ACCESS DENIED

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Digitalisation in public transport benefits many travellers. However, it requires extra efforts effort from a smaller yet sometimes already **less resilient group of people**. The low visibility of this group makes it difficult for operators and authorities to take action, but solutions do exist.

Even in the European country with the most digitally literate population, not everyone can follow the pace of digital transformations. In the Netherlands, 52% of the population aged 16 to 74 has more than basic digital skills. However, this share drops to 31% for people with lower education levels and to 28% for those aged 65 to 74. Moreover, about 1 out of 5 Dutch people aged 12 and older struggles struggle with digital skills.

How do these people deal with the increasingly pervasive digitalisation in a public service services such as public transport? This is the main question that I attempted to reply to through a series of studies, together with colleagues from KiM Netherlands Institute for Transport Policy Analysis and the Delft University of Technology.

An isolated man sitting on a bench viewed from a bus

Max Smirnov, Pexels

Advantages for many

Sixteen years after the introduction of the first smartphone, digital technologies have become omnipresent in public transport. Apps and smart cards are used by many and have brought benefits. However, elderly people, people with a lower education level, people with a lower income, ethnic minority groups and people with disabilities are shown to be more at risk of digital exclusion in transport services.

Interviews with these at-risk groups reveal that despite low digital skills, they often derive some benefits from digitalisation. For instance, the option to let the smart card automatically recharge offers a convenient way out for those who have always felt uncomfortable using ticket vending machines:

'The nicest thing about public transport is when that ov-chipcard [Dutch national public transport smart card] came out. I started travelling a lot more. You didn't have to buy a ticket, the money would be taken out of your account automatically — I didn't have to worry about that.'

Changing expectations

At the same time, most at-risk individuals we interviewed run into problems. For example, they cannot find their way in the world of online travel information or do not want to buy a ticket online for fear of cybercrime. They may also have a limited data bundle or an outdated smartphone.

Additionally, the decrease in the availability of public transport staff at stations raises concerns, as does the increasing expectation that people have access to real-time travel information. 80% of Dutch public transport users think that travelling without a smartphone is difficult nowadays. Sometimes the expectation that people travel with a smartphone is even made explicit:
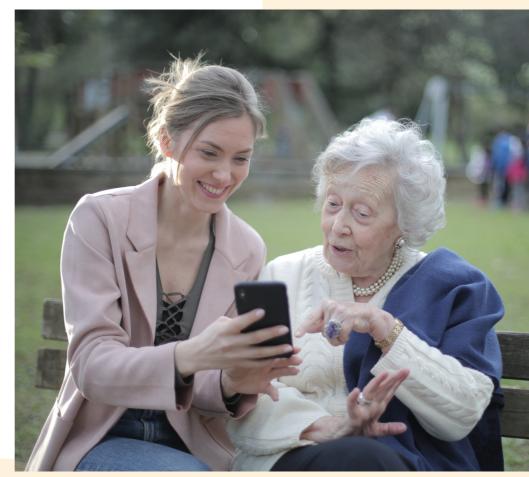
'Someone from [PT operator], yes. He took out his mobile phone, he looked on the Internet and he said: "Yes, here it is, you should have had a look. Your train is not running, it's cancelled. You'll have to look on the internet, then you'll know what's running." And then he was gone.'

Invisible barriers and efforts

Problems with digitalisation do not necessarily lead to exclusion from public transport though. Family and friends prove to be valuable sources of support, for instance, buying a ticket, activating a smart card, or helping plan the next bus trip — people who cannot or will not access, support, or develop other strategies, such as not paying for their trip or making long detours to leave from a station with a ticket office. In the most extreme cases, people may go back home when the situation becomes too stressful, or travel less:

A young woman showing something on a smartphone to an older woman on a bench outside

Andrea Piacquadio, Pexels

'It would be easier to travel by public transport if I were more digitally literate. I would like to participate more in society. Especially to visit family, acquaintances and friends who live further away. I would be able to do much more if I could travel more.'

People who tend to be isolated are likely the most vulnerable to digitalisation in public transport. Yet getting help is not easy, as problems with digitalisation are often invisible to the outside world. Unlike many physical impairments, low digital skills are not immediately recognisable. The barriers people face and their extra effort to plan a trip often go unnoticed.

Potential solutions

Ideally, a mix of measures can be used to tackle the undesirable effects of digitalisation in public transport, such as:

• Design measures

  Use an inclusive design of digital services that accommodate as many groups as possible. Involve users early in the design process, encourage diversity in design teams, and raise awareness about the diversity of user needs among designers;

• Training

  Collaborate with parties to ensure that training for people with lower digital skills also includes a component about planning a public transport trip. Training can also target public transport staff. They are the ones directly in touch with people with lower digital skills, and who therefore need to know how to best assist them. They play a key role in making digital transformations more inclusive, but they need to be supported in this process;

• Retaining quality non-digital alternatives, like ticket offices.

  They may be precisely what allows people to travel independently. Since these services can be costly, bundling the non-digital services of various operators can be useful.

Conclusion

Digitalisation in public transport is not all bad; it certainly offers benefits, even for people who are more at risk of digital exclusion. However, it is here to stay and so are the issues around it. Demographic changes alone will not remove digital barriers.

Taking into account digitalisation and its impacts in discussions around public transport accessibility is already a step in the right direction. Importantly, the public transport sector cannot solve underlying issues such as poverty and low literacy alone. Cooperation between sectors is needed to secure access to public transport now and in the future for a broad group of travellers.

A young woman hesitates in front of a ticket vending machine

Samson Katt, Pexels