

## HCI -- world wide

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**ABSTRACT** This workshop will be organized under the patronage of IFIP TC 13 "Human Computer Interaction" and establishes a platform to discuss international aspects of Human-Computer Interaction in different countries all over the world.

**KEYWORDS** international HCI, meta base, IFIP TC 13

## 1. OUTLINE OF THE THEME AND GOALS

The workshop is intended to address the status of Human-Computer Interaction (HCI) research and practise in different countries, with special attention paid to development countries. The outcome of the workshop should be an assessment of the HCI maturities and needs in different countries world wide, and the influence of their various cultures. One concrete outcome is a minimal definition/specification of an international resource database, ensuring that all participants will have the feeling that most of all relevant aspects are covered. This data-/meta-base will be accessible later on the World Wide Web under the patronage of IFIP TC 13.

Different cultures in different nations lead to different views on modern technology. These differences entail different needs and usage of technology. An overview and a comparison of these differences can help to get a better understanding of HCI activities world wide.

The main goal of the workshop is to broaden the knowledge assets to cover most relevant aspects of HCI on a truly international level, and to initiate a knowledge base that will cover international, rather than western/english aspects of HCI. This knowledge base will contain resources that can be of interest for international networking activities, and for local HCI communities, within single countries, cultures, too.

## 2. STATEMENTS OF HCI PEOPLE

World wide several HCI specialists were asked to describe their positions to the following three questions:

- (1) Why is the topic "HCI world wide" interesting?
- (2) What should be discussed at this WS?
- (3) Who should participate, and/or be involved (organizations, people, nations)?

### 2.1 Africa

Edwin Blake is Professor and Head of Department of Computer Science (University of Cape Town, South Africa, edwin@cs.uct.ac.za). He wrote:

*(ad 1):* The global information society is upon us. A developing nation can exploit Information Technology (IT) to leapfrog into the new information age, or it can face new and debilitating forms of underdevelopment. Appropriate applications and content relevant to people's needs can only be developed via user centred design. The human aspects--usability, usefulness, empowerment, appropriateness, linguistic and cultural compatibility--are often more important to success or failure than the hardware and software. Currently, the majority of software applications originate in the developed world. Many are excellent, but sometimes the needs of the developing world are so different that completely new applications should be developed. For example, we have recently developed a pen based iconic interface that allows illiterate trackers to enter their field observations of endangered animals. The system is coupled to Satellite Positioning System (GPS) that records the location of the observations. Trackers have a very sophisticated understanding of their environment. As one of the trackers observed: "this machine makes me more intelligent", or rather, more effective. How IT is applied, and whose interests it serves, is central to whether this is an enabling technology, or a sophisticated way of keeping people and communities disempowered. The needs of the end users are paramount. One aim must be to break down the barrier between IT professionals and "ignorant users". People and nations have to understand and shape the applications rather than continually depend on external experts.

(ad 2): User centred design for skilled but illiterate or semi-literate users. Effective tools for providing relevant content for multimedia and web based information.

(ad 3): The people who should attend the workshop should include both user interface specialists with an interest in the developing world and user centred system designers interested in the broader social functioning of computer and communications systems. A special effort should be made to attract user centred software developers from nations in the developing world.

Geoff Fairall lives in Zimbabwe (P O Box 2183, Harare, geoff@grf.icon.co.zw). He wrote:

(ad 1): Because it seems in so many developing countries that the HCI issues are being ignored with a potential for serious future consequences.

(ad 2): The most important aspect of HCI and Developing Countries (DCs) is the need to create awareness of the issues most likely to impact. I am not aware of any analysis of relevant issues to DCs that has been carried out but this would seem necessary. (I have recently been involved in computer operating environmental standards which were unheard of here and still a long way away from being enforced. More importantly to me is the role played for handicapped people and DCs do not have access to the services in industrialised countries - there ought to be a solution.)

## 2.2 Russia

Anna Leonova is Professor of Work and Engineering Psychology and Head of Laboratory for Human-Computer Interaction at Moscow State University (Russia, velich@psy1.psych.tu-dresden.de). She wrote:

(ad 1): The study of interaction between human and computers is relatively well-developed in Russia mostly from the perspective of Engineering Psychology and Ergonomics. For a long period of time the use of computers was typical only for industrial jobs and broad distribution of the technology was limited. With the recent political changes also these artificial restriction have been abandoned. Currently, there is a growing interest to the problems of HCI which is reflected in organization of several recent International East-West Conferences on CHI in Moscow and St.Petersburg. This development finds support from within the strong communities of software engineers and specialists in artificial intelligence. The main problem, at the moment, is the adaptation of international standards and methods of evaluation. The solution of this task can be achieved with concerted efforts of experts under auspice of IFIP via WWW broadly accessible from the territory of former Soviet Union. The search for concrete solution of this problem should become the main topic of the WS.

## 2.3 Singapore

Kee Yong Lim is Senior Lecturer at the Nanyang Technological University (Singapore, mkyylim@ntu-vax.ntu.ac.sg). Linda Herman is Managing Director and Principal Consultant of Ergonomics Design & Usability Consultants (Singapore, lindah@cyberway.com.sg). They wrote:

(ad 1): The focus of HCI has, in the past, followed closely developments in the IT industry. For instance, the initial focus of HCI was on supporting the development of personal applications, e.g. development of interaction models to support display design, etc. This initial focus was followed by wider consideration of organisational issues, e.g. when developing CSCW applications, etc. In this respect, socio-technical systems approaches and participative design techniques were developed to realise in full, the benefits of IT introduction. Now, with the emergence of a global market, the explosion of the WWW, and the advent of the information superhighway, the scope of HCI needs to be extended far beyond the user-centered design paradigm to span international and cross-cultural boundaries. This need should be investigated as it has been reported that HCI evaluation techniques developed in the West need to be tailored for application in the East, if reliable results are to be ensured. It is hoped that the workshop would help to highlight the HCI research agenda required to address political, sociological, economic and cross-cultural implications for design.

## 2.4 Sweden

Lars Oestreicher wrote:

(ad 1): One considerable problem concerning international HCI is the current dominance of Anglo-Saxon research. This has resulted in many unnecessary HCI problems, both large and small, such as the difficulty of sending an e-mail containing the word "Smörgåsbord" from one Swedish computer to another without it turning up as "Sm|rg}sbord", or something even more unintelligible. Apparent is also the even greater ignorance about the special needs in HCI from the development countries. Through the gathering of researchers from a wide range of countries both these issues can be highlighted and combined into a first amendment of "international" HCI.

(ad 2): What can be done to remedy this situation? What are the international needs in HCI? An amendment of international HCI.

(ad 3): The participants should be selected so that they will represent the different continents as well as possible (Europe, North America, South America, Afrika, Australia and Asia).

# Human–Computer Interaction

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