

Travel Information Provision for the traveller in Public Transport. Can it be improved?

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Travel information provision for the traveller in public transport is becoming increasingly more important in today's world. In the last ten to fifteen years, a shift has been noticed from mainly static travel information to dynamic travel information. Personal travel information is rapidly becoming more standard and the possibilities of modern mobile smart phones make travel information more accessible for travellers. Access to improved travel information increases the quality of public transport by decreasing the amount of uncertainty a traveller perceives. The location before and during the journey is an important aspect of the type of travel information a traveller desires. Three types of locations are identified to obtain travel information; homebased location, way-side location and on-board location. The travel information which travelers obtain is depended on the type of travel information media per location and therefore also depends on the source of information. Public transport organizations maintain and operate different types of travel information media per location whereby the travellers are mostly depended on the public transport organizations for travel information provision. Because of the availability of multiple public transport organizations, which provide travel information, the possibility exists that travellers obtain none, false or contradictory travel information which increases the uncertainty of travel information and therefore decreases the quality of public transport.

In the Netherlands, there are multiple public transport organizations active which produce, operate or provide travel information. Travel information systems do have an important influence on the quality of travel information provision for travellers and by looking at the overview of the complete travel information systems in the Netherlands, a good indication of the state of the travel information provision can be obtained. By conducting interviews with travel information experts, information is obtained about the state of the travel information provision. Experts from multiple public transport organizations were interviewed in order to obtain a complete overview of the travel information provision systems. With this information two complete data flow-chart (train and bus/tram) were created to indicate bottlenecks of the Dutch travel information systems. Information from the experts indicates that the travel information system in the Netherlands is reasonably outdated and organizations only seem to have interest in their own individual systems. Therefore it seems that there is no particular organization which takes responsibility for maintaining a complete overview of the total travel information system which has a consequence and instable travel information system. Together with the diffusion of public transport organizations and the public tender of concession areas, travel information provision in the Netherlands for public transport still has lot imperfections to improve which are not only soluble by using technical solutions, but also by improving the organizational structures.



InTraffic has developed a new type of travel information application called Triptipper whereby travellers can obtain personal and actual travel information in just one second. Travellers are provided with travel information based on their final destination. Travellers can input their destination, by postal code, by using numeric keypad, QR-code or OV-chip card. Once the traveller has inputted his or her destination, the Triptipper application provides the traveler with three possible travel advices to continue the journey based on the fastest possible options. Triptipper applications which are located on board of transportation mode provide the traveler with the best possible transfer location to alight. This Triptipper travel information provision systems makes, together with the conventional and mobile smart phone travel information systems, a total of three travel information provision systems. In order to determine the quality of the new Triptipper system, a test is necessary to compare the quality of the three travel information provision systems. Literature has stated that the quality of travel information provision system can be measured by time and effort savings. In order to use these two indicators, an experiment must be applicable to execute including these two indicators. After analyses of several types of experiments, the Serious gaming experiment has been chosen.

The Serious gaming experiment exists of the simulation of a real journey on a physical basis. Participants of the experiment execute a journey in a room with multiple partially closed spaces. These spaces represent a specific location during a journey whereby the available travel information which is provided at the real location is simulated at that particular space. By using six different spaces, a complete journey with public transportation can be simulated whereby the same type and amount of travel information is provided as in the real journey. Computer displays, timetables, public address systems and mobile phones are some of the travel information media which are simulated to replicate a real journey. 18 participants have executed the experiment whereby they make three types of journeys and with the execution of each journey, they use one of the three travel information provision systems. The participants were asked to execute the journey as quickly as possible by obtaining the correct travel information. Information concerning the measurements of time (perceived and actual) and effort were obtained to determine the quality difference between the three travel information provision systems.

Results show that there are not many differences between the three travel information provision systems. Perceived searching time however does show a significant difference with the mobile smart phone information provisions system in favor of the Triptipper system. Results also show that the participants needed more time and effort to obtain their travel information at transfer locations for all systems which is in accordance with literature. Participants do mention that they perceive Triptipper as a usable alternative when obtaining travel information, though they wish they can obtain more information about the complete journey to decrease uncertainty. It can be assumed that Triptipper does show it has future possibilities to satisfy the desires of travellers in public transport by providing them with personal, reliable and accessible travel information.

Recommended improvements to the current design of Triptipper are: providing more information about the remainder of the journey per Triptipper application and provide not only travel information for public transport but also in large public and commercial buildings to really improve actual door to door travel information.

