

Research Title:

Public Transport Literacy and Accessibility of the Elderly

Primary Investigator:

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Rapid population aging generates an unmet need for public transportation (PT) services that fit older people's requirements. Policymakers promote the implementation of Mobility-as-a-Service (MaaS) platforms that digitally integrates various types of transportation services and allows prioritizing of different PT user groups. However, many elderly users will not benefit from the platform due to its poor adaptation to their needs.

Public Transportation Literacy (PTL) can be defined as the ability to use the available PT systems effectively despite their complexity. PTL is critical for the elderly to maintain their independence and improve their quality of life. Insufficient adaptation of the PT to the elderly needs negatively affects their mobility and causes a substantial burden to the financial and healthcare system. In contrast, PTL improvement will enable more effective use of the PT systems and contribute to its attractiveness and social inclusiveness.

Our research focuses on the technological and personal gaps that negatively affect PTL and prevent older people's optimal utilization of PT services. We assessed the PTL experimentally by comparing healthy younger and older adults (>65)—men and women. Participants were requested to virtually navigate by PT to a known and a less known destination and scored on the data quality they derived while using a well-known app that included PT route and payment information. The results show a significantly lower performance of older people in obtaining critical navigation information but no gender differences.

The findings will assist in generating a safe and convenient PT system that will improve the mobility of older people and facilitate their adaptation to the MaaS age. The impacts contribute to the ISTRC zero externalities vision, especially safety and reduced emissions.