

The Two-Way Street

People adapting to transportation and
transportation adapting to people



World Usability Day

November 13, 2008

Washington, DC. 5PM – 9PM

“DETOUR” – the word hits you right in the gut. You had planned the drive to the airport the night before for an important business trip. True, you had left about twenty minutes later than expected this morning, but there was still time to make your flight. You begin to imagine driving in endless circles while your fellow travelers are buckling into their seats. It may have taken many millions of dollars to create the infrastructure you are using to arrive at your ultimate destination, but now the outcome of the entire trip could hinge on the design and placement of a single improvised sign.

In ways seen and unseen, transportation systems play a fundamental role in our daily lives – where we live, how we divide our day and our social interactions. As our transportation technologies evolve, usability and allied professions will continue to work hard to help people adapt to these changes. There is no simple formula because transportation is inherently dynamic and human behavior is complicated.

The major transportation systems we rely on are marvels of design and engineering. However, when staring at countless tail lights snaking their way into the distant horizon or shuffling through a crowded airport security line, the sense is that there must be a better way to get from points A to B. How to know what changes to make, and how to implement them, can be daunting.

To make transport systems as broadly accessible as possible, usability professionals have to continually explore the interests and capabilities of a wide range of people.

Meeting the needs of people with disabilities presents challenges as well as opportunities for making travel experiences better for all. It is not just a range of people that have to be considered, but the varieties of individual responses to information depending on different situations and states of mind.

To make effective changes in the safety and efficiency of a transportation system, it is not always clear where engineering considerations stop and psychological factors begin. Depending on circumstances, each of us can have a range of responses to the most simple information. For example, a yellow traffic signal might elicit different cognitive and emotional reactions that can lead to different kinds of driving responses. Prompted by a light turning yellow, you might speed up or slow down. Are you feeling lucky, distracted, sleepy, angry, tired, content... or just apply one of the names from any of the seven dwarves to your condition behind the wheel and imagine the different scenarios that might occur.

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With psychological factors in mind, how do we get people to better share the road, or walk instead of drive in their own neighborhoods, or use mass transit, or find a crowded airport a less stressful place?

How are usability practices applied across disciplines including ergonomics, wayfinding and interaction design in the context of transportation? How are the principles of usability applied in wayfinding—from getting to the right gate at an airport to finding the correct freeway off-ramp?

The increasing use of digital information interfaces in physical transportation systems, from air traffic control displays to the GPS devices inside our cars, will no doubt highlight the importance of usability considerations.

Beyond ease of use and accessibility concerns, perceptions of transportation may significantly affect utilization of these current and future systems by the public. Commuters, for example, may stay in the familiar environments of their cars, even if they are stuck in rush hour traffic every day, rather than take busses going to the same destination at the same hour. The hesitancy to take mass transit may stem from either real or perceived ideas about the experience of bus riding.

With all this in mind, what role will usability play in the future directions of transportation?

— *Hunter Whitney*