A Browser-based UI Framework for Smart Interaction with Ambient Services

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The support of smart interaction in ubiquitous computing is among the core criteria to achieve user acceptance and thus business success. We describe an architectural framework usable in various application domains to ease the interaction of the user with functions of devices in his ambience. We assume that the interaction is formalized through a service-oriented wrapping of the device functions, i.e. as services coming along with the device. The framework is constituted by a middleware that can be plugged into the communication between UI and the services for supporting push and pull mode interactions. Through applying the framework situational awareness as a means to improve the user processes according to key process metrics (i.e., latency, quality, and efficiency) can be leveraged.