COMS E6176
Context

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Context

Merriam-Webster Online Dictionary

Thesaurus

2 entries found for **context**.
To select an entry, click on it.

context
context-free
Go

Main Entry: **con·text**
Pronunciation: 'kän-"tekst
Function: *noun*
Etymology: Middle English, weaving together of words, from Latin *contextus* connection of words, coherence, from *contexere* to weave together, from *com-* + *texere* to weave -- more at TECHNICAL
1 : the parts of a discourse that surround a word or passage and can throw light on its meaning
2 : the interrelated conditions in which something exists or occurs : ENVIRONMENT, SETTING
- **con·text·less** /-"tekst-l&s/ *adjective*
- **con·tex·tu·al** /kän-'teks-ch&-w&l, k&n-, -ch&l/ *adjective*
- **con·tex·tu·al·ly** *adverb*

What can we do with context?

Pascoe, J. Adding generic contextual capabilities to wearable computers. *Proc. IEEE Int. Symp. On Wearable Computers 1998 (ISWC 98),* 92–99.

- Sense
- Adapt
- Resource discovery
- Augment (i.e., add to it)

What can we do with context?

B. Schilit, N. Adams, & R. Want, Context-Aware Computing Applications, *IEEE Workshop on Mobile Computing Applications,* 1994, 85–90.

- Proximate selection
  - Make it easier to access things that are closer
- Automatic contextual reconfiguration
  - Modify state of surrounding resources (e.g., move whiteboard contents with group)
- Contextual information and commands
  - Actions are interpreted in context (e.g., “migrate button” to move app to nearby display)
- Context-triggered actions
  - Actions occur when event is recognized (e.g., reminder pops up when user is at desired location/time

Space

- Position
  - Latitude, Longitude, Altitude
  - Local coordinates
  - Room/location name
- Orientation
- Motion

Time

- Exact local time (time zone)
- Morning, noon, evening, night. . . .

People

- User
- Nearby people

Objects/Resources

- Computer equipment
- Other

Tasks

- User/group goals
  - Write paper
  - Watch movie
  - Play game

Situation

- Vacation, meeting, emergency, . . .

Environment

- Light
- Sound
- Smell
- Vibration
- Temperature
- Humidity
- Weather

Data

- Local data broadcasts
  - Radio
  - IR

Applications

- PARC Tab location-based file browser
  - Filter files based on location
- PARC Tab location-based paging
- RXRC Forget-me-not
  - Diary
- RXRC Communicator
  - Suggests best way to communicate with user, based on their location

Applications

- PARC Tab
  - Pointing
  - Drawing
  - Voting
  - Remote Control

Applications

- Situated information
- Situated reminders
- Context-based retrieval of information
- Context-based determination of behavior

Issues

- Environmental infrastructure
  - None: face recognition
  - Existing infrastructure: GPS (artificial), magnetometer/gravitometer (natural)
  - Local infrastructure
  - Industry/government/global infrastructure

Issues

- Distinction between
  - Context source
  - Means for detecting context item

  - Example:
    - *User identity* can be determined by
      - Badge
      - Voice recognition
      - Face recognition
      - ID card

Issues

- History

Issues

- Noise
- Data fusion

Issues

- Privacy
  - Who can access context
  - Who can create context