

36th TSU Seminar

MEILI, an open source alternative to collect travel diary with smartphone: Lessons from Stockholm and progress

Date: March 18 (Mon.) 2019

Time: 11:00 – 12:00

Venue: Seminar room, the 2nd floor of Midorigaoka Bldg. 5, O-okayama campus, Tokyo Institute of Technology.

Speaker:

Professor Yusak Susilo (KTH)

Outline:

The increased interest in the automation of travel diary collection, together with the ease of access to new artificial intelligence methods led scientists to explore the prerequisites to the automatic generation of travel diaries. One of the most promising methods for this automation relies on collecting GPS traces of multiple users over a period of time, followed by asking the users to annotate their collected data by specifying the base entities for a travel diary, i.e., trips and triplets. This led scientist on one of two paths: either develop an in-house solution for data collection and annotation, which is usually an undocumented prototype implementation limited to few users, or contract an external provider for the development, which results in additional costs. This paper provides a third path: an open-source highly modular system for the collection and annotation of travel diaries of multiple users, named MEILI. The paper discusses the architecture of MEILI with an emphasis on the data model, which allows scientists to implement and evaluate their methods of choice for the detection of the following entities: trip start/end, trip destination, trip purpose, triplet start/end, and triplet mode. Furthermore, the open source nature of MEILI allows scientists to modify the MEILI solution in compliance with their legal and ethical specifications. MEILI was successfully trialed in multiple case studies in Stockholm and Gothenburg, Sweden between 2014 and 2017.

MAP

- The **Ookayama campus** is a one-minute walk from Ookayama Station
- The **Suzukakedai campus** (former Nagatsuta campus) is a 5-minute walk from Suzukakedai Station
- The **Tamachi Campus** is a 2-minute walk from Tamachi Station

