Final Programme

The 19th British HCI Group Annual Conference

the bigger picture
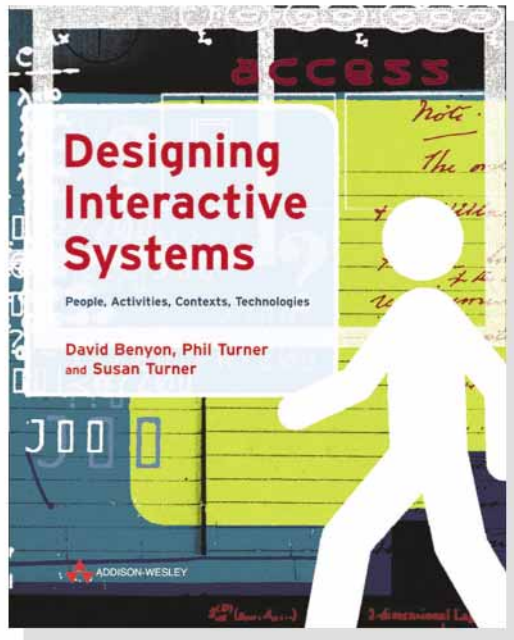
www.HCI2005.org

napier university • edinburgh • 5-9 sept

British HCI Group

Welcome!

GUID tae see ye!
Welcome to HCI2005: The Bigger Picture. We have an ambitious week in store for you, retaining all that's best from previous British HCI conferences and adding a few novel ideas. I hope you enjoy the conference venue – Napier is a young university and a great place to work, yet it also has history around every corner – whether it's the War Poets and the birth of Psychiatry at Craiglockhart, or the early developments in mathematics and information science by John Napier of Merchiston.

We've talked a lot recently about whether HCI is indeed "all growed up". Your conference committee has had an amazing diversity of HCI to consider and a big benefit to us has been the opportunity to see the links that you don't find in narrower, more focused workshops and conferences. While each of us has (usually more than one) narrow interests, we also share a breadth of appreciation of all aspects of humanity's engagement with information, mediated by technology.

We've found that three levels or layers of interest seem to pop up time and again. The traditional **Interface** and **Interaction** issues, which many would see as the "core business" of HCI, continues to contain new scientific insights, that help shape our fundamental relationship with computing devices. But equally, the much broader **Cultural** and **Contextual** areas, especially in an era of globalization and fundamentalist terrorism, require our deepest analysis and understanding. Central to both of course is the meaning of technology and knowledge at the

Human Scale and **Human-Centred** approaches to design. In recent years this has been the new core business of the British HCI community, yet it is an area we sometimes struggle to share with other disciplines. Together this I, C and H can be taken to symbolize the adult identify of HCI. At each level we have had to negotiate our scope with established disciplines – Physiology, Psychology, Sociology, Economics, Library & Information Science, Design, Engineering and more recent fields of study – computer science, sociotechnical approaches, CSCW, communities of practice, media studies and so on. The whole point of broad-based conferences, such as this, is to support us in pursuing multidisciplinary work. If HCI is to prosper, we need to combine attention to detail with an acceptance of human needs and a responsibility to global societies – notions that were central to the Edinburgh Enlightenment 250 years ago.

We are pleased to welcome you to Edinburgh, one of the world's great small cities, and we are also very pleased that you come from so many different countries (over twenty) from all over the world. You'll notice that many of our committee are from the Nordic countries, as were many of the submissions and thus papers, and we Scots have always been proud of our Nordic links. Similarly we welcome back many from North America (1 in 10 of you), and delegates from China, Australasia, and South Africa. Almost half of you are from overseas. The conference dinner and the conference ceilidh will both be opportunities to enjoy Edinburgh city centre, and your free bus tickets are a chance to explore the whole city.

Tom McEwan, HCI2005 Chair

British HCI Group Conference Series

HCI2005 is the 19th Annual Conference of the British HCI Group, a specialist group of the British Computer Society. Established in 1985, the conference has become the premier annual conference on Human-Computer Interaction in Europe. Attracting hundreds of researchers and practitioners from over twenty countries, its published proceedings (The People & Computers series) form an important part of the archive of HCI research. The HCI conference has always addressed the needs of practitioners and researchers through a balance of conference activities. Each annual conference has a theme, but submissions on any HCI topic are always welcome.

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HCI2006: Engage

London 11-15 Sept

Chair: Nick Bryan-Kinns

Engage with users, engage with interfaces, engage with clients, engage with each other. HCI 2006: Engage will ask what makes our interaction engaging, how can we understand this is the wider context of social interaction, and how can we design and evaluate interfaces that are not only usable, but richly engage all our senses and abilities.

HCI 2006: Engage, will be hosted by Queen Mary, University of London, in the heart of the vibrant East End of London. Queen Mary is uniquely positioned in close proximity to the financial heart of London whilst boasting extensive on-campus accommodation and facilities. HCI 2006: Engage will draw on the eclectic mix of communities and practises of the East End to inspire an inter-disciplinary meeting of minds.

Edinburgh

The UNESCO World City of Literature is one of the world's most beautiful cities On 4th Sept 2005, the Firework Concert at Edinburgh Castle closed yet another record-breaking festival, which featured thousands of shows, tens of thousands of performers, and millions of tickets-stubs. But while you're at HCI2005 you'll see the afterechoes of the festival everywhere – the art galleries in particular have world-class exhibitions that will remain for a few weeks, for example the lauded Gauguin Vision exhibition at the National Gallery of Scotland.

But Edinburgh is much more than the castle, the festival, Princes Street, the Royal Mile, Murrayfield and two occasionally successful football teams. You have the entire network of the city's bus system to play with while you are here.

If the weather's sunny, take a trip to the seaside – Portobello, Edinburgh's beach resort, is around 15 mins on the No 26 (and several other routes) from Haymarket. The Meadows is a huge city-centre park, where hundreds of thousands people gathered to Make Poverty History in July, and celebrate Fringe Sunday in August. Adjacent, and close to Napier's Merchiston Campus, is Bruntsfield Links – with its free 36-hole pitch and putt course, one of the older golf courses in the world. (There are also dozens of other golf courses around the city, most open to the public.) Scotland's national tennis facility is a short walk from the venue, while various buses from Haymarket take you to the olympic-sized Royal Commonwealth Pool.

Edinburgh's museums and visitor attractions include the multimedia experience of Our Dynamic Earth, opposite the Scottish Parliament and Holyrood Palace, and the National Museum of Scotland, Edinburgh Zoo (west of the city centre) and the Botanic Gardens (to the north).
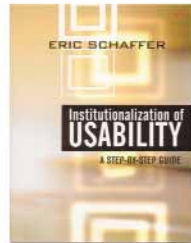
9.00 - 9.30	Registration	Room 3/04	Room 3/05	Room 1/06	Room 3/06	Room 3/07	Room 3/08	Room 3/09
9.30 - 11.00		T2	T3	W1	W2	W4	W5	
11.00 - 11.30	Refreshments							
11.30- 13.00		T2	T3	W1	W2	W4	W5	Doctoral Consortium
13.00 - 14.00	Lunch							
14.00 - 15.30		T2	T3	W1	W2	W4	W5	
15.30 - 16.00	Refreshments							
16.00 - 17.30		T2	T3	W1	W2	W4	W5	

9.00 - 9.30	Registration	Room 3/04	Room 3/05	Room 2/07	Room 3/06	Room 3/07	Room 3/08	Room 3/09	Room 3/03	Room 3/10	Room 3/11	Room 3/12	Room 2/06	Room 2/09
9.30 - 11.00		T5	T6	T7	T8				W3	W7	W8	W9	W10	W11
11.00 - 11.30	Refreshments													
11.30- 13.00		T5	T6	T7	T8	HEW: HCI Educators Workshop	Engagability and Design Conference 2005	Doctoral Consortium	W3	W7	W8	W9	W10	W11
13.00 - 14.00	Lunch													
14.00 - 15.30		T5	T6	T7	T8				W3	W7	W8	W9	W10	W11
15.30 - 16.00	Refreshments													
16.00 - 17.30		T5	T6	T7	T8				W3	W7	W8	W9	W10	W11

Monday
TUTORIALS

T2 Usability Design - Incorporating User Centred Systems Design in the Software Development Process
Jan Gulliksen, Bengt Göransson. (Sweden).
Room: 3/04

Design methods/principles; Applications/case studies; Evaluation; Methodology; Requirements Capture
User Centred Systems Design (UCSD), a process focusing on usability throughout the entire systems development lifecycle. This tutorial present 12 key principles for UCSD, a UCSD process and strategic UCSD. Volume 2, Page 264

T3 Working With and Analyzing Qualitative Data from Field Studies
David Siegel, Susan Dray. (USA).
Room: 3/05

User Experience; Design methods/principles; Methodology
Field studies can produce data that is overwhelming and ambiguous. This tutorial teaches techniques to improve validity and credibility of findings and to help researchers to avoid drowning in data. Volume 2, Page 266

Doctoral Consortium
Room: 3/09 (continues to Tuesday)

Chaired by Ann Blandford, Paul Curzon & Shailey Minocha

Participants:
MeiYii Lim, Sarah McDaid, Nick Fine
Fiona Walsh, Fiona Carroll, Chris Creed
Haliyana Khalid, Joo Ho (Jo) Jung
Rene Keller, Kate Ho, Celine Latulipe
Konstantinos Koukouletsos

See Page 18 for descriptions of each doctoral student's work

Monday
WORKSHOPS

W1 HCI and the Older Population
Room: 1/06

Joy Goodman, Anna Dickinson. (England/Scotland).

Accessibility inc. elderly/disabled; Design methods/principles; HCI and society; Methodology
A forum for current work on older people and HCI, exploring the relevance of inclusive design and asking what makes the older population distinct (or not) from the wider population Volume 2, Page 278

W2 Commercial uses of eyetracking
Natalie Webb, Tony Renshaw. (England).
Room: 3/06

Applications/case studies; Evaluation; Methodology
This workshop is aimed at sharing and defining best practice, ideas and unanswered questions on the scientific and practical use of eyetracking as applied to commercial UCD. Both practitioners and academics are invited. Volume 2, Page 282

W4 Understanding and Designing for Aesthetic Experience
Luigina Ciolfi, Michael Cooke, Olav Bertelsen, Liam Bannon. (Ireland/Denmark).
Room: 3/07

User Experience; Design methods/principles; Theoretical foundations/models of interaction; Pleasurable Products
This workshop will discuss conceptual and methodological tools for / studying aesthetic aspects of human experience of technology. / Participants will present and discuss examples of work dealing with aesthetic issues around the design of technology, and will be involved in small group sessions focused on outstanding issues around this topic. Vol 2, Page 289

W5 Improving and Assessing Pen-Based Input Techniques
Janet Read, Phil Gray. (England/Scotland).
Room: 3/08

Evaluation; Interaction techniques; Supporting Creativity; Novel Interfaces
Volume 2, Page 292

Tuesday
TUTORIALS

T5 Iterative Project Management
John Long, Steve Cummaford. (England).
Room: 3/04

Collaborative working; Information / knowledge management; Methodology
HCI specialists are involved daily with Iterative Projects. This tutorial inducts specialists into the theory, methods and practice tips of Iterative Project Management to support its more effective conduct. Volume 2, Page 268

T6 How to create engaging personas and use these in design projects
Lene Nielsen, Eva Brandt. (Denmark).
Room: 3/05

Design methods/principles; Collaborative working; Methodology; User Experience
This tutorial presents novel ways of working with personas. It introduces two approaches to creating personas - design games with video-snippets and engaging personas. Both are grounded in field data. Volume 2, Page 270

T7 An Introduction to User-Centred Design and Usability
Nigel Grace (England).
Room: 2/07

Design methods/principles; Interaction techniques; Methodology
This tutorial provides an introduction to the science and art of user-centred design based on HFI's extensive experience. Participants will learn from concrete examples from real projects, including tricks of the trade learnt the hard way. Volume 2, Page 274

T8 Cognitive Factors in Design:
Thomas Hewett. (USA).
Room: 3/06

Design methods/principles; Teaching HCI; Supporting Creativity
The tutorial uses "minds-on" exercises to introduce basic processes and phenomena of memory and problem solving. You will gain insights into using these capabilities in designing for the human mind. Volume 2, Page 276

Tuesday
WORKSHOPS

W3 Ecological Validity and Behavioural Measures in the Usability Testing of New Applications
Gitte Lindgaard, Bruce Tsuji, Shamima Khan. (Canada).
Room: 3/03

Evaluation; Design methods/principles; Methodology; User Experience
This workshop will help you identify ecologically valid usability data collection and test methods, measures, and procedures for your applications and products while "cloaking" key details to ensure confidentiality. Volume 2, Page 286

W7 Design and Performance
Catriona Macaulay, Chris Hand, Morna Simpson, Jon Rogers. (Scotland).
Room: 3/10

Design methods/principles

W8 The Role of Emotion in Human-Computer Interaction
Christian Peter, Gerred Blyth. (Germany).
Room: 3/11

Emotion in HCI; Design methods/principles; Theoretical foundations/models of interaction; User Experience
Discuss about where, how, and to which extend emotions are involved in HCI, how to exploit them, which value they might bring in, and wider implications for the HCI community. Volume 2, Page 295

W9 Lost - or liberated? - without theory
Jan Gulliksen, Inger Boivie, Liam Bannon, Lydia Oshlyanski, Harold Thimbleby. (Sweden, Ireland, England, Wales).
Room: 3/12

Methodology; Teaching HCI
What is your conceptual framework, your theory or method? Why is your work valid? This workshop addresses these questions and related problems facing all researchers within HCI, and their solutions. Volume 2, Page 299

W10 Human - Animated Characters Interaction
Daniela Romano, Lynne Hall, Ruth Aylett. (England).
Room: 2/06

Emotion in HCI

W11 Games testing methodologies and their impact on actionable user requirements
Geanbry Demming, Jamie Gerig. (England).
Room: 2/09

Leisure and games
This workshop is aimed at those with an interest in games design and research to explore various commercially feasible approaches to gathering user requirements across various game genres. Volume 2, Page 302

HCI Educators Workshop
Janet Read, Rebecca Kelly, William Wong, Luigina Ciolfi, Sandra Cairncross, Paul Englefield. (England, Ireland, Scotland).
Room: 3/07

Engagability and Design Conference 2005
Chair: John Knight. (England).
Room: 3/08

WELCOME

Chair: Tom McEwan. *Room: Lindsay Stewart*

Welcome and Opening Ceremony (30m)

KEYNOTE

Chair: Gilbert Cockton. *Room: Lindsay Stewart*

The bigger picture for HCI

Mary Czerwinski Microsoft Research

Research shows that if you view information on a very large display, holding all other things constant, you will process that information differently, and with a deeper sense of immersion and anticipation for action. In this talk we will examine a select section of the past and present research in HCI under a microscope, hopefully gleaning a deeper understanding of what we've accomplished together as a field, and where we need to strive further as a scientific discipline. In addition to discussing mature as well as promising new research areas, I will highlight the various theories and methods that were used to drive successful user-centered design in those cases. Finally, I will conclude with a call to arms around the growing need for adaptive designs (for which we have few guidelines), more privacy research (due to the increasingly common sensing devices in our environment), and for in depth examination of how we could leverage digital memories to enhance and enrich our daily lives.

Mary Czerwinski is a Senior Researcher and Manager of the Visualization and Interaction Research group at Microsoft Research. The group is responsible for studying and designing advanced technology and interaction techniques that leverage human capabilities across a wide variety of input and output channels. Mary's primary research areas include spatial cognition, information visualization and task switching. Mary has been an affiliate professor at the Department of Psychology, University of Washington since 1996. She has also held positions at Compaq Computer Corporation, Rice University, Lockheed Engineering and Sciences Corporation, and Bell Communications Research. She received a Ph.D. in Cognitive Psychology from Indiana University in Bloomington. Mary is active in the field of Human-Computer Interaction, publishing and participating in a wide number of conferences, professional venues and journals. More information about Dr. Czerwinski can be found at http://research.microsoft.com/users/marycz.

9.00 - 9.30am
Sneak Preview!
Chair: Lynne Baillie. *Room: Lindsay Stewart*

Poster Boaster Session - 2mins from each poster presented.

11.15am
Students' Welcome
Chair: Cath Kenny. *Room: Lindsay Stewart*

During the coffee break, British HCI Group Student Representative, Cath, will give a short presentation to students. Introduction to the conference for students. Includes humourous guest speakers!

SESSION A: TRUST & EMOTION

Chair: Nick Bryan Kinns. *Room: Lindsay Stewart*

Rich media, poor judgement? A study of media effects on users' trust in expertise (30m)
Jens Riegelsberger, M Angela Sasse,
John D McCarthy. (England).

Multimodal and multimedia interfaces; E-Commerce
Contrasts media bias and ability to detect cues of expertise in rich media (video, avatar, audio, photo) vs. text-only representations. Finds some bias for audio and video. Volume 1, Page 267

"I thought it was terrible and everyone else loved it"
- a new perspective for effective recommender
system design (30m)
Philip Bonhard, M Angela Sasse. (England).

Information / knowledge management; Information retrieval; On-line communities; User Experience
Faced with choice abundance, recommender systems should help us making decisions rather than add complication to them. This paper presents an HCI approach on how this problem can be solved. Volume 1, Page 251

Empathy and enjoyment in instant messaging (15m)
Marc Fabri, David Moore, David Hobbs. (England).

Emotion in HCI; Collaborative working; Virtual reality; User Experience; Pleasurable Products
We investigate how different visualisations of emotion affect the experience of Instant Messaging users. Empathy is identified as a key component for creating a richer and more enjoyable experience. Volume 2, Page 3

The use of misfit analysis in HCI design of shared virtual environments for collaborative design communities (15m)
Phebe Mann. (England).

Collaborative working; Design methods/principles
An investigation into the requirements for HCI design and development of near synchronous shared virtual environments to support colla-borative design communities using Misfit Analysis. Volume 2, Page 52

SESSION B: TABLETS

Chair: Adrian Williamson. *Room: 1/10*

Looking at the computer but doing it on land: children's interactions in a tangible programming space (30m)
Ylva Fernaeus, Jakob Tholander. (Sweden).

HCI for children; Supporting Creativity; Novel Interfaces
We present a tangible programming space and analyse the interactions within a group of children who use it to collaboratively design and build their own animated fantasy world. Volume 1, Page 3

The usability of digital ink technologies
for children and teenagers (30m)
Janet C Read. (England).

HCI for children; Evaluation; Supporting Creativity; Novel Interfaces
An empirical study is described that looks at the usability of the tablet PC and the digital pen for text creation. Two different user groups, children and teenagers are considered. Volume 1, Page 19

PROTEUS: artefact_driven constructionist assessment
within tablet pc_based low_fidelity prototyping (30m)
Dean Mohamedally, Panayiotis Zaphiris, Helen Petrie. (England).

Methodology; Design methods/principles; Mobile interaction/technology; Tool support for design of user interfaces
We have developed a framework describing artefact driven constructionism within HCI prototyping. We have created TabletPC tools using this framework to improve the qualitative assessement within temporal prototype analysis. Volume 1, Page 37

SESSION C: INTERFACES

Chair: Phil Turner. *Room: 2/10*

Distinguishing vibrotactile effects with tactile mouse and trackball (30m)
Jukka Raisamo, Roope Raisamo, Katri Kosonen. (Finland).

Haptic Devices; Multimodal and multimedia interfaces
We studied distinguishing frequency and magnitude of vibro-tactile effects with mouse and trackball. The results show that magnitude was easier to distinguish than frequency, and mouse performed better than trackball. Volume 1, Page 337

Hypergrid - accessing complex information spaces (30m)
Hans_Christian Jetter, Jens Gerken, Werner König, Christian Grün, Harald Reiterer. (Germany).

Visualisation; Evaluation; Information retrieval; Interaction techniques
The HyperGrid offers a new interaction and visualisation concept for non-expert users to easily access complex heterogeneous information spaces, combining well-known table visualisations with zoomable user interface concepts. Volume 1, Page 349

Mixed interaction space - expanding the interaction space with mobile devices (30m)
Thomas Riisgaard Hansen, Eva Eriksson, Andreas Lykke-Olesen. (Denmark).

Mobile interaction/technology; Interaction techniques; The invisible computer; Novel Interfaces
Mixed Interaction Space is a novel interaction technique that uses the camera in mobile devices to track a fixed-point to establish a 3-dimensional interaction space wherein the position and rotation of the device can be tracked. Volume 1, Page 365

SESSION D: METHODS IN ACTION

Chair: Willem-Paul Brinkman. *Room: 1/06*

The reader creates a personal meaning: a comparative study of scenarios and human_centred stories (30m)
Georg Strøm. (Denmark).

Methodology; Design methods/principles; Requirements Capture
This paper describes an empirical study of how software developers create an understanding of written texts, and how stories with emotions improve their understanding of contexts and situations of use. Volume 1, Page 53

What difference do guidelines make? An observational study of online_questionnaire design guidelines put to practical use (30m)
Jo Lumsden, Scott Flinn, Michelle Anderson, Wendy Morgan. (Canada).

Design methods/principles; Applications/case studies; Evaluation; Tool support for design of user interfaces
This paper introduces a comprehensive set of design guidelines for online-questionnaires and discusses the qualitative findings of an observational study of their efficacy when put to practical use. Volume 1, Page 69

Knowledge resources in usability inspection (15m)
Alan Woolrych, Gilbert Cockton, Mark Hindmarch. (England).

Evaluation
Evaluators rely on various knowledge resources to both discover and analyse potential usability problems during inspections. Absence and inappropriate use of resources can significantly affect evaluator performance. Volume 2, Page 15

Evaluating downstream utility of user tests (15m)
Effie Lai-Chong Law. (Switzerland).

Evaluation; Methodology; Theoretical foundations/models of interaction; User Experience
An empirical case study addresses a definitional issue about the effectiveness of usability evaluation methods and a theoretical void in studying the persuasive power of usability evaluation results. Volume 2, Page 21

SESSION A: AWARENESS

Chair: Sandra Cairncross. Room: Lindsay Stewart

Designing interactive systems in context: from prototype to deployment (30m)
Tim Clerckx, Kris Luyten, Karin Coninx. (Belgium).

Adaptive/context-aware interfaces; Mobile interaction/technology; Tool support for design of user interfaces
This paper discusses a technique that can be integrated into existing models and architectures and that supports the interface designer in making consistent context-sensitive user interfaces.
Volume 1, Page 85

Using context awareness to enhance visitor engagement in a gallery space (30m)
Peter Lonsdale, Russell Beale, Will Byrne. (England).

Adaptive/context-aware interfaces; Interaction techniques; Mobile interaction/technology; Novel Interfaces
We describe a context-awareness architecture and client application designed to support and engage learners in a gallery space, allowing context-sensitive content delivery and navigation of content through physical movement. Volume 1, Page 101

Engagement with an interactive museum exhibit (30m)
Naomi Haywood, Paul Cairns. (England).

HCI for children; Collaborative working; Leisure and games; Multimodal and multimedia interfaces
Interactive museum exhibits are valuable as they are engaging and promote learning. Our study investigates the nature of engagement to provide clear hypotheses about the design of future exhibits.
Volume 1, Page 113

SESSION B: PANEL

Chair: Steve Love. Room: 1/10

Ambient intelligence: does private mean public? (90m)
Steve Love, Pam Briggs, Linda Little, Steve Marsh, Lynne Coventry. (England).

HCI and society; Looking ahead/futures; Novel Interfaces
The panel discusses the concept of ambient intelligence and questions whether existing knowledge of people's use of technology in public places is sufficient to understand future interactions in an anytime, anyplace society.
Volume 2, Page 338

SESSION C: IMPACT

Chair: Janet Read. Room: 2/10

Static/animated diagrams and their effect on students perceptions of conceptual understanding in computer aided learning (cal) environments (30m)
Ruqiyabi Naz Awan, Brett Stevens. (England).

Multimodal and multimedia interfaces; E-Learning; User Experience
This study investigated the affect of static/animated diagrams on conceptual understanding. Conceptual understanding was defined as measure of objective accuracy for reported test answers and confidence estimates for perceived understanding. Volume 1, Page 381

Media co-authoring practices in responsive physical environments (30m)
Carlo Jacucci, Helen Pain, John Lee. (Scotland).

Novel Interfaces; Applications/case studies; Collaborative working; HCI for children
We draw from a field study addressing media literacy with tangible media to access digital and time-based representations, and present an approach to devising co-authoring practices in responsive physical environments. Volume 1, Page 391

A novel gesture-based calculator and its design principles (15m)
William Thimbleby, Harold Thimbleby. (Wales).

Design methods/principles; Interaction techniques; Visualisation; User Experience; Novel Interfaces
A new gesture-based user interface, designed for calculators, is surprisingly successful and engaging. The underlying principles of its design are presented. Volume 2, Page 27

On the validity of using first-person shooters for Fitts' law studies (15m)
Julian Looser, Andy Cockburn, Joshua Savage. (New Zealand).

Interaction techniques; Evaluation; Theoretical foundations/models of interaction
Compares targeting performance between normal cursor pointing and pan-based pointing in 3D game environments. Empirical analysis of the two acquisition techniques shows very similar Fitts' Law models. Volume 2, Page 33

SESSION D: PREPARATION FOR PRACTICE

Chair: Olav Bertelsen. Room: 1/06

A computer science HCI course (30m)
Beryl Plimmer. (New Zealand).

Teaching HCI
Computer Science students are not expected to become HCI experts. This paper describes how a group project can be used to draw on students' existing knowledge. They experience designing and prototyping software where design, psychology and computer science each contribute to the solution. Volume 1, Page 185

The Interaction Design Centre, University of Limerick (15m)
Liam Bannon, Luigina Ciolfi. (Ireland).

Theoretical foundations/models of interaction; Collaborative working; Design methods/principles;
Multimodal and multimedia interfaces; Teaching HCI
The IDC focuses on the design, use and evaluation of interactive

technologies in the context of human-centred design, exploring novel interactive artefacts supporting human activities, particularly in collaborative settings. Volume 2, Page 318

HCI Research in The Department of Computing, The Open University, UK (15m)
Shailey Minocha. (England).

Design methods/principles;
E-Commerce; E-Government;
E-Learning; HCI and society; Mobile interaction/technology; Multimodal and multimedia interfaces; Teaching HCI
HCI-research group in Computing-Department of OU is involved in investigating the people-technology-relationship so as to create systems which are usable, fit-for-purpose, and can be adapted for a wide-range of users. Volume 2, Page 321

Centre for HCI Design, University of Manchester (15m)
Alistair Sutcliffe. (England).

HCI and society
One of the largest HCI research groups in the UK, it specialises in applying theory to practical design, with a multidisciplinary approach integrating psychology, HCI and software engineering Volume 2, Page 325

Napier's panoramic vision for HCI (15m)
Tom McEwan, David Benyon. (Scotland).

Collaborative working; E-Government; Information / knowledge management; Looking ahead/futures
HCI research at Napier is not limited to the HCI research group. A critical mass has emerged across several research groups, resulting in several interdisciplinary projects. Volume 2, Page 328

5.45 - 6.30pm

Meeting
Chair: Russell Beale. Room: Riady

Annual General Meeting of the British Human Computer Interaction Group
Russell Beale, Catriona Campbell, Ian Benest, Linda Little.

KEYNOTE

Chair: Jan Gulliksen. Room: Riady

**FloatingWorld™
An alternative computer universe**
Ted Nelson Oxford Internet Institute

Ted Nelson will present the afternoon keynote on the opening day. Ted has been confronting conventional notions of how humans interact with information through technology for over forty years, introducing words and concepts such as hypertext and hypermedia. He has been a thorn in the side of almost every other area of Computing, and we look forward to his engaging with the HCI community. His presentation may be, by turns, informative, provocative and infuriating - but certainly memorable. Ted is now a research fellow at the Oxford Internet Institute. Ted's vision predates the Web considerably, and was a far richer concept, based on respect for the rights of the author, including version management and rights management. His 1974 book Computer Lib/Dream Machines became the handbook of a generation of computer pioneers, and successive books continue to influence us today.

As well as his keynote address, Ted has agreed to demonstrate and discuss his current work, with small groups in a room (to be announced), between 2.30 and 4pm on Industry Day and possibly at other times. Here is a short description from Ted of what he's currently up to:

"Today's computer world is a joy for some but a nightmare for many – of labyrinths, mysterious tangles, incompatibilities. For many people, it can't go on.

FloatingWorld is our answer: a simplified, unified, vivid and principled system for basic computer needs – documents, email and data – based on two very simple ideas:

• flying documents (TransLiterary™ documents, an open-source system)

• data sculptures of crisscrossed lists managed by a radically different internal mechanism – the ZigZag® software engine, a proprietary new universe of data, programming and visualization.

All this will be unified in powerful new panoramas with game-like controls – in swooping, zooming 3D+ spaces that take full advantage of today's high-power graphics boards and bring video-game performance to office work. And all easily portable amongst Windows®, Macintosh® and Linux® (Wintel version)."

5.45pm British HCI Group AGM

7.00pm Conference Dinner
The Caledonian Hotel, West End

INDUSTRY DAY WELCOME

KEYNOTE

Chair: Catriona Campbell. Room: Riady

Usability – who cares? (60m)
Ashley Friedlein. (E-Consultancy.com).

Opening Industry Day and putting usability in the grand scheme of e-business activities into perspective will be Ashley Friedlein, one of the UK leaders in e-commerce. We are very fortunate to have Ashley appearing at Industry Day in Edinburgh, if there is anyone in the UK who knows about e-business it's him!

Just how important does the commercial online marketing and e-commerce sector think usability is? Sure, they're aware of some legal accessibility requirements and some usability best practices, but how much do they really care? How important is it to them now and going forwards? How much are they prepared to invest in usability? Any where will it fit into their development processes? And will they want to do it themselves or call on specialist help?

Ashley is CEO of E-Consultancy. E-consultancy.com has over 30,000 subscribers, all of whom are professionals working with e-commerce and online marketing, so Ashley Friedlein is in the ideal position to tell you the truth about how digital agencies and in-house e-commerce teams across all industry sectors really regard usability

SESSION A:
USABILITY FOR NEW MEDIA 1

Chair: Dave Roberts. Room: Lindsay Stewart

How accessibility guidelines are no substitute for usability testing (30m)
Chris Rourke. (Scotland).

Volume 2, Page 179

Why standards are confusing and what we are doing about it (30m)
Tom Stewart. (England).

Topic to be advised (30m)
Julie Howell. (England).

SESSION B:
THE WORLD OF HCI:

Chair: Susan Turner. Room: 1/10

Use and usefulness of HCI methods: results from an exploratory study among Nordic HCI practitioners (30m)
Ida Bark, Asbjørn Følstad, Jan Gulliksen. (Sweden).

Design methods/principles; Applications/case studies; Collaborative working; Evaluation; Methodology; User Experience; Requirements Capture

An exploratory survey of HCI practitioners in the Nordic countries describing HCI methods used in relation to perceived usefulness of HCI methods, and constraints important for choice of methods
Volume 1, Page 201

Building usability in India: reflections from the Indo-European systems usability partnership (30m)
Andy Smith, Jan Gulliksen, Liam Bannon. (England, Sweden, Ireland).

HCI and society; Looking ahead/futures; Methodology; Teaching HCI

This paper reflects on the activities of the Indo European Systems Usability Partnership. It focuses on interaction design, user centred systems design and cultural differences and concludes with what is needed next to support HCI in India. Volume 1, Page 219

Visualizing the evolution of HCI (30m)
Chaomei Chen, Gulshan Panjwani, Jason Proctor, Kenneth Allendoerfer, Jasna Kuljis, Serge Aluker, David Sturtz, Mirjana Vukovic. (USA).

Visualisation

The evolution of the HCI is visualized and studied, including an author co-citation network, a co-authorship network, and a hybrid network of topical terms and cited articles. Volume 1, Page 233

SESSION C:
SEARCHING

Chair: Ann Blandford. Room: 2/10

Cognitive model working alongside the user (30m)
Ion Juvina, Herre van Oostendorp. (Netherlands).

Theoretical foundations/models of interaction; Tool support for design of user interfaces; User Experience
A cognitive model of web navigation is proposed. The model was used to generate navigation support. The consequences of providing model-generated navigation support to users were experimentally investigated. Volume 1, Page 409

Revisiting web design guidelines by exploring users' expectations, preferences and visual search behaviour (30m)
Ekaterini Tzanidou, Shailey Minocha, Marian Petre, Andrew Grayson. (England).

E-Commerce; Evaluation; Methodology; User Experience
This paper reports two studies of an on-going research-programme of capturing and analysing eye-movement data, aided by conventional usability evaluation techniques such as audio-and-video-protocol analysis, to validate/elaborate web-design guidelines. Volume 1, Page 421

Tools for leisure reading: the challenge of designing emotions (15m)
Valentina Lichtner, Stephanie Wilson.

User Experience; Applications/case studies; Emotion in HCI; Leisure and games
Digital tools for leisure reading, like print books, should be designed to fulfil users' emotional and social experiences. This study highlights opportunities and challenges for such an endeavour. Volume 2, Page 39

Do "attractive things work better"? An exploration of search tool visualisations (15m)
Bejal Chawda, Brock Craft, Paul Cairns, Stefan Ruger, Daniel Heesch. (England).

User Experience; Emotion in HCI; Visualisation; Pleasurable Products
Research conducted to explore Norman's assertion that "attractive things work better" examining the complex relationship between aesthetics and usability using a search tool with variations in information visualisation. Volume 2, Page 46

SESSION D:
INDUSTRY DAY PRESENTATIONS

Chair: Lynne Baillie. Room: 1/06

Applications and benefits of multiple user research methods: a case study (30m)
Elizabeth Parrington, Neha Pathak.

This case study highlights the benefits of using multiple user research methods to explore usability and adoption issues of a call-centre application for a large American telecommunications company. Volume 2, Page 154

Avoiding the trap: alternative business models for HCI (30m)
John Knight. (England).

The high demand for UCD services makes the need to innovate new services seem unnecessary. This paper makes a case for doing so and offers three approaches for developing them.
Volume 2, Page 152

User-centred redesign of the home office public web site (30m)
Jason Ryan, Rachael Rainbow, Sarah Burton-Taylor, Mark Boardman, Emma Charles, Gemma Richardson. (England).

The Home Office has undertaken user research and applied a user-centred methodology to deliver an improved website which meets Home Office strategic objectives and the needs of its intended users. Volume 2, Page 158

SESSION E: PANEL

Chair: Olav Bertelsen. Room: 3/08

HCI Knowledge - Fit for Transfer, Share or Co-Construction? (90m)
Olav W. Bertelsen, Tom McEwan, Susanne Bødker, Dag Svanæs, Rob Procter. (Denmark, Norway, Scotland).

Methodology; Applications/case studies; Collaborative working; Design methods/principles; Evaluation; Theoretical foundations/models of interaction; Requirements Capture
The panel will investigate whether, in relation to knowledge transfer in HCI, there is a common Nordic axis between Scotland and Scandinavia, emphasising co-construction and iteration compared to a more linear instructivist Anglo-Saxon mainstream.

Volume 1 or 2, Page 341

SESSION A: USABILITY FOR NEW MEDIA (2)

Chair: Lynne Coventry. Room: Lindsay Stewart

How software usability is coming of age (60m)
Eric Schaffer. (USA).

Roundtable discussion (30m)
Rourke, Stewart, Howell, Schaffer, others. (Scotland, England, USA).

SESSION B: HCI IN PUBLIC

Chair: Andy Dearden. Room: 1/10

User needs in e-government: conducting policy analysis with models-on-the-web (30m)
Barbara Mirel, Mary Maher, Jina Huh. (USA).

E-Government; Applications/case studies; Design methods/principles; User Experience
We focus on creating e-government tools (models-on-the-web) for enhanced policy analysis and decision making, highlighting what HCI specialists need to target for better fitness-to-purpose and greater transparency. Volume 1, Page 131

Fit for purpose evaluation: the case of a public information kiosk for the socially disadvantaged (30m)
B L William Wong, Suzette Keith, Mark Springett. (England).

Evaluation; Applications/case studies; HCI and society; Methodology
Assesses the deployment of an integrated set of techniques collectively described as fit-for-purpose evaluation in a pilot study of kiosk-based delivery for health and general Citizens Advice Bureau service. Volume 1, Page 149

A visuo_biometric authentication mechanism for older users (30m)
Karen Renaud. (Scotland).

Accessibility inc. elderly/disabled; Applications/case studies; Design methods/principles; User Experience
This paper proposes a technique for matching the risk levels of a web site to the security rating of an authentication mechanism, presents an authentication mechanism to meet the needs of elderly users for protecting low-risk sites, and presents field test data. Volume 1, Page 167

SESSION C: USER EMPOWERMENT

Chair: Grég Leplâtre. Room: 2/10

Comparing automatic and manual zooming methods for acquiring off-screen targets (30m)
Joshua Savage, Andy Cockburn. (New Zealand).

Interaction techniques; Evaluation; Information retrieval; Novel Interfaces
Shows that systems which automatically zoom as scroll speed increases are faster, less work, and preferred to systems that allow parallel manual control of scrolling and zooming.

Volume 1, Page 439

Forward and backward speech skimming with the elastic audio slider (30m)
Wolfgang Hürst, Tobias Lauer, Cédric Bürfent, Georg Götz. (Germany).

Multimodal and multimedia interfaces; Interaction techniques
A new slider-based user interface is proposed which facilitates searching and skimming speech documents while giving intelligible feedback during user interaction, thus making it similar to scrolling through visual data. Volume 1, Page 455

Design patterns for auditory displays (30m)
C Frauenberger, T Stockman, V Putz, R Höldrich. (England, Germany).

Multimodal and multimedia interfaces; Accessibility inc. elderly/disabled; Design methods/principles; Virtual reality
Our work proposes design methods for auditory user interfaces by utilising patterns developed in a mode-independent domain. The approach is evaluated by developing a file-manager application in a virtual audio environment. Volume 1, Page 473

SESSION D: METHODS & TECHNIQUES

Chair: Paul Cairns. Room: 1/06

Harmonious interface design (15m)
Dongjie Xu, Isobel Nicholson. (England).

Design methods/principles; Tool support for design of user interfaces
This is a trial of applying the Chinese cultural idea of harmony to interface design. Six principles are identified and evaluation shows the principles make interfaces rather more pleasing aesthetically. Vol 2, Page 58

Mouse-based rotation and translation (15m)
Celine Latulipe, Craig S. Kaplan, Charles L.A. Clarke.

Interaction techniques; Evaluation
We present experimental results evaluating the effectiveness of different mouse-based techniques for rotating and translating objects. After two hours of exposure, the symmetric dual-mouse technique significantly outperforms the other techniques. Volume 2, Page 63

Visceral interaction (15m)
Masitah Ghazali, Alan Dix. (England).

Interaction techniques; User Experience; Pleasurable Products; Novel Interfaces
This paper re-emphasises the importance of the detailed physical aspects of devices and the way in which these can recruit our natural human abilities. We call this visceral interaction. Volume 2, Page 68

A back-track to satisfaction (15m)
Tony Renshaw, Janet Finlay, David Tyfa, Robert Ward. (England).

Evaluation; Design methods/principles; Information / knowledge management ; User Experience
This paper describes an investigation into the use of a category of eye movement known as a regression as a means of measuring user satisfaction with a visual display. Volume 2, Page 73

Improving speech recognition in a listening interface for young children (15m)
Tony Nicol, Janet Read, Stuart MacFarlane. (England).

Novel Interfaces; Accessibility inc. elderly/disabled; HCI for children; Interaction techniques; Multimodal and multimedia interfaces
This paper discusses the use of speech recognition as an input mode for young children and proposes a new metric for expressing the effectiveness of the recognition technology. Volume 2, Page 77

Distinguishing facial expressions by thermal imaging using facial thermal feature points (15m)
Masood Khan, Robert Ward, Michael Ingleby.

Emotion in HCI; Looking ahead/futures; Multimodal and multimedia interfaces
Investigates infra-red thermal image analysis for distinguishing facial expressions in affective human-computer interaction. Identifies anatomical feature points for analysis. Suggests a complementary approach to visible spectrum image analysis. Volume 2, Page 8

SESSION E: CONNECTING RESEARCH TO PRACTICE

Chair: Paul Curzon. Room: 3/08

Users' satisfaction – an African perspective (15m)
Johnny Shimaneni, Lynne Dunckley.

Evaluation; Accessibility inc. elderly/disabled; Design methods/principles; User Experience
Very few studies of Africans and their usability requirements have been made. This paper investigates user satisfaction questionnaires in a cross-cultural evaluation context involving African and British users. Volume 2, Page 167

Self-service technology in China: exploring usability and consumer issues (15m)
Zhengjie Liu, Lynne Coventry, Rachel White, Huijuan Wu and Graham Johnson.

Cross cultural research, usability evaluation
Volume 2, Page 173

Designing displays for mobile decision support (15m)
Gavin Doherty, Connor Upton. (Ireland).

Design methods/principles; Methodology; Mobile interaction/technology
We examine an awareness issue arising in location-aware mobile decision-support in an industrial setting, and how it may be addressed in the display, by drawing on cognitive work analysis. Volume 2, Page 83

Attempting HCD in the UK public sector (15m)
Tom McEwan. (Scotland).

E-Government; Applications/case studies; Information / knowledge management ; Requirements Capture
A public sector case study describing the challenge of trying to employ HCD on a short-term project for a UK NGO unfamiliar with HCD. Volume 2, Page 161

The IBM Usability Competency Centre (15m)
Dave Roberts, Vanessa Donnelly. (England).

Applications/case studies; E-Commerce; Groupware ; Method-ology; Tool support for design of user interfaces; User Experience
The IBM Usability Competency Centre provides user-related services to IBM customers. The centre uses goal-driven design to ensure that customers get business value from usability and accessibility activities. Volume 2, Page 331

UCL Interaction Centre (15m)
Ann Blandford, Rachel Benedyk, Paul Cairns, Anna Cox, John Dowell. (England).

Methodology; Evaluation; Theoretical foundations/models of interaction; User Experience
UCLIC is a centre of excellence in HCI. It is growing and transforming, with new funding and teaching initiatives. This organisational overview will present an update on recent developments. Volume 2, Page 334

KEYNOTE

Chair: Catriona Campbell. Room: Riady

The challenges of developing and implementing brand experiences (60m)
Keynote Speaker - Jackie Lee-Joe, Orange

Closing Industry Day will be Jackie Lee-Joe, Head of Brand Experience for Orange (Global Brand), Orange was one of the first companies to realise that customers will use a multitude of channels to interact with their brand. To this end, at Orange Jackie is responsible for managing the brand experience across channels.

It could be argued that Usability is a big part of the Brand Experience, and in this talk, Jackie outlines the big picture - and we discover where usability fits in at Orange.

Jackie has worked across airline, retail, internet and telecoms industries. This has included the design and development of the inflight service experience with Ansett Australia, sponsorship and events for the Sydney 2000 Olympics, development of web strategy for marchFIRST and brand strategy and management for Orange.

5.30-8.30
CONFERENCE FRINGE

Chairs Jane Morrison & Dave Roberts. Rooms level 1

In the main foyer a variety of happenings open to everyone and anyone - free to non-delegates including:

Child Computer Interaction (5.30 - 7.00)
Chair: Janet Read. Room: 1/06
This class is an overview of Child Computer Interaction, highlighting methods and guidelines that have been shown to work in design and evaluation of interfaces for children.

Reception for New members (5.30 - 6.00pm)
Chair: Russell Beale. Room: 1/10

Other events to be announced

Followed by 9pm-late Ceilidh at the Hub..

Join us for a frenetic evening at the top of the High Street, just next to the castle.

SESSION A:
CULTURAL DIMENSION

Chair: Shailey Minocha. Room: Lindsay Stewart Lecture Theatre

Cultural representations in web design: differences in emotions and values (30m)
Claire Dormann. (Canada).

Emotion in HCI; E-Commerce; User Experience; Pleasurable Products
Understanding cultural characteristics of web sites is becoming increasingly important. Based on Hofstede's theories, we investigated differences in emotional expressions and values between homepages from countries with different cultural orientations. Volume 1, Page 285

Interaction design for countries with a traditional culture: a comparative study of income levels and cultural values (30m)
Georg Strøm. (Denmark).

Design methods/principles; Methodology; Requirements Capture
This paper describes an empirical study of cultural differences between a low-income traditional country and a high-income developed country, and how the identified differences are applicable in other low-income countries. Volume 1, Page 301

Researching culture and usability - a conceptual model of usability (30m)
Gabrielle Ford, Paula Kotzé. (South Africa).

Accessibility inc. elderly/disabled; Adaptive/context-aware interfaces; Design methods/principles
This paper presents a conceptual model of usability for doing research related to culture and usability, as well as strategies to control the variables of the conceptual model. Volume 1, Page 317

SESSION B: PANEL

Chair: Harold Thimbleby. Room: 1/10

Lost - or liberated? - without theory. Can we come to a consensus? (90m)
Harold Thimbleby, Jan Gulliksen, Lidia Oshlyansky, Liam Bannon, Inger Boivie. (Wales, Sweden, England, Ireland,).

Methodology; Looking ahead/futures; Teaching HCI; Novel Interfaces
HCI is multidisciplinary and multi-theoretical; choosing theoretical frameworks is difficult. The panel presents an opportunity to debate, discuss and refine the outcomes of the "Lost or liberated without theory" workshop. Volume 2, Page 344

SESSION C:
CUSTOM INTERFACES

Chair: Michael Smyth. Room: 2/10

Towards customized user interface skins: investigating user personality and skin colour (15m)
Batul Saati, May Salem, Willem-Paul Brinkman. (England).

Adaptive/context-aware interfaces; Pleasurable Products; Requirements Capture
Presents the findings of two exploratory pilot studies that suggest that designers could develop customized user interface skins based on personality data obtained from recorded user interaction behaviour. Volume 2, Page 89

Frequency-based detection of task switches (15m)
Rahul Nair, Stephen Voida, Elizabeth Mynatt.

(Adaptive/context-aware interfaces; The invisible computer)
This paper presents a novel method of detecting user task switches using the frequency of interaction with windows on a desktop computer. Results of a user study are also presented. Volume 2, Page 94

The use of item response theory in the development and application of a user model for automatic feedback: a case study (15m)
Mariana Lilley, Trevor Barker. (England).

(Applications/case studies; Adaptive/context-aware interfaces; E-Learning; Evaluation)
In the study reported here we were able to show that a user model based on learners' proficiency levels was effective when applied to the generation of personalised feedback. Volume 2, Page 99

Designing the learning interface using cognitive styles (15m)
Elizabeth Uruchurtu, Lachlan MacKinnon, Roger Rist. (Scotland).

Adaptive/context-aware interfaces; Applications/case studies; E-Learning; Theoretical foundations/models of interaction
We investigate the relationship between cognitive styles and learning outcomes. A clear relationship is determined between interface affect and learning performance, but no relationship to cognitive style is found. Volume 2, Page 105

Audio-visual data skimming for e-learning applications (15m)
Wolfgang Hürst, Tobias Lauer, Georg Götz. (Germany).

Multimodal and multimedia interfaces; E-Learning; Novel Interfaces
An interface design is proposed which extends common media player interfaces by offering a new way for interactive, synchronised audio-visual data browsing, allowing for skimming at variable speed and granularity levels. Volume 2, Page 111

Evaluating egocentric selection techniques in a tabletop virtual environment for urban planning (15m)
Peter Vandoren, Maarten Cardinaels, Mieke Haesen, Chris Raymaekers, Karin Coninx. (Belgium).

Interaction techniques; Evaluation; Virtual reality; Novel Interfaces
This paper presents the results of a usability study, which compares a hybrid 2D/3D object selection technique to the ray cast selection technique in a tabletop virtual environment for urban planning. Volume 2, Page 116

SESSION D:
MATCHING CAPABILITIES

Chair: Marc Fabri. Room: 1/06

A tale of two hierarchies: the surprising impact of age on hypertext browsing (15m)
Sharon McDonald, Mark Hindmarch. (England).

Information retrieval
This study examined individual differences and the depth vs. breadth issue in hypertext navigation. Age was the primary significant factor. Older participants performed better with narrow deep hierarchies than younger participants. Volume 2, Page 121

Enhancing web accessibility for the visually impaired using RSS (15m)
Philip Strain, Graham McAllister, Ravi Kuber, Wai Yu, Emma Murphy. (England).

Accessibility inc. elderly/disabled; Evaluation; Information retrieval
This paper details a plug-in developed for Mozilla Firefox to enhance access to the internet for the visually-impaired using RSS. Volume 2, Page 127

Colour interfaces for colour blind users (15m)
Luke Jefferson, Richard Harvey. (England).

Accessibility inc. elderly/disabled; Tool support for design of user interfaces; Visualisation; User Experience
This paper proposes a colour mapping procedure to improve colour information accessibility for colour blind computer users. Vol 2, Page 133

Capability, acceptability and aspiration for: collecting accessibility data with prototypes (15m)
Brendan Cassidy, Gilbert Cockton, Chris Bloor, Lynne Coventry. (England).

Accessibility inc. elderly/disabled
Argues for a focus on capabilities, acceptability and aspiration when collecting accessibility data, gives details of an ATM test rig and reports early results of a study using the rig. Volume 2, Page 138

Evaluation of computer access solutions for students with quadriplegia and athetoid (15m)
Louisa Wong, David Man. (China).

Accessibility inc. elderly/disabled; Applications/case studies; Evaluation; HCI for children
This paper compares efficacies of pointer interfaces for students with special needs. The methodology may help rehabilitation professionals to evaluate the most appropriate device for this group of end-users. Volume 2, Page 144

KEYNOTE

Chair: David Benyon. Room: Lindsay Stewart Lecture Theatre

Grand challenges in HCI: the quest for theory-led design (60m)
Alistair Sutcliffe. (University of Manchester, England).

In this presentation I will take up the conference theme in two ways. First by examining how HCI needs to develop intellectually to respond to the computer science grand challenges; and secondly by analysing how the impact of the considerable success we have already achieved can be leveraged for greater impact in the wider world. My perspective on the bigger picture will range from design challenges for socio technical, mobile and collaborative systems to examining HCI's role the interactive system design process and software engineering. I will start by returning to previous conference plenaries, in particular Phil Barnard's call for theory motivated design in 1998, and elaborate this theme as the first grand challenge for HCI. I will review the history of theoretical endeavour and offer some reflections on the reasons why this tradition has failed to make a significant impact so far, and offer by views on how it could and should succeed in the future. To address the second theme, impact of HCI in the wider world, I will practice what I preach and take a theoretically motivated, but light hearted view on the state of the HCI community in 2005. In this theme a social psychological approach will be adopted to reflect on our community, its successes, failures, and impacts on the wider world. I will conclude with suggestions for future intellectual directions we might wish to take, and policies that the community might adopt to enhance its competitive advantage in the academic environment and the more demanding, competitive world of industrial design.

Alistair Sutcliffe is Professor of Systems Engineering in the School of Informatics, University of Manchester. He has been principle investigator on numerous EPSRC and European Union projects. He researches in Human Computer Interaction and software engineering with particular interests in interaction theory, design methods for multimedia, virtual reality, and web interfaces, usability evaluation methods, and design of complex socio-technical systems. He is on the editorial board of ACM TOCHI, REJ and JASE. Alistair Sutcliffe is editor of the ISO standard 14915 part 3, on Multimedia user interface design and has over 200 publications including five books and several edited volumes of papers. More information about Alistair Sutcliffe can be found at http://www.co.umist.ac.uk/hci_design/alistair-stdpage.htm.

Volume 1, Page 491

12.30-1PM

FAREWELL

Chair: Tom McEwan & Nick Bryan-Kinns. Room: Lindsay Stewart

Closing Ceremony & Hand-over to HCI2006 (30m)

DOCTORAL CONSORTIUM

Room: 3/09

Emotive Tour Guide System
MeiYii Lim. (Scotland).

Adaptive/context-aware interfaces; Mobile interaction/technology; Multimodal and multimedia interfaces; Novel Interfaces

The Emotive Tour Guide System is a mobile context-aware and spatial-aware system, including an 'intelligent emotional guide with personality', offering the user an affective multimodal interaction interface. Volume 2, Page 218

A model for human-computer interaction based on human-human communication
Sarah McDaid. (England).

Theoretical foundations/models of interaction

A layered model of interaction, based on human-human communication, providing a framework for the design and evaluation of human-computer interfaces that embody more natural styles of communication. Volume 2, Page 215

Personalising Interaction using Profiled User Interface Skins
Nick Fine.

Design methods/principles; Tool support for design of user interfaces; User Experience; Novel Interfaces

Using individual differences to segment large user populations to determine whether more personally relevant interaction can be designed for, using profiled user interface skins by correlating questionnaire and behavioural data. Volume 2, Page 194

Enhancing user to device interaction by modelling their relationship
Fiona Walsh. (Scotland).

Adaptive/context-aware interfaces; Mobile interaction/technology

In this research we will investigate modelling the relationship between a user, their mobile device and their information, and look at the potential for tailoring the interaction between all three. Volume 2, Page 221

Developing a Visual-Narrative Model to Enhance Engagement in Virtual Reality
Fiona Carroll. (Scotland).

User Experience; E-Learning; Virtual reality; Supporting Creativity

This short paper introduces the idea of using images to tell stories in virtual environments in order to create engaging (visually and intellectually stimulating) experiences. Volume 2, Page 188

Social-Emotional Relationships With Computers
Chris Creed. (England).

Emotion in HCI; Interaction techniques; User Experience

Emotional expressions in agents have a psychological impact upon users. The strength of this response will be investigated by determining whether emotional agents have the potential to persuade more effectively. Volume 2, Page 191

Studying user experience in photo sharing
Haliyana Khalid. (England).

User Experience; Collaborative working; Emotion in HCI; HCI and society; HCI for children

This study aims to unearth the issues of collaborative work, emotions and social interaction among adults and children in making their experience in photo sharing more natural, engaging and satisfying. Volume 2, Page 203

Desinging pleasurable social interfaces
Joo Ho (Jo) Jung.

Design methods/principles; E-Commerce; Emotion in HCI

This research investigates the design of socially and emotionally engaging user interfaces for e-commerce. An outcome of the research is a method for identifying and interpreting social rules. Volume 2, Page 200

Interfaces to Support Engineering Change
Rene Keller. (England).

Visualisation; Design methods/principles; Interaction techniques; Novel Interfaces

This research project aims at finding new interfaces for linkage models used in an engineering design context and comparing these new approaches to existing methods. Volume 2, Page 206

Using Current Systems as a Resource for Systems Design
Kate Ho. (Scotland).

Design methods/principles; Looking ahead/futures; User Experience

The need to design systems which are situated within the place of use is widely recognised. Using co-realisation, I examine how current systems can be seen as a resource. Volume 2, Page 197

Dual Cursor Interaction Techniques
Celine Latulipe.

Interaction techniques; Evaluation; Theoretical foundations/models of interaction

I present mouse-based, symmetric, bimanual interaction techniques as a solution to both the lack of spatial input and the lack of natural interaction techniques for direct manipulation in desktop interfaces. Volume 2, Page 212

Evaluating the effectiveness of guidelines and patterns for web design
Konstantinos Koukouletsos. (England).

Design methods/principles; Evaluation; Teaching HCI

This research investigates the practical use of design patterns for web interface design by comparing them with guidelines in two activities: evaluation and design of web pages. Volume 2, Page 209

POSTERS

Room: 2/05

Speckled Computing: A new Challenge for Human-Computer Interaction
Matthew Leach, David Benyon. (Scotland).

The invisible computer; Leisure and games; Looking ahead/futures; Novel Interfaces

Developing invisible computers removes the traditional methods of interaction. Through Augmented Reality gaming we explore the new HCI methods that this development may require. Volume 2, Page 226

Techniques for tracking and analyzing eye region biometrics in HCI scenarios
Ric Heishman, William Powers, Zoran Duric.

Interaction techniques; HCI and society; Safety critical systems

Describes a system comprising minimally intrusive computer vision techniques for analyzing eye region biometrics. Empirical data involving the use of eye blinks in affective and cognitive state classification is presented. Volume 2, Page 229

The Listening Computer
John Rosbottom, Mike Jackson. (England).

Applications/case studies; Interaction techniques

Can an existing application be easily extended to work with speech input and output? Who might benefit from such an extension? Why isn't speech technology used more? Volume 2, Page 232

Grammatically interpreted task analysis for supply chain forecasting
Stavros Asimakopoulos, Robert Fildes, Alan Dix. (England).

Interaction techniques; User Experience

We are applying an approach which uses a parallel to the grammar of everyday language to conceptually model the set of tasks and sub-tasks to scenarios. Volume 2, Page 235

A set of pen-shaped input devices with specific affordances
Hidetoshi Nonaka, Masahito Kurihara. (Japan).

Novel Interfaces; Pleasurable Products

A set of pen-shaped input devices are introduced. They are based on respective affordances other than writing, drawing, or pointing. Volume 2, Page 238

Social interaction in game communities and second language learning
Chee Siang Ang, Panayiotis Zaphiris, Stephanie Wilson. ().

On-line communities; E-Learning

This poster examines models of social interaction in game communities that could be harnessed to support learning and especially the learning of a second language. Volume 2, Page 241

Using a time and location combination clustering model for browsing personal images
Chufeng Chen, Michael Oakes, Sharon McDonald.

Information retrieval

This poster describes a new time and location combination event-clustering model which can separate different events in collections of personal images taken by a digital camera. Volume 2, Page 244

Towards a unified systemic view of HCI
Wolfgang Reitberger, Bernd Ploderer.

Theoretical foundations/models of interaction; Design methods/principles; Methodology

We want to address the fragmentation of HCI theories by suggesting a unified view. Drawing from systems theory we integrate existing theories, resolve contradictions and formalise them. Volume 2, Page 247

Developing mobile multimodal applications
Raimund Schatz, Rainer Simon, Hermann Anegg, Florian Wegscheider, Georg Niklfeld.

Multimodal and multimedia interfaces; Applications/case studies; Mobile interaction/technology; Tool support for design of user interfaces

This poster discusses three aspects of mobile multimodal applications and middleware: device-independent authoring, application development, and user involvement throughout the development process, particularly concerning usage of different modalities in various contexts. Volume 2, Page 250

Studying the visualization of complex phenomena: the virtual laboratory for medical students
Teija Vainio, Kati Hakkarainen, Jarmo Levonen.

Multimodal and multimedia interfaces; E-Learning; Visualisation

This poster introduces some preliminary findings of Virtual Laboratory Project, in which our focus is on visualizing complex medical information with hypermedia representations for medical students. Volume 2, Page 253

Creating an emotionally reactive computer game responding to affective cues in speech
Christian Jones, James Sutherland. (Scotland).

Emotion in HCI; Leisure and games; Virtual reality

Developing a computer game which analyses and recognises the emotional state of the game player and, in response, modifies the physical and behavioural attributes of the game character. Volume 2, Page 256

Users as e-govt evaluators: better or worse than IT professionals
Philip Scown, Andrew Potter.

Evaluation; E-Government; Methodology; User Experience

This paper reports our work on developing an economic method of involving "customers" in the evaluation of an e-government web site. Customers are compared to staff, and produce different results. Volume 2, Page 259

INTERACTIVE EXPERIENCES

Room: 2/06

Getting the GIST of web sites
Chris Roast, Simon Polovina. (England).

Tool support for design of user interfaces; Applications/case studies; Design methods/principles; Evaluation; Visualisation

Experience "GIST" a novel tool for enabling the assessment of the visual design of websites. It allows designers to judge whether hard-to-judge visual design objectives have been realised. Volume 2, Page 306

Bus timetables in a jar
Tom McEwan, Chris Jamieson. (Scotland).

Mobile interaction/technology; HCI and society; Tool support for design of user interfaces; Requirements Capture

This interactive experience gives delegates with J2ME-enabled devices timetables for the bus services to the conference venue. Attitudes to buses will be captured. Volume 2, Page 311

Conference Exhibition

Organised by Stephen Brockbank of **Solas Computer Services**.
http://www.ed-solas.co.uk

HCI2005 are proud to welcome this year's exhibitors, whose support helps make the conference viable. The exhibition occupies the concourse between the conference information deskand the Lindsay Stewart Lecture Theatre on level 2, and conference posters and the Interactive Experiences are nearby in 2/05 and 2/06. The exhibition will run all day on Werdnesday and Thursday and until lunchtime on Friday. Not all exhibitors will be present every day, so take the chance to view their stalls while you can! Midmorning and afternoon coffee will beserved from several places, one of which is adjacent to the exhibition.

We will be demonstrating our low cost eye tracker with the acclaimed GazeTracker software from Eye Response Technology. This innovative solution is the most cost effective, fully integrated gaze tracking and analysis suite available. As well as analysing gaze patterns whilst viewing still images and video, GazeTracker is the complete solution for Human Computer Interaction applications. It automatically records user interaction with any Windows application simultaneously with gaze direction. For easy analysis Websites can be automatically parsed into LookZones based upon page contents. Integrated tools provide a wealth of analysis, visualisation and statistical functions. Visual scan patterns are reduced to fixation statistics and graphically presented. Unique 3D visualisation of LookZone interaction simplifies data interpretation and presentation. GazeTracker can create movies from all of its analysis modes, including software interaction, overlaying the gaze direction, in real-time. Where a remote viewing solution is needed CRS offer FaceLab for use with GazeTracker. **http://www.crsltd.com**

Graham Technology is a leading business process improvement organization, specalising in multi-channel process management, workflow and integration. Included in Graham Technology's rich product suite is Agent247; a highly innovative product offering which facilitates natural language user interaction. The Agent247 capability delivers business processes over self-service channels - notably kiosks with 3D avatars, natural-language IVR, text-chat and SMS – allowing users to interact with computer systems as they would do with another human being.

Human Factors International (HFI) helps customers create Web sites,applications, and Intranets that are intuitive and easy to use. Our work is based on The Schaffer-Weinschenk Method™, an ISO certifiable process in the science of human factors engineering. HFI provides certification for practitioners of usability. Since 1981, HFI has solved thousands of real-world usability challenges for hundreds of major clients. HFI's technical staff, most with Ph.D.'s in ergonomics, is known for being scientific, pragmatic, responsive, and creative. We have worked on more than 2,300 interface projects and taught over 1,400 courses on interface design. We are known for completing projects reliably — our on-time, on-budget rate is 98%. HFI headquarters are in Fairfield, IA, with regional offices in Boston, MA, Baltimore, MD and San Francisco, CA, and international offices in London, UK, Mumbai and Bangalore, India, and Singapore. For more information, please visit our Web site at www.humanfactors.com

Pearson Education are leading publishers in HCI and related topics, with over 50 texts in the areas of usability, human-computer interaction, interaction/web design, software architecture, gaming, and information visualisation. Best-selling publications include Dix/Finlay/Abowd/Beale, Shneiderman/Plaisant, Newman/Lamming, Nielson and more. For more information, visit www.pearsoned.co.uk/bookshop

The latest, distinctly different, new offerings from Pearson are:
Designing Interactive Systems: People, Activities, Contexts, Technologies by Benyon/Turner/Turner
Bringing together best practice and experience from HCI and interaction design, and with the use of running case studies, the authors move from the familiar to the conceptual, making this book ideal for students of all levels, as well as industry professionals.

User Interface Design: A Software Engineering Perspective by Soren Lauesen
This book bridges the gap between software designers and HCI specialists. The author shows how to design screens in a systematic way so that they are easy to understand and support the user interface efficiently.

Conference Exhibition

Springer is one of the most renowned scientific publishing companies in the world. Its publications cover subjects ranging from the natural sciences, mathematics, engineering and computer science to medicine and psychology. Springer's authors are highly qualified experts. They include a large number of Nobel prizewinners and more are added every year. With 1250 journals and 3,500 books published each year, Springer Science+Business Media has offices in 18 different countries and is one of the world's leading of scientific and specialist literature.

If you are interested in writing for Springer Computer Science please contact Beverley.Ford@Springer-sbm.com

TechSmith's flagship software, SnagIt and Camtasia Studio, enable customers to create visual content for teaching, training, documentation, and business presentations. TechSmith's latest product, Morae, is the first and only all-digital solution for recording and analyzing user experience and usability testing by recording and synchronizing the user, the application, and the events. All data is saved and indexed automatically and can be searched with ease. Morae has become the standard for usability testing among professionals worldwide.

For nearly a century John Wiley & Sons Publishers has published textbooks of the highest quality, helping teachers teach, and students learn. We have always strived to provide books which deal with their subject matter with thought, care and attention to detail. We are currently doing all we can to expand our HCI range, and have exciting new titles such as Mobile Interaction Design by Matt Jones & Gary Marsden publishing later this year, whilst new editions of classic syllabus defining texts such as the Preece, Rogers & Sharp book - Interaction Design, are on their way next year. Please feel free to drop by our stand and see if we have any titles which interest you. We want to provide you with the books you need.

Bunnyfoot is the UK's premier interactive behaviour consultancy. We pioneered the use of eye tracking for usability testing and now offer specific tailored studies - to give radical insights into which elements of your site/system gain attention, allowing you to tailor key information for the most impact.

Bunnyfoot is the sole UK reseller of Tobii eye-trackers.
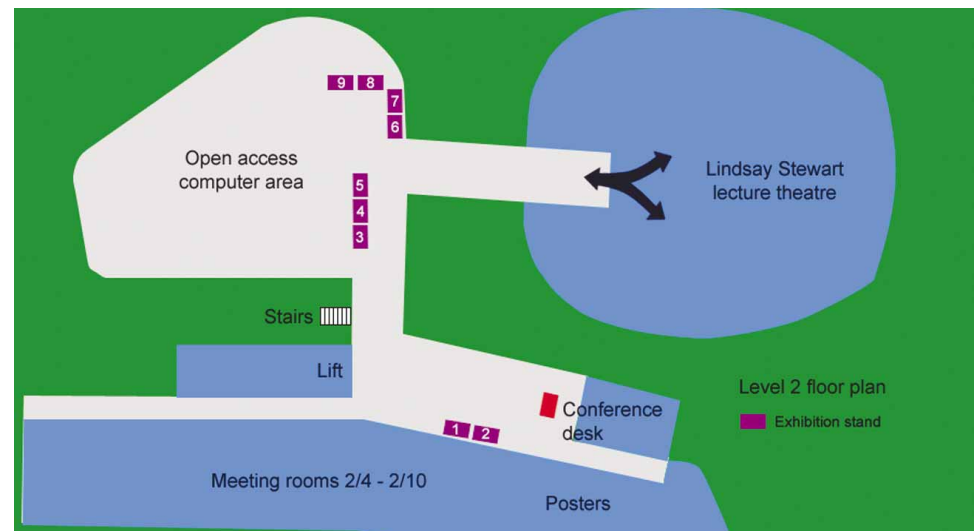
Location of Napier University Campus

HCI 2005 is held at the newly rebuilt Craiglockhart Campus, 3km south-west of Edinburgh city centre. There is car parking, but most hotel and B&B accommodation is in areas of restricted parking, so each delegate will get free one-day scratch-cards for Lothian Buses, who have 25 buses every hour to the venue, taking around 15m from the city centre. All conference talks, tutorials and workshops take place in the same building.

Road

Leave the city by-pass at the Dreghorn Junction follow the Dreghorn Link and turn left at the mini roundabout onto Redford Road. At the end of Redford Road turn right onto Colinton Road. Continue to the roundabout, turn left at the roundabout and follow Colinton Road to the traffic lights, turn right at the lights onto Glenlockhart Road, Craiglockhart Campus is on your right hand side.

Travel in Edinburgh

Most delegates are staying near Haymarket railway station at the west end of Edinburgh City Centre. This location is only 10-15 minutes from the venue by bus You can walk from here to both city centre social events, or take any of a variety of buses a couple fo stops to Princes Street. Edinburgh is not a great place to drive or park – half of the residents don't even have access to a car, so the buses are the best way to get around. We give you a free scratchcard dayticket for the bus for each day you are a delegate, which you must date before use – follow the instructions.

City Centre to Venue

From Morrison Circus (The University Halls of Residence) and the Morrison St Premier Travel Inn, go to the bus stop in Dalry Road and catch a **number 4 bus** (at time of printing, buses leave Haymarket at 0744, 0805, 0835, 0855, 0918, 0938) the venue. The route is: Haymarket, Dalry Road, Ardmillan Terrace, Slateford Road, Craiglockhart Avenue, and get off first stop in Colinton Road.

For other hotels, take one of the following buses which go from the city centre via Tollcross towards Craiglockhart

No 23 bus: (direct into Craiglockhart Campus) every 10mins

No 10 and 27 buses: (route: Tollcross, Home Street, Gilmore Place, Granville Terrace, Polwarth Gardens, Polwarth Grove, Polwarth Terrace, exit on Colinton Road at junction with Craiglockhart Avenue) – 10 buses per hour

No 45 bus: (route: Leven Street, Bruntsfield Place, Colinton Road (go past Napier's Merchiston campus on right and look out for the large Napier University sign on left 2km further on, at the top of Craiglockhart Avenue), every 30mins

Return buses continue until 11pm, though service is less frequent after 7pm.

Riccarton to Venue and City

Travel from Heriot Watt University accommodation (Riccarton) to the conference venue has two options – either a direct bus which is relatively slow and infrequent, or a bus to 0.5km away followed by a walk up the hill (or transfer to the number 4). At the time of printing **the direct bus (No 45)** leaves Riccarton at 0723, 0752, 0823, 0857, 0929 and takes around 25-30m – exit at Craiglockhart Campus on Colinton Road/Craiglockhart Avenue.

The next closest service is **No 34**, which is fast (15m) and frequent (every 10m) but the nearest stop is at the foot of Craiglockhart Road (get off at the Water of Leith Visitor Centre - a few stops after Longstone). The 34 carries on into the city centre for evening social events. Riccarton residents can also get No 25 into the city centre (but this does not go near the venue, though it also runs all night, as the N25, but delegates' free bus tickets are not valid on the night service).

Figure 1: from Morrison Circus to Dalry Road

Figure 2: Haymarket: Dalry Rd. bus-stop to venue on right, from venue on left

Figure 3: From Dalry Road to Morrison Circus

Figure 4: Craiglockhart Campus from Colinton Road

Figure 5: Craiglockhart Campus from Craiglockhart Avenue

Registration & Help Desk

The main helpdesk is on the balcony overlooking the main entrance to the Craiglockhart Campus, up one flight of stairs (a lift is available), and open 8.30am-6pm each day, closing at 1.30pm on Friday. Registration and getting keys for hall of residence will be done here except as noted below.

At peak times (Mon & Tue 8.30-9.30, Tue 5.30-7pm, Wed 8.30-9.30) Registration will take place on level 1, near the entrance. Keys for halls of residence will be available from the Student Volunteers flat, Block 4, Morrison Circus from 3pm Sunday until 8am Monday and between 6.30pm and 8am on the other days. Between 8.30am and 6pm, the keys will be at the registration desks. 3-day delegates receive a copy of both sets of proceedings and a delegate bag. Other delegates may purchase these items from the help desk, and a variety of other merchandise will be on sale from earlier years.

Delegates' Luggage

A room will be available on the final day from 9am for delegates to leave luggage in. Every care will be taken, but luggage is left at your own risk.

Catering

The main catering takes place in the Chapel Restaurant, where a buffet lunch is supplied each day. There will inevitably be queues at peak periods, so for those who wish to take part in the various lunchtime meetings, an alternative "brown bag" lunch is available for those who book it in advance.

Internet and Wireless Access

Delegates are able to get a log-in and password to use the university open-access computer facilities. Additionally delegates' laptops can be enabled for use of the wireless network. In both cases you will need to complete the forms supplied in your delegate pack and return these to the C&IT Helpdesk on level 2.

> **Student Volunteer Emergency Support**
> **07835 639 832**

The Social Programme

Edinburgh is renowned for hospitality and entertainment, and HCI 2005 will seek to defend that reputation. We begin with a drinks reception at the Craiglockhart venue on the Tuesday evening for delegates at the pre-conference events and those arriving from afar. The conference dinner will take place on the Wednesday evening at **the Caledonian Hotel**, the oldest and most prestigious hotel in the West End of Edinburgh, with a unique perspective on Edinburgh Castle. On the Thursday evening we offer a late-night event at **the Hub**, the centre of the Edinburgh Festival at the top of the Royal Mile, offering traditional Scottish music and dancing or drinks and chat, depending on preference. We will also provide advice and guidance for delegates on experiencing the culture and cuisine of Edinburgh, one of the most vibrant small cities in the world. **Have fun!!**

cheers, Lachlan

Lunch in the Chapel
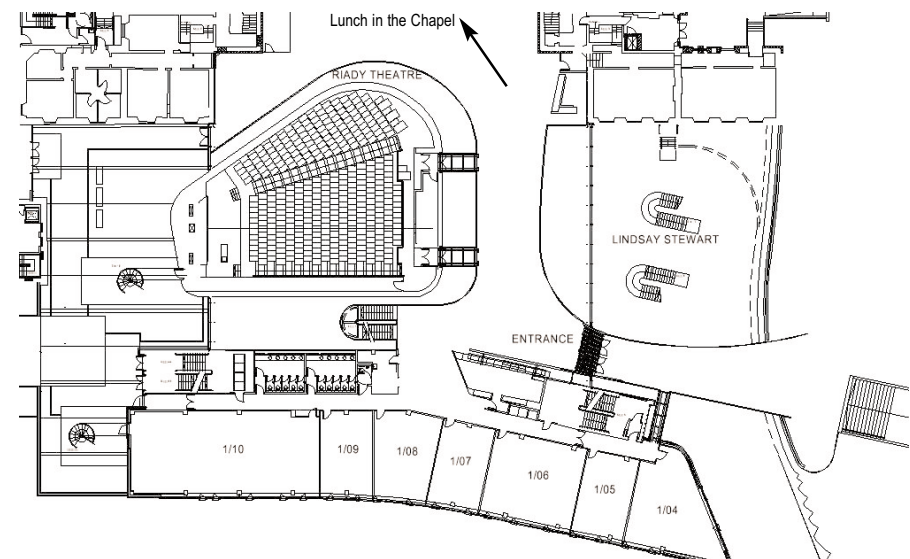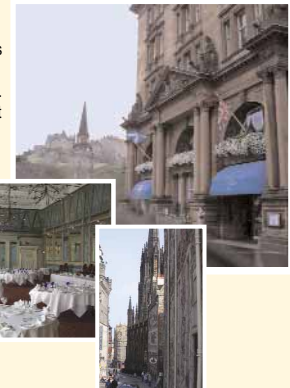
Wednesday 7th September 2005

	Lindsay Stewart	Room 1/10	Room 2/10	Room 1/06	Room 3/08	Floors 2 & 3
9.00 - 9.30	Sneak Preview! The 'Poster Boaster' Session: Lindsay Stewart Lecture Theatre					Exhibition, Posters & Interactive Experiences
9.30 - 10.00	Opening Ceremony: Lindsay Stewart Lecture Theatre					
10.00 - 11.00	Keynote: Mary Czerwinski (Microsoft Research) - Lindsay Stewart Lecture Theatre					
11.00 - 11.30	Refreshments					
11.30- 13.00	Trusting Each Other	Tablets	Hand and Eye	Methods in Action		
13.00 - 14.30	Lunch					
14.30 - 16.00	Awareness	Impact	Panel	Preperation for Practice		
16.00 - 16.30	Refreshments					
16.30 - 17.30	Keynote: Ted Nelson (OII) - Riady Lecture Theatre					
17.45 - 18.30	British HCI Group AGM					
19.00 - late	Conference Dinner at the Caledonian Hotel, West End					

Thursday 8th September 2005

	Lindsay Stewart	Room 1/10	Room 2/10	Room 1/06	Room 3/08	Floors 2 & 3
10.00 - 11.00	Industry Day Keynote: Ashley Friedlein (e-Consultancy.com) - Riady Lecture Theatre					Exhibition, Posters & Interactive Experiences
10.30 - 11.00	Refreshments					
11.00 - 13.00	Usability for New Media 1	The World of HCI Interfaces	Searching	Industrial Presentations	Panel	
13.00 - 14.30	Lunch					
14.30 - 16.00	Usability for New Media 2	HCI in Public	User Empowerment	Methods and Techniques	Connecting Research to Practice	
16.00 - 16.30	Refreshments					
16.30 - 17.30	Industry Day Keynote: Jackie Lee-Joe (Orange) - Riady Lecture Theatre					
17.30 - 18.00	Free Time					
17.30 - 18.00	Reception for New Members					
17.30 - 20.30	Conference Fringe / Masterclasses etc (all on level 1 and open to non-delegates)					
21.00 - 23.00	Ceilidh Dance at The Hub, Castlehill (top of the Royal Mile)					

Friday 9th September 2005

	Lindsay Stewart	Room 1/10	Room 2/10	Room 1/06	Room 3/08	Floors 2 & 3
9.30 - 11.00	Cultural Dimensions	Panel	Custom Interfaces	Matching Capabilities		Exhibition, Posters & Interactive Experiences
11.00 - 11.30	Refreshments					
11.30 - 12.30	Closing Keynote: Alistair Sutcliffe (University of Manchester) - Lindsay Stewart Lecture Theatre					
12.30 - 13.00	HCI2005 Closing Ceremony and handover to HCI2006 - Lindsay Stewart Lecture Theatre					

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the bigger picture
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