

# User Profiling

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## ABSTRACT

A number of global trends have a large influence on the way we use technology in our life and work, like:

- increasing connectivity and connected devices (any time, any place, anywhere)
- broadband
- increasing data storage capacity, both local and in the network
- smart objects (ambient intelligence, intelligent multi-modal user interfaces)
- heterogeneous environments

According to technology providers this means enrichment.

A necessity for this promise is the adoption of products and services to the profiles of their users. A possible concern for end users is the large number and wide variety of different products and services to deal with.

In this workshop we will discuss the width and depth of the topic of profiling and will try to come to requirements and recommendations from an end user perspective.

## Author Keywords

Profiling, cross domain user experience, user model.

## ACM Classification Keywords

H5.m Information interfaces & presentation -Miscellaneous

## INTRODUCTION

Computer powered products and services will continue to become ever more present in many aspects of our lives.

Some domains to consider in this respect are:

- *At home*, where we already have many products that are able to do some “thinking” for us.
- *At work*, where we have become accustomed to a wide variety of application and sites that we need or can use to do our job.
- *In public*, where our life is becoming more digitized for example through digitalization of our relationship with government en through e-healthcare.

Of course other domains like education and entertainment can be considered as well.

Across all domains we see technology becoming faster and more available. Also the amount of information keeps becoming larger. As a result, the offer of information and services people are confronted with is enormous.

In order to be able to keep up with this speed products, services and information need to be optimized for each individual. Among the technological solutions that are being offered are “personalization”, “adaptation” and “self learning”. The central notion here is the understanding of the users these products or services need to have in order to be able to provide these optimization promises. In short: the user’s profile.

A great number of questions are relevant in this respect, like:

- **Content**  
What should actually be stored in a profile? How do we make sure that not all content is public? How does this relate to user modeling? Who “owns” the profile or parts of it?
- **Life cycle**  
How should a profile be created? Should this be an implicit process or as explicit as possible? How do we combine profiles for various environments and/or products and services? How do we maintain our profile? Who or when can delete it? How and when can one decide to use one’s profile or to switch it off?
- **Application**  
In which type of environment can using a profile help? What autonomy do we assign to the profile (if any)? Can it decide for the user? In which circumstances can it and in which certainly not? To what extent should one’s profile be intelligent?

There already are many technological initiatives in this or in related areas. Examples are existing standardization initiatives. In various areas relevant standards are being developed (like P3P for the web, 3GPP in the telecommunications industry and EPAL in the enterprise context).

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## THE WORKSHOP

Eventually “all of us” will be using and experiencing these profile-based products and services. Therefore we should start at the end and define how all these products and services should go about optimizing themselves, from an interaction and experience point of view. We will discuss this during the day.

### Goal and objectives

The goal of the workshop is to get more grasp on “the big picture” related to profiling and the role of HCI. A secondary, but more practical objective is to identify relevant (HCI) guidelines & definitions.

### Agenda

1. Introduction
  - Setting the scene
2. Break out into three sub groups
  - Position papers are presented (3 to 5 papers)
3. Discussion in sub groups
  - Each theme discusses the morning’s presentations (in relation to the user experience?)
4. Wrap up discussion
  - Presentation of outcome morning discussions
  - Identify the different perspectives of a profile.
  - Identify the conflicts between these perspectives, which results in the interesting areas for discussion/analysis (are they overlapping?).
  - Identify the characteristics of these conflicts. Identify the root causes of the conflicts between perspectives, and possible solution directions. Are there already (research) projects in these areas? Name Institutes / products/ companies/ etc.
  - Identify which of these causes of the conflicts of perspectives are related to and can be influenced by human computer interaction (i.e. would be interesting to be addressed at a CHI workshop) / influenced by the user

### Result

A paper with the outcome of the workshop will be created in the weeks after the workshop. The paper will focus on:

1. describing the “big picture” (perhaps including some definitions)
2. conclusions & recommendations in the form of how to proceed within and beyond the field of HCI

## Participants

Participants are asked to write position papers in which they present their opinion about user profiling.

The selection of participants is based on the assessment of the position papers based on the following criteria:

- Participants should have experience in designing or research into profile-based user interface(s).
- Opinions are included concerning these topics:
  1. When do profiles have an added value?
  2. What should a profile contain, how much intelligence should it possess?
  3. Implementation issues like: multiple profiles, ownership, security etc.
  4. What is the relationship between profiling and HCI?

Position papers may of course also indicate other topics or themes to address during the workshop.

Examples of profiles and/or (future) scenarios in which profiles play a crucial role are appreciated.

The maximum number of participants is 15.

## Organizers

During the workshop three persons will act as moderators:

**Johan Schuurmans** works at IBM in The Netherlands as a user interface designer/consultant for both IBM and its customers. Currently Johan is a member of IBM's Dutch innovation team where he works on creating conceptual designs based on new technology. He participates in various multi-discipline research programs with Dutch universities. Johan is also member of the Dutch standardization committee on software ergonomics and will represent IBM in the Dutch Policy Committee for Information Technology and Telecommunication.

**Boris de Ruyter** studied Experimental Psychology at the University of Ghent, Belgium. After graduating he worked as a research assistant at the University of Antwerp, Belgium. In 1994 he joined Philips Research where he has been working on user - system interaction research. His research focuses on user modeling and psychometrics. Since 1999 he is heading a research team that works on the development, prototyping and testing on user interface concepts for supporting users in accessing large databases of content in CE devices. The team has experience in the area of multi-modal, personalized and networked systems.

**Harry van Vliet** is a psychologist by background and currently works on multimedia and content related topics for the Telematica Instituut. Harry was involved in the GigaPort Content Engineering project as project manager. He also has large experience in lecturing at conferences and in moderating workshops.