Lesson 5 Participatory Sensing

Participatory Sensing (PS)

- Sensing by the individuals and groups of people contributing sensory information
- PS, a process whereby individuals and communities use evermore-capable mobile phones and cloud services
- Collect and analyse systematic data
- Use in discovery of new facts

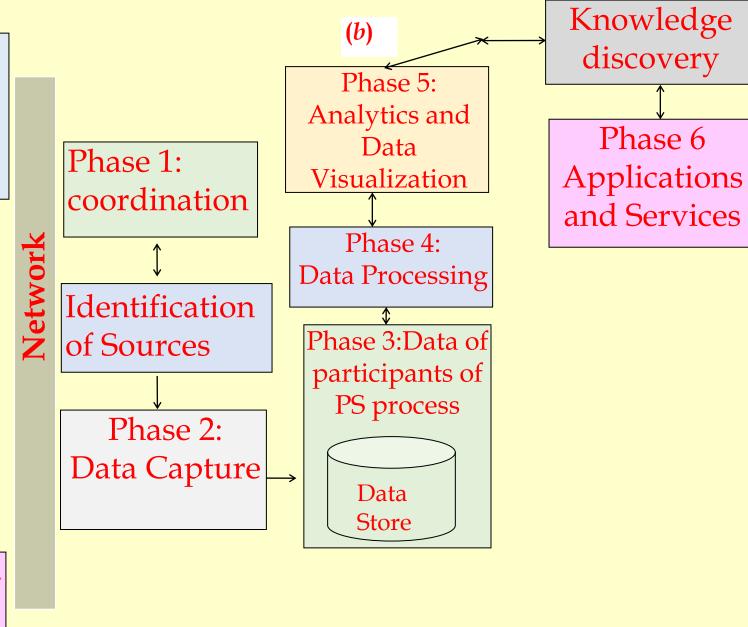
Individuals Data

Collectors: For example communication fire data, waste collection need data

Group Data Collectors

For example traffic lights sending traffic density and parking availability data, Automobiles communicating traffic density at different locations

Social Sites Data;Twitter, Facebook, LinkedIn, ...



Six Phases PS process

- Phase 1 coordination, in which the participants
- of PS process organise after identifying the sources
- Phase 2 and 3 data capture, communication and storage on servers or cloud.
- Phases 4 and 5—PS data processing and analytics, visualisation and knowledge discovery.
- Phase 6 is for initiating appropriate actions

Applications of PS

- Retrieving information individual and group of people
- Weather, environment information, pollution
- Information for waste management, Road faults
- Health, traffic congestion and urban mobility
- Disaster management, such as flood, fire and health issues

Many Challenges of PS

- Security
- Privacy
- Reputation
- Effective incentives to participating entities

Summary

We learnt

- Sensing by the individuals and groups of people contributing sensory information
- Phases in PS process
- Applications
- Challenges

End of Lesson 5 on Participatory Sensing