



*Engineering the flow of communication™*

# Ethnography in Action: Engaging to Understand the World & Create Solutions for People's Needs

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Pitney Bowes

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# A financial company, August



- **Opening the mail**
- **Watching the work**
- **Talking with the managers**
- **Being interrupted**
- **Working it out**
- **“It happens all the time”**

# Overview

- **The Innovation Pipeline**
- **Ethnography**
- **Role of the Ethnographer**

# Pitney Bowes

- **The Mailstream Technology People**
  - **hardware, software, services**
  - **\$5.4 B; 35,000 employees**
- **Advanced Concepts and Technology**
  - **mission: to stretch the company**
  - **60 people**

# Developing Technology-in-Use

**Socio-technical Practice**

**Activity**

**Socio-technical System**

**Technical System**

**Social System**

**particularities**

**production**

**evolution**

**regularities**

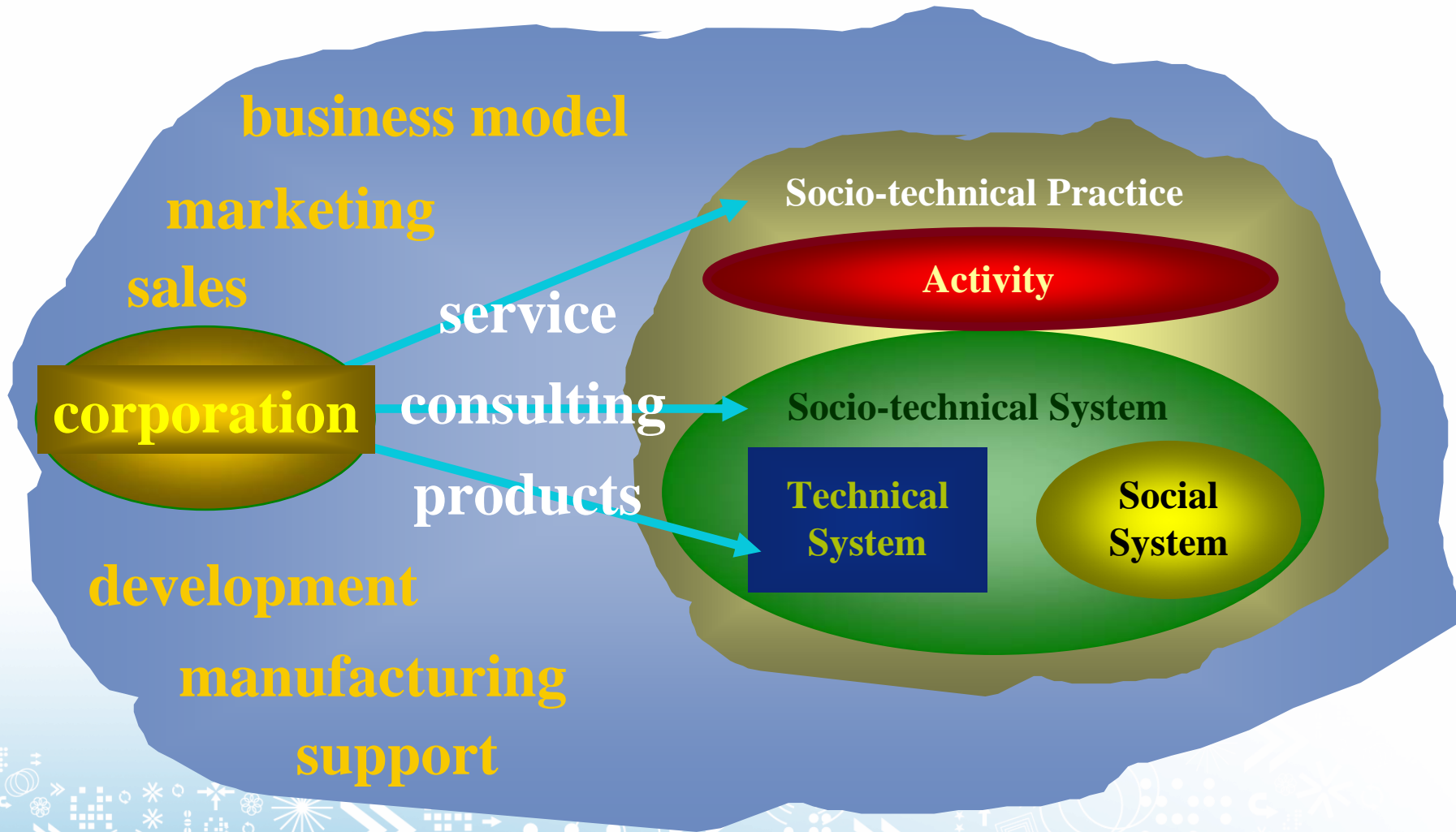
**systematic**

**conceptual**

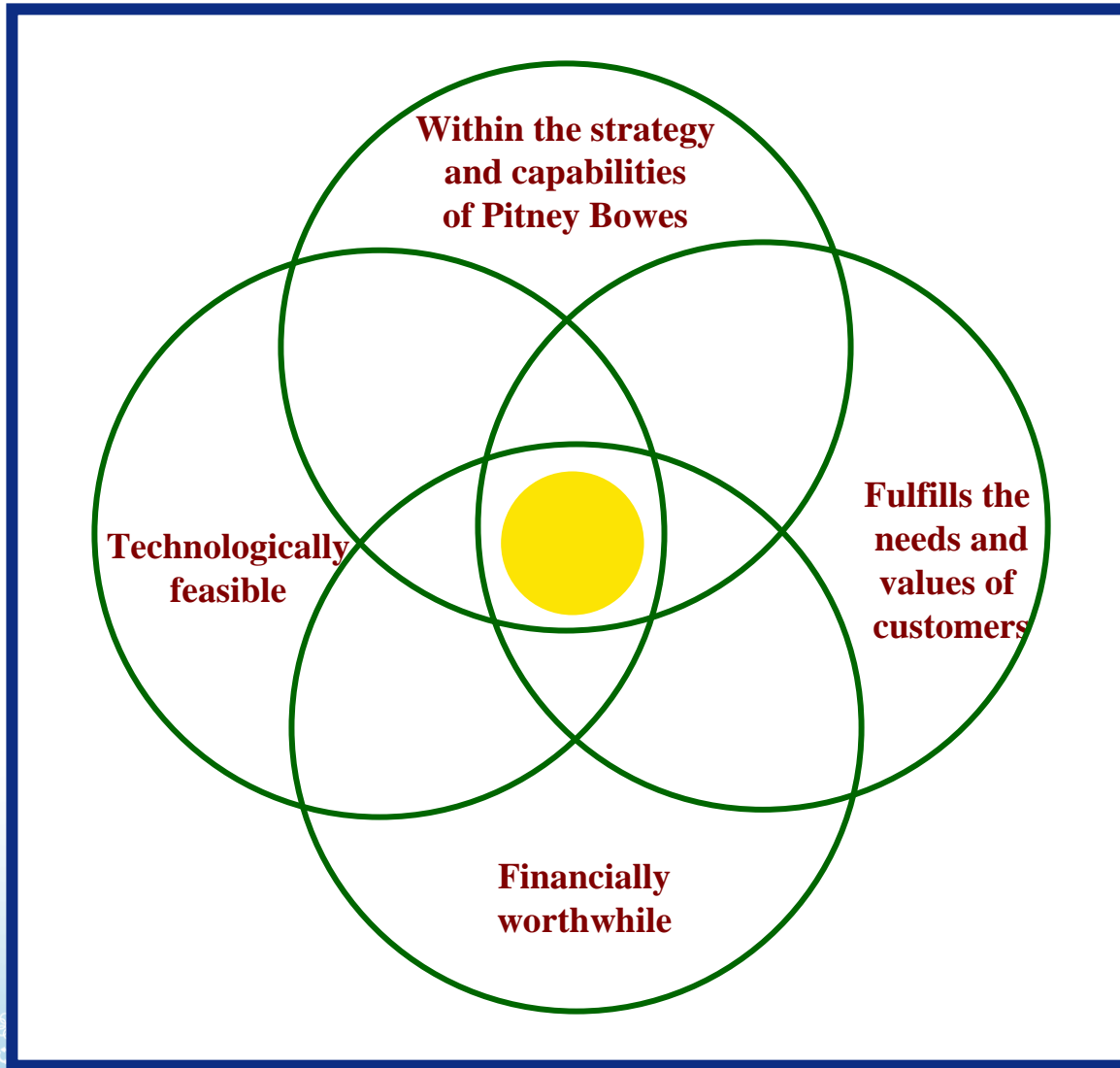
**nominal**

**ideal**

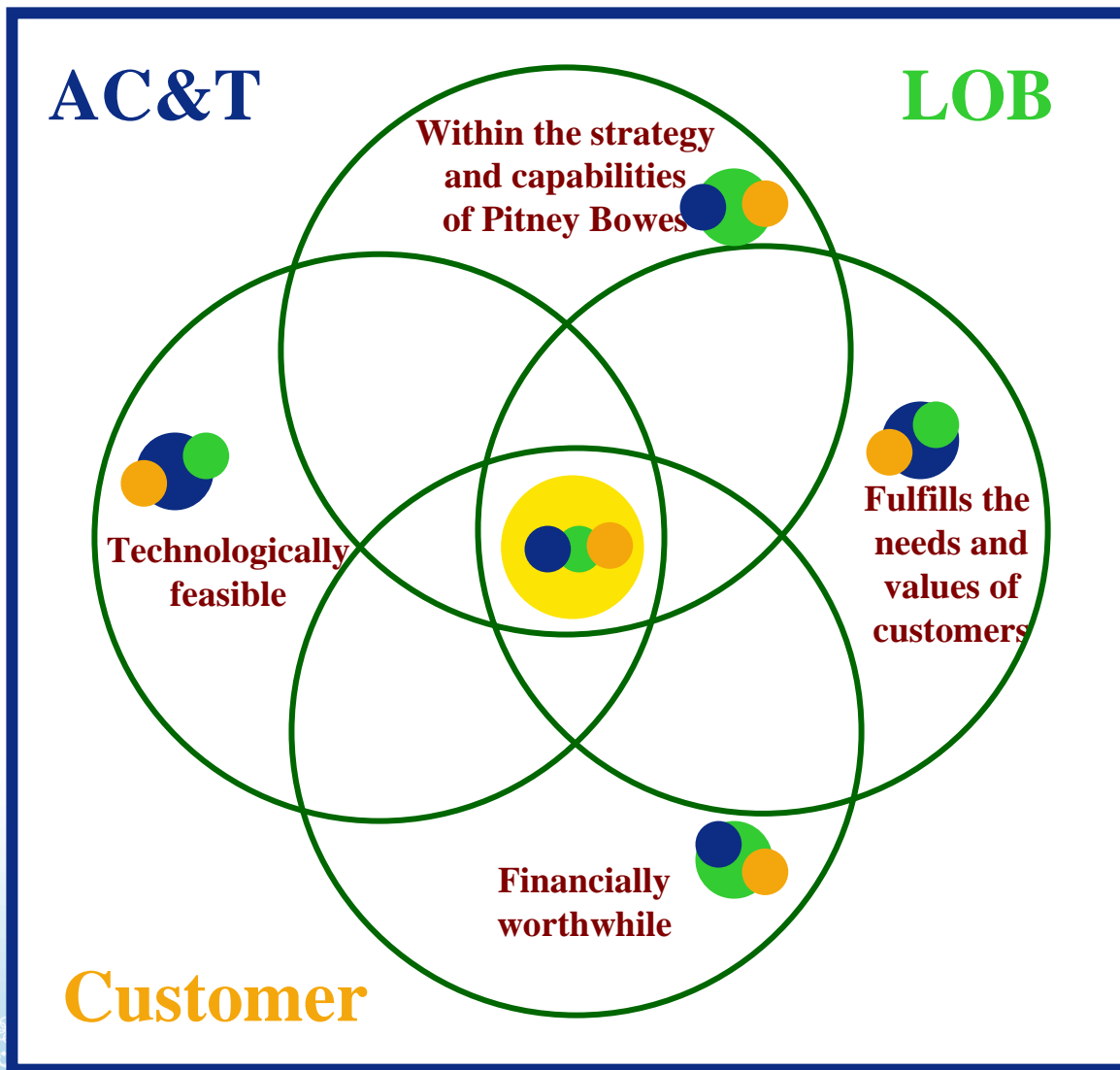
# Developing Businesses



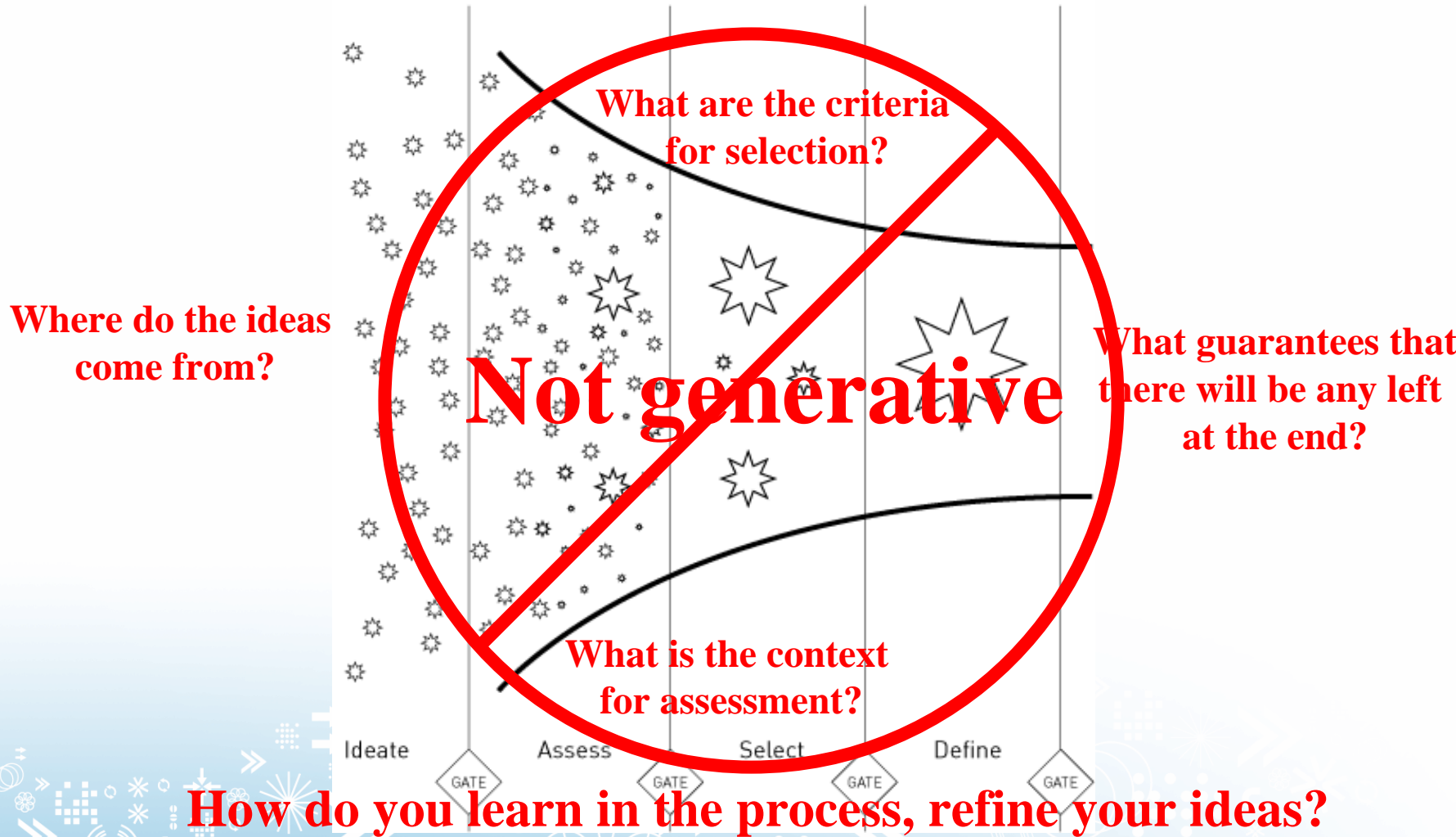
# Creating new businesses: The Sweet Spot



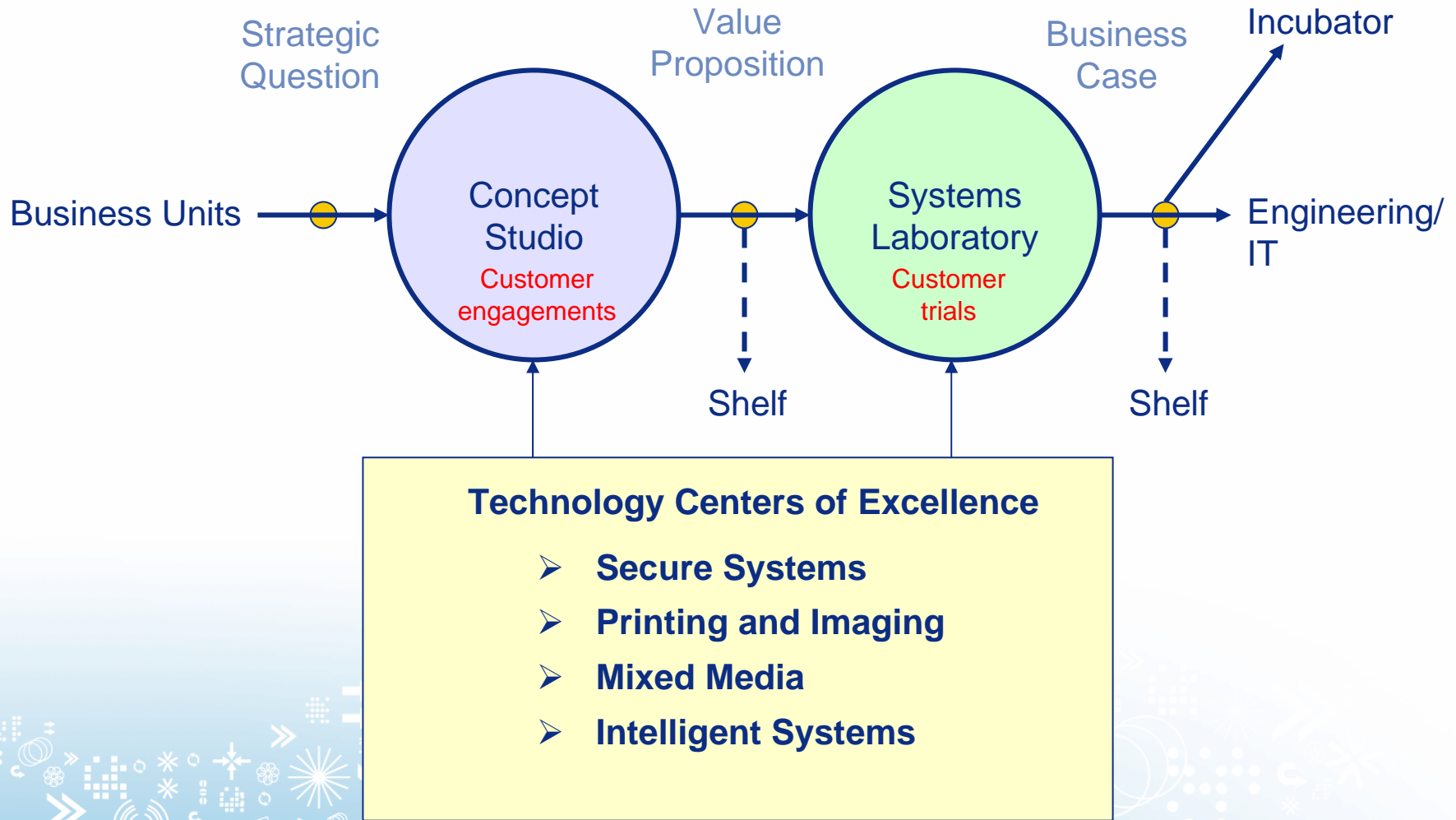
# Opportunities: a Partnership



# Traditional Story of Innovation: The Idea Funnel



# Advanced Concepts & Technology: The Innovation Pipeline



# Customer-centered innovation

## How we work

- Ethnography to understand user needs
- Ideation centered on customer needs
- Prototyping as the language of innovation
- Iteration toward solutions
- Invention to realize the vision

# Ethnography: What is ethnography?



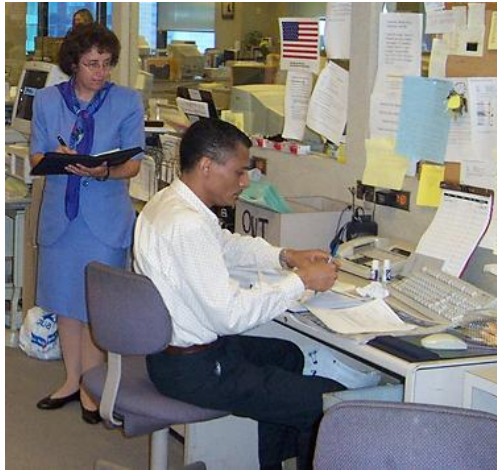
- **A practice from anthropology**
- **Making the strange familiar**
- **Making the familiar strange**

# Ethnography: The Tyranny of Talk



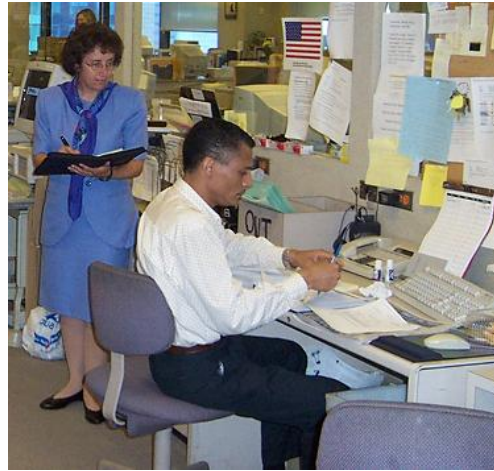
- **Doing is one thing, talking is another**
- **Its hard to talk:**
  - **must be aware**
  - **must have language**
  - **must be willing**
- **Actions speak louder than words**
- **Seeing as users see**

# Ethnography: How is it done?



- **“On-site Insight”**
  - Get the inside view by being there
  - Inform design with everyday realities

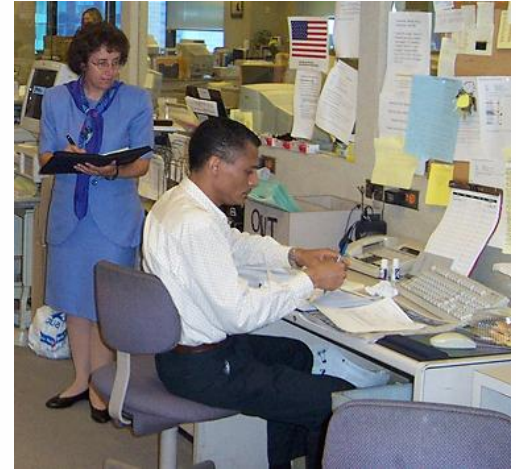
# Ethnography: How is it done?



- **On-site insight**
- **Real life, real people**
  - **Users are the experts**
  - **Discover the “rhyme and reason”**

# Ethnography: How is it done?

- **On-site insight**
- **Real life, real people**
- **Centrality of work**
  - **See how work really gets done**
  - **Focus on context, not abstracted tasks**
  - **Technology should support work, not hinder it**



# Systematic Data Collection ...

## Mix techniques

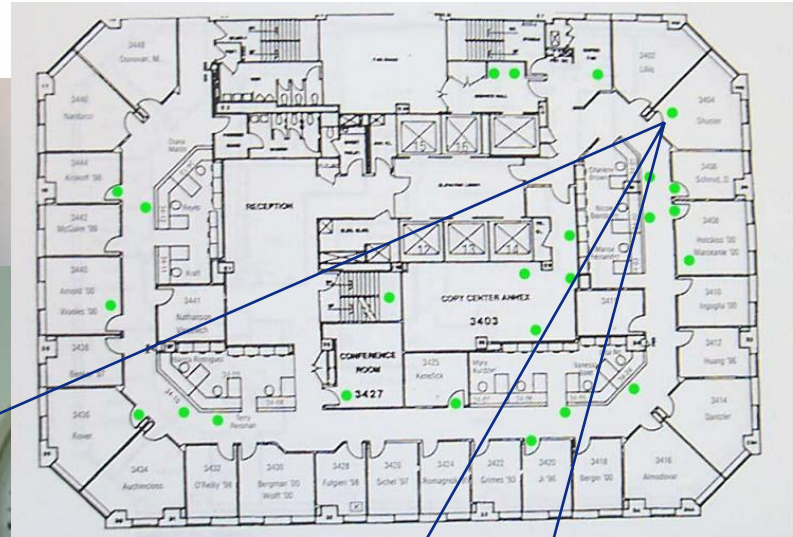
- Interviewing
- Observation
- Collecting Artifacts
- Use a framework

### ■ POSTA

- Person
- Object
- Setting
- Time
- Activity

## Sampling

- Define elements (roles, knowledge, ...)
- Sample across the system



# *System Data Collection + Systematic Analysis*

• **Data**

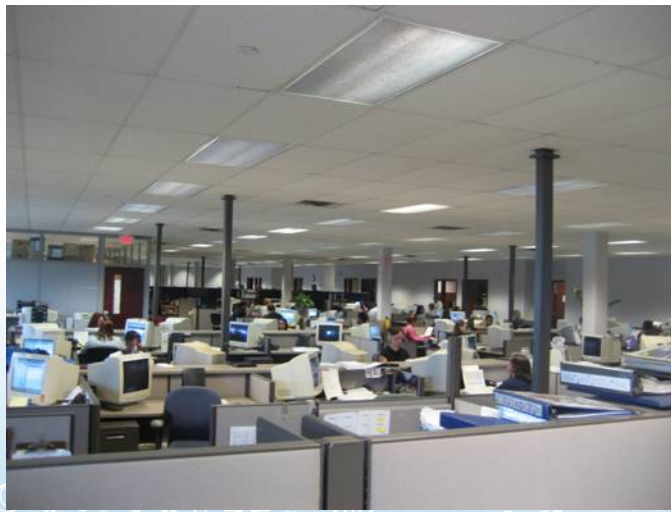


• **Patterns**

# A litigation support company, September



- A design that guides the work
- Detailed processes that deliver the design
- Awareness of difficulties in the work
- Means of adjusting the processes and the design when the work



# A high-tech company, a year ago



- A strict set of rules that guides shipping
- Detailed processes that prevent errors
- Awareness of difficulties in the work
- Means of adjusting the processes and the design when the work

# *System Data Collection + Systematic Analysis*

• **Data**



• **Patterns**



• **Insights**

# Insight

- Some things happen repeatedly. Efficiency can be gained by noticing these regularities and building processes that take advantage of them.
- However, the world is also changing. One cannot anticipate everything. So exceptions to the processes (the unanticipated, irregular, disruptive) will always be with us.

# System Data Collection + Systematic Analysis

• **Data**



• **Patterns**



• **Insights**

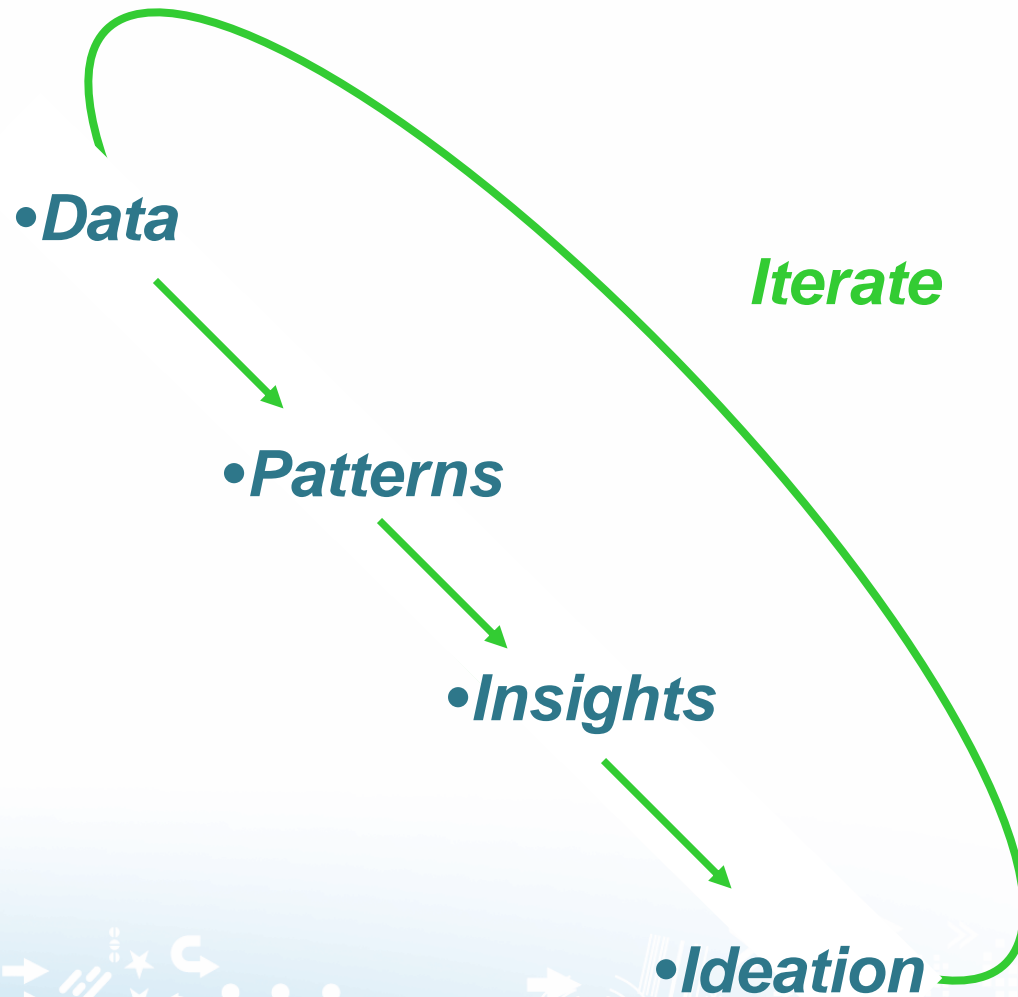


• **Ideation**

# Ideation

- Point of view on system building
  - Good businesses balance the efficiency gained by taking advantage of processes built on regularities *and* the effectiveness gained by taking advantage of response-mechanisms built on exceptions.
  - Current technical systems can react to regularities; people can react to exceptions. Socio-technical systems are required to achieve both efficiency and effectiveness.

# System Data Collection + Systematic Analysis



# Customer-Centered Innovation

## Iterative Development

**Observation:**  
work  
practice



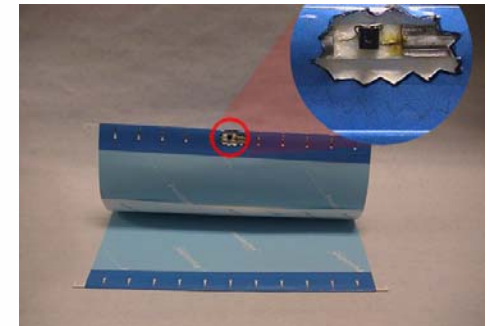
Observation  
Ethnography  
Videotaping

**Analysis:**  
insights  
needs



Affinity diagrams  
Interaction analysis  
Ethnomethodology

**Synthesis:**  
ideas  
solutions



Brainstorming  
Prototyping  
Evaluation

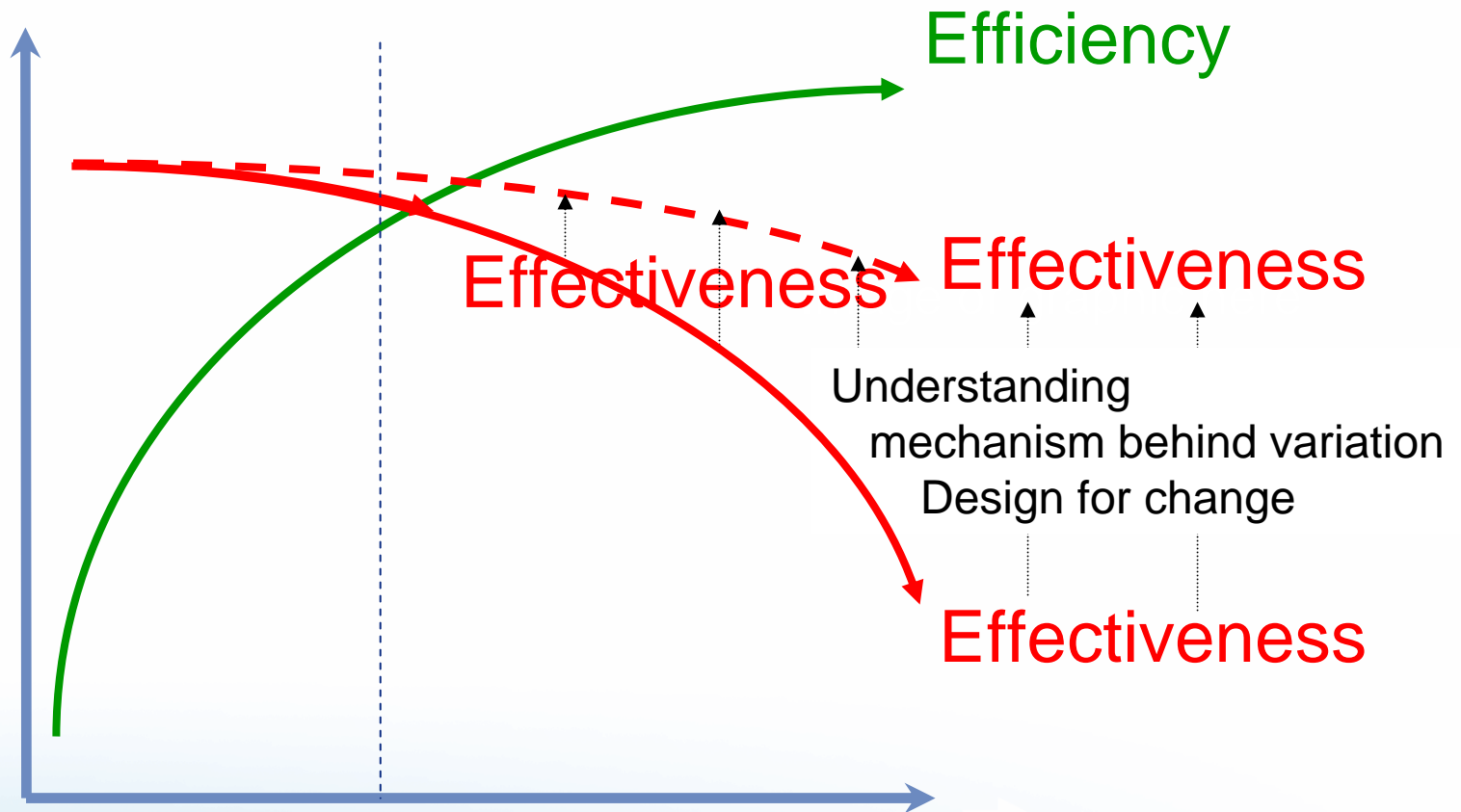
Contextual Interviewing

Co-viewing

Co-design

## Participatory Development

# Efficiency and Effectiveness



See work as regular/repeatable

# Customer-centered innovation

## How we work

- Ethnography to understand user needs
- Ideation centered on customer needs
- Prototyping as the language of innovation
- Iteration toward solutions
- Invention to realize the vision

# Ethnographer and prototypes



- **Beyond the tyranny of talk**
- **Probe with objects**
- **Ethnographers help see**

# Ethnographers on the team



- **Not** as a proxy for the user
- **As a member of the team**
- **Participate in all phases**
- **Contribute to the insights**

# Ethnography in action



- **Seeing as users see**
- **Contribute to the insights**
- **A key member of the team**
- **Central to innovation**
- **Successful at Pitney Bowes**

*Thank you*



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