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# Workshop on Engaging the Human-Computer Interaction Community with Public Policymaking Internationally: Extended Abstract

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## Abstract

There is an increasing interest in the intersection of human-computer interaction and public policy. This day-long workshop will examine successes and challenges related to public policy and human computer interaction, in order to provide a forum to create a baseline of examples and to start the process of writing a white paper on the topic.

## Author Keywords

Public policy; accessibility; ergonomics; human subjects protection; funding; safety; regulation; rulemaking; standards; rankings

## ACM Classification Keywords

K.4.1 [Public Policy Issues]

## Introduction

There is an increasing interest in the intersection of human-computer interaction research and practice, and public policy work. Public policies can come from governments (multi-national, national and regional), international bodies (e.g. the United Nations) and are often influenced by standards organizations (such as

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the International Organization for Standardization (ISO) and the World Wide Web Consortium (W3C)). There is a complex cycle of influence between human-computer interaction and public policies. Public policies can impact on how HCI researchers and practitioners perform their work but the HCI community can also influence public policies by providing expertise, taking part in the development of regulations, and researching the impact of various policies related to HCI. Furthermore, because government funding agencies decide what types of research get funded, there is a clear relationship between public policies and the development and growth of the HCI community.

#### **Summary of Workshop Goals**

1. To increase the number of documented examples of where public policy and HCI influence each other
2. To analyze, as a group, where public policies in HCI have been effective and where they have not
3. To identify areas where there is a need for research on public policy and HCI
4. To lay the foundation for writing a white paper covering the scope of HCI and Public Policy

#### **Background on Different Areas of HCI Public Policy**

The organizers of the workshop have been able to identify 4 areas of public policy related to HCI:

#### **1. Rules and guidelines on how HCI research is performed**

This includes both government rules on human subjects research, and government selection of metrics. Most governments regulate how human subjects are treated within research studies (sometimes referred to as “ethical approval”). For instance, within the United States, any researchers seeking to involve human participants in their research must follow a code of conduct, and must receive approval from a local institutional review (IRB) board (most universities have them).

While government policy doesn’t require that research be measured in any certain way, government policy can certainly influence how data is measured. For instance, by adopting specific metrics as standards for government measurement, this often influences how HCI researchers and practitioners measure phenomenon. For instance, when the Common Industry Format (CIF) was adopted by the National Institutes of Standards and Technology within the United States, this provided a standard for measuring usability of software, which influenced how researchers and practitioners measure usability outcomes, and how consumers of usability data expect the data to be measured and presented. The same metrics of task performance, time performance, and user satisfaction were later adopted by ISO in 2006 [1].

#### **2. Guidelines on how interfaces are designed and presented**

Government policies often influence how interfaces are designed and presented. Probably the best-known

example of this is web accessibility. Governments often require that their web sites (and other technologies funded by the government, such as operating systems, personal computer hardware, telephones, and even e-books) be accessible for people with disabilities, by following a certain set of design guidelines. While these guidelines often don't require accessibility for all technologies developed (only ones funded by the government or in certain categories of public accommodation), the idea is that, rather than have separate accessible technologies for government, and inaccessible ones for private citizen use, companies and developers often choose to have only one accessible version that can be used in multiple user markets.

In an ideal world, the design guidelines are created by an international standards organization, and individual countries adopt the international standard, so that the design guidelines are the same from country to country, and developer knowledge, as well as developer tools, can be utilized across countries. Unfortunately, often countries take an international standard and modify it so that it is a design standard that applies in only one country.

In addition, the international standards organizations and national governments offer little in terms of practical guidance on process for implementing the accessibility, so that often, there is a great gap in terms of what developers need to know. Sometimes, professional organizations try to fill that gap. For instance, the Interaction Specialist Group (part of BCS, the Chartered Institute for IT) in the United Kingdom is encouraging the adoption of British Standard 8878:2010 "Web Accessibility. Code of Practice", which fills the operational gap left by guidelines such as

WCAG 2.0. BS8878 includes 16 process steps, providing specific guidance on creating and maintaining accessible websites [2].

While web accessibility is probably the best-known example of laws governing design, there are other examples. For instance, in some countries, language laws regulate which languages must be available on the web site. For instance, in Spain, all Spanish government web sites must be in the 4 official languages: Spanish, Catalan, Euskera (Basque) and Galician. In Canada, all government web sites must be offered in both English and French.

### **3. Control over how interfaces are developed in certain application areas**

There are certainly types of computer systems, which are not government systems, but are in application areas that are heavily influenced by government. These application areas, where government has interest and influence, include electronic health records, systems for emergency purposes, voting systems, primary, secondary, and post-secondary education, and public libraries. For instance, in the US, there has been an ongoing debate about whether public library computers that provide access to the internet should be required to have filters to limit certain content. While we tend to think of this as a free speech or library science issue, this is also an HCI issue, as it impacts on the interface. The usability of voting machines has been an ongoing problem around the world. Part of the challenge of influencing public policies on voting machines is that, unlike the world of web accessibility, where the HCI community was pro-active and involved, the HCI

community got a late start into the world of voting machines [3].

#### **4. How money that could potentially go to HCI research is spent**

Much of the HCI research funding comes from national governments and multi-national governments (such as the European Union). How these governments spend their research funds, and which (if any) HCI research projects are funded, has a big impact on the HCI research community. Industry HCI research labs (with the exception of massive labs like Microsoft or Google) are often limited in their research to lines of questioning that somehow relate to their industry and product focus. So, what, if any, HCI research gets done, is often influenced by what HCI research is funded by government [4]. What new funding programs are created? It is therefore important to ensure that the results of HCI research, the impact of HCI research, is communicated to policymakers, to help ensure a steady stream of funding.

#### **Structure for the Workshop**

The overall goal for the workshop is to present examples of the intersection between HCI and public policy, and to analyze, as a group, where policies have been effective and where they have not.

9 AM-Noon: Introductions, and 10 minute presentations by each of the workshop attendees, giving at least one example of the intersection of HCI and public policy.

Noon-1:30 PM: Working Lunch, Creation of a framework

1:30-3 PM: Breakout groups to analyze these examples within the different areas of the framework

3-4:30 PM: Synthesis of breakout groups, discussion of plan for writing the white paper report

One of the major goals of the workshop is to serve as the catalyst for the creation of a paper outlining the foundations of HCI Public Policy. Similarly to how the 1992 SIGCHI report on education was the foundation for HCI education for a number of years, we expect that the report started at this workshop will be the foundation for HCI Public Policy for at least a decade.

#### **References**

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