Involving people with dementia in the design of new technology

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Importance of user engagement

- Understanding user needs
- Guiding the design process
Understanding user needs

Guiding the design process

Some specific techniques
Understanding user needs
Approach developed

Technology design

Quality of life outcome measures

Quality of life interviews

Quality of life issues

Technology design
Guiding the design process
Standard Design Methodology

Preparatory work:
- Problem analysis
- Compile specification
- Design concepts
- Prototype development

Creative work:
Assistive Technology Design Methodology

Problem analysis

Compile specification

User interface aspects

Engineering support features
User interface aspects

- Brightness of lamp
- Appearance
- User switch

Engineering support features

- Electronics
Assistive Technology Design Methodology

1. Problem analysis
2. Compile specification
3. User interface aspects
4. Engineering support features
5. Prototype design
6. User evaluations

Flowchart: Problem analysis leads to Compile specification, which results in User interface aspects and Engineering support features. Prototype design and User evaluations are iterative processes.
Assistive Technology Design Methodology

- Problem analysis
- Compile specification
  - User interface aspects
  - Engineering support features
- Prototype design
- User evaluations
- Integrated prototype
Wizard of Oz techniques
"Dinner was nice. We had chicken and potatoes and I……?"

‘Help me’ button

Last few words replayed

Reminder about topic
Carer emulation
Emulating carer actions

- Carer detects problem
  - Carer prompts user to act
    - If no response carer intervenes
      - Carer reassures user
  - Home prompts user to act
    - If no response home intervenes
      - Home reassures user

- Sensors detect problem
  - Home intervenes
  - Carer intervenes
    - Carer reassures user
Intuitive interfaces
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