

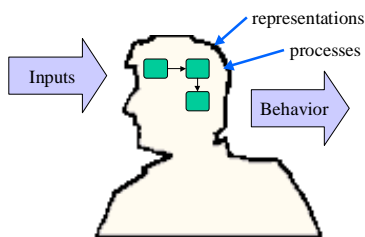
Supporting Work in Distributed Organizations

George Engelbeck
georgee@cisco.com
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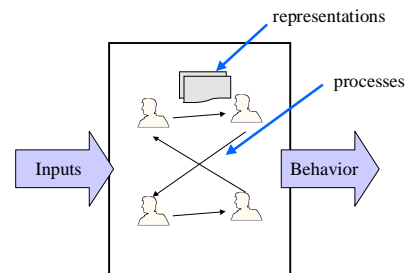
Overview

- Approach to understanding distributed organizations and their processes.
- Five models for representing knowledge about organizations.
 - Agent - Exercise 1
 - Cultural - Exercise 2
 - Process - Exercise 3
 - Artifact
 - Physical
- Questions

Cognitive Approach



Distributed Cognition Approach

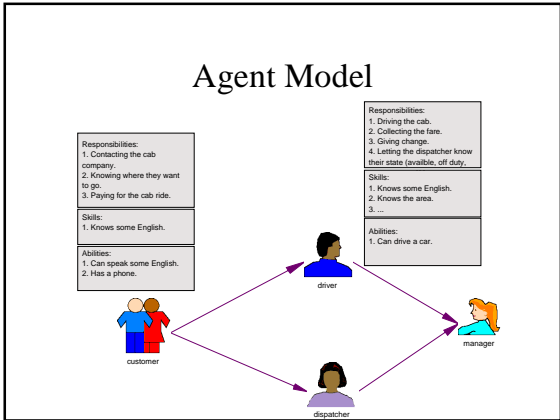


Modeling Distributed Organizations

- Models
 - Agent
 - Cultural
 - Process
 - Artifact
 - Physical

Agent Model

- Purpose
 - Understand the general architecture of the organization.
 - Understand what the people in the system know and what they can be expected to do.
- Focus
 - Knowledge, skills, responsibilities, and collaborations of agents.



Exercise 1

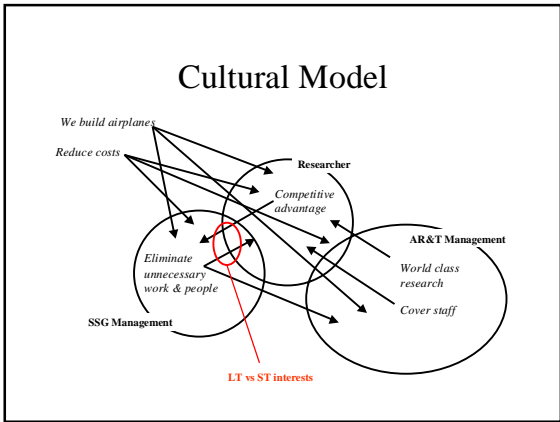
- Create an Agent model for the taxicab company.

Things to look for...

- Missing knowledge or skills
- Missing responsibilities
- Mediated collaborations

Cultural Model

- Purpose
 - Understand the “culture” and organizational pressures.
 - Understand the motivations of the organizational groups.
- Focus
 - Attitudes and pressures on organizational groups.

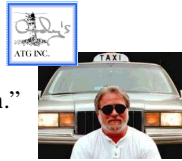


Exercise 2

- Create a cultural model for the taxicab company.

Things to look for...

- Prevailing attitudes
- Conflicting pressures
- Barriers to adoption
- What is needed for “buy in.”



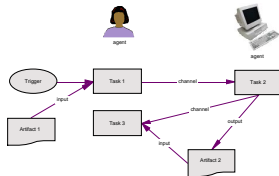
Service First at Andy's Taxi
<http://www.andystaxigroup.com/index.html>

Process Model

- Purpose
 - What are the processes?
 - How frequently do they occur?
 - What triggers the processes?
 - What tasks make up a process?
 - What are task frequencies?
 - Who performs the tasks?
 - What inputs do they need?
 - What outputs do they perform?
 - Who provides inputs?
 - Who consumes outputs?

Process Models

- Processes (work) can be modeled using agents, artifacts, tasks, representations, and communication channels.



Channels

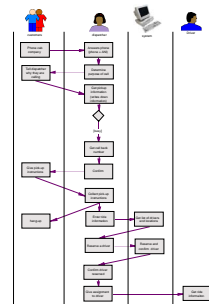
- How representations get passed from one place to another.



Exercise 3

- Create a process model for scheduling a pickup.

Example Process Flow



What to look for...

- Mediating artifacts
- Mediating agents
- Unnecessary channels
- Unnecessary tasks
- Process bottlenecks
- Organizational workarounds
- Pass-through processes
- Processes where outputs are not used
- A focus on outputs rather than outcomes

Artifact Model

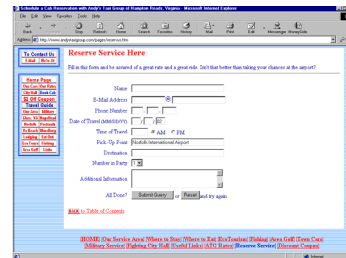
- Purpose
 - Understand the representations used by the organization and how they are transformed.
 - Understand requirements around artifacts
 - legal
 - robustness
- Focus
 - Conceptual data

Artifacts

- How representations get captured.



Artifact



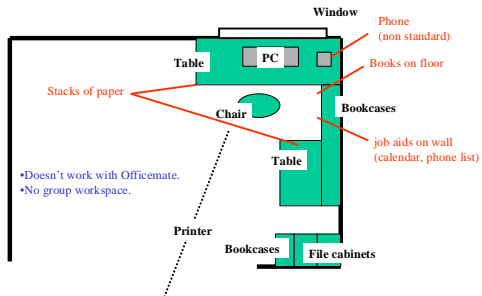
What to look for...

- Domain objects and attributes.
- Terminology.
- Business rules
 - Service area
- New issues
 - Coupons
 - Faxes
- Addressing customer concerns "... assured of a great rate and a great ride. Isn't that better than taking your chances at the airport?"

Physical Model

- Purpose
 - Understand how the layout of the work area channels work.
 - Understand how the layout of the work area impacts collaboration and communication.
- Focus
 - Openness versus privacy.
 - Placement of artifacts.
 - Channels.

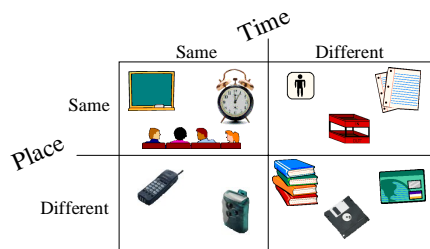
Physical Model



Things to look for...

- Barriers to working together
- Barriers to privacy
- Business data
- New communication channels
 - Physical awareness

Distribution in time and space - Four square model



Questions

References

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