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Business perspectives on Ubiquitous Computing

Abstract

The goal of this paper is to establish what kind of business impacts companies can expect from applying ubiquitous computing technologies to their services, products and processes. The paper concentrates on business applications and thus omits the more intensely studied domains of home, office and classroom automation. It derives its answers on the basis of existing business applications and a more theoretical discussion of data integration aspects. As a result, it proposes that first, ubiquitous computing enables the consistent integration of the real and the virtual worlds, and thus has the potential to eliminate very costly media breaks. Second, it may eventually allow for a much more comprehensive depth of integration, which in turn might open the door to the control of complex systems. The paper concludes with a list of expected business benefits and envisions a development path for future business applications. However, it also makes clear that there remain a whole series of tough and unresolved issues, ranging from technical infrastructure to social and ethical impacts.