

Conference emphasizing reliability, usability, acceptability, and user satisfaction of human-oriented computer systems.

Tokyo, Japan  
<http://adam.cs.inf.shizuoka.ac.jp/interact2001/>

**July 13 – 17, 2001**

### **User Modeling 2001**

Conference on user modeling plus adaptive models and techniques in CHI.

Sonthofen, Germany  
<http://www.dfki.de/um2001>

**August 5 – 10, 2001**

### **HCI International**

Forum for the dissemination and exchange of scientific information on theoretical, generic, and applied areas of CHI.

New Orleans, Louisiana, USA  
<http://hcie2001.engr.wisc.edu/>

**August 12 – 17, 2001**

### **ACM SIGGRAPH**

Conference showcasing the latest developments in computer graphics and interactive techniques.

Los Angeles, California, USA  
<http://www.siggraph.org/s2001/>

**September 10 – 14, 2001**

### **IHM-HCI 2001**

Joint annual conference by the British HCI Group and Association Francophone d'Interaction Homme-Machine, covering all aspects of CHI.

Lille, France  
<http://www.bcs-hci.org.uk/IHM-HCI2001/>

**September 16 – 20, 2001**

### **ECSCW: European Conference on Computer-Supported Cooperative Work**

Conference that encompasses theory, development, and design of CSCW systems.

Bonn, Germany  
<http://ecsw2001.gmd.de/>

**September 18 – 20, 2001**

### **HMS 2001: Symposium on Analysis, Design, and Evaluation of Human-Machine Systems**

IFAC sponsored conference on the methodology, principles, and practice of human-centered design and automation.

Kassel, Germany  
<http://www.imat.maschinenbau.uni-kassel.de/hms2001/>

**October 7 – 10, 2001**

### **IEEE Systems, Man, and Cybernetics Conference**

Conference with emphasis on systems engineering, human systems, and cybernetics in a CHI context.

Tucson, Arizona, USA  
<http://crater.sie.arizona.edu/>

**October 8 – 12, 2001**

### **HFES: Human Factors and Ergonomics Society Conference**

Conference bringing together research by human factors and ergonomics professionals.

Minneapolis, Minnesota, USA  
<http://www.hfes.org>

For a complete listing of events:

<http://www.acm.org/sigchi/bulletin/events>

To submit an event listing, send e-mail to:

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# SIGCHI & acm

ACM SIGCHI's scope consists of the study of the human-computer interaction process and includes research and development efforts leading to the design and evaluation of user interfaces. SIGCHI serves as a forum for the exchange of ideas among computer scientists, human factors scientists, psychologists, social scientists, systems designers and end users. SIGCHI sponsors the annual CHI conference, co-sponsors additional conferences and workshops, and offers its members "Member Plus" publication packages. *Interactions* magazine, the *SIGCHI Bulletin* newsletter, and access to SIGCHI Publications in the ACM Digital Library is included with SIGCHI membership.

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C&C: Creativity and Cognition (October)	\$14 <input type="checkbox"/>	\$4 <input type="checkbox"/>
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## Managing sound

The underlying model of a tape for a cassette deck is the same for almost all cassette decks; a physical entity carrying two distinct linear sound blocks. True, a cassette tape does have distinct tracks (songs) recorded on it, but the distinct tracks are not known to the system. It knows only the two sides of the tape and the beginning and end. This rather monolithic model is changing as technology improves the underlying model. CDs and CD players know about tracks and can do interesting things with them. But the era of cassette decks was interesting because, although the underlying model of the tape was the same, different decks provided different controls to the user. These controls embodied actions and the key thing was that the users goals were achievable with these actions. Consider 'rewind'; standard decks offered a rewind action. Contrast this with in-car cassette decks where the cassette was inserted sideways with quite a large part of it sticking out. These decks only had the actions 'play' and 'fast-forward'. To achieve the user goal of rewinding a cassette, a composite action was required, namely; 'turn cassette over' and 'fast-forward'. Another less common example is the child's cassette deck that my Daughter has (and that I frequently borrow for lectures!). To achieve the goal of playing at different volumes it doesn't have a play action and a volume control it has three distinct actions/buttons; 'play quietly', 'play normally' and 'play loudly'. Different actions but the same goals are achievable. Sometimes the technical limitations mean that the user is obliged to carry out tricky, composite actions in order to achieve simple goals. Finding the beginning of the next track using the actions 'play' and 'fast-forward' is possible but very unwieldy. With a video-recorder it is even worse, as the video-recorder needs to do a lot of whining and clicking between each change of operation.

Nowadays the underlying model has been improved with the introduction of sound technologies such as DAT, CD and MiniDisc. These support the idea of separate sound chunks, yielding improved actions (finding the beginning of the next track is a doddle) and a host of new actions like 'shuffle' (play all tracks in a random order) and 'play-intros' (play just the first 5 seconds of each track). The 'play intros' action migrates well to



other sound-chunk technologies such as skipping through voice-mail messages, While applying a 'shuffle' action on your voice mail would definitely not be a useful operation. The most recent, interesting development in this area is the 'digital wallet'. A box that is, funnily enough,

about the size of a cassette tape. It can store several gigabytes of sound tracks (or photos or anything else digital for that matter). Here you can store not just your favourite tracks for the day but your entire music collection; that whole shelf of CDs in one unit. This is interesting because it breaks down the entity of 'an album'. You can apply a shuffle function to your entire music collection and get all sorts of strange combinations of tracks from different artists and different genres. It's something like having your own radio station playing only music from your own collection.

The final gem to come out of this overview of music technology is the idea of 'technology overload'. This is the practice of extracting advanced features from media whose underlying model does not support those features. Dictaphone users spent ages struggling with the problem I alluded to earlier of finding the beginning of tracks/memos until one manufacturer introduced a system where the user could press a button to insert a beep as a marker onto the tape and had actions to skip between these beep markers during playback. A simulation of the separate tracks that are an integral part of the underlying model of formats like CD and DAT. Another example were the cassette players that searched for the start of tracks by playing through quickly to themselves and 'listening' for the gaps between tracks. Again imitating the separate track formats of CD and DAT, but this time not extending the format with user inserted markers but applying low-level AI to the existing format. However, like all low level AI it was not 100% perfect and the cassette system I had as a student played havoc with my Joni Mitchell tapes, turning some of her solo, voice tracks into multiple tracks with just one verse in each!

# SIGCHI at a Glance

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Dr. Patrick Whitney, Illinois Institute of Technology, USA

Dr. Joelle Coutaz, Université Joseph Fourier, France

**ABOUT ACM SIGCHI** (<http://www.acm.org/sigchi>)

**Scope.** ACM SIGCHI embraces work on the hardware and software engineering of interactive systems, the structure of communication between human and machine, characterization of the use and contexts of use for interactive systems, methodology of design, and new designs themselves. SIGCHI serves as an international venue for specialists in human-computer interaction, education, usability, interaction design, computer-supported cooperative work, and other related areas.

**Membership.** You are invited to join and participate in SIGCHI functions. Membership in SIGCHI, which includes a subscription to the *SIGCHI Bulletin*, is open to ACM members and non-members. A membership form and contact information appear on page 22 of this issue.

**Future CHI conferences.** (<http://www.acm.org/sigchi/conferences>)

CHI 2001 — Seattle, Washington, USA — March 31 - April 5, 2001

CHI 2002 — Minneapolis, Minnesota, USA — April 20-25, 2002

CHI 2003 — Fort Lauderdale, Florida, USA — April 5-10, 2003

**E-mail Discussion Lists.** (<http://www.acm.org/sigchi/listserv>)

Several discussion lists are maintained by SIGCHI on topics ranging from education to social action to the web. The moderated chi-Announcements list is used to reach the broader HCI community. Information on joining the mailing lists is found at the listed URL.

**Local SIGs.** (<http://www.acm.org/sigchi/local-sigs>)

SIGCHI has more than fifty local chapters. Contact information can be found on the local-sigs web page (above). Locations of chartered and

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ACM  
1515 Broadway, New York, NY 10036  
Phone: +1 212 869-7440

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