Many people take reliable transportation for granted, as it is a significant part of Smart cities. However, the impaired people, especially those with severe disabilities, confront the challenges with obtaining access to transportation all the time.. People with disabilities are often conditioned to social isolation due to inability to fully function in the outside world, which can then lead to depression and other mental issues. Moreover, that can cause proplems with employment, education and income.

Impaired people are dependent on others when it comes to driving a car.According to the Bureau of Transportation Statistics of the USA, more than one third of individuals with a disability report that they are not active drivers, which is significantly more than among people without disabilities. For those using wheelchair, it is required to retrofit a car in order to be mobile. According to Gilani Engineering, an agency from Australia, cost of modyfing a vehicle start at around $200 and end up at $80 000. Besides the financial burden, it is needed to have a personalised medical report and to find expert technicians able to implement the required modifications.

There has been a drastic improvement in technology in the recent years that has significantly alleviated problems of impaired people. Huge impact on devepments is made thanks to TNCs such as Uber and Lyft. Uber creates phygital experience through offering autonomous vehicles (AVs) to their customers so that they have an option going with or without driver. Thus, impaired people get an opportunity to reach their destination on their own. According to California Department of Motor Vehicles (California DMV), autonomous technology including a combination of hardware and software, remote and/or on-board, that has the capability to drive a vehicle without active physical control or monitoring by a human operator. Another American company is Aptiv that has been developing their own solution in this field since 2013. Since ever, they have provided 100 000 public passenger rides.

Deployment autonomous vehicles could faces stark reality due to narrow technological development and inflexible, restrictive policies. AV must meet all the requirements of every individual in order to be fully accessible. For instance, blind and visually impaired may require refreshable braille and an auditorysystem, including beacons to inform about position of car. On contrary, people with ambulatory and physical disability, who using wheelchair, need a car designed with a ramp or lift system integrated into the body of car. Deaf people, being fully capable of driving vehicles even now, need a visual representation of any audible information displayed in Avs.

<https://rudermanfoundation.org/wp-content/uploads/2017/08/Self-Driving-Cars-The-Impact-on-People-with-Disabilities_FINAL.pdf>

<https://www.aptiv.com/en/solutions/autonomous-mobility>