

THE MAP AS A GUIDE THROUGH LIFE

Where is the best pizzeria? Is a friend close-by? How do I get home the quickest? Mark Foligno, Product Innovation Manager at Here, a Nokia company, describes the increasingly significant role of digital maps

“Maps for Life” is the slogan of your company. What does this mean?

We consider maps as a guide through life, and our goal is that the virtual map should converge with the real world to better address people's needs. The more the map reflects the real world, the easier it becomes to navigate, as there is a much clearer association. For example, landmarks and points of interest can be used to navigate the driver. Instead of voice guidance telling you to “turn right after 300 meters”, it tells you to “turn right after the post office”.

Furthermore, it is not merely a matter of guiding someone from A to B. For example, we can recommend a restaurant or an exhibition at the destination based on individual preferences. It is also not a matter of places. We want to create a stronger network among people. The smart map can display which friends are located nearby.

You want to align the virtual world as far as possible with the real world. Do your recommendations and

choice of landmarks change our perception of the real world?

Yes, I think so. By personalizing the map, we draw attention to certain objects in the vicinity that are relevant but might otherwise be overlooked by the user. In this respect we alter the view of the world.

At Here one of your focus areas is the automotive business. What is your biggest challenge in developing applications for cars?

In the context of the car, we will continue to apply strict guidelines that help us to create designs that are the least distracting for the driver. For example, we limit the number of actions and list items as well as the length of texts so that the driver can readily understand a given interface state in a glance, thus greatly lessening risk whilst driving. We also validate our assumptions using our in-house driving simulator to ensure compliance. However, as we look forward, and this is an area that I increasingly invest more of my time, we are exploring

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contextual intelligence. The premise here is that the system understands the context and thus the potential needs of drivers and responds by displaying appropriate information. A simple example could be that we know that the driver needs to refuel his vehicle, so as a consequence we navigate him to the closest gas station that best suits his needs. As a result, drivers do not have to take a deliberate action themselves. These examples are reflective of a broader strategy where we capture patterns of user behavior based on users' consent to display only information that is relevant to them and greatly reduce the amount of information that is an unnecessary distraction.

You are working together with Fraunhofer FOKUS on the TEAM project that is funded by the EU with 11.1 million euros. What is the project about?

TEAM stands for “Tomorrow's Elastic Adaptive Mobility”. The key concept is help users make more informed decisions by participating in a collaborative network, and encourage more considerate behavior. For example, the collaborative network that we are seeking to develop would capture the performance of a driver and the associated vehicle from both a safety and an environmental perspective. To improve performance, we want to introduce a scoring system that offers real-world incentives such as lower parking fees or communicates potential time savings.

How does the collaborative network work?

In the collaborative network, users, vehicles, and infrastructure exchange data. The data is analyzed, patterns of activity are learnt and precise recommendations are presented. The data comprises both real-time and historical data. This is important in recognizing patterns of activity. The network can only function if we have access to this data. We must build trust with those who participate by being open and transparent about the use of data. At the same time, we could also add incentives. One of the things we are developing with Fraunhofer FOKUS is the human-machine-interface. Parking, which is a huge problem in many cities, is a project focus. We are working on a service that recognizes when a vehicle enters or leaves a parking space. We will also capture the size of the space and present it only to other vehicles that will fit

into that space. The service will also forecast the time it takes on average to locate a parking place in the destination area, and can suggest nearby alternatives which take less time, or even use weather forecasts to only recommend indoor parking places. There are also benefits for society as a whole as more efficient parking can help to reduce traffic congestion.

Sometimes getting lost leads you to the most exciting discoveries. How can you keep people curious and open despite all functioning technology?

We don't just want to make recommendations that the user is either aware of already or that match their interests. We want to expand horizons. As our knowledge of behavioral patterns increases, we would consider adding a discovery feature that wouldn't necessarily fit this pattern but wouldn't be so random either to leave the user uninterested.

ABOUT THE INTERVIEWEE

Mark Foligno has master's degrees in “Human Computer Interaction with Ergonomics” from University College London and “Design Psychology” from the University of Bournemouth. For the past seven years he has been working at Nokia. Originally as a Senior User Experience Designer based in Copenhagen, Mark designed maps, imaging, and music related applications. Since 2011 at Here in Berlin, his focus has been the automotive industry, initially as a User Experience Manager, exploring concepts for in-car use, and now as a Product Innovation Manager for Automotive Cloud Services. Here is a Nokia company and is a global leader in the mapping and location intelligence business.