Re-imagining the city through participatory open data

Juliane Jarke, Ulrike Gerhard
Institute for Information Management Bremen (ifib)
MobileAge - Objectives

- Explore and implement innovative ways to support senior citizens to access and use public services through personal mobile technologies and based on open government data.
- Develop and deploy co-creation approaches and methodologies to engage senior citizens effectively in order to realize the benefits of open government data and mobile technologies for the ageing population.
- Develop a situated, practice-based understanding of accessibility, mobility and usability of services.
- Develop a framework for impact assessment and evaluation for co-creation approaches to open service development for the ageing population.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 693319

www.mobile-age.eu
Cultural Probes

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 693319
Socio-spatial dimension of inclusion (returned maps)

Understand social inclusion with respect to primary networks and space.
Civic hacking & participatory open data

- Participatory open data initiatives aim to engage citizens (also with non-technical backgrounds) in practices relating to different levels of open data use such as the requesting, digesting, contributing, modelling, and contesting of open data (Schrock, 2016).
- They may involve anybody ‘who is willing’ to collaborate with others to create, build, and invent open source solutions using publicly released data, code and technology to solve challenges‘[1] relevant to their neighbourhoods, cities or states.

➢ There is a bias towards young and technology savvy citizens. How can people with non-technical background (particularly senior citizens) be included in such activities?

Problem... 1st generation civic apps

- Topics are mostly pre-defined and supply driven (mostly data provided by authorities)
- Scope relates often to infrastructure projects (focus on mobility, transport, map-based-reporting)
- Citizens act as data collectors/sensors
- wrt senior citizens often focussed on deficits/limitations

Lee et al. 2015
Challenge for civic app co-creation

• How can non-technical citizens be active participants of open data co-creation activities?
• What methods may be employed?
• What issues may emerge? What are challenges?
• What is the role of researchers, and other stakeholders?
Participatory open data study

- European survey on existing participatory open data initiatives identified 25 projects targeting senior citizens
- Conducted 15 interviews, review of project documentation
- Most projects perform very limited or no co-creation activities
- The analysis is based on 9 projects
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 693319
Recruitment

Co-creation methods and interventions

• Presentations at existing senior groups & events (e.g. computer club, church, service providers, lunch clubs etc.)
• Collaboration with service providers
• Email lists from intermediaries and senior citizens organisations
• Media outreach (newspaper, radio, TV)
• Promotion on public transport vehicles
• Distribution of business cards

Reflection

• Definition of topic pre-determines/frames project but also facilitates recruitment
• Often already active citizens are addressed and join
• Technology-centricity may hinder participation (depending on setting)
Exploration

Co-creation methods and interventions

• Interviews & focus groups
• Literature review
• Survey about existing services & data
• Technology workshops
• Participant observation
• Mobility study (ethnographic fieldwork)
• Cultural probes

Reflection

• It is important to understand the everyday life of senior citizens yet the transferability of social science methods outside academia is not always possible/adequate
Idea formation

Co-creation methods and interventions

• Interviews,
• Focus groups
• Personas workshops
• Questionaires/surveys
• Diaries
• Playboard/creative methods

Reflection

• If senior citizens are engaged early on, their resources move into focus
  – Understanding of participants needs and resources changes when researchers learn about the everyday life of their participants
Service definition

Co-creation methods and interventions

• Senior citizen advisory board
• Workshops
  – Use case scenarios
  – Interviews and focus groups

Reflection

• Time constraints and project logic pushes developers to start defining a service before participants form ideas and define the service
Data definition & collection (content)

Co-creation methods and interventions

• In case of non-research projects data may not be freely available (e.g. real-time data on transportation)
  – Transport focussed projects use proprietary transport data from project partners
• Co-creation of not yet existing (open) data
• Often data sets are not complete (most projects stay on prototype status)

Reflection

• Usually underestimated if goal is to provide complete and up-to-date information
• User-centric service provision is a complex task
  – Different data sets from different sources
  – Attributes not clear
  – Datasets may be incomplete or outdated
  – Data provider have low interest in the use of their data
Co-design

Co-creation methods and interventions

• Focus groups
• User tests
  – Thinking aloud
  – Observation
  – Exhibitions
• (Paper) prototype
• Demonstrators
• Regular workshop with mock-ups
• Wire frames

Reflection

• Tensions between product- and process orientation
• Openness to design proposals of participants that may seem unusual to the developer/researcher or contradictory to the original research objectives
Maintenance & diffusion

Co-creation methods and interventions

- Promotion (e.g. materials, press coverage)
- Presentation
- Introductory workshops for external users
- Usability and evaluation workshops
- Trainings for usability tests
- Customer acquisition
- Management
- Testevaluation
- Maintenance of data
- Exhibitions and fairs

Reflection

- Very few projects conducted evaluation of their impact; criteria not always clear.
- Most research projects stay on prototype status
- Challenge to transfer and maintain results (e.g. to public authorities)
Reflection

• Recruitment and engagement involves mainly already active senior citizens (e.g. in computer clubs, charity work)

• Roles & co-creation degrees:
  – Participants may be actively involved as explorers and idea formers, but degree of co-creation decreases for design activities, and increases for diffusion
  – Degree is mainly selection from a number of given alternatives, and to some extent selection from self-defined options
Challenges of civic co-creation

• How can senior citizens re-imagine their cities through civic open data co-creation?
• Data-driven cities and/or citizen-driven service development?
  – Relevant data are not provided by a single open source but are distributed across various stakeholders & organisations
  – Data sources need to be investigated and validated
• Through co-creation activities focus changes from visualising objects on a map to visualising participants’ place-making practices
Thank you for your attention!