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World-Wide CHI

SIGCHI has established an International Advisory Task Force to help address issues of the internationalization of the organization. The task force has 27 participants from Europe, Asia, Latin America and North America. The task force was established by the SIGCHI Executive Committee at its May meeting. The following are recommendations that were discussed and approved by the SIGCHI Executive Committee in December 1997.

## Background and Discussion

In the conference call discussions, task force members indicated that ACM and SIGCHI are commit-

ted to be truly international organizations. ACM is also planning to create a new SIG structure taking international issues into account. ACM is currently organized into two dimensions: by geography through national chapters, and by topic through SIGs that are organized as sorts of departments of ACM. Some SIGs are large such as SIG-GRAPH and SIGCHI; others are small. Not all countries have national ACM chapters. Some countries have a national computing organization that sometimes has an agreement with ACM. In the past, ACM national chapters were more important; now scientists and professionals who become ACM members tend to belong to a SIG first, so the structure is mismatched. International representation within ACM and SIGCHI is also a problem in that ACM has only one designated international position and SIGCHI has none. At the same time, SIGCHI should be international because (a) it is the world's leading HCI organization

and (b) there is a perception that non-U.S. members tend to be marginalized systematically from participation. SIG-CHI's internationalization is important in order to provide links in the field of HCI for researchers, educators, and other professionals.

**SIGCHI International Advisory Task Force** 

There are dramatic differences in the history, strength, and functions of HCI communities and organizations in the countries represented in the conference calls. Some countries have a strong national HCI organization, others have new organizations, and others have nascent communities with no national organization. These differences tend to be reflected in both industry and education.

Britain has an established HCI organization that is not related to SIGCHI. France has an ACM-SIGCHI chapter in Toulouse and a relatively new national organization that is not formally related to SIGCHI. Germany has a strong national ACM chapter, and a national HCI organization that is related to its national informatics organization and unrelated to ACM or SIGCHI. Language differences make it difficult to see HCI work across national or cultural boundaries. For instance, Web pages tend to be in French or German, etc., as are the vast majority of papers at national conferences. IFIP TC 13 is supposed to handle this, but basically does not really address the problem. They are supposed to exchange reports about what is happening nationally in HCI, with distribution to local groups. Many countries do not fit the IFIP model. How can SIGCHI do a better job of addressing these needs?

In the Netherlands, the national HCI group is part of the Dutch national informatics organization; a "national" local chapter of SIGCHI is in progress. In a similar way, the Czech Republic is also geographically small and the capital (Prague) is more or less the center of the country, and is considering establishing

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a SIGCHI chapter. Italy started a "national" local chapter of SIGCHI in April, 1996; the chapter is trying to establish a relationship with Italy's national ergonomics association.

Australia has a strong national HCI group affiliated with the national ergonomics organization, unrelated to SIG-CHI. HCI is a relatively new field in Singapore, which does not have a national HCI organization. Sweden already has three associations dealing with computer science and HCI. Scandinavian countries might develop a cooperation center with SIGCHI that could be located in Gothenburg.

Canada has local chapters of SIGCHI in Toronto and Ottawa; TorCHI is now seven years old. The Brazilian national organization for computing does not have a formal HCI group, and few undergraduate courses are available in universities. Brazilians are trying to form an HCI community, centered on a prospective ACM SIGCHI local chapter to connect the nation's researchers. They are already working on the organization of an HCI workshop for 1998. Mexico has a national AI group but not an HCI group; the Mexican HCI community has developed a prospective local chapter and has set up a home page. In Puerto Rico, HCI as a field is just starting up; there is no island-wide HCI organization and the University of PR is the only college or university to offer HCI courses.

There is no HCI organization in South Africa. The potential HCI community is small, universities have some HCI courses (mostly postgraduate), but bound to grow as more attention is given to education and promoting the discipline of HCI and the practice of Usability Engineering in industry. HCI awareness needs to be developed in South Africa.

HCI is a completely new field in Bulgaria, and is mostly a subject for academics. Bulgaria is in transition to a market economy, and does not currently have the financial power to support HCI nationally. A SIGCHI "national" local chapter was started in the summer of 1997. Bulgaria is a small country, so they have no problem in managing a nationwide organization. The Bulgarian computer science community has arranged with ACM to obtain ACM annual membership for \$50, but dues for SIGCHI are still a problem. Bulgarians expect to develop Masters and Bachelors degree programs in HCI at private universities, but the HCI community needs international recognition to accomplish this. An international accreditation board in HCI would help. They would also like to have SIGCHI organize meetings and/or workshops.

Russians would like to establish a connection with SIGCHI. The benefit of connecting are education, connection with other HCI scientists and professionals, participating in CHI conferences and projects. The creation of a Russian Local SIGCHI chapter is planned to this end.

The British, French, and possibly Australian HCI organizations would like to cooperate formally with SIGCHI in some way. All three are interested in possible joint memberships, perhaps following the experimental Swiss model of joint membership in the Swiss national informatics organization and ACM. Organizational benefits from formal association with SIGCHI might also include a direct organizational aspect such as continuing joint sponsorship of conferences. The Netherlands is also considering affiliating as a "national" SIGCHI chapter. Brazil and Mexico have strong interests in organizing their national HCI communities around new SIGCHI chapters. Singapore, with its developing HCI community, may not have enough interest at this point for a formal connection to SIGCHI. Chile is a country that has lots of computing, but we do not know about HCI. Chile does have laws about local development of technology, which have the effect of encouraging participatory practices.

Within some countries, debate is ongoing with respect to the nature and extent of association desired. The French HCI community is exploring different kinds of connections to establish between AFIHM (Association Francophone d'Interaction Homme-Machine) and ACM. These would include making the AFIHM a cooperating society of ACM SIGCHI rather than a "chapter."

## **Towards Solutions**

## IFIP TC 13 issues

SIGCHI faces the issue of how it should relate to IFIP TC 13, which considers itself the "international HCI body," and regards SIGCHI as a North American organization. In this regard, the issues that SIGCHI faces in developing a relationship with TC 13 are similar to those faced by ACM in considering how it should relate to IFIP in general. It seems that SIGCHI and IFIP TC 13 should acknowledge each other as international organizations trying to further communications among HCI professionals. IFIP is currently designed to operate with national computer societies. TC 13 comes into play when there is a strong HCI community within a country's national computer science association. SIGCHI can complement this in countries with less-developed HCI organizations, or in countries where the HCI community does not wish strong ties with the national computer society. The important issue is in articulating their different roles so that both are happy. I think SIGCHI can work with the regional HCI communities whether there's a strong association with national organizations or not. It would seem to be an issue of how SIGCHI uses its international structure to complement and cooperate with IFIP's role, not an issue of trying to compete. John Karat, a member of the SIGCHI Internationalization Task Force, is the representative from the United States to IFIP TC 13 (the IFIP Technical Committee on Human-Computer Interaction). He has proposed taking the report of this task force into discussions with IFIP TC 13 at their strategic planning meeting in February of 1998.

## Language and Cultural Differences

Concerns cited with respect to language differences included a lack of materials other than in English for the CHI program, abstracts and the SIGCHI Web pages, and the fact that reviewers do not comment on the suitability of native authors' language for an international readership. For example, the term "K-12" is not meaningful outside the U.S. and Canada. Other concerns cited with respect to writing and reviewing papers included differences in structure and style of writing, methods of evaluation, and reviewers' patterns of ratings. That is, American reviewers may tend to use the extremes of the rating scale more than non-Americans, thus effectively giving American reviewers a disproportionate influence on outcomes.

Boundaries are not just linguistic but cultural: some people may be reluctant to change the environment or intellectual atmosphere. This actually differs from country to country. In Germany, most papers are in German, in Austria most papers are in English, and in Switzerland most papers are in French or German. Papers in France are usually in French.

Discussions between the non-Englishspeaking participants in the conference calls lead to the conclusion that an effort should be put on finding solutions to HCI information access and delivery. We know that IFIP TC 13 does not address the problem but could help set up initial links between people for translations and pointers to people with knowledge. SIGCHI should be proactive in finding a mechanism to promote the exchange of knowledge across language boundaries. A first proposal was to sponsor translation of conference abstracts into English and post these on a Web site.

In addition, even if English is usually accepted as the international language for science world-wide, the national language is a requirement for dealing with national institutions.

Finally, in some countries, there is a problem to have native English speakers who can proofread technical papers. There are of course professional translation agencies who have access to such speakers but they run on a commercial base and they are usually rather expensive. A partial solution would be the exchange of lecturers who can help with proofreading.

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## SIGCHI-Sponsored International Scientific Projects

Scientific projects were considered of high importance. In developing countries there is usually not a large number of companies that order research (e.g. in HCI). Having scientific projects will result in know-how transfer and will also help some countries to keep together research groups. Some East European countries will join the European Union (EU) in the near future and the knowledge of how to run research projects in a European environment will be of great importance (as these countries should be prepared for the use of European standards, recommendations etc.).

## **Developing Countries and Economic Disparities**

A major problem of developing countries is the access to up-to-date literature. The size of the problem depends partly on the economic situation. The participation in a research project could partially solve this problem as there is always money planned for the purchase of literature. But some guidelines and assistance from SIGCHI would be, of course, of great importance (for instance the set of books that are considered to be "the books" in the field). In addition, ACM/SIGCHI could provide some university libraries of developing countries with a membership for ACM/SIG-CHI, so they would receive ACM communications and SIGCHI Bulletins.

The dissemination of the HCI knowledge could have various forms: participation in conferences, but also organization of workshops and summer (or winter) schools dedicated to some specific topics. If SIGCHI could sponsor the expenses for speakers (travel expenses, accommodation) this would allow for the organization of events that would distribute the knowledge about specific topics into "less HCI developed" countries.

In developing countries, the economic climate inhibits participation in SIG-CHI, especially for students. Travel to conferences is expensive, and there is a lack of HCI awareness in industry. ACM could offer different rates based on the country. SIGCHI should develop a grant mechanism that would help people to acquire the basic and necessary background to help develop HCI in their country. This can take the form of a proposal that would be judged by an appropriate committee. This kind of proposal should ask for travel money essentially and should be strongly documented. Grant proposals may not be limited to travel money to go to conferences, they could also ask for funds to support visits of HCI experts to developing countries.

#### Networking, Collaborative Projects and Mobility

Communication between HCI groups and organizations should be fostered. People would like to know more about local activities over the world or, at least, in their periphery. Local networks should also be fostered. ACM is planning mirror sites of the Web around the world. This initiative should be carefully endorsed and SIGCHI should be involved.

Countries that are relatively small and close to each other could create regional networks, providing things like common HCI courses. Bulgaria, for example, has good connections with Greece and other Balkan countries. The same kind of ideas are being developed in Scandinavia. European countries have common issues that deserve special attention and global solutions.

Mobility of HCI scientists can be seen as a solution to foster international cooperation. Various organizations can help such as NATO, UN, UNESCO, and the various large governmental agencies such as the American National Science Foundation (NSF) or the European Commission.

Fostering the association of people from various countries into HCI international projects would help developing countries to acquire knowledge and get funding. In addition, cooperative international projects would be a good way to get people involved. SIGCHI should develop a mechanism to foster these projects. A suggestion is that we, SIG-CHI members, can try asking for development funds from NSF or the European Commission.

#### Society Status and International Issues

SIGCHI has worked hard with ACM in the last two years to restructure their

relationship. SIGCHI would like higher levels of human resources, including permanent professional staff for handling administrative and financial functions like conference management. At the same time, SIGCHI would also like to address the issue of international participation. The likely outcome will be a CHI society whose relation with ACM remains to be defined. As a major part of SIGCHI's membership is not really from computer science, the CHI society could provide a more natural umbrella for this diverse membership than could ACM.

Credibility is a factor that creates strong interest in CHI communities worldwide in a continued association with ACM. The link to ACM helps in saying that one is a member of an international computer science organization, especially in talking to people who don't even know what usability is. Moreover, SIGCHI's relationship with ACM helps with respect to both academia and industry. For example, in Italy, the link to ACM has helped to get HCI established as a new element of the computer science curriculum. In the Netherlands, SIGCHI's broader coverage extends the national HCI community, now mainly industrial, to academia. In contrast, in Brazil HCI is mostly academic and the broader coverage of SIGCHI will help attract the industrial sector into the HCI community.

Here is a frequently-asked question: Will SIGCHI be able to find a universal answer to the problem of relations with national organizations, or will this problem have to be addressed on a case-specific country-by-country basis?

There are two ways to explore this: the creation of SIGCHI local chapters in small or developing countries, and the definition of strong cooperating links between national HCI organizations and SIGCHI as the future CHI society. For instance, The Netherlands is a small country that can have a single local chapter and people do not seem to be bothered by the English language. Another example is Italy where the HCI community is small and a local chapter actually fosters the development of the discipline. The case of Germany is different since they have a well-established ACM chapter, which co-sponsors the

German HCI conference. There is no need here for SIGCHI to distinguish between CHI as a SIG or as a cooperating society. France is also different since there was a computer science society cooperating with ACM that recently disappeared, and there is a strong French-speaking HCI society (AFIHM) that wants to find a way to be connected to SIGCHI. In addition, there is a SIG-CHI local chapter in Toulouse that is very active. On the whole, the French HCI community wants to cooperate with ACM and SIGCHI and retain its independence.

A solution for the SIGCHI as a CHI society would be to create a new mechanism to link with already existing national HCI societies. The local chapter mechanism already exists for the small or developing countries. Local chapter policies should state that creating a local chapter should foster the development of HCI in the corresponding country. We need to further develop mechanisms to foster local differences and cultures to enrich the world-wide HCI community, instead of imposing a world-wide English-speaking culture.

Task force participants agreed that the big problem is the ACM as a whole, despite the fact that SIGCHI's leaders are proposing and pushing for a more international character. In fact, the American character is still very evident. For example, forms have fields adapted to U.S.-style addresses and phone numbers, and publication instructions are geared for North Americans. Three fourths of the members of ACM are from the U.S., and the rest are divided up into much smaller national minorities; the effect is to give the U.S. a huge influence. It would be good to make the members of the majority more aware of these problems. The CHI society should take this point into account.

It was noted that it is still hard to get official funding for HCI, even in developed countries. HCI is viewed as a vague discipline that stands between computer science, ergonomics, or cognitive science. The future CHI society should foster the recognition of HCI as a scientific field. In particular, there is a need to better define industrial needs and support for the development of the corresponding 'science'. A big issue is how to engineer automated systems, but, in France for instance, the industrial sector doesn't know where to find the people who do this. The problem is one of visibility of HCI.

The HCI field has been mainly focused on office automation for a long time. The evolution shows that the overall industrial sector is concerned with HCI. HCI is evolving in many directions and has created many sub-fields of investigation such as computer-supported cooperative work (CSCW), Hypertext, Web matters, aeronautics, etc. Many conferences on these novel issues are organized over the world. A reflection should be organized around these issues.

## Creation of an International Issues Committee

It follows from the discussions and results of the International Advisory Task Force that an International Issues Committee should be formed. Its role would be to handle international issues within SIGCHI. The following recommendations are suggested:

- establish and maintain a constructive relationship with IFIP TC 13;
- develop a mechanism that encourages language and cultural differences;
- develop a program for SIGCHI-sponsored international scientific projects;
- develop a program that fosters an international relationship towards education in HCI;
- develop a program to support HCI in developing countries and take into account economic disparities;
- develop network mechanisms that foster cooperation and mobility of researchers and practitioners;
- participate in the construction of the new CHI society by providing international requirements.

The SIGCHI Executive Committee that met on December 12-14, 1997, agreed to start the development of the SIGCHI International Issues Committee on the basis of the above recommendations. I will Chair this Committee as the Executive Vice-Chair of SIGCHI. I will be helped by David Novick who played a crucial role in the task force, John Karat, the SIGCHI Advisory Board Member for Internationalization, and Richard Anderson, the Adjunct Chair for Local SIGs. If you are interested in contributing, please send me your views, suggestions or proposals to the following address: boy@onecert.fr.

## Task Force Input and World-Wide Participants

This final report is based on input from the participants of a Special Interest Group organized by David Novick at CHI 97, and to four international conference calls organized by the Task Force Chair on June 12 and 17, and October 20 and 21, 1997. The following people actively participated in the discussions: Richard Anderson (US), Michel Beaudouin-Lafon (FR), Guy Boy (FR), Stephane Chatty (FR), Cindy Chen (SG), Gilbert Cockton (UK), Francesca Maria Costabile (IT), Cleotilde Gonzalez (MX), Peter Gorny (DE), Jacques Hugo (ZA), William Hunt (CA), John Karat (US), Jinwoo Kim (KR), Alexander Nikov (BG), David Novick (FR), Steven Pemberton (NL), Manual Perez Quinones (PR), Raquel O. Prates (BR), Clark Quinn (AU), David Riederman (US), Andrew Sears (US), Marcin Sikorski (PL), Pavel Slavik (CZ), Klaus Unger (DE). In addition, many participants sent me written comments, and I received input from Felipe Almeida (BR), Lars Erik Holmquist (SE), Vladislav Valkovsky (RU).

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#### Appendix

The following is a list of issues that were sent to the participants prior to the conference calls.

Your Name:

- Your affiliation and addresses:
- What is the status of HCI in your country?

Is there a HCI organization?

- If Yes, its name is:
- Is it related to a Computing society (e.g. SIGCHI within ACM)?
- Is it independent?
- How do you see HCI organization improved in your country?

Other...

- How do you see the connection between your HCI organization and SIGCHI?
- Are you aware of the transformation of SIGCHI into a society?
- Would you like to be directly connected to SIGCHI?
- Would you like to be connected to SIG-CHI via your national Computing society?

What are the benefits of connecting your country's organization to SIG-CHI?

## Education

Connection with other HCI scientists and professionals?

CHI conference

Other...

Please develop your own agenda on international issues.

## **About the Author**

Guy Boy was Chair of the SIGCHI International Advisory Task Force, and is Executive Vice Chair of ACM/SIG-CHI.

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