Chapter XVI
Navigation Becomes Travel Scouting: The Augmented Spaces of Car Navigation Systems

Tristan Thielmann
University of Siegen, Germany

ABSTRACT

Car navigation systems, based on “augmented reality,” no longer direct the driver through traffic by simply using arrows, but represent the environment true to reality. The constitutional moment of this medium is the constant oscillation between environmental space and two-dimensional projection space. Using the words of Walter Benjamin, one could also speak of a transparent translation of the world that should not obscure the original. In contrast to the prior generation of navigation systems, the orientation points of the “augmented map” are also fully linked with databases of other available information suppliers. Temporal information, in addition to spatial information, is becoming increasingly important with features such as real time gridlock reports aided by highway sensors and guidance to the nearest event. Does the future lie in the fusion of travel guides and navigation systems? This paper argues that future developments in urban informatics resulting from the convergence of cartographic, media and communication technologies can be inferred based on the increasing phenomenon of mobile augmented reality applications.

INTRODUCTION

Wherever we go in modern urbanized spaces, we are directed by software. Urban regions do not only shape and configure global new media infrastructure investment and global Internet and mobile phone traffic. “The modern city exists as a haze of software instructions. Nearly every urban
Navigation becomes travel scouting practice is becoming mediated by code” (Amin & Thrift, 2002, p. 125). Urban informatics research therefore needs to engage much more powerfully with the complex intra-urban and inter-urban geographies that so starkly define the production, consumption and use of artefacts, technologies and practices. In other words, we are increasingly seeing new landscapes of code that are now beginning to make their own emergent ways.

Software is part of the paraphernalia of everyday urban life, “a kind of extended phenotype in which the environment we have made speaks back to us” (Thrift & French, 2002, p. 329). So, maybe instead of understanding software as a kind of urban infrastructure, we can see it as an extension of human spaces, as an intermediary passing information from one place to another so efficiently that the journey appears as a movement without friction (Latour, 2005, pp. 37–42). And here I point to software’s ability to act as a means of providing a new and complex form of augmented spatiality. Car navigation systems are a good example for the overlaying of informational environments onto the landscape, as they are one of the key pervasive computing applications that deeply influence the ‘remediation’ of urban life (Graham, 2004).

Although I recognise the history of car navigation systems (French, 2006; Thielmann, 2008) and the range of ethnomethodological work on how people navigate in cars (e.g., Brown & O’Hara, 2003; Laurier, 2004), this is not my primary concern. Instead of investigating the integrated navigation support for various modes of transportation (Arikawa, Konomi & Ohnishi, 2007) or the automatic production of driving spaces by actively shaping road environments and driver behaviour through GPS-tracking (Dodge & Kitchen, 2006), I want to focus on the augmented spaces of car navigation systems.

This paper suggests that we need to unpack the ‘augmented space’ term, introduced by Lev Manovich (2006), as a general aesthetic paradigm of the urban informational landscape. It explores three different spatial augmentations created by car navigation systems: augmented maps, augmented subjectivity and augmented navigation.

### AUGMENTED MAPS: A SHORT REVIEW OF CAR NAVIGATION SYSTEMS

Navigation technology has made travel routine. We will make it a unique experience using the same technology! [...] Each trip is an individual story that should not be told, but experienced. The virtual travel guide is aimed at sustainably increasing the strength and diversity of these experiences. It opens up new spaces for experiences that far exceed the possibilities of representation offered by the usual tourist guides. With this, they smooth the path for a modern way of travel—TravelScouting (iPublish, 2006, p. 6f., own translation).

The advertisement for the “first virtual travel guide to the world” (iPublish, 2006, own translation), the Merian scout Navigator—which was launched in 2007—is aimed at combating the loss of individual travel created by vehicle navigation systems and the classic travel guides that led to a standardization of the “tourist gaze” (Urry, 1990).

The approach sketched out here for a subjective, strategic ‘undermining’ of a cartographic trope (Crang, 1998, p. 62ff.) should not, however, obscure the fact that this use of maps, the social practice of spatial reading, is no more capable of undermining the ideological-discursive function of the map. On the contrary, the Merian scout Navigator combines the contents of the classic travel guide (restaurant and hotel recommendations, places to go, information on culture, country and people etc.) with mobile navigation. If one drives past a place of interest, the system offers, for example, a “drive by-audio guide”, that gives a short audio presentation on the topic. In other words, the map’s discursive function is completed by such a multimedia system.