# Requirement Analysis Towards the Deployment of Architecture Incorporated with IoT for Supporting Work-based Learning and Training: On the Threshold of a Revolution

by Fridolin Wild

Dan Kohen-Vacs, Gila Kurtz and Yanay Zaguri

Internet of Things (IoT) is an emerging technology expected to transform the way we live, work and learn. It consists of devices endowed with sensors as well as Information and Communication Technologies (ICT) capable of transmitting information across networks This technology can sense and communicate data from various sources like the human body, food and clothing. IoT could also be incorporated to sense data from household appliances, commodities, landmarks, buildings, and roads. Even though IoT is in its early stage of development, organizations recognize its potential applicability and therefore incorporate it in their efforts to improve word-based learning and training. For example, organizations can use IoT as personal learning centers based on worker preferences. IoT also enables adaptive learning based on business needs. To empower learning with these affordances, we propose to exercise a system analysis based on 4 scenarios focused on work-based and enhanced by IoT. Accordingly, we propose a design process emerging from the discovery of requirements emerging from the analysis on the scenarios. Finally, we propose to deploy an architecture combined with IoT devices connected to reasoning points that is addressing the scenarios and its corresponded analysis. This approach is suggested as part of our efforts to address activities based on reasoning systems exploiting big data used for providing optimized learning that is empowered by IoT. We foresee that this architecture will provide employees with exciting opportunities to exploit valuable data in order to react to and refine an ongoing process that produces personal, meaningful and in-context learning experience. We believe that our efforts to deploy such architecture provide new, flexible and efficient opportunities for exercising innovative approaches for practicing work-based learning and training.

This is the abstract of a book chapter. The full chapter is available here. Citation: Dan Kohen-Vacs, Gila Kurtz and Yanay Zaguri (2019): Requirement Analysis Towards the Deployment of Architecture Incorporated with IoT for Supporting Work-based Learning and Training: On the Threshold of a Revolution, In: Buchem, Klamma, Wild (Eds.): Perspectives on Wearable Enhanced Learning (WELL): Current Trends, Research, and Practice, Springer.