Interfaces







Regulars Alan Dix Sandra Cairncross **Gilbert Cockton Russell Beale Robert St Amant** Martha Hause

New Chairs for (almost) all! Find out what happened at HCI2004 Interacting with ... music aeroplanes





petrol pumps



View from the Comms Chair

The worst thing about taking over the communications role from Tom has been a growing awareness of the impossibility of matching Tom's talent for erudite prose.

What I am not lacking, fortunately, is things to talk about. HCI 2004 was a really useful session for the group. Over the week in Leeds, new and old members of the Exec and the COG were constantly meeting and exchanging ideas; trying to ensure a smooth handover in the short term and trying to identify the longer-term challenges that the group is facing. At the conference, we received many offers to contribute actively to the group and the executive. In communications, Jason Williams and Stuart Neil have joined the team looking after the website; Jarinee Chattratichat has joined the UsabilityNews team; and Mark Hindmarch is analysing results from a marketing questionnaire that we did at HCI 2004. And I can't count the number of people to whom I suggested writing articles for *Interfaces*!

The most pressing issue for the British HCI Group (so far as I can see) is attracting the income to maintain our activities. At the Annual General Meeting of the group, our longsuffering treasurer (Ian Benest) had to take the role of Mr Micawber to remind us:

Annual income twenty pounds, annual expenditure nineteen six, result happiness. Annual income twenty pounds, annual expenditure twenty pound ought and six, result misery.

We have a cushion in the bank, but we need to generate more income (or reduce costs) in the medium term if we are going to maintain key initiatives.

Some of the options that we have been talking about, relating to communications, are helping to make the annual HCI conference more attractive by getting proceedings online. Peter Wild, Barbara McManus, and others have been exploring the options.

We also need to be looking for ways to defray some of the costs of running UsabilityNews. At 1600 user sessions per day, UsabilityNews is reaching a big audience, and the last year has shown steady growth in hits and sessions. I recently saw a conference call where the suggested source for information on the previous meeting was a UN article! The good news is that UN is beginning to generate more income directly from sponsorship, and we are talking to other HCI organisations about collaborative projects. I am working with Catriona Campbell and the UsabilityNews team to explore ways of increasing sponsorship income, but we do need to defend UN's editorial professionalism and independence.

I hate management speak, but I'm quite excited about what we could achieve with internal and external communications in the British HCI Group, and I think we (that is everyone contributing to the group) are capable of achieving great things.

> Andy Dearden Communications Chair a.m.dearden@shu.ac.uk

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Editorial

Welcome to Interfaces 61!

Thank you to everyone who contributed to this issue of *Interfaces*. Because we had so many submissions before we'd even reached the deadline, and a last-minute rejigging of content, I've had to save a few pieces for next time. Thank you to Fiona Dix for pulling together a coherent magazine from the mound of material that I sent to her.

As you'll probably have noticed, there's a new occupant on the opposite page. For the first time in probably four years, Tom McEwan makes no appearance on either page 2 or page 3 or, indeed, on any other page of Interfaces (although I can neither confirm nor deny that he may have penned a sentence or two in the Purple Press...). Tom's taken on the role of Conference Chair and is currently organising HCI2005, which will happen next September in Edinburgh at Napier University immediately after the Edinburgh festival. Andy Dearden has enthusiastically accepted the wide and varied remit of the Communications committee ... so wide and varied, in fact, that we're hoping to extend the 'View from the Chair' column across all the committee chairs to give a better view of what's going on in the British HCI Group – and to let Andy off from having to write for every issue. Peter Wild, the new Events Chair, kicks this off with his report on the Events committee, and Russell Beale (the new Chair of everything) introduces himself and his plans for the BHCIG.

After the deluge of quality My PhD submissions that Martha Hause received for previous issues, the final three feature in this one. Please keep sending them in though. Liz Sillence introduces HCI from a psychologist's perspective, and Muzeyyan Pandir takes a look from a semiotics perspective. As well as all that, we have the usual columns from Gilbert Cockton, Russell Beale, and Robert St Amant, book reviews from Sandra Cairncross, and a 'not a book review', from Alan Dix, who also provides a profile of the new Communications Chair.



And for those who missed the experience of being shuttled between the residences and HCI2004 in "Leeds' cheapest skips" (that's what they said on the side, honest!), there's a collection of write-ups of the conference and extracts from The Purple Press that will make you feel like you rode those buses with us ... every bump of the way.

> Laura Cowen laurajcowen@yahoo.co.uk

RIGHT TO REPLY

Make Interfaces interactive! We invite you to have your say in response to issues raised in Interfaces or to comment on any aspect of HCI that interests you. Submissions should be short and concise (500 words or less) and, where appropriate, should clearly indicate the article being responded to. Please send all contributions to the Editor.

To receive your own copy of *Interfaces*, join the British HCI Group by filling in the form on page 27 and sending it to the address given.

NEXT ISSUE

Interfaces welcomes submissions on any HCIrelated topic, including articles, opinion pieces, book reviews and conference reports. The next deadline is **15 January**, but don't wait till then – we look forward to hearing from you.

with thanks to commissioning editors: Book reviews: Sandra Cairncross, s.cairncross@napier.ac.uk My PhD: Martha Hause, m.l.hause@open.ac.uk Profile: Alan Dix, alan@hcibook.com

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Deadline for issue 62 is **15 January 2005**. Deadline for issue 63 is **15 April 2005**. Electronic versions are preferred: RTF, plain text or MS Word, via electronic mail or FTP (mail fiona@hiraeth.com for FTP address) or on Mac, PC disks; but copy will be accepted on paper or fax.

Send to: Interfaces, c/o Laura Cowen, Mail Point 095, IBM United Kingdom Laboratories, Hursley Park, Winchester Hampshire, SO21 2JN

Tel: +44 (0)1962 815622; Email: laurajcowen@yahoo.co.uk

and copy email submissions to Fiona Dix, Interfaces production editor; email: fiona@hiraeth.com

PDFs of Interfaces issues 35-60 can be found on the B-HCI-G web site, www.bcs-hci.org.uk/interfaces.html



I was a member of an interesting panel at HCI2004, organised by Ann Light (Light *et al.* 2004 – see page 8 of this issue), on 'HCI and Values'. As panellists were working out their positions, it became clear to me that I was an imposter. My interest is in *Value* not Values. The two are clearly related, but I would imagine that most would associate *Value* with products and services (not necessarily commercial ones), and *Values* with people. The simple connection between the two is that we value things that animate our values.

My position is that HCI should focus on the delivery, or even better, the enhancement of the intended value of a digital product or service. It achieves this via adequate, or ideally excellent, quality in use and fitness for purpose.

However, *value-centred HCI* clearly reflects my own personal values. I'd not thought of it this way until the panel, from Ann Light's insight that she modestly omits from her write up (Light *et Ann sola* 2004). It became clear that we need to make the values behind HCI research clear to our colleagues and to the sponsors and consumers of our research. So, here's my Credo, a slight reworking of Marx's XIth Thesis on Feuerbach: *HCI researchers have only interpreted the world, in various ways; the point is to change it.*

I believe in making differences that matter to people. I believe in relevance and effectiveness. While I will strongly defend truth, scholarship, curiosity, creativity and academic freedom as public goods to be protected and nurtured in any civilised society, it is clear that we cannot all be scholars. The wealth that pays for scholarship and research has to come from somewhere. The political processes that support public research need to be properly supported by public servants and democratic representatives. The individuals and organisations who 'consume' research need to be supported by information providers and educators. I have no personal interest in any research that cannot be properly located in this nexus of funding, support, dissemination and use. I expect HCI research to make a difference, and this is only possible, not only if it is good (and it must be good, i.e., rigorous, logical, systematic, credible, well-grounded and clear), but if it is also clearly relevant to those who pay for it and those who consume it.

Others will think otherwise, and I defend their right to guide their research with their personal values. Today we recognise the value of diversity at work and in the community, and we cannot expect people to leave their values in their homes when they step out into the wider world. However, there is one thing that does cause me concern when considering academic freedom, curiosity driven research and personal agendas. The HCI community needs to be joined up to be effective.

Practitioners, researchers, educators, students, consultants, managers and policy makers need some common ground to be able to work effectively together. Personal values inevitably pull in several directions. How can common ground be formed if many, if not most, researchers are intent on pursuing a personal agenda to the exclusion of other considerations? Similarly, if practitioners, managers and consultants can only focus on this week's fire fighting and the distortions

Gilbert Cockton

of organisational politics, how can they ever find common ground with educators and researchers who do not spend all day dealing with the details of getting HCI work done in 'the real world'?

So, thanks to Ann for a great write up on UsabilityNews, but for me, the key message from the panel was that we must be explicit about our values and how these guide our work. We also need to be clear about what we value in our roles as researchers, students, educators, practitioners and other 'coal face' roles. We need to understand what motivates different communities within HCI. I have attempted to make my research values clear above (and I may well revise them as I reflect and discuss them more – the above is very much a first cut). Once we have mapped out HCI's ideological landscapes, we need to identify the shared ground where different groups can work effectively together.

Common ground is essential in an applied research area such as HCI. Almost all HCI researchers would really care if their research could never be applied. Almost all practitioners and consultants would have no interest in research that was wilfully inapplicable. Almost all HCI students want to learn material that will be of practical use. Almost all managers would not authorise work that would be knowingly ineffective.

While personal values inevitably diverge, common goals for all HCI work include relevance, appropriateness and effectiveness. These goals, and the values that drive them, can bring us together, even though the rest of our personal agendas may vary. Hopefully they will enable a new branch of HCI, VSCW, Values-Supported Co-operative Work.

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Gilbert Cockton Gilbert.Cockton@sunderland.ac.uk

Call for submissions

5th International Working Conference on Intelligent Virtual Agents Kos, Greece • 12–14 September 2005 Submissions deadline 2 May 2005 http://iva05.unipi.gr/

<u>ب</u>

University timetable program

Russell Beale

Time\Day	Monday	Tuesday	Wednesday	Thursday	Friday
0900–1000	Lecture		Projects	MSc's	
1000–1100		First years		Lecture	
1100–1200					PhD's

Here in the University, we have to put a timetable with our availability to see students up on our office door. It's one of the Good Things that we do, according to the BCS, and since they are coming any day now to hopefully re-accredit us, there has been a lot of activity in the corridors as various people rush up and down ensuring that all doors comply. We are also supposed to have a web page where our availability is also shown – embracing the internet, we are.

Now, some of the support for this is fine – any file called cal.htm or cal.html placed in one's web directory will be automatically linked to from our automatically generated staff web pages, so that it can be easily seen and accessed. All that we need to do is to generate this calendar web page – a simple grid with slots where we say that students can come and see us, or which are blocked out for administration (sorry, research). It should look something like the form shown above.

Why am I labouring the description, you ask? Well, it's because of the email I got just before the beginning of term, which basically said that, because so many people were having trouble writing the html with all those tables and things, they'd written a program in C so that people could automatically create the web page. It then detailed the syntax: create a text file with data that was something like

109001000 "Lecture"

210001100 "First Years"

390001000 "Projects"

identifying the day first (numerically) then the timeslot and then the text to go into the field. Once created, you could send this file to his program and pipe the output into an html file – *et voila*, a simple black and white table in html.

I'm at first incredulous, then amused, then intrigued. Okay, so tables in html are a pain to create from scratch, but why would anyone go to the trouble of writing a program to parse an input file to create a web page when they could fire up Dreamweaver or FrontPage or Composer or some similar wysiwyg html editor? This program came from a theory guy, who doesn't write odd scripts for fun. It was done because it was thought to be genuinely useful to many people out there. It took me longer to read his email and understand the data description (it was more complex than I've outlined here) than it did to create the page from scratch in Dreamweaver.

After some investigation it appears to me that there are two factors at play here. One, some academics are not fully aware of the tools that exist out there to make this and related tasks much easier. We spend much of the time working at a level of fundamental principles, not high-level tools, and so the orbits of interest do not often coincide. Secondly, many of the tools are available under Windows (and Mac) platforms, and many hardcore computer scientists only use Unix. Now, it may be possible to find such things on that platform, but they are not an integral part of many people's installation. So, it may appear that the only way to use such a tool would be to use Microsoft, and there is the problem; there are many who are so inherently opposed to the MS platform that they'd rather spend their time writing C programs to do trivial things than run Windows.

What has this got to do with us, as HCI advocates? Firstly, we have clearly failed in getting the message of usability (or even of saving time) through to some parts of the population (e.g. theory academics). Secondly, and more significantly, much of what we do in GUI design is inseparably linked in many people's minds to Microsoft, and is not improved by that association. I have no axe to grind with MS; I may have disagreed with some of their business practices, but they have also contributed in positive ways. I have nothing against Unix, or Macs – I'm an OS agnostic (OSnostic, agnOStic?), believing in the right OS for the job. The impact of our work should be to improve computer systems of all sorts - but if, even within a University where HCI is taught at many levels, there are a substantial number of people having problems with both the underlying technologies and not using the tools to help them, our impact is clearly limited. Maybe people don't think the tools are important; maybe they hate MS so much that anything HCI is simply feeding the beast; maybe we are not the strong advocates for usability and decent interaction that we thought we were.

Russell Beale

R.Beale@cs.bham.ac.uk Advanced Interaction Group University of Birmingham

Call for submissions

First International Conference on e-Social Science Manchester, UK • 22–24 June 2005 *Submissions deadline* 1 February 2005. http://www.ncess.ac.uk/conference_05.htm

Human–Computer Interaction

Linda Little has asked me, on behalf of the BHCIG student representatives, to write a short introduction to Human– Computer Interaction (HCI) from a psychologist's perspective. Her instructions were 'just let people know how you got from your psychology degree to where you are now'. So here goes...

After a short and painful dabble with zoology I swapped to do an undergraduate degree in psychology at Aberdeen University. HCI *per se* wasn't mentioned anywhere on the course but I did manage to select a final year option entitled Human Factors. This course consisted predominantly of a series of disaster analyses, in particular, oil platform disasters – not surprising given that this was Aberdeen. The course was to some extent also about designing better people–system interactions and was, I guess, my first introduction to HCI albeit at a very high level.

On the strength of that course I applied to do an MSc in Work Design and Ergonomics (human factors under another name). Ergonomics was a much broader topic and, although I enjoyed re-designing workstations and assessing guidelines for noise pollution, the HCI component of the course was the more interesting for me. Here I was introduced to low-level HCI such as the Keystroke Level Model (KLM).

I chose to leave the 'arms and legs' ergonomics behind and move over to HCI completely. My MSc thesis project for NCR Knowledge Lab examined online financial advice, and my PhD research, again sponsored by NCR, concerned digital communities. I am still fascinated by how and why people use technology and I am currently a researcher on an ESRC funded project entitled Bodies Online, looking at people's use of the Internet for health advice.

OK, so that was fairly straightforward, but has the path of a psychologist in HCI thus far really been as straightforward as that? Well at times it has been a little confusing and perhaps the main hurdle has been finding a niche for myself. How do psychologists in HCI fit into the grand scheme of things?

Well, in your average psychology department I think it can be quite frustrating. There still appears to be very little in the way of HCI on undergraduate psychology degrees. Because of this, many psychologists and their departments have little understanding, time, or respect for HCI. An old lecturer of mine, for example, was disappointed when he found out what I was doing now, mentioning something along the lines of 'you could have been a proper psychologist as well'.

In terms of recognition for publications there are hurdles to overcome. Getting a full paper accepted at CHI is a great achievement for a HCI practitioner and can lead to a better citation rate than if the article had appeared in a journal. Other psychologists haven't even heard of CHI, and many HCI-related journals still have low impact factors compared to more traditional psychology journals. This point was driven home to me last week when I was asked to complete a recent survey of UK postdoctoral researchers distributed by the British Psychological Society. The survey made no mention of HCI under the different branches of psychology and I was always left to tick the default 'other' box.

But it's not just in psychology departments that you can be up against it; what about the other side of HCI, the computer scientists? Well you meet computer scientists at conferences, etc., and sometimes in departments. Several senior computer scientists working in HCI have told me that they think real HCI people program and this is a view which is often perpetuated through the ranks of computer science students as well.

I did my PhD in an engineering department (more difficulties with finding a niche) and a couple of incidents that occurred during that time serve to highlight some of the confusion felt by and towards psychologists in HCI. In one study I set out to examine how people would interact through a series of combined technologies. I was particularly interested in text messaging and the use of a web interface to allow people to participate in a community during the 2002 Football World Cup.

Designing and developing such a system was no mean feat even for such a relatively small operation. All the development work was carried out in conjunction with the technical half of my research team. Between us, the programmer and I had to negotiate requirements, design solutions, test the system and then fix the bugs. It was far more involved than I think either of us had initially imagined but the project was a real success and good fun to boot.

The success was noted in the department and a Masters student was soon pointed in my direction as she wanted to implement a similar system for her final project. During my meeting with her I started to ask her the kinds of questions I had been through myself when planning the system. For example: 'Why are people going to want to communicate?', 'How are you going to let people know who has written each message?'. She didn't seem overly interested in these points and was solely focused on the technicalities of the Java code necessary for creating such a system. I told her that she would find it difficult to build the system if she hadn't asked herself these kinds of questions and that the programmer and I had spent a lot of time on such issues. Disbelief.

"So you didn't program the system yourself then?" she asked.

"No, I can't program," I told her, "I am a psychologist." "You didn't program the system?" she repeated, "Then what on earth did you do?" Needless to say my offers of help somewhat dried up along with the student's momentum I think.

The level of interaction I needed to get my World Cup system up and running gave me a glimpse of the level of inter-disciplinary communication that is required in HCI research. I've already shown that psychologists are often viewed with a certain amount of surprise by computer scientists. But this lack of understanding and appreciation can cut both ways. Psychologists are not beyond reproach in this respect, often thinking of the computer people as the people doing the 'donkey work'.



It isn't just that most HCI researchers working in psychology departments need more technical support, although this kind of support is under-represented in most psychology departments. The two sets of people need proper time to work together on projects with neither side being made to feel like it's simply a chore for them. Better to combine two highly skilled groups of people effectively than to rely on everyone being a jack of all trades and a master of none. My technical support on the football project was in fact my husband. A techie husband helps no end but we can't all be blessed with that kind of support. Multi-disciplinary work teams need to occur throughout the life of the HCI researcher from humble student to the draughty heights of professor.

So how did I get here? I chose a fairly new and underpromoted module on my undergraduate psychology degree which led to my ergonomics Masters. Again, the HCI component on this course was relatively small but then I was lucky enough to get a push in the right direction from my husband. His enthusiasm and knowledge of computers and, in particular, the internet rubbed off on me and encouraged me to pursue a career in psychology and HCI.

Psychology students need more support and encouragement to go into HCI research. HCI is often present on undergraduate courses at the moment but is either couched in obscuring terms or simply needs highlighting and bringing to the fore. HCI continues to be a vastly interesting area and the sheer breadth of topics keeps me constantly engaged. Technology changes and the way in which people interact with technology also changes – which is good news for those of us wanting to continue to investigate interactive systems and their use.

> Liz Sillence Researcher Northumbria University

A journey from semiotics to computer semiotics

Muzeyyen Pandir

Some might find it a little decentred to have completed a first degree in Journalism, a second one in Visual Cultures and then to start working as a research assistant at the User-Lab of Birmingham Institute of Art and Design, University of Central England. But for me, this was the only way to combine all my interests under one roof.

During my MA study in Visual Cultures, I became interested in visual methodologies and ideologies of representations. With my dissertation, which involved semiotic and ideological analysis of representations, my interest in reading visuals and interpreting their hidden meaning in old and new media deepened.

Just when I was looking for a way to use my background in visual representations, I joined the User-Lab because it seemed to be the right place for applying my research with new technology. Now my research sits alongside the other team members' interests in digital media design, human– computer interaction, psychology, haptic interfaces, and software engineering.

As part of BIAD's Research Department, the User-Lab is a purpose-built user-centred design centre, providing academic research and commercial services. The lab investigates the qualities of the user experience and has produced an Experience Design Framework. Other than research and consultancy, the lab offers user testing, user-centred design, and product audits.

The aim of the services and research of the lab is to make technology usable as well as satisfying. Therefore, issues such as motivation, engagement and the impact of interactive technology also lie at the heart of the work produced in the lab by John Knight, Marie Jefsioutine, Justin Sawkins, Yu Zhang, Mukti Bawa, and David Prytherch.

As the newest member of the lab, I intend to integrate my knowledge in semiotics to computer semiotics and I aim to research how the method can be applied to analyse computer and website interfaces.

Semiotics is the science of signs and it accepts signs as representations signifying something other than themselves.

The concept of sign here covers everything from pictures, cinematic representations, or words to clothes as clues about personality, or gestures that reflect feelings.

According to this definition of semiotics, the concern of computer semiotics is the nature of computer-based signs – images, pictures, sounds, or colours – and their function in use. Simply, computer semiotics suggests that systems can be learned easily when designers use these signs in accordance with the sign usage of their target users. For example, to indicate that *x* button has a higher importance than *y* and *z* buttons, a strong toned colour is used for signifying *x* button, and the colours of *y* and *z* buttons are left lighter.

Apart from semiotics, I have also furthered my interest in postmodern theory and recently, at the 1st International Design and Engagability Conference (iDeC), I presented a paper about the nature of users' experiences on the internet. The study argues that the internet became a simulation of the postmodern world with the postmodern life experiences that it incorporated. Compression of time and space, decentralisation of self-identity and delocalisation of virtual communities are among the experiences that the study treats as postmodern conditions experienced on the internet (Pandir, 2004).

Now, what lies ahead for the lab and my research is getting involved in studies concerning values, ethics and ideologies of technology, engagement with technology, and empirical aesthetics. Consequently, one of my key roles will be running the postmodernity strand at iDeC2 in July 2005.

If you would like to know more about the User-Lab or my research, you can contact me at Muzeyyen.Pandir@uce.ac.uk

References

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> Muzeyyen Pandir User-Lab Birmingham Institute of Art and Design University of Central England Muzeyyen.Pandir@uce.ac.uk



HCI2004 Values in HCI

"Is there a set of common values that unites researchers working in HCI? If so, what are they? If not, how does this diversity support our practice and feed into the future identity of HCI?" I asked, chairing the HCI 2004 panel on 'Values in HCI: What drives our practice'. I had persuaded Ann Blandford of University College London, Gilbert Cockton of the University of Sunderland, Andy Dearden of Sheffield Hallam University and Janet Finlay of Leeds Metropolitan University to join me, because they had all been in the audience of a very different panel the year before.

This other panel, I wrote up as UN story: *Big Questions for the Future of HCI yields Little Outcome*¹. This was the HCI2003 panel on 'Identifying the grand research challenges for HCI and how the community can best meet them', led by Peter Johnson of the University of Bath. At that panel, many people in the audience were talking about values but it wasn't picked up as a significant aspect of HCI work, leaving an air of unfinished business.

So this year we asked even bigger questions about HCI and, truth be told, did so with even less outcome. No research agenda, no warm fuzzy feeling... the best thing about the panel was that it started the discussion. This article reports on what was mulled over in that room that day and throws the debate open to a wider audience. (There is also a workshop proposal on its way to the CHI 2005 conference committee on this topic, so the cork is well and truly out of the bottle...)

We asked what 'Design for Life', the theme of this year's conference, might mean in our work and for the people that we have impact upon through our work. Our theme was presaged by Kees Dorst's keynote, which also dealt with values ²: often, it seems the only thing driving HCI work is 'to make better products', where the definition of what 'good' and 'better' mean comes directly from the industries that will then market and sell these products. How far is this aspect dominant because we operate in a research world where funding hinges on business sense and appeal to commercial partners?

The definition of values and their relation to the researcher was made broad, including:

- Personal values
- Values incorporated in the design
- Value beyond the design

"I am an incorrigible idealist, and believe that the fundamental motivation for working in HCI should be improving quality of life," said Blandford. "I work in HCI because I value people, quality of life, experience (pleasure – certainly not frustration), a sense of productivity and achievement, a sense of community and aesthetics. And it's a privilege to work in a discipline where it's acceptable to be so naïve!"

Dearden looked at the codes of ethics that exist (for instance, that of the British Computer Society) and asked what is in 'the public interest' and 'which third parties to consider':

Ann Light

- In designing a shared public diary, do I shift the balance of power between staff and management?
- By improving safety in civil aircraft, do I encourage flying and add to global warming?
- By developing new features for mobile phones, might I fuel forces that lead to war in the Democratic Republic of Congo?

Cockton went a different way and placed the value he was discussing in the world of the system being developed, not the eyes of the researcher. "Value offers a coherent basis for re-building HCI as a design science. We can only assess the impact of poor quality in use or poor fit to context as loss of intended value." In doing so, he upset a number of people in the audience who habitually like to disagree with Professor Cockton and found themselves with nothing to argue against.

'Design for Life' conference chair Finlay rounded the panel presentations off with her thoughts: "We are ethical professionals; values are the priorities we live and work by. Our values may dictate that we do what someone else wants us to do, or they may make us uncomfortable in specific types of work, but HCI is not value neutral.

"We need to make explicit the values that are implicit in what we do. We need to communicate these values – and we need ways of doing this effectively. We need to reflect on whether these values are appropriate. After all, is this not a responsibility of the ethical professional?"

Few arguments raged this time. The phenomenon that entertained me as I noted down the points of the discussion was the number of people distancing themselves from particular values who then went on to say: 'We *should* this, we *should* that... while denying that they were bringing values to bear.

Nonetheless, various important questions were raised.

- Since some of us are doing more than adding to the stock of knowledge, since the engineers amongst us are helping to design systems, how much responsibility for the impact of these systems should we take?
- If we had an ethical code, would it need to reach beyond the execution of our work (which is covered for psychologists by the BPS code of ethics, for example) and reach to cover the application of our work?
- Is working in HCI more value-laden than a hard science like chemistry?
- How do values relate to professional ethics? We can talk about the ethics of values and the ethics of action, but how do we bring them together?
- And why do we keep calling people 'users', when it strips their multi-dimensionality from them?

Once challenged to reach consensus, the participants in the room did anything but that. However, several observations were noted down to form a basis for future discussions.



These included:

- In UCD, do we solicit values from people? And just from stakeholders, or other people?
- Should our work be underpinned by a desire for justice?
- What role for ethics?
- We should celebrate diversity: different disciplines, practitioner vs academic, people in general...
- We believe that the world can be improved.
- We should do a proper impact assessment who are such values for?
- Increased value does not necessarily mean economic value.
- We should be thinking about the politics of HCI.
- We have diverse responsibilities depending where we are in the game, so we must work to

A newbie's reflection on HCI2004

This year's HCI conference was the first time for me to participate in this sort of intellectual gathering in the UK. And I have to say I really enjoyed it.

I had a good start at the informal reception in the Corn Exchange in Leeds city centre, where I met William Newman who visited us once in Rostock. We had an interesting talk about the use of emotive systems (since emotion detection is one of my research interests) and whether users really might appreciate computers pretending to understand one's feelings. We were soon joined by Alan Newell who put in some interesting insights of over-assistive systems and their disturbing effects on grannies doing their jigsaw. After a very appealing chat with Dan Diaper about the benefits of small printed names on delegates' badges (and yes, the wine was very good!), I joined two merciful fellows from Cardiff for dinner in a Thai restaurant.

Well, I won't mention the fire alarm at 3 a.m; this was stressed so many times already at the conference. And it really didn't matter. I mean, this way I had lots of time to prepare myself for my presentation at noon (it went actually quite well, there was even a laugh at an acceptable time). Kees Dorst's keynote was very interesting, as were the other talks this day. Wednesday's main event, the Conference Dinner, was a wonderful composition of art on walls and art on the plate, later sugared with life music from a band with saxophone and keyboard – a multi-sensory experience I never had before in this intensity. Sadly, one of the modalities was quite noisy, which hindered oral communication to some extend. I went to bed quite early this night, anticipating another (don't mention it).

Thursday, I have to admit I took the morning off since I hadn't seen that much of Leeds so far. I noticed that the city centre is remarkably being renovated with some very impressive and very nice buildings. However, they don't seem to have a Tesco or at least Sainsbury's there, which diminished

different values/priorities and understand that others do too.

- · How do we relate values to people's interests?
- There are no absolute values.
- In 'making things better', we need a bigger picture context for our work as well as a local detailed one.
- We can take a view that we can change things (but we don't have to).

If you have a view on any of this, do send a response to: editor@usabilitynews.com.

- 1 http://www.usabilitynews.com/news/article1420.asp
- 2 http://www.usabilitynews.com/news/article1933.asp

Ann Light Editor, UsabilityNews.com editor@usabilitynews.com

Christian Peter

my excitement since I had to buy those chocolate filled bourbon cookies for my wife!

Back at the conference, I was pleased to hear from Gilbert Cockton that chairs aren't at all usable but just lucky, and that, provided one doesn't violate their individual comfort zone, those lucky fellows cooperate quite well with their users. There were some more interesting talks this day, especially on usability, comfort zones, and cooperation, which you can read about in the proceedings. Let me just proceed with the evening event, which took place at the Thackray Medical Museum.

Although quite hungry on arrival, this feeling soon vanished walking through Victorian Leeds streets and smelling their odour. It was just in the 20th century that my basic instincts revitalised and, roaming the location for food, I finally detected some edible decoration. Failing to keep pace with my Welsh mates from Tuesday, I got the chance to learn about Indian sweets and their ability to neutralise hot chilli effects (thanks to Satinder Gill!). At the dinner with some colleagues I had opportunity to catch up with the latest theories on quantum computers and parallel universes and their effect on the Turing test.

Sadly, I had to leave quite early on Friday so that I wasn't even able to enjoy the delicacies of The Depot for a last time. In the plane, I questioned myself what those 2.2 days behind me had been. Was it really work? Or had I just been on a short educational holiday? I definitely enjoyed it a lot, I learned a lot, and I became highly encouraged to come to HCI2005 in Edinburgh next year. So thanks to the organisers, the orange T-shirt wearers, and implicitly all the colleagues who made this such a great experience for me!

Christian Peter

Fraunhofer Institute for Computer Graphics Rostock, Germany christian.peter@igd-r.fraunhofer.de

HCI2004 Working in a virtual world



Over the past few months, I've attended several meetings remotely, either from home with colleagues who are in the office, or from the office (near Winchester, UK) listening to a conference call in the US or Canada. What strikes me most is that despite the high technology that IBM (where I

work) produces, meetings via a telephone, maybe with slides, more often than not feel incredibly low tech. It's frequently difficult to hear the other participants in the meeting, especially if the majority of them are sitting in the same room and they forget that you're not, or even just because they're not used to having to raise their voices so that the phone's microphone in the centre of the table can pick up what they're saying.

"The biggest technical problem is sound," says Tom Erickson of IBM's T.J. Watson research lab in New York. "Apparently, it's very difficult to solve. So, in videos and teleconferences it's very difficult, for example, if someone's not on mute, or if someone's got bad feedback that's interfering with the call; you have to spend time debugging the problems."

Erickson is probably more experienced than most of us at taking part in meetings from a remote location. Although he's employed by IBM in New York, he actually lives in Minneapolis and works, much of the time, from home.

I met Erickson recently at HCI2004 at which he was a keynote speaker. Erickson is interested in – his 'core obsession' is – supporting mediated communication. That is, supporting communication that is mediated by computers, telephones, and so on, rather than being face-to-face.

Sound quality is only one of the problems with attending remote meetings. As Erickson says, "When we're talking face-to-face, we're constantly, and in parallel, giving and receiving social cues." For example, we can gauge people's responses to our contribution in a meeting by their body language and facial expressions. If you're in a meeting with people who don't know each other, you can easily 'go round the table' getting everyone to introduce themselves. But, "how do you do that when there is no table?"

Erickson tends towards simple, rather than complex solutions: "We can definitely get a long way with very little." For instance, you could "invite everyone into a 3D environment with avatars and you press a button to make your avatar smile to provide a cue. The problem with that is that, for a start, it's very technologically heavyweight right now. Also, you have to very consciously send the cues so it disrupts the flow of the conversation. Finally, computers, virtual space, or whatever, are very different from the physical world. It always happens that when something new comes along, we try to imitate what preceded it. Like when cinema was invented, we tried to imitate theatre (even now, you get curtains over cinema screens). Gradually, though, the new thing evolves and finds its own more appropriate way of doing things. Digital communication will do the same."

Part of Erickson's contribution to this digital evolution is *Babble*, a 'social proxy' system that allows the users to see the presence of others online. A 'social proxy' is a digital system that supports computer-mediated communication by providing the much-needed, and often much-missed, social cues that are lacking in the virtual world. Erickson talks about providing 'social translucence'. Social translucence is about providing artificial social cues but doing so in a subtle, natural way so that the users can concentrate on the task in hand. Babble incorporates a 'chat' facility that can be used for synchronous (instant) messaging but is also persistent and so can be used asynchronously.

A circle in the corner of the chat window contains little dots; each dot represents one person in the 'room'. If someone in the chatroom is speaking, their dot moves toward the centre of the circle. The dot gradually drifts outwards unless the person speaks again. The idea is to give you a sense of how many people are in the room and, of those, how many are actively participating in the discussion.

In the 'round the table' situation, Erickson proposes, "You could have something like Babble that shows each person as a dot in a circle. Then the meeting leader asks the person at 12 o'clock to introduce themself. And go clockwise round the circle. As each person 'steps forward', their dot moves to the centre of the circle. Late-comers can then see what's happening as each person introduces themself and then their dot drifts back to the edge of the circle as the next person steps forward. On Voice Over IP, each person can be identified easily and the diagram can easily fit on a telephone."

But what about video conferencing?

"I've experimented with video conferencing but using video to my home, well, across the bandwidth it isn't good enough. I've never attended a video conference that's made me think that video is worthwhile."

So, say we decide to make community websites and common applications like email and instant messaging more socially translucent, would it take a big shift in mindset for designers to produce systems like these?

"On the one hand, it's a big mindshift because lots of people don't instantly get it. But it should be easy because everything is about finding an analogy in the physical world. Like, one person talking to another – that's the same thing whether you're in the physical or virtual world. You just need to attune yourself to what makes interaction work; what people need to communicate, and how to translate it into the digital world."

If you still don't get it, or if you're fascinated and want to know more, have a look at some of Erickson's many, very readable papers and essays on his website: http://www.pliant.org/personal/Tom_Erickson/

> Laura Cowen laurajcowen@yahoo.co.uk

Lowlights from The Purple Press The seedy underbelly of HCI2004

HCI2004 half-opens

Nobody likes to be there for the opening speeches but even fewer delegates for HCI2004 were there at 9.30am. The rest watched it on the TV screens on the luxury coaches (a.k.a. 'Leeds' Biggest Skips') that were stranded, broken-down somewhere between Beckett Park and Kirkstall Breweries. Generously, Janet offered to buy breakfast for the stranded. She had no takers. Having spent an hour sitting in one frying-pan they couldn't be bothered with the delights of The Depot.

Breathlessly, Janet kicked off with digs at the 'odd' people who'd attended all 18 HCI conferences. Dapper Dan corrected her, stating that he'd actually been to all forty-three previous conferences.

Jack Dee, Leeds Met Vice-Chancellor, welcomed all and sundry in his usual phlegmatic style, with droll insights into his nocturnal stimuli (Gilbert set off the fire alarms when he climbed back in at 3am (4am according to some jetlagged travellers)) before making a quick exit out the back door. Somehow he made a connection between himself and Janet because they both have an interest in toilets and because, in a previous life, he taught law to David Trimble, or something..., modesty forbids us to say more, in fact modesty was the buzzword. Jack, with that characteristic glance from the corner of his eye, had Janet in his sights as he stressed LM's 'modest research' profile. We knew Janet was modest, we never realised how modest! Janet, no more modesty! Get back, back on your pedestal! Quick!

Bemused academics get a taste of the user's world

Staying in halls of residence is generally a once a year activity for the typical lecturer – conference time.

This year's insight into the lives of our users seems to be largely conducted in a converted warehouse, with the consequent high ceilings. That's assuming delegates have managed to find their way past the security gates.

The rancid kitchens bring back wincing memories of twenty, possibly

thirty, years ago: the congealed frying pans, the single glass beside five sets of plate, cup and saucer, the dregs of a cutlery collection.

Some strange echoes of modernity – the electronic locks, the TV sockets in the kitchen – how did we ever get through three or four years without a TV, the parking spaces (ditto). At breakfast you muse on the parties they must have. Is there a 'Great Escape' mentality, an institutional soporifescence.

Yet what might be an amazing space seems ill-used, with a balcony in each room that appears to hide 5–10 cubic metres of unused space. Are there bodies hidden behind the panels? Heathcliff? It's me... *Cathy*

Shower Fairy Caught in Bathroom at Sod-All Breweries

Recent rumours attributing faulty showers at Sod-all Breweries (over the river and far away) to gremlins are now thought to be unfounded. It can now be confirmed that the Shower Fairy was wholly responsible for the aquatic mishaps of certain delegates.

The devious pixie had been sneaking into delegates' rooms and fiddling with the shower innards, thus rendering the appliances unworkable or, as in the case of one Dapper Dan, unstoppable.

It now appears that delegates were unknowingly leaving their rooms unsecured, foolishly thinking that waving their allocated bit of black plastic somewhere near the doorhandle would ward off evil spirits.

Although, on further inspection, this actually seems to work, the Shower Fairy isn't especially bad spirited and slipped in anyway to carry out her dastardly deeds. Delegates are being warned to ensure that they use their door keys correctly (i.e. chant incantations whilst stamping one foot and picking their nose) to secure their rooms from further mischief.

We can happily report that Dapper Dan was rescued by He Who Must Not Be Named, who found DD damp and shivering, clutching, in one hand, the spouting shower head and, in the other, a copy of *The Handbook of Task Analysis for Human-Computer Interaction* (available in all good bookshops). *Eana F. Reporter*

Fire! Fire! Or not...

Bleary-eyed delegates yesterday departed from Kirkstall Breweries for breakfast after having their slumbers interrupted by a fire alarm (see above) that lasted long enough for most people to roll over and ponder what it was (though Major Cockton managed to tuck his shirt in and pull his pants up tight before shimmying down a drainpipe, and the Nimble One was somehow fully dressed before it was switched off). PDG remains convinced that his cigar could not have done it, sometimes a cigar is just a cigar.

Enquiries at the security office revealed that only one person ran out into the corridor in a nightie (possible Dave Roberts but it was hard to tell – it was a blue nightie though) because everyone else apparently knew that it was unlikely to be a real alarm. The rest all perished in Sutcliffe's CAVE rerun.

Delegates now wonder why Kirkstall's fire alarms are tested at 3.45 in the morning. The Vice Chancellor suspects that it was actually a drunken delegate. Delegates reserve judgement but doubt that very much – the bar is closed even if you did manage to follow the recursive signage.

HCI2005 progress report

The HCI2005 committee have now had a couple of discussions about the arrangements for HCI2005. Despite some slight curiosity about how Janet's pulled it off, the committee is quietly confident that everything's under control. Although, it has to be said, there is some concern because the HCI2005 chair is still unsure as to who is actually on the committee as he arranged that bit whilst very drunk.

The views expressed in The Purple Press are not those of the authors or anyone else and are not to be repeated in front of anyone who can take offence, although, of course, no one can take offence because the characters described in The Purple Press could not possibly exist in real or virtual life or death. Does that cover everything?

HCI2004 Some snapshots from an SV's point of view

The goal of these words is to convey my thoughts about the 18th British HCI Group Annual Conference, HCI2004, which took place in Leeds Metropolitan University, in Leeds, UK, where I'm a starter PhD student. This important event took place from 6th to 10th September, just in case you forgot.

I just want to give some snapshots of some remarkable things I experienced and felt there.

Being a student volunteer (SV) was a great chance to have the opportunity to meet experts in Human–Computer Interaction (HCI) and to learn and discuss some ideas because a researcher always needs to improve their skills, and sharing information could be the way. It was very important for me to talk with and to meet qualified HCI people.

The conference theme was 'Design for Life' and I liked it. It could include the huge amount of subjects that we can think of when we try to decipher Human–Computer Interaction. The focus was design but it could be seen in many dimensions: in time, from childhood to older adulthood; in space, for work, for travel, for leisure, for fun. And, of course, cultural.

Let's remember the conference: Sunday started with an SV meeting with Tony Renshaw to meet each other and to prepare for the week. We prepared conference bags and put up signs around the buildings. To help us get to know each other, at the end of the day we had a dinner where we had the opportunity to communicate across cultures (we were from everywhere).

On Monday, everything was as we expected: some speakers arriving on

The BCS HCI Group has a new Chair: me!

time but forgetting the timetables of workshops and tutorials. That put the SV group to work, asking, answering, and finding. Our main task was to be professional and, with a smile, fix things to preserve the good image of the organisation. The first day ended for the SVs with welcoming words from Janet Finlay and with her nice way of saying things we were refreshed and encouraged for the following days.

Tuesday was continuation day for workshops, tutorials, and the Doctoral Consortium, and ended with the conference welcome reception at the Corn Exchange, one of Britain's finest Victorian buildings.

On Wednesday, the SVs were used to solve any problems that occurred, like missing microphones, errors in network connections, etc. The conference began formally with the Opening Ceremony, followed by opening keynote and papers and posters presentations. We were delighted with the conference dinner, accompanied by a jazz quartet, at Salt's Mill in Saltaire village.

Thursday was a normal conference day, which means papers, presentations and group discussions about various subjects. To finish the day, we went to a reception buffet and museum tour at Thackray Medical Museum to find out what it was like to live in Victorian Leeds and experience some of the medical technology and treatments available at that time.

Friday was the last day. We looked after everyone's luggage and putting everything in the correct place, and generally tidying up. It was supposed to erase the conference just from a physical point of view, because it will remain, for sure, in my heart.

Passion was the saved word that I keep from the event. I had been very worried with my PhD and my plan but after I had the pleasure to attend the tutorial 'Effective and enjoyable research careers in HCI' by Prof. Thimbleby, I felt more relaxed. He taught us about how to enjoy research and how to merge passion and research. The outline programme, given at the beginning, predicted an enjoyable session. We talked about our research mission, writing, tools for thinking, interviewing, and management. Prof. Thimbleby said "the tutorial is a mixture of presentation, debate and small group work", and it was. I learned a lot and I realised that the paradigm of the Law of the Farm can be really applied in our daily life.

I could go on to describe other interesting events but I think that is enough. According to something I read in a book, the fulfilment of the four human needs and capacities happened: physical need (delicious meals), social need (human interaction, relationship), mental need (knowledge, discussion, skills development) and spiritual need (sense of purpose, contribution).

Now, I just have to wait for next year to attend HCI2005 in Edinburgh. I'm grateful to Prof. Janet Finlay, my supervisor, for suggesting that I participate in this conference.

> Arminda Lopes A.G.Lopes@leedsmet.ac.uk

Russell Beale

I've taken over from Gilbert Cockton, who has done a great job over the past few years, in particular in steering the group through some major changes in structure and organisation, and in aiding the formation of one of our most prominent voices in the wider world, UsabilityNews. I'd like to thank him, on behalf of the group, for all his work.

One of Gilbert's triumphs was to get decent people to run the subcommittees of the group, and it's only because of these people that I agreed to take on the chair role – they do the actual hard work and get things done. Which brings me rather neatly to the other thanks that are due: to Tom McEwan who has just handed on the role of Communications to Andy Dearden, in order to concentrate on bringing us HCI2005. Barbara McManus has passed on the baton in the Education and Practice subgroup to William Wong, and Chris Roast has passed Events on to Peter Wild.

If you know these people, you know how much effort they have put

Arminda Lopes



in to helping the group – if you don't know them, then just be aware that these are the people who shouted to the world, who organised additional events, who worked on the HCI Educators workshops and lobbied for HCI to be taken seriously as an integral part of professional development and in University curricula – they have made a significant contribution to the profile and impact of HCI, and they deserve our thanks.

So, thanks to you all!

As to my plans for the HCI Group – much of it is working well, and I quite like the maxim of 'if it ain't broke, don't fix it'. So I don't anticipate major structural or organisational changes. However, one of the key assets of the group are the volunteers who assist us to actually do anything, and I'm planning on coordinating and communicating with them more effectively so that it becomes easier and more rewarding to volunteer to do things with us. I'm also working with the others in the group, and the HCI community in general, to review what our priorities should be, where we should focus our efforts, and what are the key issues we need to address, so that we can allocate resources, time and effort in the right places. If you have views about what the group can or should do for you, then please email me at bcs-hci.chair@cs.bham.ac.uk to

View from the Events Chair

I took over from Chris Roast in September 2004. Many of my efforts have been concerned with understanding the state of play within the Events subgroup and, more generally, the UK and European Events. Our overall concerns are: (1) to restart a wide and comprehensive programme of Events for all members, whether student, practitioner, academic, or a blend of all three; and 2) to provide ongoing support to the running of the HCI People and Computers conference.

We are keenly aware that, from a rich programme of events several years ago we no longer have a noticeable programme. This is in some small part due to the general excellent health of the workshops programme at the HCI conference. However, the British HCI Group executive cannot take sole responsibility. As with all our activities we depend on volunteers and if the membership (a) doesn't run anything, or (b) doesn't run anything in conjunction with us, our events programme suffers. Where we have fallen down is in strong-arming members to run events for the wider membership.

If you are unhappy that the British HCI Group is not running enough events, run one yourself. If you are interested in running an event in cooperation with the British HCI Group, there are two main ways the Group can help. Firstly, we can offer coordinated publicity between *Interfaces*, UsabilityNews, and the email announcement list. Or, secondly, a more formal financial arrangement can exist. A number of options are available, ranging from sponsorship, through to agreed financial risk-sharing.

Workshops are a valuable opportunity for a small group to meet and engage in rich and interactive discussions about a topic of common interest. Events with guest speakers enable people to get a good overview of the guest speaker's work or position within an area. Both forms of event foster a sense of community, can show off the facilities at the organisation, and can build foundations for future work and proposals. Events also serve as a source of interesting articles for *Interfaces* and UsabilityNews.

In the meantime, we have agreed to promote UXnet's First Friday format, which will largely run in London. We are also seeking closer support with the IEE's Human Factors Network and with the Usability Professionals Association. The former have a strong record of training oriented events. The latter in particular have a responsive events program that is focused upon the needs of HCI practitioners. We also give promotional support to efforts such as the South West Usability Group.

Forthcoming events that the Group is associated with are: The Second Annual International Workshop in Computer Game Design and Technology at Liverpool John Moores, and the Workshop on Complexity and Design at Glasgow. Others are being investigated.

The annual HCI conference has considerable pressure to remain a high quality conference: a forum for let me know your views. The core group will meet sometime quite soon to discuss these things, so we'll be able to give you more detail about any new initiatives in the near future. I am looking forward to the challenges, once I've worked out what they are, and I hope that we can make the group a dynamic, resourceful, strong and insightful voice for HCI right across the spectrum, from academics and practitioners to researchers and students.

> Russell Beale Chair. British HCI Group

bcs-hci.chair@cs.bham.ac.uk

Peter Wild

interaction amongst practitioners and academics; a venue for networking; an event to remember; a promotional event for the British HCI Group; all to be achieved at rock bottom prices in an ever broadening HCI conference marketplace. Phew. This is a challenge. Yet HCI remains the premier conference for HCI in Europe. Pragmatic support for the annual conference needs to be maintained. To this end, a conference steering group has recently been set up. One of the main aims is to provide day-to-day support for the annual conference. The second major aim is to discuss the general state of play with HCI and where we should take the conference over the coming vears.

Events remain a challenging area for the Group; one that effectively lies across many of the Group's activities. Liaison with other organisations, communication with members and the HCI community.

General enquiries about Events issues should be addressed to Peter Wild (peter.j.wild@gmail.com). If you already have an event you want to run in cooperation with us, please contact Colin Venters (c.venters@man.ac.uk). For more information on the South West Usability Group contact Neil Suffield (neil.suffield@environmentagency.gov.uk).

Peter Wild

Events Chair, British HCI Group peter.j.wild@gmail.com

On the edge of madness not really a review of the last two paragraphs of page 132 of chapter VII 'Play and Poetry' of *Homo Ludens* by Johan Huizinga

I've been reading two books: *The Eternal Child* by Clive Bromhall and *Homo Ludens* by Johan Huizinga. Some of you will have heard me talk at recent conferences or read my articles about the seriousness of play and childlikeness (as opposed to childishness!) in creativity and intellectual life. So, my interest in these two books is, I guess, fairly obvious. In addition, *Homo Ludens* is the intellectual reference point for Bill Gaver's creative and playful domestic designs that focus on the ludic aspects of life.

However, for now, not a full review of these two books (not least because I have five chapters of *Homo Ludens* still to read) but instead, like one of those stomach churning camera sequences that zoom from the city to the street, down to a single house, then to the heroine gazing through the window, the city skyscrapers reflected in her eye, let's focus on a few sentences from *Homo Ludens*. By chance, or choice perhaps, the last I have read and so significant, if for no other reason than that.

In Huizinga's opening chapter he discusses various paradoxical aspects of play including its irrationality and purposelessness (the latter Now, this is certainly true, and enchantment is one of the themes that John McCarthy and Peter Wright have picked up in their explorations of user experience. However, I felt dissatisfied and in the piece of paper I keep as both notes and bookmark I wrote 'play in poetry is as much individual as social, seeing new connections, duality between assonance and ...' and there my pen stopped; I pondered.

I was trying to pick up on that old feeling for the link between sounds and meanings, that assumption that words that sound similar somehow mean something similar. I recalled myself as a small child in my parents' bedroom one sunny morning wondering whether 'night' was a contraction (although I wouldn't have known that word!) of 'no light'; tiptoeing in the footprints of Plato's ideals and modern etymology. I recalled too my excitement as earlier in reading this book I noticed the similarity between agon and agony and traced this back in dictionaries to the martyrdom of early Christians in Nero's 'games'.

So perhaps 'assonance and semantic connections' ... no ... then I wrote carefully and with joy 'assonance and associa-

purposelessness (the latter because of its inner completeness, finding its purpose in itself), its freedom and also its need for rules, its link to

"Do you believe in the prophetic powers of porridge?" Duncan, Monarch of the Glen, *BBC1, Sunday 3rd Oct 2004*

sexual display and to social ordering, and, perhaps most importantly, its separation from the necessities of everyday life, which makes it such a civilising and ultimately humanising aspect of culture. Indeed Huizinga sees those nations (and he was referring I guess to the rise of Nazism) that hold their own ideas of right above the (playful) rules of international law as the harbingers of descent to the barbaric. Written first in 1933, this seems to have had messages for 2003.

Of all the various facets of play, perhaps the one that drives most strongly through succeeding chapters is the agonistic element – that is the idea of competition, games, challenge. However, in my own explorations of the seriousness of play and imagination it is less the back-lane football game and more the solitary child fingering coloured wool, that speaks to me of the playful imaginings of intellectual life.

Even in the chapter on play and poetry the emphasis is on poetic challenges and riddles giving the cultural grounding of sophistic and Socratic discourse and philosophy. I am reminded of Taliesin silencing the assembled bards of Maelgwn with his wit, cleverness and just a little magic. I guess not so different from an academic conference.

However, on page 132, down at the end of the 3rd paragraph (and yes we have eventually got there), Huizinga turns to the words of Paul Valéry, a poet and writer about poetry, 'To call poetry, ... a playing with words and language is no metaphor ...'. In the next paragraph he describes affinity between poetry, play and the 'creative imagination', 'In the turning of a poetic phrase ... there is always a play element'. However, almost at once he shifts back to the social 'in myth ... or modern novel, the writer's aim ... is to "enchant" the reader'. tion' and suddenly I laughed out loud, watching myself sitting there playing childlike with the coloured threads of words, seeking

alliteration even in a scribbled note.

This joy in association is that same sheer delight felt by a baby noticing that those feelings and actions in her limbs make those strange chubby pink things move in front of her eyes. To a baby the world is a jumble of apparently meaningless sensations and each step towards order as significant for that child as those grainy black and white images of Neil Armstrong stepping on the moon. The adult knows things and treads well worn paths, whilst the child glories in unknowledge and revels at the edge of the epistemological void.

Happily, as Broomhill's book explores in great detail, humans do not lose completely this childlike glee and this is the source of our technological and artistic triumphs. In



Alan Dix



teaching techniques for technical creativity I am always seeking to help people tread that edge between knowledge and novelty. Sometimes this is a steering of rampant imagination from bright ideas towards novel solutions, but more commonly it is the staid adultishness that we need to combat, untethering the playful and encouraging the exploratory.

We are pattern-seeking creatures, seeing faces in clouds and formulae in nuclear data. Knowing a little about language I know both that there are real links, like that between agonistic and agony, and know also that many things are purely random. In autism there is no gestalt, no naturally emerging pattern to the endless succession of dissociated sounds and images. In schizophrenia deep meaning is seen in the accidental associations of the world. And in HCI, studying unruly people, it is easy to attribute meanings and patterns that are purely our own creation, or alternatively, in the phenomenological purity of the extreme ethnographer, eschew entirely the imposition of preordained patterns.

Our success as academics relies on seeing the universals, the patterns just outside normal adultish ignorance of the unusual. And yet this is a hard path to tread, not surprising that there is a tradition of madness in artists, poets and the odd academic! If you watch sunlight sharpened ripples on the water's edge, or individual sand grains shift and flow across a windswept beach, sometimes there seems to be, just beyond our ken, a significance to these chaotic flows and random patterns. The early astrologers felt the same as they mapped the shapes of animals across the stars and laid the planets in harmonic spheres, seeing patterns in the random, yet of course the same impulse led to Kepler's elliptical orbits and modern classes and tables of stars. Perhaps academic life is not so far from the augury of tea leaves.

Strangely with poetry and also in academic studies it is the random associations, which are in themselves meaningless, that in some way bring to light or foreground other true things that otherwise would be missed. I sometimes encourage people to create bad designs or bad ideas in order to explore more widely the design space and understand better the domains they are dealing with. Aesthetically and academically it is the odd sidelong glances that are most revealing.

Generally, our greatest danger as researchers is blinkered following round our discipline's closed tracks. So it is worth occasionally digging into the details of the apparently arbitrary, take time to watch the sand grains shift, or pay attention to the importance of the paperclip in the office ecology; even though in the study of the minutiae we also tread at the edge of madness.

> Alan Dix alan@hcibook.com

The Eternal Child: An Explosive New Theory of Human Origins and Behaviour Clive Bromhall Ebury Press, 2003 009188574-4, £17.99

Homo Ludens: A Study of the Play Element in Culture Johan Huizinga The Beacon Press, Boston, 1955 0-8070-4681-7, £19.00



"... As soon as one member or more of a community of States virtually denies the binding character in international law and, either in practice or in theory, proclaims the interests and power of its own group – be it nation, party, church or whatsoever else – as the sole norm of its political behaviour, not only does the last vestige of the immemorial play-spirit vanish but with it any claim to civilisation at all. Society then sinks down to the level of the barbaric, and original violence retakes its ancient rights." *Homo Ludens*, page 101

"... To call poetry, as Paul Valéry has done, a playing with words and language is no metaphor: it is the precise and literal truth.

The affinity between poetry and play is not external only; it is also apparent in the structure of creative imagination itself. In the turning of a poetic phrase, the development of a motif, the expression of a mood, there is always a playelement at work. Whether in myth or the lyric, drama or epic, the legends of a remote past or a modern novel, the writer's aim, conscious or unconscious, is to create a tension that will 'enchant' the reader and hold him spellbound." *Homo Ludens*, page 132



Flying first class on a recent trip to Washington DC was the last thing I would have expected my research to enable me to do but that is exactly what happened. Since my PhD concerns designing predictive interfaces on the aircraft flight deck, one of my recent studies was an online predictive display survey aimed at current commercial aircraft pilots.

The main goal of the survey was to glean as much information as possible, including views and opinions as well as answers to specific scenarios, from pilots concerning the possible implementation of predictive information displays on the flight deck. In an attempt to increase my participant pool, I managed to get a couple of paper versions of the survey to the captain and first officer pre-flight. The survey must have interested them because before I could squeeze into economy class, I was whisked off to first class by a grinning flight attendant who just happened to be the wife of the first officer; the rest is, well, history as they say.

HCI plays a large role in the design of safety critical interfaces such as on the aircraft flight deck, for example. My research, in the Psychology department at the University of Bristol, aims to develop and design interfaces that display predictive information to aircraft pilots. Primarily, I am concerned with commercial aircraft flight deck and crew but recent collaborations with Anna Trujillo at the NASA Langley research centre in Virginia have opened up the possibility for the implementation of predictive displays on the space shuttle.

Predictive displays, or at least the concept, have been in existence for over 50 years. However, it is only within the last decade that the technology has become sophisticated enough to enable predictive displays to become a viable construct. Indeed, their validity is fast gaining momentum. For example, predictive features have already been built into future flight deck displays such as the synthetic vision system or SVS as it is known. The SVS allows the pilot to have a threedimensional view of the outside world, even if he or she cannot see outside of the window due to bad weather (see Figure 1).

The appearance of the SVS is not too dissimilar from flying a PC flight simulator game. In order to land the aircraft successfully in bad weather, for instance, the pilot flies through a series of hoops while viewing a predictive feature showing the future flight path of the aircraft as the plane changes direction. Since the pilot sees a realistic view of the



Figure 1

Daniel PJ Bruneau

outside world, there are many potential benefits of using the SVS in relation to accident prevention.

Perhaps the most pertinent question that this type of research asks is why do we need predictive displays on flight decks? The simplest answer is that even now, with no fully dedicated predictive displays available to pilots, flight crew are actively involved in forward-thinking strategies and making mental predictions about the future status of aircraft systems, albeit low key. However, knowledge of just the present states of systems, such as is currently displayed on aircraft flight decks, often does not provide sufficient information to allow the human operator to make mental predictions. Predictive displays aim to reduce this otherwise necessary mental prediction process and place more emphasis on the decision-making capabilities of the human operator. Indeed, Anna Trujillo of NASA Langley [1] highlights this point clearly and states that predictive displays can improve flight safety by the fact that early detection of possible subsystem problems may give the flight crew more options for dealing with the failure.

Having completed a series of studies examining fundamental questions concerning the very usefulness of predictive information on the flight deck, results so far indicate that when compared to simply presenting current information or historical information, predictive information not only improves performance but also reduces mental workload. Future studies aim to examine the relationship between predictive information and decision-making strategies with the use of predictive information on collocation displays (i.e. displays where sources of flight deck information are integrated together).

There is very little research, at least within the public domain, dealing with predictive information displays and as I come to the end of my second year, I feel as if I have only 'scratched the surface'. However, the lack of studies has spurred me on even more, and I hope that in the end I can contribute something of substance to the domain of HCI and Aviation Human Factors in general. My final year looks to be a busy and exciting one too since I have been fortunate enough to have been given the opportunity to join Anna Trujillo at NASA for a few months and develop some studies within the area of predictive display design. Undertaking a PhD within the applied sciences of HCI and Aviation Human Factors has not been an easy ride, or perhaps I should say flight in keeping with my research theme ... but the final destination is now visible through the clouds even though there has been and will be varying amounts of turbulence along the way.

References

 Trujillo, A.C., Airline Transport Preferences for predictive information, NASA Technical Memorandum 4702, Langley, Virginia, 1996

Daniel PJ Bruneau

2nd Year PhD Student, HCI/Aviation Human Factors Dept. of Experimental Psychology, University of Bristol 8 Woodland Road, Bristol BS8 1TN d.bruneau@bristol.ac.uk

My PhD Auditory interface design for aircraft systems

I read Martha Hause's request for articles in the Summer 2004 issue of *Interfaces* and immediately decided to get in touch. I am nearing the end of my PhD studentship, funded by the Civil Aviation Authority, and thought it would be a valuable exercise to write an article describing my research to readers outside the aviation field.

When I started this project at the University of Bristol I knew relatively little about planes. My background is in Psychology (BA), Music Psychology (MSc), and Sound Engineering (Dip). I was keen to take on the studentship as it represented a chance to research auditory perception from a new vantage point.

I spent the first year attending lectures in the Aerospace Engineering department at Bristol. During this time I was also fortunate enough to visit several flight simulators at Heathrow and BAE Systems. I was interested, primarily, in listening to the sounds used to alert the pilots to potential hazards, e.g. the ground proximity warning. It was also an opportunity to get a feel for the flight deck environment.

The team at BAE Systems thought that a good way to trigger lots of alert signals would be for me to try and land at a simulated version of Manchester airport. This was possibly the best, and most scary experience I could have had at the start of my PhD. The flight deck lit up like a Christmas tree and all kinds of alarms sounded. Many of the alerts are designed to continue until corrective action has taken place. As I had no idea what I was doing, the warning systems continued to bark and bleep at me right up until the end. Sadly, I crashed somewhere just off the M6. I left the simulator with a new idea of what it must be like having multiple system failures in a real life situation.

Piloting a modern aircraft is referred to as 'fly by wire' because many tasks that were once performed by the crew are now performed by automated systems. This has changed the role of the pilot from a hands-on operator to more of a systems monitor. The increase in automation has also increased the amount of visual information that is available on the flight deck. To ensure information regarding flight safety does not go unnoticed, warning messages are accompanied by an alert sound to draw the pilot's attention to a centralised warning display. In my first study I designed an internet questionnaire that was emailed to professional pilots. I was interested in their opinions on current auditory alert designs and current methods of alert presentation. I had a good response from the pilots and many voiced opinions on facets of the auditory interface that they would like to be improved.

The most frequent complaint was that auditory alerts are sometimes triggered at an excessive volume. Loud alerts tend to cause a startle response, which can cause people to freeze temporarily. For example, one pilot wrote, "When the audible warning is so loud it startles me, it just adds more confusion to the situation. Silencing the loud noise temporarily takes precedence over (1) good flying, (2) analysing the problem, and (3) solving the problem."

Following the questionnaire study I ran several lab based experiments analysing detection levels of alerts in noise. I also looked at how alerts impair our cognitive functions at high intensities. If an alert is presented too quietly on the



flight deck there is a strong chance that the background noise will mask it. However, if you increase the volume of the alert to a significant level above the noise, the masking effect of the noise is negligible, just leaving a loud sound. The difficulty in finding the right balance for alert presentation is that the noise levels on the flight deck do not remain the same, but fluctuate throughout the various phases of flight.

One of the findings from my PhD is the recommendation for an automated system that analyses the background noise level on the flight deck in real time, and presents the auditory alert signals at a fixed ratio above the noise. This system is aimed at eliminating the chance of excessively loud alerts. It also has the ability to reduce the intensity of the signal once it has been acknowledged, which provides a more suitable environment for crew communication during the warning event.

I'd like to take this opportunity to thank my supervisors (Dr. Jan Noyes, Dr. Kit Pleydell-Pearce and Prof. Nick Lieven) for all their help over the years. I'd also like to thank Lorenzo for his great illustration.

Guy Peryer

Department of Experimental Psychology University of Bristol G.Peryer@bristol.ac.uk

CfPs

International Workshop on Location- and Context-Awareness in cooperation with Pervasive 2005

Oberpfaffenhofen near Munich, Germany • 12–13 May 2005 *Submissions deadline* 17 December 2004 http://loca2005.context-aware.org

Workshop on Complexity in Design and Engineering The Senate Room, University of Glasgow • 10–12 March 2005 *Submission deadline* 1 February 2005 http://www.dcs.gla.ac.uk/~johnson/complexity/

Guy Peryer

User interfaces for computer music Reason to Live?

Matthew Duignan

User interfaces that embody an advanced understanding of the structure of the data we deal with can radically improve the usability of applications. A simple example is a word processor that understands that a document is broken into sections, which contain headings, paragraphs, lists, and other types of structures. The support for these structures provides the opportunity for the application to enable powerful functionality such as rapid and consistent formatting of a document, multi-levelled visualisation of document structure, support for restructuring operations, and automated section and page number referencing systems. When comparing these sorts of tools to a typewriter it is hard for people from the computer generation to understand how anyone got by on typewriters or pen and paper!

As a keen saxophonist, composer, and band leader, as well as computer scientist, I am focusing my PhD research on how music is structured in the user-interfaces of music sequencer applications. These applications allow people to construct musical works on the computer. These can then be printed out for performers, or performed by the computer itself through software or hardware sound synthesis and sampling. As computing power has increased, the possibilities for using standard computers for musical expression have exploded. With the power to create any sound you can imagine, and potential to create musical works of any complexity, the challenge falls on interface designers to allow users to harness this power. My goal is to improve the state of the art in computer music interfaces by exploiting the structural properties of music, and by building in models of how people do or should think of music.

Of course, the obvious questions are: don't music tools already provide this sort of structural support, and how do we come up with these structures anyway? To address this, my plan is to firstly uncover the models used in existing commercial and research music sequencing applications, and then compare these with the models that musicians, composers, music psychologists, and music academics have formulated. This should lead to a detailed understanding of the structural models that computer music tools already support, and more importantly, the interesting ones that they don't. This will make it possible to come up with new interface ideas that exploit the conceptual models of composers, and then prototype and evaluate them.

Through comparing the models that are used in today's interfaces my expectation is that I will find that a set of established and conventional structural models are common to the majority of the interfaces of computer music tools. By eliciting and evaluating alternative models I hope to challenge the conventional models. In many cases these conventional models are the product of an evolutionary process rooted in historical electronic sound hardware, such as multitrack tape recorders, analogue synthesisers, and audio effects units.

My previous work in this area has focused on the role of metaphor in the user interface of music applications. Specifically, I have examined how the applications *Reason* and *Live* approached incorporating the behaviour of real-world music hardware into their user interfaces. Many music software applications use the metaphor of music hardware to varying degrees.

I examined how following slavishly the rules dictated by emulating real world music hardware affects usability. For example, the application *Reason* has an interface consisting primarily of simulated rack hardware for creating and manipulating music. Traditionally, electronic music has been created by manipulating the controls of physical devices arranged vertically in a 'rack' container. Reason has implemented this in its interface (Figure 1). In reviews, music software professionals have made comments about elements of Reason's interface such as:

"Modelling it on a real-world switch that's awkward enough to adjust even when it's a real one surely isn't what the virtual world's supposed to be like!"

and

"The rack flips round to display the kind of spaghetti hell you would usually associate with a hardware set-up." (Future Music. Propellerhead Reason 2.5. Future Music, FM136:30-37, June 2003)

These sorts of comments about the interface of a leading computer music tool illustrate an important point. By simply utilising the evolved patterns of interaction from traditional electronic music hardware, and bringing them into computer-



Figure 1 The main interface of Propellerhead Software's Reason.

based music systems, we can miss the opportunity that the power and flexibility of software can provide. As computer music tools are in many areas replacing their hardware counterparts, we have a unique opportunity and perhaps responsibility to ensure that the users of this software do not become trapped in antiquated patterns of interaction dictated by the limits of the old physical hardware.

The metaphorical approach used in the application *Live* contrasts with the approach employed in Reason (Figure 2). While Live also employs Reason's audio hardware metaphor (among other metaphors), it has a more abstract approach. Live takes the structural and behavioural cues from the source of the metaphor, but deviates from this whenever it will allow a more flexible and powerful interface.



Figure 2 Controls from the interfaces of Ableton *Live* and Propellerhead Software's *Reason*.

Striking a collaborative chord A review of NIME 2004

Hamamatsu, a Japanese city of Music, played host to NIME 2004 in the sunny month of June this year. The New Interfaces for Musical Expression conference series started as a workshop at CHI 2001 (Seattle, USA), an origin which has shaped the focus of subsequent conferences. The series is primarily aimed at exploring the use and design of new user interfaces that are used to create music, and has even spawned university courses.

Given participants' wide range of interests and backgrounds it is very easy to be distracted by the plethora of novel interaction devices which take on a whole range of shapes and sizes from small devices that you 'strangle' to embedded systems which play music based on people's movement in a space. The key to such conferences seems to be to try to take a step back and understand how it all fits together in terms of exploring the space of musical interaction and user interfaces in general.

The conference itself was hosted at SUAC (Shizuoka University of Art and Culture), a campus which afforded many glimpses into Japanese culture such as the rolling alpine meadow on top of the main building with a range of bizarrely sized benches, some so large that one felt like a fiveyear-old child when seated, and a spotlessly clean campus which is something you don't tend to find in many universities.

The conference was impeccably organised apart from a few of the usual problems associated with connecting computers to data projectors – maybe there is a conference series on such issues, and surely there must be blogs about

Studying the use of user interface metaphor has strong links with my current examination of the structural properties of music in music applications. The reason for this is that structural metaphor is generally used in user interfaces to provide a framework for the types of entities in the interface and their relationships. The off-cited desktop metaphor found in the Apple Macintosh and Microsoft Windows interfaces provides the structural framework that leads to trash cans, folders, and the desktop. The interface presents the interface as if *it is* a desktop (in a metaphorical sense). The resulting ontology or conceptual model largely determines the operations that can be performed, the efficiency of use for the system, and its perceived intuitiveness. By examining current and potential conceptual models in computer music software I expect to make some real improvements in the effectiveness of their user interfaces by removing the artificial barriers created by the use of conceptual models that do not match how composers do, could, or should think of their musical product.

Matthew Duignan

Victoria University of Wellington New Zealand matthew@duignan.net

Nick Bryan-Kinns

the trials and tribulations of connecting an array of laptops to a data projector. In fact, the conference organisation even included a 'navigator' to guide you on your ten minute walk from the railway station to the conference venue.

The conference this year included two keynotes – Robert Moog (yes, he of the Moog Synthesizer fame) and Toshio Iwai. Moog's talk was half about technical developments and half about his views on how people interact with electronic musical instruments. The technical developments focused on development of the Moog synthesizer in the 1950s (the first electronic synthesizer which has since had a lasting impact on all forms of music) and the theremin (a strange instrument developed in the 1920s which is played by moving one's hands near the instrument; watch any 1950s sci-fi movie and you're sure to hear a theremin making eerie noises).

Moog's view on how performers interact with their instruments was rather more esoteric – arguing that your mind merges with your instrument as you play it. Such a view is inspired by Rupert Sheldrake, author of books such as *Dogs that Know When Their Owners are Coming Home, and Other Unexplained Powers of Animals.*

I certainly don't feel that my mind merges with my computer when I'm writing, but maybe we as user experience designers should be aiming for such levels of intimacy.

Iwai's keynote was inspirational as he stepped back from technological considerations to discuss the relationship between music and its visual representations – exploring the nature of punched cards in simple player-piano style instruments. He demonstrated quite neatly the multiple interpretations and use of visual representations by playing a roll of paper with happy birthday encoded as holes backwards through a small player piano. This produced a melancholy tune and conjured up ideas about other transformations such as folding the paper, playing it upside down, and so on, which can be achieved without any musical knowledge. Iwai also treated us to a performance of music using children's games controllers which, for me, really summed up what new forms of interaction should be about – not necessarily technologically astounding, but something which can be used to really engage with the music and the audience.

Developing new interfaces for music expression using computers allows us to explore two aspects of interaction not typified by conventional musical instruments – nondeterminacy, and embodied collaboration. With conventional instruments such as a guitar, we can be pretty sure of the sound that will be produced when we play it in certain ways, whereas with a computer-based instrument we could develop musical instruments which take our input as a suggestion and then play music that some algorithm feels is appropriate.

We were treated to a performance by a violinist and one of LEMUR's 'guitarbots' which consisted of four independent single-stringed slide guitar units controlled algorithmically to accompany the violinist. Similarly, Katsuhusa Ishida and colleagues presented work on algorithms to automatically correct musical melodies as they are played in order to allow novice players to improvise musical pieces. However, such 'correcting' systems raise questions about learning – if we are automatically corrected in our playing of pieces, how do we learn, and what should the boundaries of correction be.

Related to these issues, Sergi Jorda presented a paper on learning curves for new interfaces which highlights one of the interesting aspects of designing expressive interfaces – that there is a difference between efficiency of use and learnability, and these need careful consideration given the target user group.

The second aspect of using computers in the development of musical interfaces is that collaboration can be embodied into the instrument. With a conventional instrument such as a flute, a player collaborates with other players through visual and auditory cues shared within a physical space. When we develop new interfaces we have the chance to construct instruments where the collaboration takes place within the instrument itself. For example, Sidney Fels and collaborators demonstrated the Tooka - a two player musical instrument where sound is controlled by pressure in a tube between the two players' mouths, and a set of buttons for each player. The configuration is such that the single output sound is a product of the two players' inputs - the joint production takes place within the instrument whilst visual interaction helps co-ordinate the activity. The instrument itself is a bendy tube that two players blow into from each end which looks pretty strange at first sight, as was confirmed when Linda Kaastra and Sachiyo Takahashi treated us to a performance one evening.

From a more technological perspective, Ge Wang and Perry Cook gave a paper on 'on-the-fly programming' as a way of creating music in collaboration with other people. In this situation collaborators program signal generators, filters, and mixers which can be combined in real time to create music. The key is that data, or signals, can be shared between different people's code so providing a space for collaborative real time music generation by programming.

There were many, many interfaces which were highly strange, and focused on more deterministic and individual control of music. For example, Ajar Kapur and his collaborators presented the eSitar which augments a conventional sitar with pickups to monitor the position of fingers and plucking. Such information can then be used to create sitar style sounds as well as graphical accompaniment to the music. It would be interesting to see how such instruments could be developed to change the nature of the instrument itself, say by mapping it to different sound styles or by developing a two or four player sitar. Similarly strange was the use of sound in karate training as outlined by Masami Takahata and colleagues. In their work karate students wear sensors which are tracked by computer and used to generate sound based on the acceleration of various body parts in order to provide real-time, nonverbal feedback about their moves. Maybe this could be used in driving instruction to encourage the development of a rhythmical driving style.

There were a whole host of other interfaces and devices at the NIME conference which I haven't the space to outline but which highlight the wide range of possibilities there are to supporting creativity with computers. The conference series itself has been running for three years now and to me it had the feeling of growing maturity which I hope will drive it to explore expressive interaction in a range of new, exciting, and rigorous ways.

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> *Nick Bryan-Kinns Queen Mary, University of London*

New Review of Hypermedia and Multimedia Scholarly Hypermedia – 2005 Special Issue Call for Papers Guest Editor: Simon Buckingham Shum, The Open University, UK Submission deadline 10 January 2005

http://kmi.open.ac.uk/people/sbs/NRHM/ScholarlyHypermedia-CfP.pdf

CfP

DSVIS: 12th International Workshop on Design, Specification and Verification of Interactive Systems University of Newcastle-upon-Tyne, England • 13–15 July 2005 Submissions deadline 7 January 2005

http://homepages.cs.ncl.ac.uk/michael.harrison/dsvis05/

CfP

Digital Multimedia Perception and Design A book edited by Dr. George Ghinea and Dr. Sherry Y. Chen, Brunel University, UK

Submissions deadline 3 January 2005

http://www.brunel.ac.uk/~csstggg2/cfp.doc

Call for submissions

CoLIS 5 Context: Nature, Impact and Role Fifth International Conference on Conceptions of Library and Information Science

University of Strathclyde, Glasgow, UK • 4–9 June 2005 *Submissions deadline* 7 February 2005 http://www.cis.strath.ac.uk/colis5/

Experiencing design Accommodation

Every couple of weeks or so, I fill my car with gas at the selfservice station near my house. The visual interface for payment, somewhat unfortunately, looks like a child's paint box: the buttons are red, green, yellow, and white, some with stripes and some solid-colored. From a procedural point of view, though, the system is well designed.

A small screen asks me, "Would you like to pay inside?". I usually pay directly at the pump with a credit card, so I press the "No" button. The screen instructs me to slide my card through the reader, which I do, and then asks me, "Is this a debit card?". Again I press "No". The screen tells me that my card is being authorised, and after a few seconds instructs me to pick a grade of gasoline and begin pumping. When I put the nozzle back into its slot, the system beeps and asks, "Would you like a receipt?". I am not such an organized person, and so I press "No", get back into my car, and take off.

The system lays out a straightforward procedure with guidance at each step, well suited for people who encounter it for the first time. But what about frequent users? Once, when I was in a bit of a hurry, I had a thought: what would happen if I simply ignored the system's messages and followed the sequence of actions that I always do? As it turned out, this works perfectly well. Instead of pressing a button three times and waiting for instructions about what to do next and when, I just slide my card and pump my gas.

Paying inside the convenience store is no more difficult; I use the pump and then go inside to pay with cash or plastic when I'm done. Paying at the pump with a debit card is more involved, because then I must press a button to tell the system the difference between a credit card and a debit card, but the extra interaction step is not unreasonable, since I will have to spend the time to enter my personal identification number in any case. Overall, the process is as streamlined as possible and flexible enough to meet the limited requirements of the task. (Whether the streamlining is easily discoverable is a topic for another column.)

While there are several ways we might describe the design of such interactive systems in HCI terms, my favourite description comes from the literature of statistical software. Daryl Pregibon and David Lubinsky use the word "accommodation" to describe the extent to which a system allows its behaviour to be controlled by knowledgeable human guidance. If users lack this knowledge, they run into problems. My students have reported several examples from their interaction with embedded computers:

"In the campus library there is a machine that lets students add money to their copy cards, so that they can use the photocopiers. The machine has directions on the front panel that instruct the user about the process. However, the instructions are in no particular order, but rather are written next to each slot for the copy card, cash, change, etc. It can take people a few tries to successfully put money on a card because they have skipped a step or carried out steps in the wrong order."

"At my job we have a machine that customers have to use to pick up larger items that they have **Robert St Amant**

bought. The machine scans a receipt and notifies the stockers which items should be brought out. Unfortunately, customers often complain that the machine is broken – it doesn't scan their receipt, or it doesn't work at all. Someone has to come out and tell them that they need to answer a few questions on the machine, using the touch screen, and only scan their receipt when the machine is ready for it."

"When I use the ATM at the check-out counter in my supermarket, the first choice it gives me, even before I can swipe my credit card, is "English" or "Espanol". It seems to me that almost everyone who uses the machine will speak English, so it would be more efficient if English were the default. At some other ATMs, you can enter your PIN and so forth right away, but in the bottom corner there's a button that lets you switch to another language if you need to. I think on average it's faster, even if it's only one step saved for most people."

At first glance, it might seem straightforward to avoid comparable problems in software that runs on desktop platforms, independent of a physical task that must be carried out. After all, if accommodation is about allowing users to do what they want, unconstrained by an arbitrary task ordering, then direct manipulation interfaces, with their pull-down menus, non-modal dialog boxes, and so forth, are as accommodating as might be desired. As with most apparently desirable interface properties, however, there are tradeoffs involved.

Applications continue to grow in complexity (offhand, I don't know of any software package that has less functionality than in its previous release). Many applications now offer the user wizards, assistants, macro definition capabilities, and so forth, to help walk through complex procedures. Maintaining the balance between system guidance and accommodation of user decisions can be difficult. Every time I begin a computer-based presentation using popular software, for example, an interface assistant will ask me whether I need help with the projector, until I explicitly tell it not to ask me again. The same assistant sometimes blocks my view of buttons I would like to press and must be moved out of the way. These are only minor irritations, but they illustrate the pitfalls in supporting effective human–computer collaboration.

These kinds of problems are familiar in HCI and are well addressed in the literature. GOMS has been very successful in identifying inefficiencies in routine activities, as demonstrated most strikingly in Project Ernestine (see http:// www.rpi.edu/~grayw/grayres/ernestine.html). Cognitive work analysis can give insight into the broader issue of users' situation awareness in dynamic, complex control environments, such as aircraft cockpits. Existing analysis techniques, even loosely applied, could easily identify difficulties like the ones above and point to solutions. With time, I hope, these techniques will become common practice.

> Rob St Amant http://www4.ncsu.edu/~stamant

Book reviews

Edited by Sandra Cairncross

Once again thanks to all the reviewers who agreed willingly – and indeed in some cases even offered – to provide reviews, and submitted them on time and again without much prodding on my part; all of which makes my role as Book Review editor a less onerous and more enjoyable task.

Even better, the reviews cover an interesting range of topics and certainly whet my appetite for my winter reading plans – a trip to Amazon looms.

In this issue we have:

John Knight (User-Lab at Birmingham Institute of Art and Design) on *Design and Emotion: The Experience of Everyday Things*, a collection of papers recently published from the 2003 conference of the same name

First Person: New Media as Story, Performance, and Game is reviewed by Meg Soosay (Leeds Metropolitan)

Xristine Faulkner (London South Bank University) shares her thoughts on *Constant Touch: A global history of the mobile phone*

A Practical Guide to Digital Design – Designing with your computer made easy, one of a new series which explores practical aspects of the aesthetics of screen layouts, and Digital Layout for the Internet and Other Media, another book from the same stable, both reviewed by Alison Varey

Happy reading! Sandra Cairncross, Book Review Editor s.cairncross@napier.ac.uk

Design and Emotion: The Experience of Everyday Things Deana McDonagh, Paul Hekkert, Jeroen Van Erp and Diane Gyi (eds) Taylor and Francis, 2004 0-415-30363-X, £59.99

This book collects eighty papers presented at the 2002 Design and Emotion Conference. The papers are divided into eleven sections that range in subject from "Experience Driven Design", through "Generative Tools" to "Affective Usability". The blurb on the back says the book "outlines the latest developments, findings and techniques in industrial applications and research, bringing the reader up to date with current thinking in this field".

Despite being two years old the issues covered are eerily prescient to debates (e.g. value, ethics and methods) at HCI 2004. However, the book almost entirely focuses on traditional product design areas including everything from cars to kettles. The blurb concludes "It should prove essential reading for all involved in new product development". The conference predates Donald Norman's book on the subject and the flurry of interest it has aroused. This means that references are dominated by a few key figures in research (e.g. Damasio, Picard and Csikszentmihalyi) and design (e.g. Dewey, Bordieu and Patrick Jordan).

The main justifications for getting emotional are economic and ethical. The emotions that products ought to elicit are generally positive. The focus is on the playful and delightful, rather than the cool and understated. A critical note is raised in a brilliant paper by young Turks, Patlar and Kurtgözü (p 402), who investigate the "historical emergence" of emotion in design. By contextualising the issue the authors implicitly show the transient nature of current interest in the subject.

Important (industry) keynote speakers preface the book. These include Jane Fulton Suri from IDEO. She shows how design has evolved from creating usable things to fashioning experiences. This new economic activity is subsumed within an "Experience Economy" and demands greater "understanding of people" (p 014) and the "multifaceted nature of experience". Design now requires "richer representations" to develop a "common vision" using scenarios, multidisciplinary working and getting buy-in for "strategic decision-making".

Fulton Suri proposes getting closer to users by involving them in design. She also includes other stakeholders in the process including marketing and usability practitioners. More importantly design requires making stakeholders' values explicit, establishing "mutual respect for each other's perspectives" (p 016). The commercial authors are notable for their quality, as are those originating from Loughborough University. These are qualitatively superior in almost every respect to the other academic papers in the book.

Michael Robinson from FIAT looks at future societal trends. He finds a world shaped by "matriarch oriented social values" (p 021) where "telepathy replaces cell phones" (p 023). This may sound like "Back to the Future" but should not be dismissed. Commercial design is about meeting unmet needs and the most successful products anticipate future needs. Indeed Robinson's research is grounded in envisioning transportation in 2050. Researching new product development is a common feature of many of the papers including Hayley Dixon's look at mobile phone games.

Most papers are more in the here and now and they typically summarise design/research projects. The emotional quotient is sometime weak and most papers would sit well in pure (unemotional?) design publications. There is also a high proportion of papers with few references, a dearth of contextual information (e.g. haptics) and inadequate analysis (e.g. product semantics). This does not devalue the research. The book has an impressive breadth and authors have refreshing approaches to novel problems.

Lee Crossley's chapter is characteristic and relates to male grooming products. He notes that "the design teams do not necessarily have awareness of knowledge of other cultures or how individuals think and feel about this highly personal topic" (p 038). The research collected contextual data including photos and videos of the participants' domestic environment as well as quick ethnographic methods including:

"Rapidly immersing the design team into the lives, hearts and minds of people in a short space of time. The challenge for this project was to get young men inspired to tell us their own stories and express their emotions about a mundane functional activity"... "Character modelling [was used] ... where the team and sometimes the user has a kit with questions, cameras and collages, [that enabled them] to frame and understand the



lifestyle of the person they are creating for".

Other useful methods are described. Most follow the advice given by Bill Moggridge at IDEO as "[t]he only way to experience an experience is to experience it" (p 015). Many go beyond traditional HCI and investigate semantics and marketing. Kefallonitis (p 350) prospects methods in a number of areas to suggest those appropriate to understanding brand and product recognition. Miller and Kälviäinen, (p 121) deploy "free sorting" and "multidimensional scaling" to understand the "nature, character, social or personal identity of designed objects". There are other well-known HCI practitioners including Martin Maguire (p 303) who tackles the usability/aesthetics rubric. His research suggests that rather than being in conflict they work together. Aesthetics adds a positive while usability subtracts a negative.

"Usability has more impact in creating a negative view than the presence of usability has in creating a positive view. Over a period of time when a product is owned and used, usability seems to play as strong a role as functionality and satisfaction, Usability does seem to contribute to the attractiveness of a product ..." (p 307)

I particularly enjoyed the "Theoretical and Ethical Issues" section. Here, Aldrich (p 367) makes an moral argument for emotional design while Branco (p 372) brings Richard Buccannan to a (slightly?) wider audience. There is a very positive feel to the book and readers get an optimistic view of products and their potential to improve peoples' lives. Givechi and Velázquez's paper on "Positive space" is typical in its enthusiasm and describes "the aura of the product" (p 043) that can provide "empowerment", "delight" and "connection". While recommending the book for its positive approach and breadth, I have to mention the poor typesetting that affects most pages. People who are sensitive to these things will be upset by the inconsistent spacing that produces phrases like "r esearch a genda" (p 038). However, most readers should enjoy this interesting addition to the emotion and design literature.

> John Knight john.knight@uce.ac.uk

First Person: New Media as Story, Performance, and Game Noah Wardrip-Fruin and Pat Harrigan (eds) MIT Press, 2004 0-26223224, £25.95

First Person editors Noah Wardrip-Fruin and Pat Harrigan have brought together a diverse group of new media scholars and practitioners to discuss their ideas behind current relationship between 'story' and 'game', as well as the new kinds of artistic creation surrounding new media narratives, computer games and the performative ties that bind them.

Contributions are presented in an open-ended format of statements and responses, all of which shed light on the aesthetic and social implications of our new experiences of stories.

These informed discussions have overflowed into a First Person website created in conjunction with the online journal www.electronicbookreview.com /v3/

Some argue that digital games evolving from the novel and film in the late 1980s constitute the next great arena for storytelling; others respond that games are not narratives at all and require a different theoretical framework and a new discipline. Yet others describe their own exciting contributions to interactive fiction and verbal art.

Contributors have coined some essential terms to describe new media as story, performance and game defining the future of games in the digital environment. They include ludology, cyberdrama, agency and immersion amongst others.

The focal point of discussion takes place between the ludologists and the narrativists who approach video games in the context of cyberdrama. They primarily view video games as a storytelling medium. Janet Murray who coined the term cyberdrama argues that the video game is a medium in which we immerse into another world to become another person. This view is widely supported but it is also criticised by many for being better suited to science fiction movies than to video games analysis.

Another approach is found in the works of Lev Manovich which deal more with the concept of new media in general than video games specifically, but still fundamentally approach video games as a form of narrative or as a text and that have many of the same elements as a book or a poem.

The ludologists disagree radically from this view . Their perspective is that a video game is first and foremost simply a game and that it needs to be understood in terms of its rules, interface and the concept of play. Prominent ludologists such as Espen J. Aarseth dispute that, although games certainly have plots, characters and narratives, these aspects are secondary to games.

All the topics in this book are intricately connected in a compelling composition of ideas that makes the reader understand the rich possibilities that computer games offer as drama, narrative and simulation. You come to appreciate the distinctive approaches of both the formal properties and the cultural significance of computer games.

> Meg Soosay m.soosay@leedsmet.ac.uk

Constant Touch: A global history of the mobile phone Jon Agar Icon Books, 2004 1840465417, £9.99

Jon Agar has produced a delightful and highly readable history of the mobile phone which actually goes back longer than you think and has some very surprising twists along the way. He talks about the original landline phones too, to put it all into context, and is scathing about the clunky design. This made me smile. For a start he doesn't look old enough to remember them and I recall paying a lot of money for modern replicas when I went through some weird decorating phase a few years back. But I digress.

There are several very amusing black and white photographs including some of people attempting to look as though the phone they are holding is mobile and doesn't require a crane to lift it. They aren't convincing. But it is timely to be reminded that this isn't so long ago and that the mobile phone's development has made the rise of the computer look laboriously slow by comparison.

Jon describes the background and development of the phone worldwide, and gives a detailed description of Europe, America and Japan, explaining along the way how it was that Europe stole a march on the States where they are still wallowing amongst the potsherd mobile phone speaking. He describes the technology well so you can come to this book understanding zero about mobile phone technology and go away feeling very knowledgeable. He also explains the myriad conglomerations that have made up the mobile phone industry. The whole thing now makes sense to me in a way it didn't do before because I get impatient with the ramifications of business. However, Jon has an excellent historical perspective and doesn't just explain sequences but he looks at the reasons. It is those explanations that lift this book above an amusing history of the phone into something else. This really is quite a deep study of the mobile phone and its social and political implications, made all the more impressive because it is such a small volume.

The book is made up of four sections - the first section describes what a mobile phone is and what its parts are. Part 2 describes the development of the mobile phone in different regions of the world. This section is fascinating. Those of you who remember still angrily the Thatcher years will enjoy the description of the rise of the mobile phone in the UK and the implications this had for society then and the legacy it left for now. The third part is about mobile culture and looks at text messaging, mobiles and health, mobiles and crime and tries to put this all into a sociological perspective. The final section attempts to bring all of the disassembling of the previous parts together and to suggest a future for the mobile phone.

I enjoyed this book immensely. It's only 168 pages long and they are highly entertaining pages with delightful snippets along the way and an insight into the sociology of the technology that is very appealing. Jon Agar really does understand the mobile phone and he is able to convey that understanding without being pompous or tedious. This really is an unassuming and modest book. At £9.99 it isn't going to topple you into penury and it's hardback and will fit into the pocket of a winter coat or into a Christmas stocking if you know someone who like me is obsessed with the impact the mobile phone has had on everyone else but me.

> Xristine Faulkner xristine@lsbu.ac.uk

A Practical Guide to Digital Design: Designing with your computer made easy Pina Lewandowsky & Francis Zeischegg AVA publishing sa, 2003 2-88479-039-X, £14.95

The role of design in Human Computer Interaction (HCI) education is a much debated area at present. To what extent, if any, do students need to study design, and if they do, what form should this education take? Perhaps more generally, is it necessary for computing students to learn and practice visual communication skills and, conversely, should specialist designers be trained in computerbased techniques of design? Design work is often dismissed as something anyone can do but often non-specialists fail to achieve an appropriate professional or aesthetic look. The Swiss publisher AVA Academia is exploiting this gap in the market by aiming its textbooks both at students studying graphic art and also students on more technology-based courses. By attempting to meet the needs of such diverse curricula it intends to bridge the gap between traditional text-heavy reference books and the visual eye candy of showcase books.

A Practical Guide to Digital Design is aimed at people who want to learn about visual communication and examines the fundamental rules upon which successful design depends. It explains the basic elements of dots, lines, planes and how these can be combined to create rhythm, balance and visual harmony. Colour physiology and psychology are investigated but, surprisingly, with the global nature of technology and the Internet, no mention is made of the cultural significance and associations of colour, which appears to be a major oversight. Composition is introduced, as is the use of invisible nets or grids to structure designs and transform an idea or content into a visually pleasing and effective means of communication.

Throughout, the authors encourage experimentation to try and stimulate readers into the examination of artistic methods and sensitise them to design. To support this, the book contains a number of exercises and examples using the most popular programs, including QuarkXpress, Adobe Photoshop and Macromedia FreeHand. However, the copyright statement explicitly states that without the written permission of the publisher the 'reproduction of exercises and examples of work or the use in courses and training material' is illegal. One wonders whether this is necessary and whether it precludes basing a course around a set text?

There is a wealth of useful information in the book, which is, however, sometimes unnecessarily difficult to access by the unfortunate use of language. In a least one instance, the text graphic is a far superior translated version of the text on the facing page. Clearly someone knew that the text was deficient, so why wasn't something done about it? In places, the text requires additional explanation and elucidation and this would almost certainly frustrate students using it as a self-study tool.

There is a need for books in this area and this book is certainly good value for money at about half the cost of other equivalent texts in this area but it would benefit from tightening up on the language and structure used throughout. I would recommend it to students studying multimedia or web design.

Alison Varey a.varey@napier.ac.uk

Digital Layout for the Internet and Other Media David Skopec AVA publishing sa, 2003 2-88479-031-4 £24.50

Digital Layout for the Internet and Other Media is another book from the publisher AVA and is part of their E-Design series. It is aimed at students and people working in digital media and focuses on the new rules and approaches required to design screenbased media. It is one of the first books to look at the systematic use of layout theory and to define terms such as interface, montage and layout. The structure of the book follows three perspectives on layout: the design, the system and the experience.

The design section concentrates on the interplay between the visual components of the interface and how this can be used to create a visual gesture or impression. It introduces the elements and objects used in design and how these can be pieced together during the montage process. It concludes with a look at how the message of an interface is conveyed through its denotation, connotation, and the syntactic, semantic and pragmatic levels. A seven-layer semantic differential is used to illustrate how the impression of a layout can be measured.

The section on the system concentrates on the ordering and structure of the interface, allowing users to immediately recognise the characteristics of the interface. The use of layout grids is proposed to help standardise and create an ordered structure. The topology of the interface is also investigated with different colours used to represent the different elements such as title, navigation, contents, brand, footers and headers. An interesting image is then created by superimposing the elements from 50 website topologies, revealing an average topology. This is followed by a look at websites that use unconventional topologies to create interest and a feeling of spontaneity.

The section on the experience starts with a look at different types of systems such as mobile devices, public terminals and desktop systems but mainly focuses on perception. It covers hearing and feeling as well as seeing, with a short section on accessibility. It concludes with ways in which users can personalise the layout, with the use of skins, and content, by creating 'interest media'.

The book looks good with the layout consisting of a small area for the core text, with the rest of the page given over to examples. Unfortunately in the earlier, more theoretical sections of the book, this structure and layout has led to a number of dull looking and virtually empty pages, although they contain useful and interesting information. In this sense, the book suffers from having its contents forced into a rigid structure and content seems perhaps subservient to form. Notwithstanding this, it is an interesting book recommended for practitioners and students alike. It fills a gap in the market by looking at digital layout through the whole design process and trying to take a holistic view in a constantly developing area.

> Alison Varey a.varey@napier.ac.uk

Right, from top: Kees Dorst, Wendy Hall and Thomas Erickson, Keynote Speakers at HCI2004



And finally... some questions for Thomas Erickson

Is data security legislation a help or a hindrance in developing your research ideas, and if it is obstructive, what do you think society ought to do about it? It's difficult to give a general answer to this. In general, I guess the answers are "not yet," and "it depends!". It depends on both what the legislation is, and what domain one is designing for. So, for example, I am interested in designing on-line environments that act like public spaces, and that provide a sense of the number and activity of those present. As far as I am aware, there are no legal barriers to creating visual representations of people who are synchronously interacting in a public place, and so that leaves room for many possibilities; on the other hand, if you want to preserve data about who has been around - as you might want to do if you wanted to present a sort of cumulative history of activity (a very useful tactic when dealing with less synchronous interactions) - laws about storing data about people can introduce limitations. But, if you are designing such a system for a corporate environment, new regulations that require the preservation of online communications (e.g. instant messaging use in the financial sphere) may make this much easier than it would otherwise be ...

Of course, whether something is possible and legal to do is not the same as whether it is useful and desirable!

To move up to a higher level, I think that both our profession and society needs to think a bit more carefully about issues having to do with privacy. I like to use the example of voting. Voting – by which ${\sf I}$ mean a person walking into a polling place and filling out a valid vote - involves a very subtle mesh of privacy and visibility. That is, elections work because some aspects of them are very private, and other aspects are very public: polling places are designed so that others can't see what the voter is marking on his or her ballot, but so that others can see that the voter is alone in the polling booth and can see that the voter is depositing only one ballot in the ballot box. The aspects of voting that are private protect the individual from undue influence, at the same time as the aspects of voting that are public ensure the accountability (and ultimately the public acceptance) of the process.

Tony Renshaw T.Renshaw@leedsmet.ac.uk Tom Erickson www.pliant.org/personal/Tom_Erickson/

Tony Renshaw

How does your work assist communities that are naïve to technology and its potential?

I'm told that a few years ago, when a major US city installed automatic ticket vending machines for its subway system, those in charge of the project came up with a very interesting approach to helping people figure out how to use the new machines. They hired confederates to hang out in the stations and to repeatedly use the vending machines to buy tickets. People unfamiliar with the machines would hang back, watch one of the confederates use it, and then imitate them. After a while, of course, enough people had figured out how to use the machines that the confederates could be dispensed with. I like this story because it makes an important point: people watch one another, and by doing so they not only learn what to do in a certain situation, but they also learn what is possible and appropriate to do. While my work has not specifically been directed towards 'technology-naïve' communities, I think the design tactic of designing systems that reveal who is using them and how they are being used has the potential to be a very powerful way to encourage the use of technologies by users who aren't familiar with them.

Andy Dearden talks to Alan Dix



Profile

Andy Dearden, Senior Lecturer, Cultural, Communication & Computing Research Institute, Sheffield Hallam University.

After completing a BSc in Maths at Durham Uni in 1980, Andy didn't really like any of the options immediately open to him. His early career varied through social work, play groups to management consultant in a major City firm (in the Sandwich market). Eventually, he qualified as a teacher. He spent 5 years teaching maths and computing in Inner London secondary schools. He met his wife Caroline during his time in London.

In 1990 he completed an MSc in computer science at UCL before doing a PhD on The Engineering of Interactive Case Memories at York. He spent another 4 years at York working on software engineering methods for interactive systems design before moving into the 'real world' of software design and development as chief interaction designer for Armature, a company developing advanced information systems for the retail sector.

Since 2000 Andy has been a lecturer at Sheffield Hallam University. His recent work has focused on the use of pattern languages in the participatory design of interactive systems. He is a member of Computer Professionals for Social Responsibility and the Design Research Society as well as being the communications chair for the British HCI Group. He organised the workshop 'Design for Civil Society' at HCI2003; he is currently co-editing a special issue of *Interacting With Computers* on the topic 'Design for Civil Society'. He will be principal investigator on a new project 'Technology and Social Action' funded jointly by the EPSRC and AHRB.

What is your idea of happiness?

Looking out from the top of a snow covered mountain on a clear day, often with Skye somewhere in the vista

What is your greatest fear? I can think of some horrible things that are very unlikely, or some realistic possibilities that are moderately unpleasant

With which historical figure do you most identify? Gandhi

Which living person do you most admire? Trevor Bayliss

What is the trait you most deplore in yourself? Impatience

What is the trait you most deplore in others? Selfishness

What vehicles do you own? A bike that I built around a 531 Clements frame that I rescued from a skip ... and a 9 year old Daewoo Nexia

What is your greatest extravagance? Armagnac, a tipple I first met in the form of Philippe Palanque's dad's home brew

What makes you feel most depressed? The way that industrial elites are stealing the resources (air, water, oil, knowledge, ideas...) of – and dumping rubbish (greenhouse gases, concrete jungles, corrugated iron sheds called retail 'parks', perverse notions of intellectual property, air-tosurface missiles...) on – the rest of the world

What do you most dislike about your appearance? My skinny build What objects do you always carry with you? An ACME Thunderer whistle (stainless steel) which is attached to my keyring

What is your most unappealing habit? It's sufficiently unappealing for me not to want to advertise it

What is your favourite smell? Early morning mist

What is your favourite word? copyleft

What is your favourite building? This is very difficult. I love architecture, but the Alhambra is pretty cool (the one in Granada – though the Bradford one is worth a look)

What is your favourite journey? North West from Inverness

What or who is the greatest love of your life? My wife, Caroline

Which living person do you most despise? This varies between Bush/Cheney/Rumsfeld and various people with management responsibilities wherever I happen to be working

On what occasions do you lie? When I want to avoid embarrassment but can't find a way of being economical with the truth

Which words or phrases do you over-use? It's not a question of frequency so much as amplitude

What is your greatest regret? Perhaps choosing the wrong undergraduate degree. I might try Architecture in my next life.

When and where were you happiest? Does this question include chemically induced states of happiness?

How do you relax? Walking up mountains, playing football, walking the dog, reading and gardening

What single thing would improve the quality of your life?

Moving my job closer to where I live

Which talent would you most like to have? Musical ability

What would your motto be? Something better change

What keeps you awake at night? Rehearsing arguments I expect to have in the near future

How would you like to die? Still compos mentis

How would you like to be remembered? As someone who made a positive contribution

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URLs

British HCI Group: www.bcs-hci.org.uk UsabilityNews: www.usabilitynews.com HCI2004: www.hci2004.org

British HCI Group committee members

Russell Beale • University of Birmingham • R.Beale@cs.bham.ac.uk

Ian Benest • University of York • *tel* 01904 432736 • *fax* 01904 432767 • ian.benest@cs.york.ac.uk Gerred Blyth • www.amber-light.co.uk Nick Bradley • University of Strathclyde • *tel* 0141 548 3524 • *fax* 0141 552 5330

Nick.Bradley@cis.strath.ac.uk Jackie Brodie • Brunel University • *tel* 01895 274000 ext 2533 • *fax* 01895 251686

jacqueline.brodie@brunel.ac.uk

Nick Bryan-Kinns • Optic Experience Design • nick@optic-ed.com • www.optic-ed.com

Sandra Cairncross • Napier University, Edinburgh • *tel* 0131 455 2724 • *fax* 0131 455 2727 s.cairncross @ napier.ac.uk

Catriona Campbell • The Usability Company • *tel* 0207 843 6702 • *fax* 0207 843 6701 catriona@theusabilitycompany.com

Dave Clarke • Visualize Software Ltd • *tel* 07710 481863 • *fax* 01543 270409 • dave@visualize.uk.com Gilbert Cockton • University of Sunderland • *tel* 0191 515 3394 • *fax* 0191 515 2781 Gilbert.Cockton@sunderland.ac.uk

Laura Cowen • IBM Hursley • laurajcowen@yahoo.co.uk

Fintan Culwin • South Bank University • tel 020 7815 7434 • fax 020 7815 7499 • fintan@sbu.ac.uk Steve Cummaford • s.cummaford@amber-light.co.uk

- Daniel Cunliffe University of Glamorgan tel 01443 483694 fax 01443 482715 djcunlif@glam.ac.uk
- Andy Dearden Sheffield Hallam University *tel* 0114 225 2916 *fax* 0114 225 3161 A.M.Dearden@shu.ac.uk
- Alan Dix Lancaster University *tel* 07887 743446 *fax* 01524 593608 alan@hcibook.com Jonathan Earthy • Lloyd's Register • *tel* 020 7423 2304 • *fax* 020 7423 2061 • jonathan.earthy@lr.org Dave England • Liverpool John Moores University Janet Finlay • Leeds Metropolitan University • *tel* 0113 283 2600 (ext 5158) • *fax* 0113 283 3182

net Finlay • Leeds Metropolitan University • *tel* 0113 283 2600 (ext 5158) • *fax* 0113 283 3182 J.Finlay@Imu.ac.uk

Martha Hause • The Open University • m.l.hause@open.ac.uk

Caroline Jarrett • caroline.jarrett@effortmark.co.uk

Sue Jones • University of Nottingham • sjj@cs.nott.ac.uk

Jay (Manasawee) Kaenampornpan • University of Bath • *tel* 01225 384 432 • jay@kaenampornpan.com Vaz (Vassilis) Kostakos • University of Bath

Gregory Leplatre • Napier University, Edinburgh

Ann Light • tel 07947 072300 • fax 020 8241 5677 • annl@cogs.susx.ac.uk

Linda Little • Northumbria University, Newcastle • *tel* 0191 2273043 • fax 0191 2274608 • I.little@unn.ac.uk Nico McDonald • Design Agenda • *tel* 07973 377897 • *fax* 07976 650257 • nico@design-agenda.org.uk Tom McEwan • Napier University • *tel* 0131 455 2793 • *fax* 0131 455 2727 • t.mcewan@napier.ac.uk Barbara McManus • University of Central Lancashire • *tel* 01772 893288 • *fax* 01772 892913 bmcmanus@uclan.ac.uk

Shailey Minocha • The Open University • *tel* 01908 652056 • fax 01908 652140 • S.Minocha@open.ac.uk Dianne Murray • *tel* 0208943 3784 • *fax* 0208 943 3377 • dianne@soi.city.ac.uk

Nadia Pervez · Staffordshire University · pj217803@stmail.staffs.ac.uk

Ross Philip • User Vision • tel 0131 220 8213 • ross@uservision.co.uk

Dale Richards • QinetiQ

Anxo Cejeiro Roibás • University of Brighton • *tel* 01273 642458 • fax 01273 642405 John Rosbottom • University of Portsmouth • *tel* 023 9284 6430 • *fax* 023 9284 6402 john.rosbottom@port.ac.uk

Fausto J. Sainz Salces • Liverpool John Moores University • *tel* 0151 231 2082 • *fax* 0151207 4594 cmsfsain@livjm.ac.uk

Helen Sharp • h.c.sharp@open.ac.uk

Elizabeth Sillence • Northumbria University • *tel* 0191 2437246 • *fax* 0191 2273190 elizabeth.sillence@unn.ac.uk

Andy Smith • University of Luton • *tel* 01582 743716 • *fax* 01582 489212 • Andy.Smith@luton.ac.uk Colin Venters • University of Manchester • *tel* 0161 275 6046 • *fax* 0161 275 6071 • c.venters@man.ac.uk Robert Ward • r.d.ward@hud.ac.uk

Peter Wild • University of Bath • *tel* 07779 330 554 • *fax* 01225 826492 • peter.j.wild@btopenworld.com Adrian Williamson • Graham Technology plc • *tel* 0141 533 4000 • Adrian.Williamson@gtnet.com William Wong • w.wong@mdx.ac.uk

KEY

Bold entries indicate members of the Chairs and Officers Group SR: student representative

BCS Contacts

Sue Tueton (Membership) hci@bcs.org.uk.	1 Sanford Street, Swindon SN1 1HJ, UK		
+44(0) 1793 417416	Tel:	+44(0) 1793 417417	
	Fax.	+44(0) 1793 480270	

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