Mobility Futures

„Mobile Together: Designing rideshairng futures for older adults"
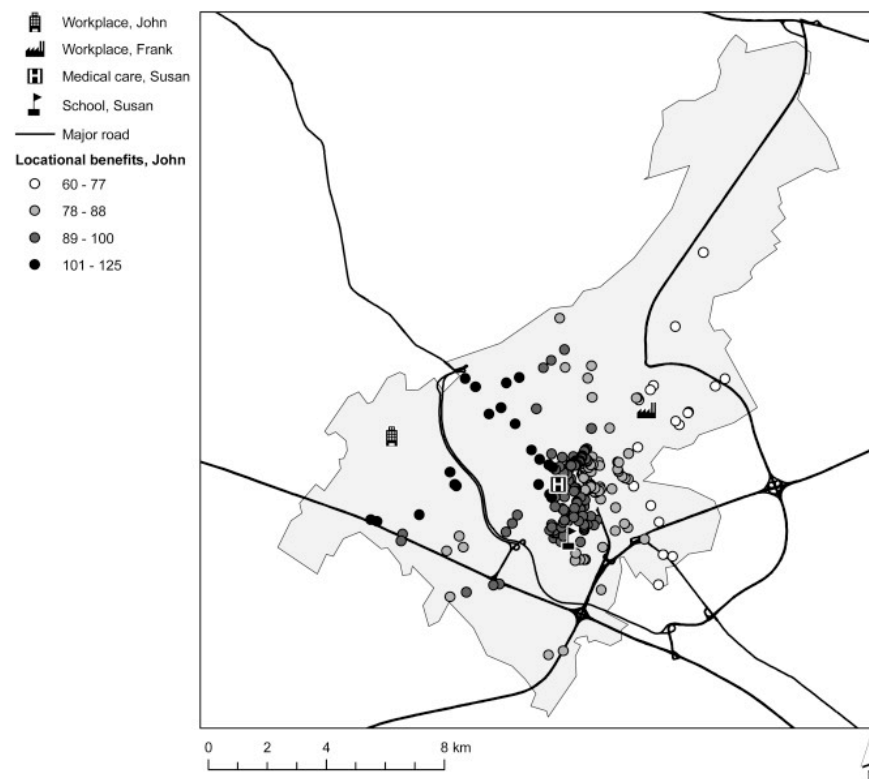
Johanna Meurer,
Martin Stein,
Gunnar Stevens

Elderly and rideshring

Measuring Mobility

- 22 percent fewer trips when retirement started
- Over 65 make roughly 90 percent of their trips in a car
- Older adults take as many as 23 percent more non-work trips than people under 65.
- About half of all trips are done in cars with at least two persons.

(Bloomberg and Scheiner et al.)

Workplace, John
Workplace, Frank
Medical care, Susan
School, Susan
Major road
Locational benefits, John
○ 60 - 77
◔ 78 - 88
◕ 89 - 100
● 101 - 125

0 2 4 8 km

N

UNIVERSITÄT SIEGEN

Mobility preconditions

- Infrastructure for different transort modes is unequally distributed.
- Most older adults will live increasingly alone, in suburban or rural areas, and increases the dependence on private car.
- Social networks become increasingly important

Mobility and health

- Most research focuses on bodily and cognitive impairments, causing difficulties in undertaking the basic mobility activities.

- Nut most elderly will be in good health and not seriously disabled until they reach age 80.

- Driving is still the easiest mode of transport and elderlies fear losing their driving license.

Mobility and wellbeing

- Overcoming mobility barriers does not guarantee mobility without problems or an increased quality of life.

- Mobility contributes to well-being and quality of life of older people.

- Investigations for ridesharing are missing.
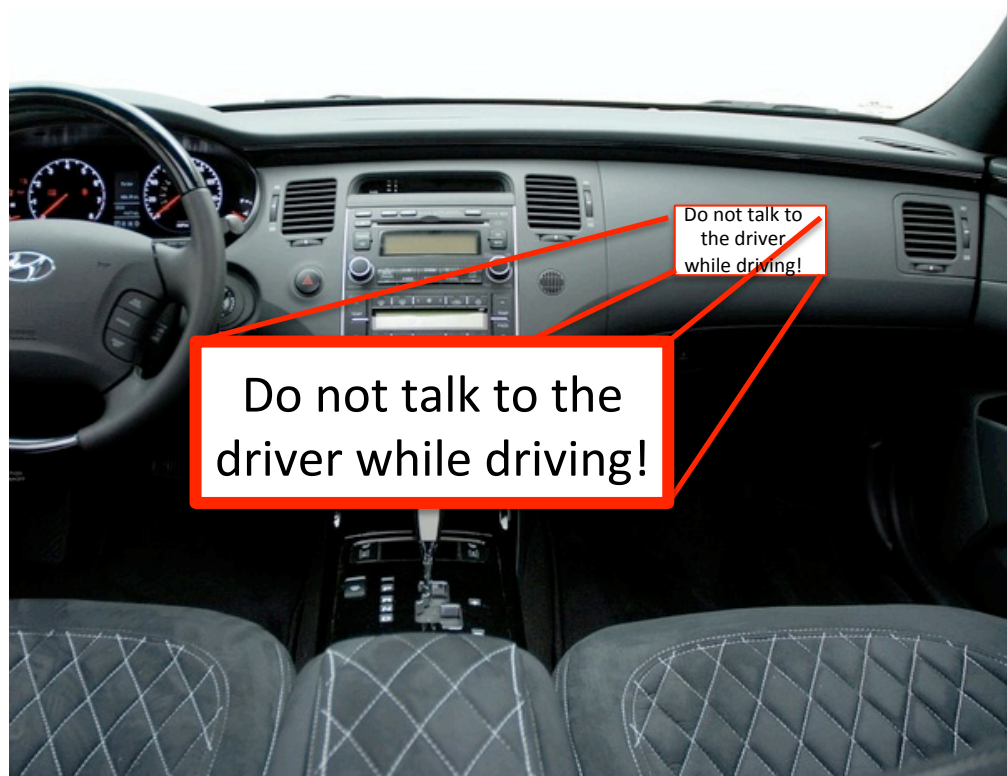
Supporting Ridesharing in HCI

Matching demands and offers

- Focus on algorithms for matching rides
- New challenges are on flexibility, incorporating social networks and GPS services

Reducing transaction costs

- Focus on communication and coordination processes
- New challenges adapt on individual contexts

Accounting social acceptance

- Claim to take social situations into account how people travel and meet
- Current challenges are on issues like „trust", „privacy", or social interaction

Methodical Framework

- Give insights into mobile wellbeing of older adults in a ridesharing context

- Mixed method approach of semi-structured interviews (n=21), mobility diaries (n=7), and observations of real life ridesharing situations (n=7).

- Participants live in a region with about 100.000 inhabitants in western Germany.

Category	Characteristics	Number of respondents
Sex	Male	5 (26%)
	Female	16 (74%)
Age	58-70 years	11 (53%)
	70-80 years	10 (47%)
	(Average: 69 years)	
Marital status	Married or living with a partner	12 (58%)
	Widowed/ Single/separated	9 (42%)
Housing tenure	Owned	13 (63%)
	Rented	8 (37%)
Self-rated technical competence	More good	6 (26%)
	More bad	15 (74%)
Population density	Low density	11 (53%)
	High density	10 (47%)
Travel Modes	Own car	17 (84%)
	Public transportation	5 (21%)
	Walking	8 (42%)
	Experienced in Ridesharing*	9 (47%)
* **Multiple** answers are possible		

FINDINGS

Mobile independence

„(Mobility) means still being very independent and able to go places.

(…) You don't need anybody because the [bus] connections are excellent and you can get anywhere you like really quickly. That is very important for me too."

Decisional autonomy

"Yes, [mobility means] everything. Everything… just the thought of it I CAN go, if I want… that is so important, you know? Even if I might not actually go anywhere but just… yes, just to know that if I wanted to go anywhere, I can just go to the garage, get in my car and drive off… and I am scared of the day when that might not be the case any more."

Experiences of transport modes

Car

Independence

Cars can function as 'compensation tools' to protect individual independence when physical functioning declines or alternative infrastructure is missing.

Decisional autonomy

Decisional autonomy connects to one's ability to plan for oneself how to undertake journeys of whatever kind. Possessing a car is socially connected with having the option of being mobile whenever one wants or needs.

"Of course, I always drive by car. It means a lot because it means I'm able to get out when I want. Although the bus stop is right before our house, the bus stops only twice a day when we are lucky (smiling)."

"I've got to have the feeling I can get in and drive off. […] I don't really NEED my own car, I don't use it every day. But I want it to be there, waiting in front of the door so it's there when I need it."

Experiences of transport modes

Public transport

Independence
taking the bus allows her to feel independent from others, because she does not need to ask for support.

Decisional autonomy
Timetables restrict the flexibility of people's movements.

"my mobility… as long as I can still walk to the bus stop, use the bus, I'm happy. It's my independence."

"everything that comes into my head, I can do with the car. I can't do that when I [use] public transport, I've got to plan everything, you've got to look how you can – how you've got to - get yourself organized."

Experiences of transport modes

Ridesharing

Independence

Ridesharing entails a degree of mutual dependency, for instance in logistical concerns like time coordinating departure, pick up places and retour. Further people have to cooperate within social arrangements.

Decisional autonomy

The offer presents no extra burden to the driver, but the passenger has to adjust to the driver and therefore a loss of decisional autonomy.

"[With ridesharing] you've just got to follow suit, no matter how or when he's driving. I don't have to watch what anyone's doing, I can look (when shopping) where I want and how long I want and what I want. I prefer to do it alone, you know [...] That's all those things, no, well it is (on my own) more independent."

Learning from ridesharing practice

Dealing with reciprocity

Gift exchange economies come not for free, but involve quite complex and unspoken rules, governing timing, appropriateness and emotionality

"To square things you can take some flowers or a plant to say thank you now and again. They don't want anything but just to say thank you, you can get some flowers. Just a little plant. But I don't do it so often because they don't want you to. Like they say, it doesn't matter whether three people are in the car or four. It doesn't make any difference."

Ridesharing informal economy

The degree to which one can impose on another will depend to some degree on who the other person is.

"Yes well I'd go with a friend and I wouldn't ask Mrs. Volz if she could take me. Because her lifestyle is different from mine, she is independent and I wouldn't – I'd be a burden if I always wanted to come round to ask. That's why there are buses. You don't need it when everything's going according to plan. No, then I'd keep my independence and go on the bus."

Setting up at routines

In the case of shared activities both decisional autonomy and independence are fostered because the activity has fixed borders, and makes negotiation unnecessary.

"Well yes, they're fixed… well, there's a group of us who do things together… sometimes we drive to the cinema in Dahlbruch… and erm yes, then you just ask do you want to go this evening or maybe tomorrow? And then one person says, yes, listen I'll drive. That's what it's like."

Dealing with social uncertainty

People have to deal with the issue of closeness and distance in a ridesharing setting and finding a way to cope with strangers.

"… yes, they often use the telephone. Internally we don't do that, you know… just appear in the door, hello, here I am… , or you just ask, listen, I just want you to, does it suit you at the moment? and sometimes it doesn't suit when you just turn up."

Implications of Design

- Context Study shows up new categories of „independence" and „decisional autonomy" beside established concepts like „trust", „privacy" or „security".
- Findings sensitize for alternative design concepts as innovation seeds.
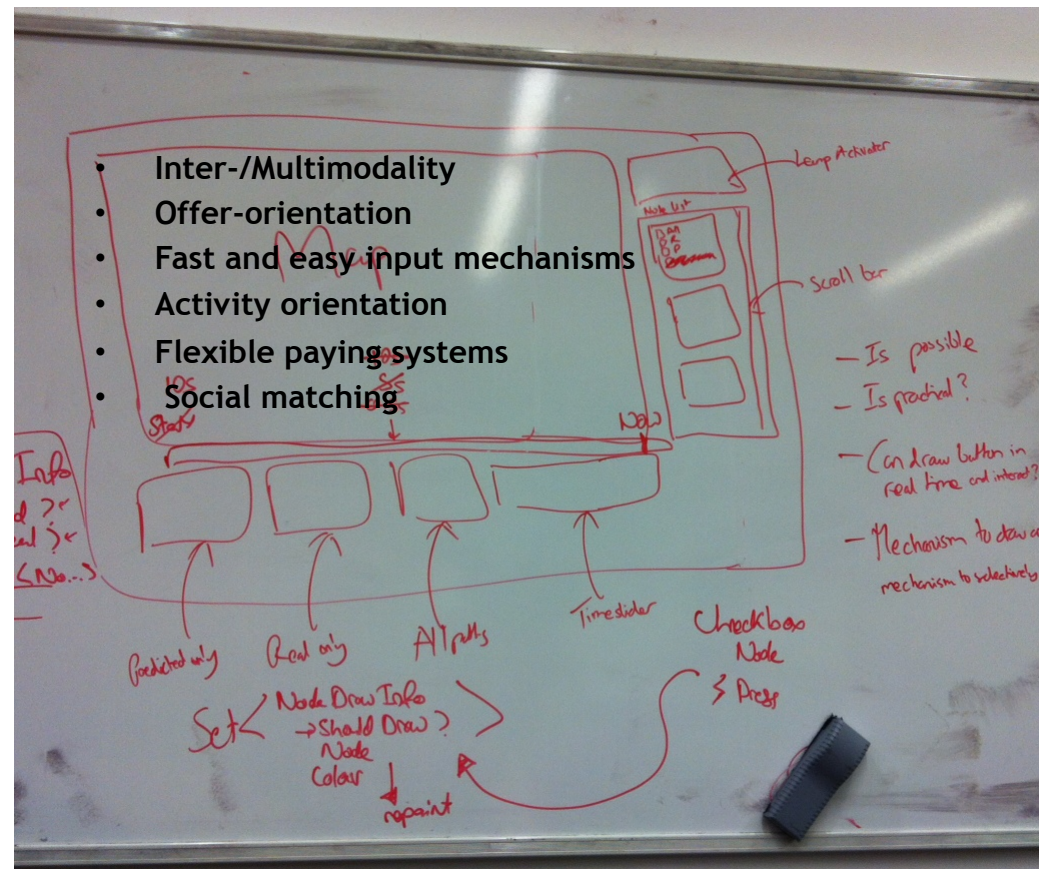
Thank you for attendence!

Contact: Johanna.meurer@uni-siegen.de