Context
Context is the set of environmental states and settings in which an application event occurs and is interesting to the user. Context is defined by a combination of relevant environmental properties, participants, and participant's activities.

Classification:
• Computing Context
• User Context
• Physical Context
• Time Context

Context-aware Computing
• Proximate Selection
• Automatic contextual Reconfiguration
• Contextual Information and commands
• Context-triggered actions

Improved User Experience
• Semantic Web of Place.
• Effective Position Infrastructure for mobiles.
• Intelligence in Network.

Research Tasks
• Capture user decisions, mobility patterns, user labels(Tag cloud for collaborative metadata).
• Determine position, heading, speed using network infrastructure and GPS (iPhone).
• Localization of device based on ambient sensors and suitable observations(noise, lighting).
• Use entity resolution techniques to recognize communities and context.
• Propagate context information (Place server).

Scenario for describing concepts and roles:

Applications
• Don’t Bother..I am Busy..Ringer off..
• Most visited restaurant by friends..
• Adjust my Presence..
• Locate a nearby available Surgeon..
• Prioritizing the data streams..
• Best way to reach a person..

References
• PlatyS: From Position to Place in Next Generation networks project (UMBC)
• Inferring friendship network structure by using mobile phone data project (MIT)
• SPIRE project (UMBC)