

If AVs are the solution, then what is the problem?



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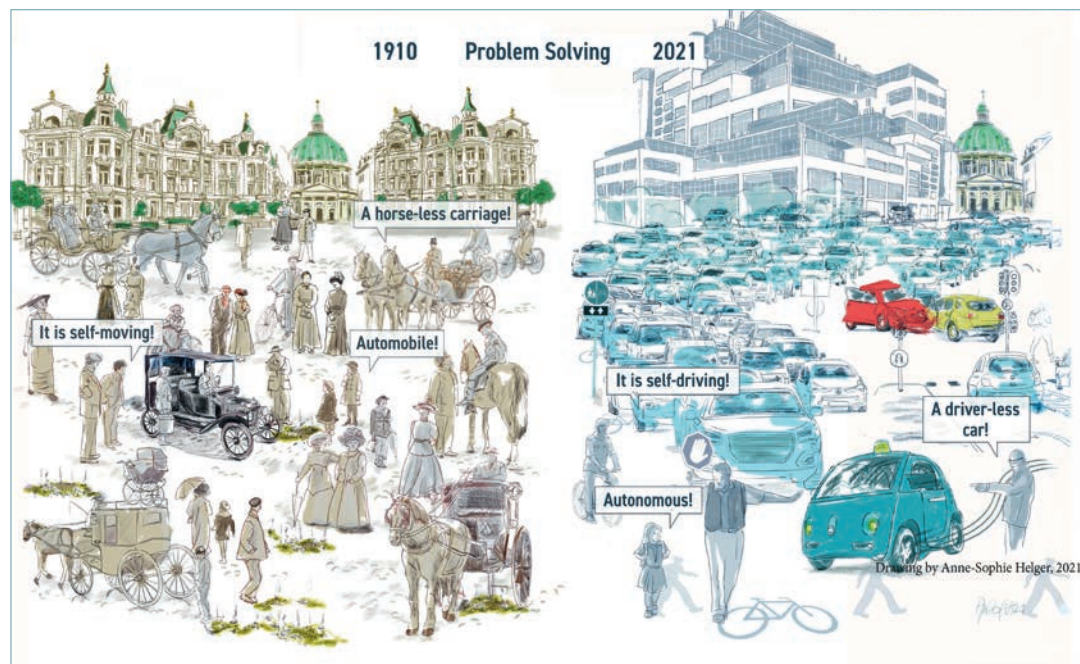
Aalborg University provided research on the application of automation technology in spatial environments to contribute to capacity-building among planners, urban innovators and decision makers. The research encompasses (1) a place- and community-based analysis of Denmark's first

test of driverless vehicles – a trial with Smartbus shuttles in the city of Aalborg (SAE-level 3), and (2) a study of recent social science literature into the potential implications of automated vehicles on car-dependent cities and on their transition to greener and more just mobility.

What are the key outcomes?

If AVs are the solution, then what is the problem? This question is incited by both studies.

Recent social science literature stimulates substantial reflection regarding the possible implications of automated vehicles on key problems of the contemporary city, herein environmental sustainability, mobility poverty, and space inequality. The Aalborg East Smartbus trial, on the other hand, was ahead of its time as a proposal to concretely apply innovative mobility technology to solve not only local mobility problems in a slow-speed dynamic context but also fulfil an urban strategic vision.



Both studies demonstrate a considerable diversity and indeterminacy occurring in the meeting between automation technology, the city and people, that challenge any assumption of a straightforward, risk-free pathway to AV's application in cities.

» *Will autonomous vehicles help create inclusive, sustainable cities?*

AVs and future cities

Future scenarios suggest that the bright hope that AVs will extend the swiftness, comfort and flexibility of the car-user and contribute to a better urban future is both uncertain and risky. We may see, on the contrary, that AVs extend the bads of the automobile – such as unsustainable practices, congested cities with empty zombie cars, mobility injustices, serious health issues, and urban sprawl.

From where we are today, this future uncertainty urges us to refrain from a blinkered perspective that approaches autonomous vehicles as a technical question alone, separated from contexts, cultures, social practices, markets, and policies, and consider carefully if AVs hold a role in the futures we need and want, and if so, how they can be shaped to that.

The Aalborg East Smartbus trial warrants continued curiosity about if and how driverless mobility can be brought into play as an element in sustainable mobility development and urban development.

In the trial, we have seen how the concrete urban and transport context interacts with the driverless shuttles and how people use and experience them as part of their city and everyday life. A richness of interactions, adaptations and contestations of the



technology took place in and around the shuttles, between shuttle users, path users and shuttle stewards.

It is possible that the experience could be used to investigate whether a community approach to driverless technology can be developed, one that integrates mobility, local community development, social work and the quality of public spaces to follow a new model, e.g., in the form of a collaborative project where local actors join together in implementing a local citizen-oriented driverless service bus.

» *Can we shape automated vehicles to the futures we need and want?*

Contact

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