Deep Learning, Ubiquitous and Toy Computing

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Welcome to the 1st Year of *Deep Learning, Ubiquitous and Toy Computing* minitrack under *Decision Analytics, Mobile Services, and Service Science* track in HICSS-50!

Deep learning employs software tools from advanced analytics disciplines such as data mining, predictive analytics, text and machine learning based on a set of algorithms that attempt to model high-level abstractions in data by using multiple processing layers with complex structures or non-linear transformations. At the same time, the processing and analysis of deep learning applications present methodological and technological challenges. Further deep learning applications are advantaged by a rise in sensing technologies as witnessed in both the number of sensors and the rich diversity of sensors ranging from cell phones, personal computers, and health tracking appliances to Internet of Things (IoT) technologies. Recently deep learning technologies have been applied into toy computing. Toy computing is a recently developing concept which transcends the traditional toy into a new area of computer research using ubiquitous technologies. A toy in this context can be effectively considered a computing device or peripheral called Smart Toys.

This new minitrack includes three papers which present both novel solutions to provide clear proof that deep learning technologies are playing an ever-increasing important and critical role in supporting ubiquitous and toy computing applications - a new cross-discipline research topic in computer science, decision science, and information systems.

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