3.38 Social context inference from proximity sensors

Keywords

proximity sensors, mobile phones, wearables

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Functional description

A method to infer social context from proximity sensors like bluetooth, for example embedded on mobile phones but also in wearable devices. The method uses longitudinal proximity data generated by a population of mobile device users and generates, for each member of the population, the groups of people with whom each user is in proximity, and the typical times when this occurs. The method can be used for group discovery or for event mining applications.

Innovative aspects

- Statistical machine learning approach that discovers groups and their temporal context from raw observations of physical proximity.
- The method is applicable to various types of sensor data related to physical proximity.

Commercial application examples

- Group discovery and event mining in large gatherings.
- Organizational mapping.

More information

T. Do and D. Gatica-Perez, "Human Interaction Discovery in Smartphone Proximity Networks," *Personal and Ubiquitous Computing*, Vol. 17, Issue 3, pp. 413-431, Mar. 2013.

Software & IPR status

- Matlab code