**Successful Technology: Waze (social mapping)**

In 2006, Waze began as a project to map Israel in Hebrew. Since then, it has grown to a massive application platform available on Android and iOS, used by millions, including governments, and owned by Google. Waze’s meteoric rise is due to filling a growing need in near-real-time updating of traffic situations. In addition to reporting passive user location data, Waze allows users the opportunity to report road hazards, speed traps, accidents, and even update landmarks. This flexibility enhances navigation experiences for users by giving them the best opportunity to safely and quickly arrive at their intended destination. Waze further filled users’ needs by adding functionality with many audio playing services such as Spotify and Pandora. Overall, these features contribute to a pleasant experience that keeps users returning.

Thinking about Waze, the greatest user need that was met was the ability for a user to update road conditions. Passive traffic reporting only gave users indications that road conditions were bad; the user’s ability to provide input helps drivers make smart analytical decisions on whether or not to detour en route to their final destination. Users can also update this information, adding validity to a previous user’s input or correcting antiquated information. In both circumstances, the user feels in control of their navigation experience. As an added benefit, Waze is collecting passive information to provide updates to all users, regardless of a user’s contributions.

**Less successful technology**: **Segway scooters**

Segway scooters were released to the public in 2002, billed as an alternative mode of recreational transportation. They were billed as personal mobility devices that would revolutionize transportation for the public. Marketing and media coverage on the scooters was high. Almost two decades later, the company has been purchased by Ninebot and continues to release personal scooters, but have been relegated to irrelevance. The largest failure of Segway scooters is that the technology did not solve any real needs. Scooters with a top speed of around 15 miles per hour are comparable to bikes, but the novelty of the technology makes riding them on roads more dangerous. Piloting the scooters on sidewalks is equally dangerous because they can travel much faster than the average pedestrian. In addition to the usage location problem, users had to solve problems such as charging and parking. Finally, the Segway didn’t have a true market for customers. With limited range, an expensive price tag, and the aforementioned problem on where to drive it, potential customers could be better served with bikes or e-bikes. Segway scooters simply did not solve a problem that needed solving. The technology would never be adopted at a large scale because other, cheaper solutions existed to meet the need. Those cheaper solutions were better understood and regulated.