INF 5200 Computer Supported Cooperative Work

Mobility in Collaboration

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Agenda

- Introduction

- Background

- Micro mobility – medical consultations

- Remote mobility – construction site

- Remote and local mobility – London underground

- Implications for technologies supporting mobility

- summary

Introduction

- Support of mobility in collaborative activities

- Rigid collaboration tools

- 3 settings of communication and collaboration

- Mobility of individuals and artifacts

Background

- Focus on collaboration

- Emergence of fragmented organizations

- communication technologies →flexible organizational forms

- Unwieldy technologies

Medical Consultations

- Mobility of paper document

- Synchronous – asynchronous collaboration

- 'Micro-mobility'

Medical Consultations (2)

- Computerized records

- Flexibility of written document– communicative flexibility of the doctor

- 'Systems demand an orientation from the participant'

Construction Site

- Allocation sheet – 'outmoded artifact'
  - 'gang' responsible → foreman → hut

- New mobile system
  - Foremen more proactive

Construction Site (2)

- Fujitsu 500 Stylistic notepad computer
  - In use for 1 year, good information-good time

- More bureaucratic

- Acquisition of an additional person responsible for the system

Construction Site (3)

- *Misunderstandings* concerning the nature of collaborative activities on site and the technology required to support them.

- Designers:

  - recognize importance of cooperation
  - Ignore that allocation sheet is a basis for real time collaboration/communication.

London Underground

- Operations room 'Ops room'

  – Bulk of information

  – Communication resources
    - Public address system, line to police, switches for gates etc

- Support for mobile staff

London Underground (2)

- King's Cross – passengers guided towards the fire

- Congested stations

- 'Suspect packages'

Implications for technologies supporting mobility

- Augmented reality

- Which artifacts to augment?

- Consideration to the design of technology

Implications for technologies supporting mobility (2)

- Location sensitive devices

- Micro-mobility critical for collaboration
  - Need for mobile + fixed devices, focus on moment to moment manipulation of objects

Summary

- *Objects in interaction* **entwined** with the *interaction and activities of others*

- Mobility usually focused on individuals
  - fine-grained use of artifacts, real-time resource for moment to moment collaboration

- Micro-mobility within collaboration ignored by CSCW developers

Summary (2)

- Augmented reality
  - Focus on computational capabilities not collaborative activities

- Studies focus on 'centers of coordination'
  - Technologies that support workplace activities, constrained to particular locales
  - Miss the volatility of collaborative work

- Need to explore how objects are used in interaction where mobility of participants is critical