Public transport info gaps in Cape Town limit users’ ability to plan and arrive on time and safely

While it's fairly easy for a car owner to hop into their vehicle, turn on their navigation system and head off to a new place, it's a lot more difficult to do that as a public transport user in Cape Town. Information gaps of public transport can severely constrain a person's ability to reach various opportunities in the city, whether that be getting to a job interview in time, meeting with friends on the weekend, or exploring new places.

In trying to come to a better understanding of how information and communications technology like mobile phones could be used to help captive public transport users to plan non-routine journeys using both scheduled and unscheduled public transport in Cape Town, University of Cape Town (UCT) PhD graduate Bianca Ryseck embarked on a study for her doctoral thesis to unravel this problem. Ryseck is a consultant at Arup.

The study, titled *Enabling Equitable Access to Public Transport Information to Enhance Hybrid System Use in Cape Town, South Africa*, found that none of the information types desired are currently available across all modes – MyCiTi, Golden Arrow, Metrorail and minibus taxis. Specifically, captive public transport users desired exact fare and real-time arrival and departure time information, but were satisfied with estimated frequencies. Captive public transport users are those with no alternative means of transport.

"Most glaringly missing from current transport information sources was the demand for safety information related to onboard, waiting at a station or stop, and walking to a station or stop. Both male and female captive public transport users desired safety information,” says Ryseck.

She says it was key that the research findings would point to ways that crucial public transport information could be relevant to public transport users and could be used by anyone, regardless of their access to mobile data or other barriers.

Of the information that is available, it is not all integrated in a single source. This means that users currently need to do piecemeal planning – a bit of information might come through their social networks, another piece from an online web search, and perhaps more information from asking the driver directly. Without a single information source, it is incredibly difficult, if not impossible, to pre-plan a public transport journey across Cape Town.
“While the majority of captive users have access to internet-capable feature phones or smartphones, access to mobile data affordability continues to be a large hurdle to using phones to access internet-based services. Given self-reported abilities, ICT solutions should avoid communicating information in only transport-specific formats, like route maps. The combination of gaps in information provision and lack of adequate information communication mediums hinders captive users’ ability to plan integrated journeys, and consequently limits their access to opportunities through public transport,” says Ryseck.

She says, in stark contrast to the abundance of public transport options available in Cape Town, information on these options is scarce. There have been attempts to collect data on public transport, especially the minibus taxi routes, but those efforts have struggled to materialise into information sources that users could reliably turn to to plan their journeys.

Furthermore, the kind of technology that was introduced tended to be based on European and North American understandings of public transport information technology. That is why this research started from scratch and asked users what information they needed to plan journeys across Cape Town's unique public transport mix and how to best package that information so that they could use it.

The study helped to illuminate what information public transport users need to plan journeys using Cape Town's varied mix of services. Notably, and unsurprisingly, it underlined just how crucial safety information is to users and has been severely under-addressed. The surveys of self-reported technological capabilities also revealed key insights like the significant impact of mobile data costs on users' abilities to access online information and also that there may be more value in communicating information via chatbots or similar over traditional transport formats like route maps.

Ryseck notes that no one company, government body, or person is responsible for all the public transport services in Cape Town. She says incentivising the various transport providers to share critical service information through a single source rather than in their own mobile apps will require a bit of creativity.