Designing For- and With- Vulnerable People

Abstract
Increasingly ubiquitous technology coupled with a surge in empirical research on people who face cognitive, emotional, physical and social challenges increases the potential for HCI to enrich the lives of vulnerable people. Designing for people with vulnerabilities requires an approach to participation that is sensitive to the risks of possible stigmatization and an awareness of the challenges for participant involvement. This workshop will bring together researchers and practitioners to explore the critical issues surrounding designing with and for vulnerable individuals. We aim to provoke discussion about how ‘vulnerability’ is defined in HCI, what methodological and ethical concerns are raised when working with specific cases, and ways of designing for future technologies that support vulnerable people in novel and sensitive ways.

Author Keywords
Design; vulnerable individuals; methods; ethics.

ACM Classification Keywords
H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous;

Introduction
People can be vulnerable in a variety of ways, physically, cognitively, emotionally, and socially [3]. In many cases these vulnerabilities interact with each other. So, for example, a person with dementia may...
face emotional and social, as well as the more apparent
cognitive difficulties. This variety of vulnerabilities, and
the likelihood of their interaction in people’s lived
experience, presents real challenges for HCI design.
Research in health and social sciences on people who
live with these challenges has grown significantly in
recent years [1, 7, 11, 13], while others have critically
examined how vulnerabilities are often socially
constructed and can be accentuated by technology [8].
This suggests great potential for significant
contributions to improving quality of life from accessible
and assistive technologies to experience-centered
design interventions.

Much prior HCI work has examined the experiences and
needs of people who might be considered vulnerable.
This has included working with groups as diverse as
homeless mothers [5], people living with dementia [6],
children with special needs [4] and parolees and parole
officers [11] among many others. It has also lead to
dealing with highly sensitive topics that potentially
place participants in a vulnerable position, such as
recollections of domestic abuse [1], and topics related
to death and the end of life [7]. Work with individuals
perceived to be vulnerable can also lead to great design
innovations, such as the development of new tools to
support visually impaired people to communicate [8],
information exchange between homeless people [5]

This workshop aims to synthesize and build upon this
prior work by bringing together a diverse community to
share existing knowledge, define new research and
design opportunities and outline an agenda for future
research on technology with and for vulnerable groups.

**Topics and Goals**

We aim to consider the scope of issues that arise when
working with vulnerable groups with the goal of
developing a design- and conceptual- framework to
support and shape future research. We will address this
challenge through three themes in the workshop:

**Examples of vulnerability**
The workshop will bring together participants from
multiple research areas surrounding HCI to discuss and
define the factors that they consider make people
vulnerable. In attempting to define vulnerability, we
ask: What do we associate with the word vulnerable?
How do we identify groups and individuals as
‘vulnerable’? What effects can this classification have
on the individual? Are medical and legal definitions of
vulnerability used in HCI research, and are these useful
or problematic? How do we go about defining
vulnerability when we consider the range of groups
associated with the term? Finally, we ask what effects
do being classified as ‘vulnerable’ have on the
individual and whether the term is a pejorative one?

**Researching vulnerability**
In discussing examples of vulnerability within HCI we
will be better placed to explore what impact working
with vulnerable individuals and groups has on research
processes—and, vis-à-vis, what impact the research
process has on those who participate. Here, we ask: By
working with or designing for particular groups do we
as researchers make them vulnerable? Are there
contexts where researchers themselves become
vulnerable due to the topic being explored or the
people they are working with? How might researchers
be actively contributing to the defining of a group as
‘vulnerable’ simply by working with them? What are the
ethical and moral issues in this space, and is it necessary to explore less intrusive, novel approaches to understanding and working with these groups? Furthermore, are there generalisable practical challenges to the collection of data when working with vulnerable groups?

*Designing for and with vulnerable individuals*

By placing an emphasis on definitions, research and ethical issues related to vulnerability, we aim to provoke new ideas about how to approach the design of new technologies to support such individuals in the future. By questioning how the HCI community typically defines people as vulnerable (or not) we hope to inspire alternative visions of technology where individuals are provided means to having a voice rather than being stigmatized as vulnerable or in need of assistance.

**Intended audience**

We propose a one-day workshop, to be attended by the authors of 15-20 accepted submissions. The workshop intends to support multi-disciplinary discussion around technology design for vulnerable groups, using technology to support working with such groups, and specific issues and considerations that must be made when undertaking HCI research with these individuals. We will consider the scope of issues that might arise when working with vulnerable groups by asking workshop participants to draw on their individual experiences to carefully dissect and discuss a range of case studies relating to the design of digital technologies with specified vulnerable groups. We invite the submission of 2-4 page position papers offering perspectives on these topics. We will solicit submissions from researchers, designers and practitioners involved in fields such as healthcare, social sciences and interaction design.

**Deadlines**

11th Jan 2013: Workshop submission deadline.
8th Feb 2013: Feedback and notifications to authors.
27th or 28th Apr 2013: Workshop at CHI 2013.

**Workshop Format**

The workshop will be scheduled as follows:

09:00- 09:15 Welcome and introductions
09:15- 10:30 Participant plenary introductions
10:30- 11:00 Coffee break
11:00- 12:30 Examples of vulnerability (Group work)
12:30- 13:00 Identifying shared themes
13:00- 14:00 Workshop lunch
14:00- 15:30 Focused group work on themes
15:30- 16:00 Coffee break
16:00- 17:30 Practical group activity, discussion of group work and wrap-up

The workshop will be a balance between brief-presentations, focused group discussions and practical design activities. The ‘madness’ session will provide valuable insights about individual perspectives on vulnerability and experiences designing with these groups. Next, workshop participants will attempt to define vulnerability through breakout sessions focusing on specific issues, e.g. What do we associate with the word vulnerable? How do we go about identifying groups and individuals as ‘vulnerable’? What effects can this classification have on the individual?

During and after lunch participants will be asked to identify themes for the next session. The group will be asked to come up with a series of case studies with a focus on technology design with or for a vulnerable
user group (structured as: target user group, why they are identified as vulnerable, what are we designing to help the user? How can we use technology to support working with this user group, if at all? What are the methodological considerations when working with this group? What are the design considerations that must be applied to the end technology?). The workshop organisers will have a set of these case studies prepared to facilitate group discussion and the flow of ideas and will provide materials to assist the task. Teams will report on their work, considering issues including user groups, design rationale, ethical considerations and potential benefit and pitfalls of their designs. The workshop will conclude with an open discussion to consolidate ideas generated throughout the day and establish a future agenda.

Dissemination

During the workshop we will prepare material for a poster for the CHI spotlight on workshops session. Following this, we will write an article on the workshop for a SIGCHI members publication (e.g. Interactions) and a report on findings will be made available openly online. Furthermore, a special issue journal submission on Designing for Vulnerable Groups will be proposed and a conceptual ‘toolkit’ to support researchers working and collaborating with vulnerable people and groups will be an outcome of the workshop. After the workshop we will update the webpage to reflect the workshop outcomes and make materials available to the CHI community. We will continue to use the homepage (http://di.ncl.ac.uk/vulnerability) as a basis for discussion and community building activities.

References

[10] Schneider, K. *To the Left of Inspiration: Adventures in living with disabilities.* Dog Ear Publishing, IN, USA