Panel Discussion ICIW/SPWID

Internet, Wearable Devices, and Mobility

Moderator

Steffen Fries, Siemens AG, Germany

Panelists

Åsa Hedman, VTT, Finland

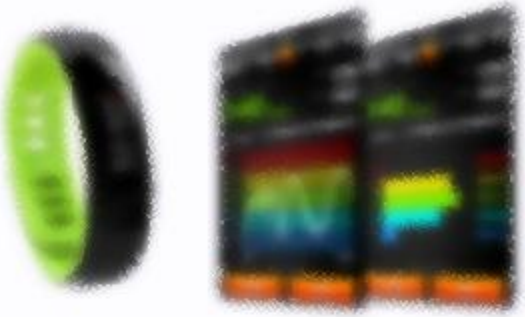
Redouane Khemmar, ESIGELEC, France

June 24th, 2015

two initial thoughts on the topic

support in daily life

ambient assisted living

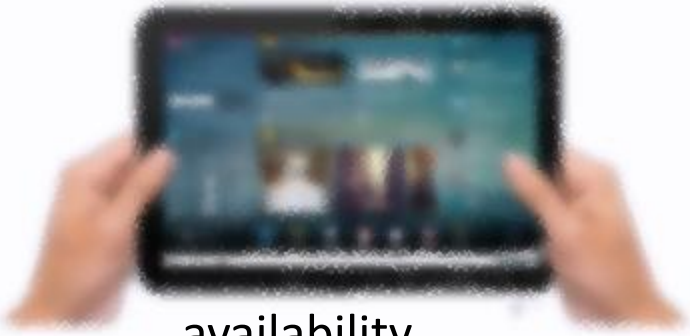


instant health analysis

social media

navigation, location based services

remote control for, e.g., energy, heating, multmedia services, …



availability

the flipside – keeping control

privacy

cyber bullying

ownership of data

topics from the panelists

Åsa Hedman,
VTT, Finland

the interrelation between mobility and quality of life and the economics of the society

Redouane Khemmar,
ESIGELEC, France

Smart Autonomous Vehicle:
the combination of urban mobility, renewable energy , and driver assistance systems

summary of discussion

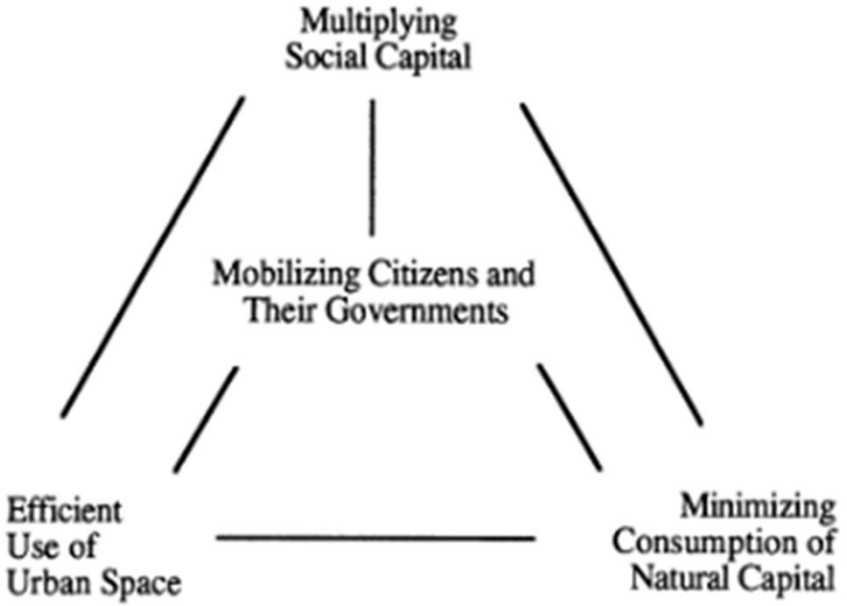
- **Main focus of panel discussion on urban mobility with the emphasis on autonomic mobility leveraging electric vehicles**
- **Different funded projects deal with the topic, targeting especially support of elderly and disabled people, but also to address the overall CO_2 footprint of urban mobility**
- **Autonomic driving was seen as very promising technology, but needs to be considered in the complete picture to not address single individuals but a whole city population**
- **Autonomous driving should not increase the traffic in bigger cities. It should support the concept of mobility on demand without requiring to own a car. It should be incorporated into mobility concepts supporting multimodal travel solutions, utilizing (full or partial) autonomic driving.**
- **Ideally, the vehicle is an electric vehicle to better address the overall energy consumption as it also allows to store and feedback energy**

Datasys 2015
Panel discussion

Åsa Hedman
VTT Technical Research Centre of Finland Ltd
Senior Scientist
Eco-Efficient district solutions

Mobility and Urban planning

- Car-usage can use over 50% of a residential areas total energy (Rajala et. Al, 2010).
- EcoCity definitions from 20 years ago allready listed mobiltiy issues as the first points to consider (Roseland, 1997)
- Framework for sustainable communtiy planning (Roseland, 2000)



(Johanson et. Al, 2010)

Urban planning and mobility

- Target: Plan societies that 1)reduces the need for people to move around daily and 2)enable daily mobility to be car-free.
- Existing urban enivronments challenging
- Doubling the collective transport offering, the car use decreases by 6% (Johanson et. Al, 2010) (Swedish study)
- City planning actions can reduce car usage 10% (Johanson et. Al, 2010) (Swedish study)
  - increased density of urban structure (3%),
  - mixed functions (2%),
  - formation and speed limits of streets to meet pedestrian and cyclist demands (1%)
  - connecting to collective transportation (4%).
- Availability of daily services on walking distance most essential
    - Case: StPetersburg, Russia: must have daily services on 500m distance from residential buildings!

- **ICT and mobility**
  - Lots of solutions have been developed, slow uptake
  - Demand based public transportation
  - Robot cars
  - Vehicle to grid solutions…
- **Mobility impacting quality of life and economics of the society**
  - Time consumed in commuting..
  - Easiness for non-car users to get to places (children, youth, elderly)..
  - Heavily jammed cities => lost business oportunities
    - Ex. Cairo, Alexandria, StPetersburg: plan maximum 2 meetings for one day!

References

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- Roseland, M. 1997. Dimensions of the eco-city. Cities. (14), 197–202.
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