People-centered ICT studies: elements, principles and examples

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Socially-focused ICT inquiry

- Focus on the individual and communities as the unit of analysis rather than the more traditional focus of technology or data flows/storage
  - Unit of analysis
  - Referent objects
- Often results in a focus on voicing communities that hitherto have not been an active part of ICT research
- Focus on the role of culture, communities, relationships in the production, circulation, curation and protection of technology and its associated data.
Research focus

- In addition to deciding the unit of analysis and the referent object, decision needs to be made as to how the research is informed.
  - Spectrum: inductive - deductive research
  - Decision as to type of abstraction
  - Theoretical research, applied research or real-world research
  - If social research: theoretical framework
Fundamental questions to be addressed

- Technology for whom and for what purpose?
- What scientific principles are to be used to develop and test knowledge?
- What types of knowledge do we need to acquire?
- What are the most appropriate methods for acquiring the necessary knowledge?
Building and maintaining participation

• Identifying stakeholders
  – Negotiating the focus of enquiry
  – Negotiating methods of engagement
  – Understanding constraints

• Co-designing the study process AND/OR Co-designing pathways to impact (depending on disciplinary focus)

• Feeding back and producing usable outputs
Challenges

• Disciplinary focus
  – Acknowledged research topics
  – Research framing
  – Interpretation of research ethics

• Publication focus
  – Acknowledged publication topics
  – Focus of venues

• Impact focus
  – Interpretation of impact
My research journey – an example of a people-centered approach
The impact of person-centered research for me

• Six projects, one fellowship programme: one goal: build a deeper cultural understanding of information security

• Six projects:
  – Visualisation and Other Methods of Expression (EPSRC/ESRC/TSB)
  – Families Separated by Prison (AHRC)
  – Cyber Security Cartographies (GCHQ/EPSRC/BIS)
  – TREsPASS (EU)
  – CyberRoad (EU)
  – Secure Remote Working in the Supply Chain (SeReWISC) (TSB)
THEY ARE READING MY LIFE

Microcosmos

To be alone

I do not want
Principles

• Cede control to the participants
  – Create a form of engagement where participants are able to negotiate the terms on which the research takes place.

• Make visible all collected data by participants
  – Display the data in open spaces so that participants both develop a sense of ownership of the data and have access to the data to make subsequent changes.

• Everyday spaces
  – Carry out the research in a space that participants routinely frequent in their everyday activities.

• Engender a participative environment
  – Encourage participants to envision positive change to a particular aspect of their everyday working environment.
Real-world research questions

• Fundamental research questions underpinning research programme:
  - What are the social, organisational and political factors that result in successful protection of information?
  - How is information successfully protected in the face of organisational/societal adversity?
  - How does the communication medium affect degree to which groups engage with information security messages?
  - What are the relationships between information security and other forms of security?
Research framework

• Observation and informal discussion
  – Determines research focus, research questions and research method
  – Establishes trust and the basis of social exchange

• Open-collaborative exercise to develop meta-narrative
  – Focus group, wall collage, town hall meeting

• Individual narratives to deepen understanding
  – Current experience comic strip, interviews, LEGO modeling

• Forward-looking design proposals and prototypes
How might the new technological landscape influence how practitioners and young people think about consent and privacy?

**The Problems**
- Process of giving consent - it's complex
- Renegotiation of consent
- Types of consent being solicited to types of data
- DPA (+ enforcement)
- APO + mobile - it's harder to check
- Complexity of what you're contributing to

**Phase of giving consent**
- (Explain in more detail)
  - Ability to understand - manner around the way

**The technology we had**
- Helping people understand
  1. Choices + what that means
  2. What data are in issue (idp)

Why is this important?
- Example of free tools
- Shows how we see evidence of what people think around
- Example of free tools
Interviews

Illustrations by Alice Angus,
Proboscis
Method

• Method and structure are important
• Qualitative data analysed using principles to ensure rigour and repeatability
<table>
<thead>
<tr>
<th>ID</th>
<th>Code Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>{Q-1} Tasks</td>
<td>Text units referring to general (non-specific) daily activities.</td>
</tr>
<tr>
<td>2</td>
<td>*(Q-1) [Tasks] Example</td>
<td>Text units referring to a specific project or task.</td>
</tr>
<tr>
<td>3</td>
<td>*(Q-1) [Tasks] Hypothetical Example</td>
<td>Text units referring to a hypothetical project or task.</td>
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<tr>
<td>4</td>
<td>*(Q-1) [Tasks] Problem-Solving</td>
<td>Text units referring to problem solving.</td>
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<tr>
<td>5</td>
<td>*(Q-1) [Tasks] Decision-Making</td>
<td>Text units referring to decision-making.</td>
</tr>
<tr>
<td>6</td>
<td>{Q-2} BuildingMaintain Relationships</td>
<td>Text units referring to building and maintaining relationships.</td>
</tr>
<tr>
<td>7</td>
<td>{Q-2a} People and Impact</td>
<td>Text units referring to people the interviewee is in contact with and how those people impact their jobs. This includes the departments they belong to, their roles and or their daily activities.</td>
</tr>
<tr>
<td>8</td>
<td>*(Q-2a) [People &amp; Impact] Forum and Initiatives</td>
<td>Text units referring to an information security forum, meetup or a group communication/sharing initiative.</td>
</tr>
<tr>
<td>9</td>
<td>{Q-3} Human Controls</td>
<td>Text units referring to human control specifically how people are handled and the common issues faced when dealing with others.</td>
</tr>
<tr>
<td>10</td>
<td>{Q-3a} Engagement</td>
<td>Text units referring to how the interviewee engages with people and or departments. For example specific communication methods (e.g. face to face) and or technology (e.g. email).</td>
</tr>
<tr>
<td>11</td>
<td>{Q-4} Define InfoSec</td>
<td>Text units providing a definition of information security.</td>
</tr>
<tr>
<td>12</td>
<td>*(Q-4) [Define InfoSec] Sale</td>
<td>Text units referring to how to sale information security to clients, team members or the information security community.</td>
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