Designing vs. Using
Features of Communication Technologies

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Feature Interaction Workshop:
Panel on New Features

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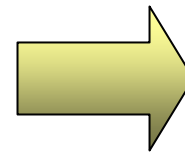**Faculty of Information Studies,**
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Theoretical Framework

Wanda Orlikowki:

While employees use technology, they "interpret, appropriate, and manipulate it in various ways, being influenced by a number of individual and social factors" (p. 408).

Unexpected uses: Occur in social system: development of habits

Dualism of Technology: Design vs. Use

Objectives

1. To identify designers' ***assumptions*** in terms of how users would like to communicate!

2. To examine ***social barriers*** to adoption and implementation of features.

3. To study ***how*** people are connected and how they communicate to accomplish work, solve problems, and find information.

4. To develop a ***model*** that guides the design of communication technologies that are sensitive to the specific culture, tasks, and social relationships of a user.

Designers' Assumptions

- Spontaneous interaction
- Increased Connectivity
- Closer Collaboration/Shared work spaces
- Individual empowerment

Pre-Deployment Controversies

- Management deals with implementation
- Hidden purpose
- Surveillance
- Presentation of self
- Interruptions
- Power
- Changes in work activities

Issues in Uses

| *Positive Uses*	*Negative Uses*
• Availability	• Intrusive
• Closeness	• When do you log in?
• Spontaneous interactions	• Status
• Quick responses	• Styles
• Scheduling (face-to-face)	• Control
	• Barriers

Study of Instant Messaging

- **A.** Instant Messaging (IM) is an important tool for communication because of the following features:
  - almost synchronicity

  - presence;

  - quick back and forth (increasing productivity from the perspective of the sender of requests;

  - perceived limited intrusion (from the perspective of senders of requests); and

  - empowerment of workers.   □●   ;

- **B.** IM because of its immediacy, which makes it an appealing tool, also interrupts others workers (from the perspective of receivers of requests). This has a direct impact on the receiver's productivity.

- **C.** Tools need to be designed that take the cognitive context into consideration. Especially those that include the life-cycle of a project. At the beginning of a project a lot of interaction is needed for coordination, whereas at the end of a project less interaction is needed and more focus.
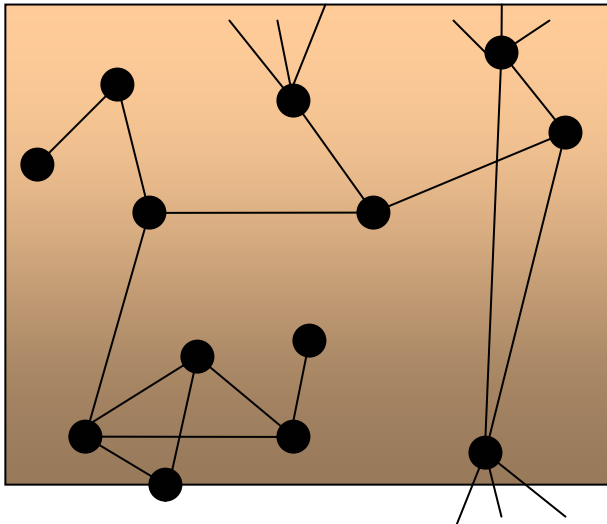
Define group boundaries

Group communication
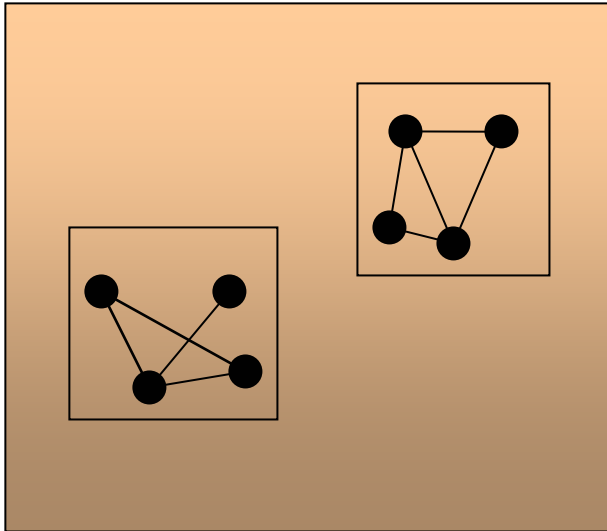
Inter-group communication
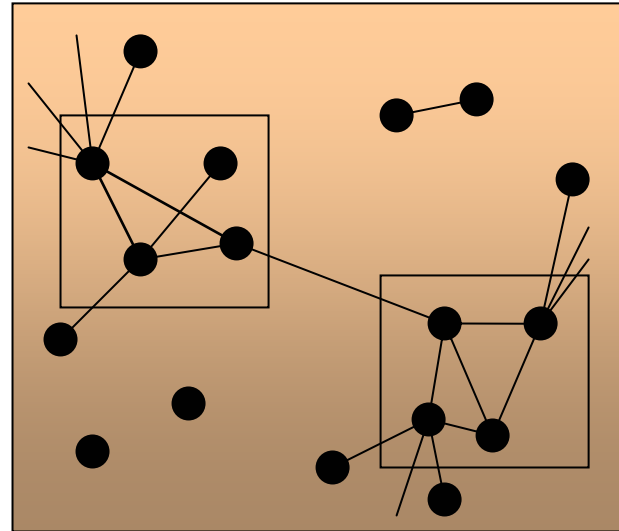
Networked Individualism

4 Levels of Personalization based on Group Boundaries

1. ***INDIVIDUAL***: Which itself can be idiosyncratic, role-based[1], status-based[2] and based on the frequency of prior communications.

2. ***DYADIC*** (between 2 people): Also can be based on idiosyncratic relationships, role-based[1], status-based[2], and based on the frequency of prior communications.

3. ***SOCIAL NETWORK/GROUP CONTACT***: Refers to the effect of other people on the interaction. Am I politer to you when Peter is involved? Also involves questions about density of communication, group norms, internal/external communication.

4. ***PHYSICAL CONTEXT***: Different behaviors and needs in different physical settings, such as own office, cubicle, boss office, meeting room, convention, etc.

5. ***SOCIAL SITUATION***: Different behaviors in different social situations, such as meetings, one-on-one discussions, group discussions, client interactions, private conversations, etc.

[1]Role-based refers to the static position in the work-group. [e.g., co-workers].

[2]Status-based refers to the static hierarchical position [e.g., VP-Manager].

Decision Rules by Context, Role, & Task

Culture
- Norms
- Values

SENDER		RECEIVER

SENDER → **RECEIVER**

Relationship

Characteristics
- Seniority
- Expertise
- Age
- Gender

Context
- Place
- Time
- Others

Task
- Urgency
- Complexity
- Uncertainty
- Interdependency

Role Parameters
- Formal relationship
  - Status
  - Task interdependency
- Informal relationship
  - Friendship
  - Trust
  - Past experience
- Role multiplexity

Characteristics
- Seniority
- Expertise
- Age
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Context
- Place
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