

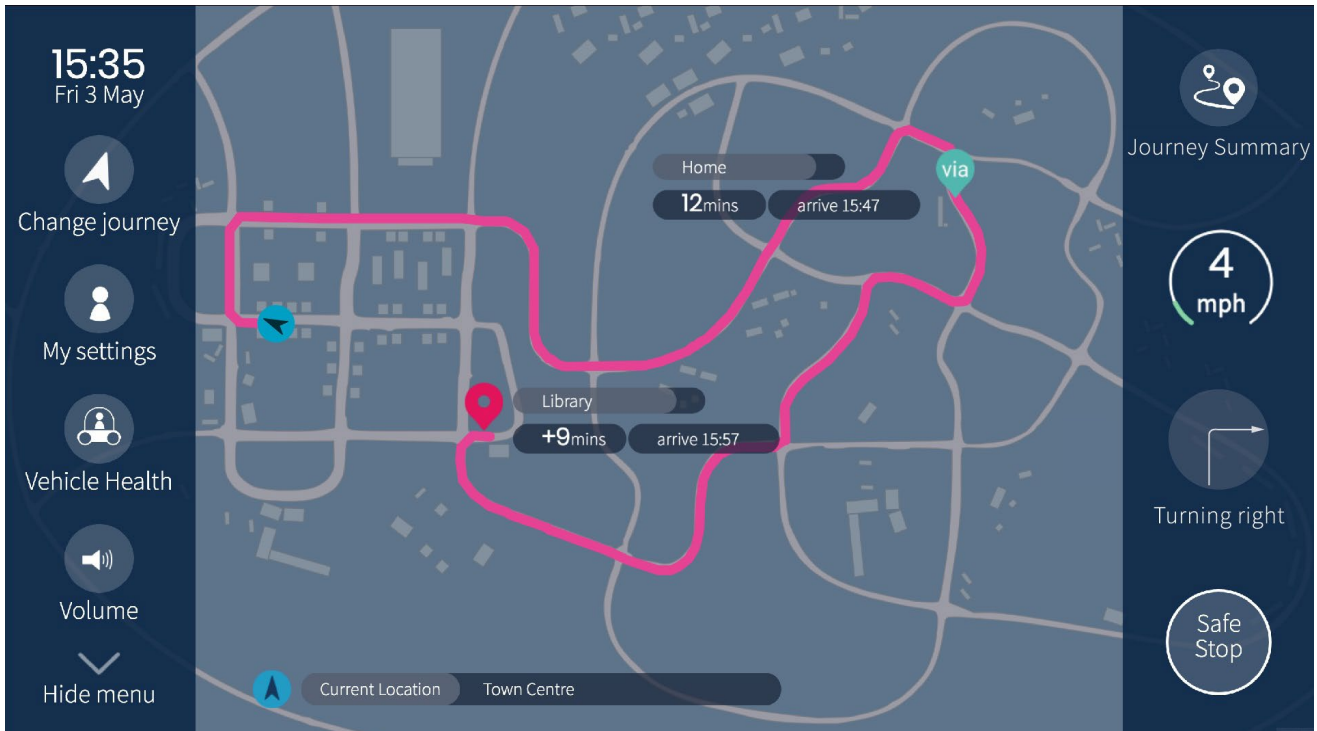


Making Roads Safer

Designability

Road Safety Trust
Funding Showcase





The Road Safety Trust is dedicated to making the UK's roads the safest in the world. As an independent grant-giving charity, the Road Safety Trust funds vital research and practical interventions to reduce the number of people killed or injured on our roads.

In 2016, the Road Safety Trust awarded £62,908 of grant funding to Designability, a national charity transforming the lives of disabled people and those living with a long-term health condition.



This grant supported Designability's participation in 'FLOURISH', a multi-partner project involving The University of the West of England, Cardiff University, Connected Places Catapult, Traverse, and Age UK. The project explored the design of Connected Autonomous Vehicles (driverless cars) and how technology can be developed to benefit people with a range of age-related impairments.

Connected and Autonomous Vehicles (CAVs) communicate with each other to anticipate and mitigate problems, seeking to eliminate risks around driver error. They are expected to improve road safety and road travel efficiency, as well as creating an accessible platform for travel.



CAVs also have the potential to address some of the wider socio-economic challenges faced by an ageing society. According to Age UK (2019), more than 3.6 million people over the age of 75 years live alone in the UK. Autonomous vehicles can help older adults to travel, enabling them to carry out everyday tasks, and reduce loneliness.

Designability worked with older adults to shape the look and feel of the CAV user interface. As older people could be early beneficiaries of these new technologies, it was important to ensure

the technologies satisfied their needs and provided them with new mobility options and freedoms.

In total, 145 older people participated in Designability's research, offering their insights to shape the design of the user interface. This included a combination of voice interaction and screen based in-vehicle technology. Designability also considered the impact of age-related impairments such as reduced vision, hearing and dexterity.

Designability used their research to create a user-friendly human machine interface (HMI), that was tested in eight trials in both simulators and real-world environments, and also developed a series of design insights:

1. Make it attractive and clear
2. Balance function with simplicity
3. Anticipate user error
4. Make it consistent
5. Make it flexible
6. Keep the user informed
7. Make it intuitive
8. Make it approachable
9. Break down tasks into steps
10. Make it adaptable

Designability have been able to disseminate their research findings and design insights to other designers, the automotive industry, universities, emerging manufacturers and the British Standards Institute to ensure that CAVs are fit for purpose for the older generation.





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The Road Safety Trust

Registered charity number 1156300

Company registered in England & Wales number 8837451

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