SPARC EPSRC funded research: ‘An investigation into older drivers advanced technology desires, needs and requirements.’

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Background

- People experience changes to themselves as they age
- Some ageing effects are beneficial in terms of driving safety, e.g. risk aversion
- Some ageing effects are detrimental to driving safety, e.g. reduction in visual acuity
Research perspective

- Advanced technology in automobiles can help older people cope with less desirable ageing effects e.g. lane deviation warning
- Much new technology is not appealing to older people who do not usually wish to learn complex new user interfaces
- Some new automotive technologies and interfaces cannot be avoided by older people
New interfaces...
New interfaces...
New Technologies...
New Technologies...
Research issues

- What do older driver’s think of potential of upcoming technologies?
- What are their experiences of advanced technology interfaces in cars?
- Are their fundamental interface executions which will turn off older drivers – if so what are they?
- What can be done to design new technology interfaces to make them more appealing to older users?
- Will some interfaces always be difficult for older drivers?
Phase 1 Goals:

- Develop an older user panel
- Narrow down research technologies
- Carry out focus group sessions with older people to identify their issues and research wants
- Develop conceptual model
Phases 2 & 3 Goals:

- Develop older user-friendly concepts
- User testing with older people
- Development of design specifications for designing for older people
- Final design specifications
- Final workshop to showcase the lessons learned
Learning new skills

Learning effort

Normal task effort

The learning hump

Easier task
Can technology make Old Age a better experience?

- **Research**: Strong call for more age-related research

- **Ageism in industry**: Recognition that older people are a market ignored by industry. Existing technologies could give more help.
Participative and Iterative

- Pro-active Steering Group
- Observations in context
- Focus group discussions
- Interactions with driving simulator
- Interactions with prototypes and simulations
Output

- Empowered design process framework
  - More stars in the RAE
- Product innovation for CS and PD
  - Improved requirements elicitation and evaluation with ‘the third-agers’, ‘baby-boomers’, the ‘cool’ generation
- Improved guidelines, design heuristics
- Researcher as facilitator of future investigation
Thanks for listening!