

# Research in the Wild: Understanding ‘In the Wild’ Approaches to Design and Development

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## ABSTRACT

We are starting to see a paradigm shift within the field of HCI. We are witnessing researchers leaving the safety and security of their controlled, lab-based environments and moving their research out into ‘the wild’. Their studies are carrying out in-situ development and extended engagement, sampling experiences and working with communities in their homes and on the streets. This research has initially focused upon understanding the impacts that technological intervention has upon our day-to-day life and is leading us to explore the ways in which in-situ design, development and evaluation can be used to understand and explore these technological interventions. Is it the case that lab-based studies, taking people out of their natural environment and designing in the lab without long term user engagement are no longer appropriate to properly understand the impacts of technology in the real world?

## Author Keywords

In the wild, methods, ethnography, HCI, CSCW.

## ACM Classification Keywords

D.2.2. Software Engineering: Design tools and techniques.

## OBJECTIVES

Our objectives are to bring together people who are researching in the same area so that we might create a forum whereby they can discuss issues relating to this evolving body of work, research methodologies and together understand the true nature of working in the wild. This is vitally important as the methods differ from previous approaches in interaction design by focusing on creating and evaluating new technologies in-situ, rather than observing existing practices and then suggesting general design implications or system requirements. Tools

now exist that have enabled researchers to quickly build highly functioning prototypes that can augment both the user and the location, but do we need to focus on user requirements in order to appropriately implement these technologies in the wild, or can we simply place these technologies in situations where they have not been designed with specific user needs in mind? There has also been a shift, then, in design thinking. Instead of developing solutions that fit in with existing practices, there is a move towards experimenting with new technological possibilities that can change and even disrupt behavior. A key concern is how people behave, adapt and integrate these technologies into their everyday lives. This timely workshop will aim to further understand some of these issues and in doing so give researchers a forum through which these issues can be debated. We would hope that through running this workshop we would be able to collate a body of work that could inform other practitioners in the field and also act as a platform on which researchers could base their work.

## RESEARCH IN THE WILD: UNDERSTANDING ‘IN THE WILD’ APPROACHES TO DESIGN AND DEVELOPMENT

In running this workshop we would hope to have a beneficial impact upon the research community. Currently the concept of *in the wild research* is unclear and it is also not clear how the methods that many designers use to develop systems can be applied in real world contexts, away from the design lab. A central part of designing in the wild is evaluating prototypes as they are really used and integrated within people’s lives. This involves observing and recording what people do and how this changes over suitable periods of time. The burning question in HCI used to be “how many participants do I need?” The hotly debated question now is “how long should my study run for?” Some say a few weeks, others argue for months while some even suggest years are needed to show sustainable and long-term effects.

It is clear to see the value of such approaches - with research funding bodies currently promoting this as a valid and important research method they are funding many in the wild research projects. The information arising from in

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the wild studies can be more revealing results from other experimental, lab-based approaches and studies where people are placed in controlled experiential situations or ‘corralled’ in workshops, when not appropriate.

Fundamentally, people’s reasons for taking part can vary enormously; taking part in an experiment run by a friend or colleague for a short time is very different to taking part in a long-term study with strangers, embedding technology into people’s day-to-day routines that could have a real impact upon their lives.

Early in the wild studies have been important in demonstrating how new systems, devices and services are adopted as opposed to whether they match usability or criteria. Long-term in the wild studies can be expensive to run and opinions vary as to what an in the wild observational study should entail. There are many issues that need to be raised and questions that need to be addressed, to explore the extent to which we are equipped to do in the wild research.

Ethical concerns about conducting research in the wild need to be discussed and debated. The community needs to address and manage concerns relating to the extent to which HCI can invade people’s lives in the pursuit of research goals, how people are treated throughout the research period and what exit strategies are appropriate after long term engagements.

Are we simply looking for the next big thing and is there a search for novelty in HCI? How can we work in communities and sustain engagement? Are we equipped to address these new topics with the right tools, sensibilities and level of professionalism? How do we position ourselves with respect to others already studying non-traditional HCI concerns? Is there anything left in the wild that we have not studied? Are we simply re-appropriating methods that have always been used in the wild? What might that be, for example, undeveloped and uncharted areas of the world? When is it appropriate to start and stop research in the wild? Finally, is it worth it – arguably, you can learn a lot more if you are asking specific questions in lab studies?

#### WORKSHOP ORGANISERS

*The workshop organisers bring a large range of expertise and knowledge to this field.*

**Dr Alan Chamberlain** - is a Senior Fellow at the *Mixed Reality Lab (MRL)*, University of Nottingham, UK and a visiting academic at the University of Swansea, UK. He is an Associate Editor of the Springer Journal of Personal and Ubiquitous Computing and has published widely on the topic of pervasive computing. He has worked extensively with rural communities on a day-to-day level, predominantly focusing on the development and understanding of digital systems that relate to these settings. He has considerable experience of working in the wild, using Action Research and Participatory Design approaches

and the theoretical and practical issues and benefits that relate to these methods of research.

**Dr Andy Crabtree** – his work largely focuses on the relationship between computing systems and social interaction. It exploits ‘ethnography’ – i.e., empirical studies of human action in context - to uncover the interactional work that animates everyday activities in the home, at work, and in play. This kind of research is used to ground systems development in the naturally occurring and naturally accountable organisation of human conduct. Beyond immediate practical application, it plays a formative role in our understanding of Human-Computer Interaction (HCI) and Computer Supported Cooperative Work (CSCW). I have published on a range of topics in HCI and CSCW related journals, conference proceedings, and workshops, and authored the handbook *Designing Collaborative Systems: A Practical Guide to Ethnography*.

**Prof Tom Rodden** - is Professor of Interactive Systems at the *Mixed Reality Laboratory (MRL)* at the University of Nottingham. Prof Rodden’s research focuses on the development of new technologies to support users within the real world and new forms of interactive technology that emerge from mixing physical and digital interaction. This is a multi-disciplinary endeavour bringing together researchers in behavioural and social sciences and those involved in systems engineering, network infrastructures and interactive systems design. This ranges from those with a background in anthropology to those with training in art & design and embrace technologists from software development to the construction of novel hardware

**Prof Matt Jones** - is a full Professor and Head of *Computer Science at Swansea University*, UK. He is an Editor of the Springer Journal of Personal and Ubiquitous Computing; and, a Managing Editor of the new Springer rapid communication journal in mobile user experience (ComC). He has curated several special issues in a number of international journals including ToCHI (SI on Social Issues Vol 12, No. 2). He is on the Steering Committee of the Mobile HCI Conference series and will co-chair the ACM CHI Conference in 2014. His research work has been intensively “wild” and interdisciplinary addressing particularly issues of digital access in rural, remote communities in several regions of the world.

**Prof Yvonne Rogers** - is a Professor of Interaction Design and director of *UCLIC* at UCL. Her research interests are in the areas of ubiquitous computing, interaction design and human-computer interaction. A central theme is how to design interactive technologies that can enhance life by augmenting and extending everyday, learning and work activities. This involves informing, building and evaluating novel user experiences through creating and assembling a diversity of pervasive technologies.