

Shared Autonomous Vehicles in Ski

What do the locals think?

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In-depth interviews in households

- 20 individuals interviewed by two researchers in the period April 2021-March 2022
- Recruited via previous survey
- Two interviews at the informant's place of residence and 19 via Teams
- Tentative question: "What explains acceptance of and resistance to shared autonomous public transport?"
- Focus on exploring and understanding individual and social dynamics - not generalization
- Themes:
 - Daily travel habits
 - Perceptions of AV /SAV technology
 - Views on Ruter's pilot trial
 - Values, life phases, experiences
 - Expectations, transport visions
- Facebook-posts review (50)
- Interviews have been conducted with stakeholders in BaneNor, Ruter, FAU-Finstad, Holo

Three "ideal-typical" views on the Ruter-pilot







Sceptical (4)

See little use of AV in Ski Critical to the trial's location, technology and potential

Uncertain (5)

Not negative, but with many concerns, especially related to safety

Feeling like they don't know enough

Interested (11)

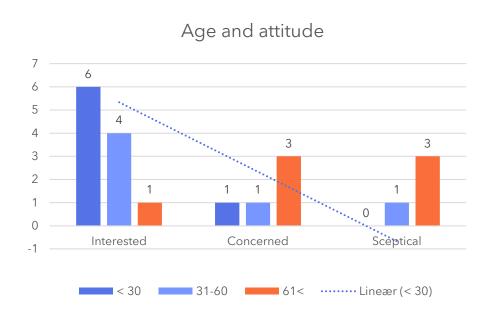
Generally positive

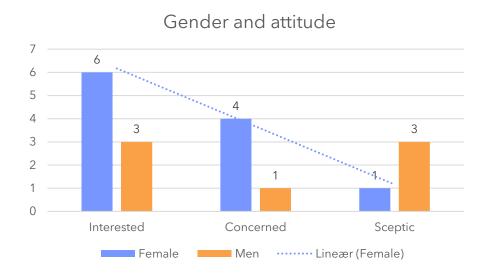
Trust that Ruter have control of risk elements

Thinking of this as positive for the environment / climate and the municipality



General sample classification: Demography and attitudes







Knowledge about the pilot

- Most people have limited knowledge and insight no one has actually tried
 - No one has actually tried it; two have spoken to a driver
 - Two say they don't think it's carrying passengers yet
 - Most people would like to try
- Knowledge of the experiment comes mostly from secondary sources
 - Local media
 - Neighbors
 - Social Media
- Uncertainty about why Ruter does this
 - Most people assume that it is economics and the development of new experience
 - Energy use and the environment are highlighted to a lesser extent

- "yes, I'd like to try it now, but I didn't know it was possible to use it, thought it was just driving around by itself" #2
- "It has been a bit of a posting about it in the local newspaper and I think it's been a topic in a parent committee or something like that at school. I haven't been involved in it, but the way I've heard from other parents. And out of that concern on if it is it safe for the kids. And then there are some stories like that they say it's safe, but I've seen it hitting someone..." #3
- "How does it become more environmentally friendly if it's self-governing? After all, no one drives the bus? But are they going to run on cow shit?" #18



Perceived usefullness

- Many believe it could be good for the older and the younger
- Convenient if it replaces short trips in Ski
- Hope for better traffic-flow in Ski center
- Possibly useful outside downtown areas where it's too far to bike or walk
- Make sense when parking is reduced at the station
- Good if it cuts emissions
- Good if it does not replace walk/bike

- "I think all may use this, but probably mostly older people who today have to use maybe taxis...After all, it will be cheaper for them to be able to use such an alternative...."
- "So, I think this could be for those who live a little further out then, further out from downtown, but then it's not us."
- "So yes, I'm very much in favor of trying things like that and if there's anything that can help improve the climate and the environment and stuff like that, I'm very much in favor. Because I'm very concerned about that."



Concerns

- Many do not want to cut down on cycling and walking
 - Older informants consider walks into the city center as exercise and daily activity
- Jobs are disappearing
 - Connect AV/SAV to robots and social alienation
- Safety in traffic
 - Some are unsure, but most think it is relatively safe
- Security on board
 - Unsafe on board without a driver who can intervene in dangerous situations
 - Situations where one needs help to enter the bus
- Socially challenging
 - Awkward to sitting close to strangers in a small vehicle
 - Connects to experiences with school buses or shuttle busses for the elderly

- «I want to take off some kilos, try to move my body as much as possible. I go shopping at the grocery store that is furthest away from me. And then I often take a detour so that the trip may take one and a half to two hours.... "
- «... if it's not going to be a person sitting in the car, we'll lose a lot of jobs then. There will be bus drivers who are no longer needed. And we see that in many industries, that a lot becomes ..., that it is machines and robots that take care of most things."
- «.. Then there's that question, yes, sitting in a minibus with people I don't know. And thought it's a bit awkward"



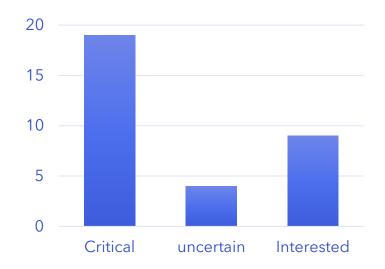
Resistance and critique

- Too dangerous to do test-driving in local streets with school children
- Removal of parking spaces in residential areas is irritating
- Seems "premature" and "poorly planned" since it runs on diesel and must have a driver
- Skepticism to the idea of "frictionless" mobility outside urban centers
- Waste of public money

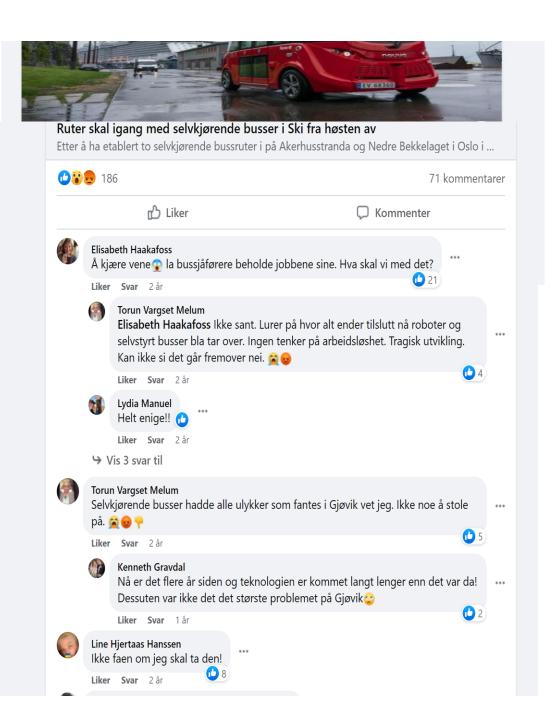
- "There's a lot of head-shaking over selfdriving buses that have to have a driver and that it's not self-driving after all. The only thing that is self-driving about this today is simply that they don't run over anyone, it arrives and stops and then the problem must be solved by a driver"
- "I think it's a bit of a waste of resources that it should just arrive in a moment whenever you want and...At least for those of us who live in areas where there are relatively few users. The idea that everyone should have the same services, I'm a bit skeptical about that..."



Facebook - an important local arena for critique, stories and (some) positive voices*

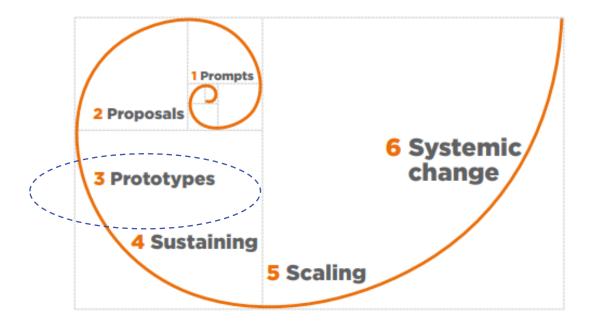






^{*}Extract from FB-post: «Hva skjer i Ski?» June 10., 2022

Thinking about SAV as a technological and social innovation



The process of social innovation. (Murray et al 2010)

Learning points from the qualitative study

There is an interest to try out SAV in the future

- Younger, engaged, people most interested
- An on-demand SAV service is seen as particularly relevant

Citizens views on SAV and AV are ambiguous

- Indications of polarization, enhanced by social media
- Lack of information causes speculation
- A "silent majority" of concerned may be mobilized in the future

"Expected" user groups are reluctant

- Older and impaired are concerned about security and reliability
- Both older and younger people tends to prefer other modes for local trips (health, image,)

Sustainability gains from SAV are uncertain

- Current car drivers don't want to replace cars for SAV
- Few see living without cars as possible
- Possible rebound effects





Thanks!

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