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# Changing Requirements to HCI Funding: A Global Perspective

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**Abstract**

The requirements for funding for HCI research are changing globally. In this SIG meeting, we will review with panel members and high-level grant decision makers from different continents and countries how the requirements are changing and discuss how this affects HCI research and its impact.

**Author Keywords**

Research funding; broader impact; international collaboration; funding requirements

**ACM Classification Keywords**

K.4.1. Computers and society: Public policy issues

**Introduction**

Globally, researchers are confronted with changing requirements to funding. The CHI community is also affected by these changing requirements and many challenges exist for researchers to secure funding for research. On an individual level this may mean, changing application area, methods of research or strategic collaborations, on an organizational level this may have consequences such as hiring strategically to ensure research that is likely to gain funding and at a civil government level this may mean intense lobby efforts to make sure CHI research is maintained in government roadmaps and charters.

These changing requirements differ from country to country. The National Science foundation (NSF), just like other funding agencies over the world, wants to see a broader impact of the field of HCI. Consequently, criteria for obtaining funding are changing. Many researchers view the broader impacts criterion as difficult to address. However, an apparent lack of social impact has been an argument against research funding.

Within the European Union there is a clear tendency for larger projects and projects that have less administrative hassle. The Future and Emerging Technology (FET) flagships and the new ERC synergy grants are an example of the European Union trying to have larger and yet more flexible. The tendency to move from 3-4 year projects with 5 -15 partners to 10 year projects with 40+ partners seems eminent from these new initiatives. Also, the Horizon 2020 is a new innovative way of funding. Horizon 2020 is a six-year, EUR 80 billion (USD 108 billion) financial program which should increase Europe's global competitiveness as part of the drive to stimulate economic growth and create new jobs. One key goal is to reduce the time between grant applications and funding disbursements by an average of 100 days so that projects hit the market sooner.

Criteria of UK government funding have changed over recent years. There is now much more focus on impact and how the research will affect the world outside of academia. There is also a much greater focus on identified research themes; outside of these themes work may no longer be funded.

In China recent developments in changing requirements include a swiftly growing research

community and a newly developing academic funding structure. Human Computer Interaction Research in China is now starting to emerge and grow. Chinese universities and large organizations have until recently focused primarily on engineering aspects of production and development of products and systems. The schooling of students in and the investigation of design aspects of products and interfaces are a more recent trend. This capability needs to be founded and built which will require government support.

In South-America HCI research and funding vary from country to country. Some countries have established an HCI community over a decade ago, while others still do not have an HCI community. In Brazil, one of the countries that has an established HCI community, funding is provided mainly from government agencies. Although the government and the Brazilian Computer Society have indicated some HCI topics as a priority, such as universal access to technology and services by all citizens, there has been no funding directed to these issues and HCI research has to compete with different areas of knowledge for grants. Furthermore, recent changes in research evaluation in the country may cause negative impacts on HCI funding and research. Therefore, the Brazilian HCI community has been investing on efforts to deal with these current challenges.

For the last few years in South Africa, there has been greatly reduced funding for research across all academic disciplines. In an effort to refocus its efforts, the national funding agency (the NRF) has undergone a consultation process with researchers and identified HCI as one of areas that would like to support under the ICT initiative. However, there is no figure attached

to this initiative or commitment that it will be funded. Two other sources of funding exist for the African HCI researcher. The first of these is collaborating with colleagues from other countries where HCI research is funded. However, researchers from Africa are often sidelined in these collaborations as they cannot be lead investigators (or receive funding) depending on grant conditions. Secondly, researchers can approach commercial organisations trying to optimise product for the African market. There are several success stories to report in this regard, but this limits research to highly applied scenarios which may be difficult to publish. Furthermore, South Africa has recently placed extreme restrictions on publicly funded universities accepting research money from international organisations, effectively blocking this type of collaboration.

### **International collaboration and funding**

The CHI community encounters many difficulties in funding joint research across national boundaries. There are initiatives between national funding organizations (e.g. Germany and the Netherlands have joint funding opportunities for small projects and researcher exchange programs, NSF and EU have some regulations for combining EU and NSF funding once both projects have been granted respectively). However, these examples are scarce and gaining funding for joint research between Europe, the US and China for instance requires immense effort and inventiveness. We would like to understand better from funding organizations and government representatives what short and long term strategies are considering joint research across government boundaries. What opportunities may arise in the future for the international CHI community and what collaborations may prove fundable in the near future?

### **CHI strengths in dealing with changing requirements to funding**

Among the challenges described above, the CHI research community has active public policy committees and strong ACM directed government influence in the US. Europe, Asia and other parts of the world may not have this ability to influence government funding criteria and focus areas. The CHI community is well placed to offer a joint transnational research agenda that will lead to CHI research benefits such as to workplace productivity, education, health, civic engagement, privacy and accessibility.

### **How do these changes influence CHI research?**

We would like to discuss several topics related to changing requirements to HCI funding. First, we aim to inventarise changing requirements to HCI funding across the globe. For example, how do ethical requirements or requirements to transnational research change? Next, the CHI community works on exciting problems and produces “cool”, fun and useful systems and artifacts. As such it is imperative to understand the changing dynamics of requirements for low versus high-risk research. For example, are criteria changes different for social media studies (perceived as low risk) in comparison to brain-computer interaction (perceived as higher risk)? Finally, international collaboration between CHI researchers depends highly on the availability of funding mechanisms that support the cooperation between for example European and Asian groups. We want to gain understanding into whether the mechanisms for such cooperations are changing.

### **Audience and format**

The SIG is intended for all international CHI researchers

who write or review grant proposals. The meeting will be organized as an informal panel and discussion. After brief introduction of the topics and the panelist, most of the time will be spent with questions and discussion.

### **Biographies**

**Vanessa Evers** is professor and chair of Human Media Interaction at the University of Twente. Her research focuses on interaction with intelligent and autonomous as well as cultural aspects of Human Computer Interaction. She is a member of the ACM International Human Robot Interaction Steering Committee and Associate Editor of the Human Robot Interaction Journal and International Journal of Social Robots.

**Stephen Brewster** is a Professor of Human-Computer Interaction in the Department of Computing Science at the University of Glasgow, UK. His main research interest is in Multimodal Human-Computer Interaction, sound and haptics and gestures. He was recently awarded a 5 year EPSRC Advanced Research Fellowship.

**Jonathan Lazar** is a Professor of Computer and Information Sciences at Towson University. He is the founder and director of the Universal Usability Laboratory at Towson University. Dr. Lazar is the ACM SIGCHI (Special Interest Group on Computer-Human Interaction) Chair of Public Policy. Dr. Lazar received the 2010 Dr. Jacob Bolotin Award from the National Federation of the Blind, and received a 2009 Innovator of the Year Award from the Maryland Daily Record.

**Zhengjie Liu** is the Founder and Director of Sino European Usability Center (SEUC), the first research

centre dedicated to usability in China. His research interests include usability/user experience, user-centred design, accessibility and HCI. He has been working in usability and HCI since 1989 and is recognised as a pioneer in this field in China.

**Gary Marsden** is a professor in the Computer Science Department at the University of Cape Town. His research interests are in Mobile Interaction Design and ICT for Development. He has co-authored a book titled "Mobile Interaction Design" which was published in 2006. He is currently director of the UCT ICT4D research centre and the UCT-Hasso Plattner Research School. He won the 2007 ACM SIGCHI Social Responsiveness award for his research in using mobile technology in the developing world. Despite all of this, he still cannot use all the features on his mobile phone.

**Raquel Oliveira Prates** is an HCI professor at the Universidade Federal de Minas Gerais (Federal University of Minas Gerais) in Brazil. Her research includes Semiotic Engineering of HCI, interaction and interface for groupware and educational systems, among others. She has participated actively in consolidating the Brazilian HCI community and has participated in many SIGCHI efforts as well.

**Femke Nijboer** is a postdoc Human Media Interaction department at the University of Twente. Her work focuses on the ethical, legal and societal issues related to novel technologies, in particular neurotechnologies such as brain-computer interfaces. She was recently awarded with prestigious Veni funding from the Netherlands Organisation for Scientific Research.