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Practice-Centered Support for Indoor Navigation: Design of a Ubicomp Platform for Firefighters

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Shaker Verlag GmbH • P.O. BOX 101818 • D-52018 Aachen Phone: 0049/2407/9596-0 • Telefax: 0049/2407/9596-9 Internet: www.shaker.de • e-mail: info@shaker.de The combination of several technical difficulties and highly complex human factors make indoor navigation support for firefighters an elusive problem for human-computer interaction research. The particularities created by the hazardous and severely constrained environment contribute in creating a very hard problem for technology designers.

This book presents a detailed account of the process of design and evaluation of a navigation platform for firefighters. Using two projects as background, the author proposes an approach to navigation that moves away from the techno-centric solutions common in the literature of the last 10 years in ubiquitous computing, centering instead in a socio-technical perspective of wayfinding in which technology is only one of many relevant pieces. In taking on the challenge of creating feasible systems based on current practices and available technical possibilities, Ramirez connects solid engineering knowledge with strong analytical abilities to present not only an innovative technical solution for the concrete problem of navigation, but also an interesting perspective to reframe the role of ubiquitous computing systems in highly complex domains.