EDITORIAL

Editorial

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This last issue of our sixth volume of the Journal of Reliable Intelligent Environments brings four articles in a variety of areas and approaches. Their difference reflects the complexity of modern systems, the number of possible devices, the variety of possible ways to connect them, of users to engage with these and the possible opportunities for them to fail in matching users expecations of service deivery. This is one of the main reasons for the creation of this journal, where our community looks at a scientific discussion on how to make modern systems more aligned with society expectations.

Schmidtke's survey *Location-aware systems or location-based services: a survey with applications to CoViD-19 contact tracking* looks at the cross roads of two very important and current topics: location awareness technologies and privacy preservation. This article considers COVID-19 contact tracking applications and a literature review to reassesses key steps of developing a privacy preserving context-aware applications. It revisits the types of applications and business models, system architectures, privacy strategies, and representations. The article relates technical topics to the impact of technology in society and the way society is forced to redefine continuously a position as a result of constantly and increasingly fast evolving technology.

Shimoda et al.'s *RW-QAnswer: an assisting system for intelligent environments using semantic technology* presents a solution based on Resource Description Framework (RDF) to handle metadata of sensor data combined with the natural language-based search system QAnswer so that users can interact with sensors using natural language. An analysis of messages flow and trade-off between the response time to a user's request and the amount of bandwidth usage by messages show this reduces the amount of communication traffic by optimally transferring RDF and sensor data only on arrival of a request and this can be done without much increase in the communication latency.

Haya Alaskar et al.'s *A data science approach for reliable classification of neuro-degenerative diseases using gait patterns* provides a combined approach of signal processing and machine intelligence algorithms which shows improvements on the state of the art to classify different types of neuro-degeneative diseases when applied to the gait data captured through multi-sensors of 60 patients' records. This work has impact on early detection, progression tracking and decision-making support for patient, relatives and health-care professsionals.

Grover et al.'s *Cryptanalysis and improvement of a three-factor user authentication scheme for smart grid environment* explores an improvement in the authentication scheme for smart grid environments by improvingn protection against user impersonation and stolen mobile terminal attacks. The authors formalize this strategy and show their behaviours through simulations using the widely known ProVerif tool.

We hope these articles stimulate the community towards further improvements in this area and perhaps to collaborations between the participating teams, so that complementary solutions can be used in a combined way to tackle more complex problems.

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