

# Keynote: Issues of annotations in designing ubiquitous applications

Hirohiko Suwa<sup>1,2</sup>

Email: h-suwa@is.naist.jp

<sup>1</sup> Nara Institute of Science and Technology, Ikoma, Nara 630-0192, Japan

<sup>2</sup> RIKEN, Center for Advanced Intelligence Project, Chuo-ku, Tokyo 103-0027, Japan

## KEYNOTE ABSTRACT

Annotating user data is an important part of the design and evaluation of ubiquitous systems that support the user based on data. The preparation of training data for learning tasks is essential for research in data-driven models. Hence, the quality of annotations has a significant impact on the performance of the derived systems. Furthermore, we should discuss the ethical and privacy problems related to providing annotation.

We have annotated many data in our research such as behavior recognition in a smart home, curation of baseball video, and position recognition in the care house. The annotation performance gives affect the performance of behavior recognition, curation, position recognition. On the other hand, the annotation task is a burden for the user and the correct annotation is difficult. Therefore, we have been considering the methods and tools of annotation data collection, cleaning, and confirmation in our research. We would like to discuss the resolutions of those problems.

## SPEAKER'S BIOGRAPHY

Hirohiko Suwa was born in 1976. He received B.E., M.E. from Gunma University, and Ph.D. degrees from the University of Electro-Communications, Japan in 1998, 2000, and 2006. He was an assistant professor at the University of Electro-Communications from 2006 to 2014, and at Nara Institute of Science and Technology(NAIST) from 2014 to 2018. After that, he became an associate professor at of Ubiquitous Computing Lab, in NAIST from 2019. His current research interests are social informatics, real data mining, and ubiquitous computing system. He is a member of IEICE, IPSJ, IEEE.