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DECISION PROCESS

What Are the Different Types of Decisions, and How Does the Decision-Making Process Work?



"NO PROBLEM! I'LL HAVE A DECISION BY THE END OF THE DAY."

Business value of improved decision making

- Improving hundreds of thousands of “small” decisions adds up to large annual value for the business

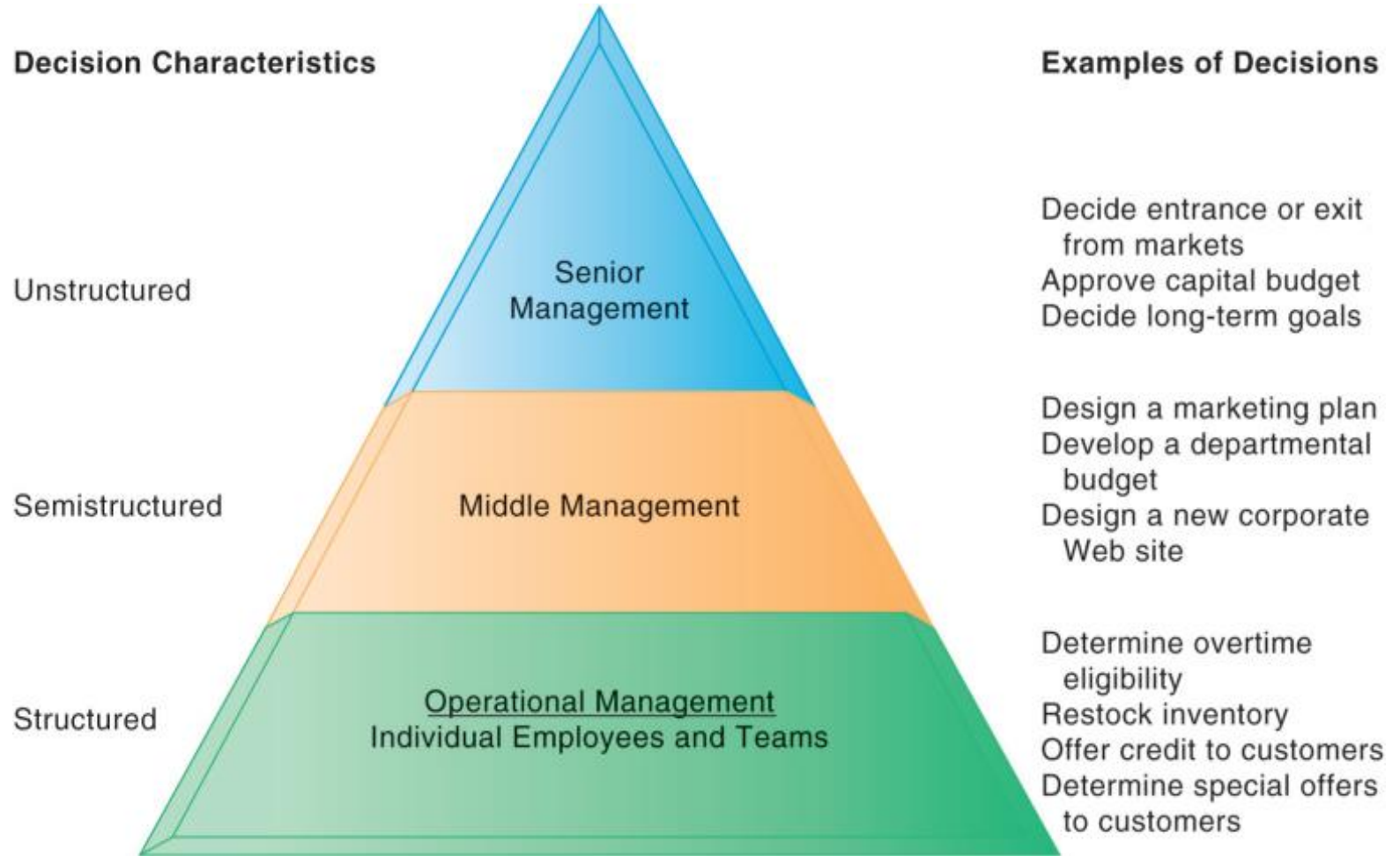
Types of decisions

- Unstructured: Decision maker must provide judgment, evaluation, and insight to solve problem
- Structured: Repetitive and routine; involve definite procedure for handling so they do not have to be treated each time as new
- Semi structured: Only part of problem has clear-cut answer provided by accepted procedure

Key Decision-Making Groups

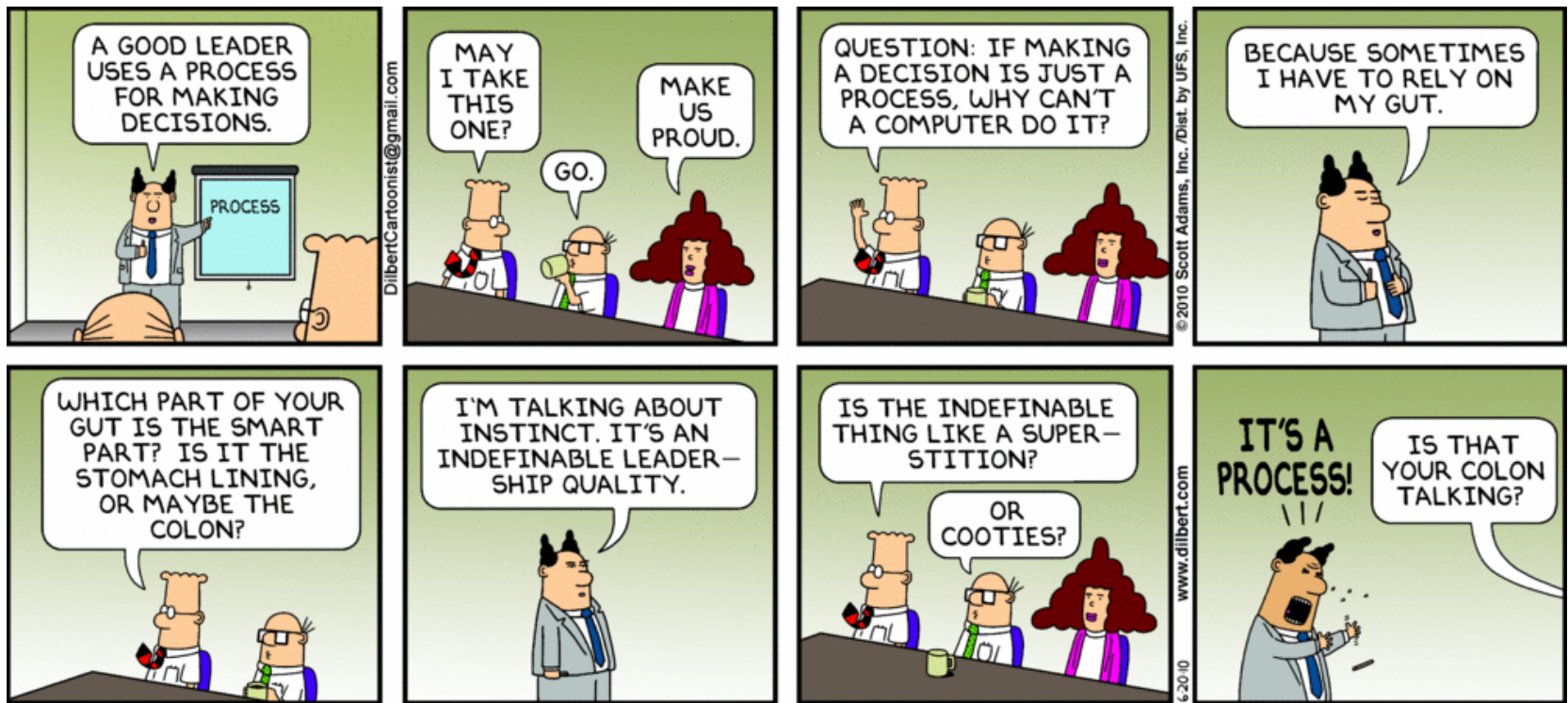
- Senior managers
 - Make many unstructured decisions
- Middle managers
 - Make more structured decisions but these may include unstructured components
- Operational managers and rank and file employees
 - Make more structured decisions

Information Requirements of Key Decision-Making Groups in a Firm



Laudon & Laudon (2012)

The Decision-Making Process



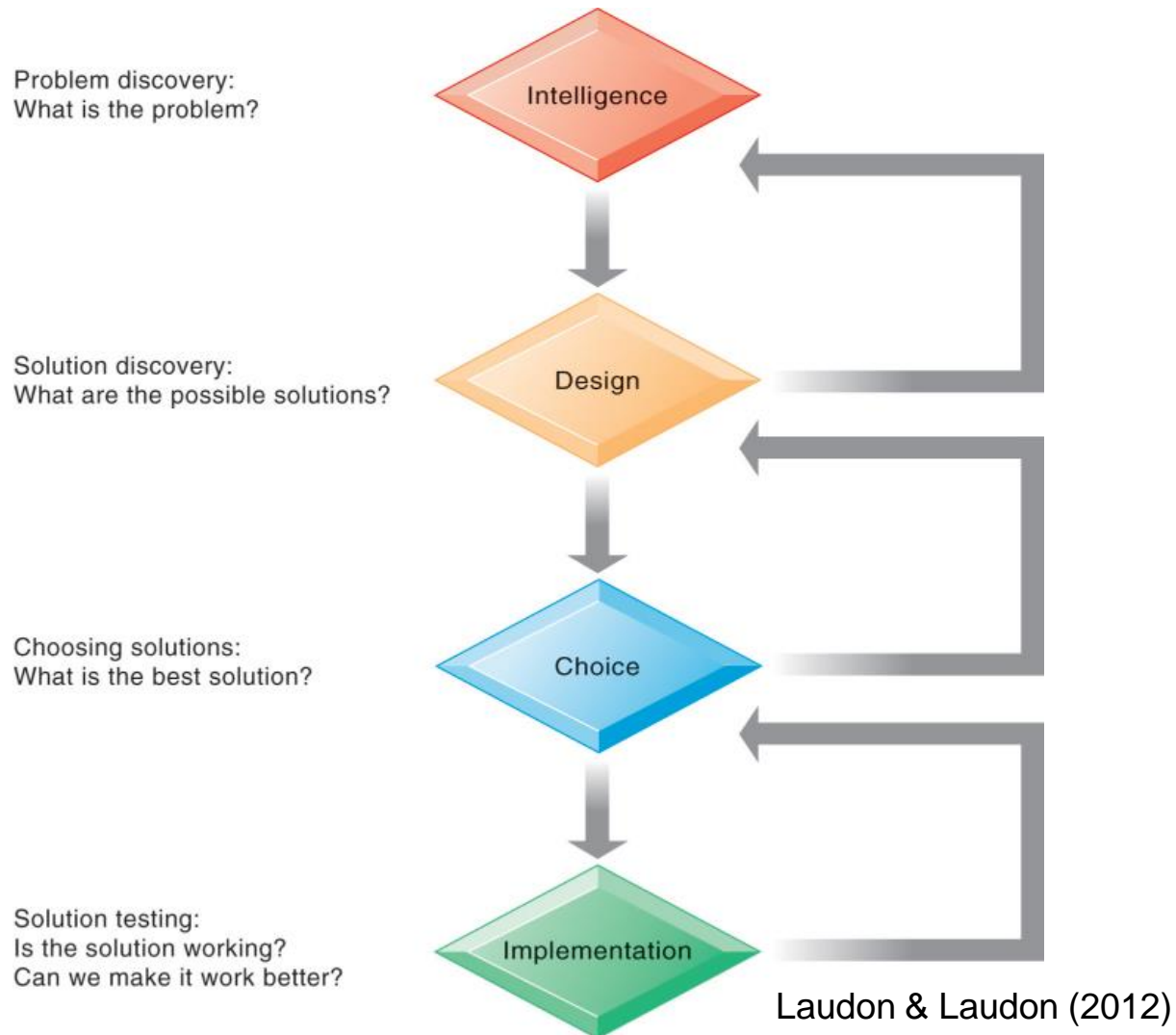
The Decision-Making Process



The Decision-Making Process

- Intelligence
 - Discovering, identifying, and understanding the problems occurring in the organization
- Design
 - Identifying and exploring solutions to the problem
- Choice
 - Choosing among solution alternatives
- Implementation
 - Making chosen alternative work and continuing to monitor how well solution is working

Stages In Decision Making



Managerial Roles

- Information systems can only assist in some of the roles played by managers
- Classical model of management: five functions
 - Planning, organizing, coordinating, deciding, and controlling
- More contemporary behavioral models
 - Actual behavior of managers appears to be less systematic, more informal, less reflective, more reactive, and less well organized than in classical model

Mintzberg's 10 Managerial Roles

- Interpersonal roles
 - Figurehead
 - Leader
 - Liaison
- Informational roles
 - Nerve center
 - Disseminator
 - Spokesperson
- Decisional roles
 - Entrepreneur
 - Disturbance handler
 - Resource allocator
 - Negotiator

Mintzberg, H. (1989).

Real-World Decision Making

- Three main reasons why investments in IT do not always produce positive results
 - Information quality
 - High-quality decisions require high-quality information
 - Management filters
 - Managers have selective attention and have variety of biases that reject information that does not conform to prior conceptions
 - Organizational inertia and politics
 - Strong forces within organizations resist making decisions calling for major change

High-Velocity Automated Decision Making

- Made possible through computer algorithms precisely defining steps for a highly structured decision
 - Humans taken out of decision
- For example: High-speed computer trading programs
 - Trades performed in 30 milliseconds
- Require safeguards to ensure proper operation and regulation

Computer “Support”

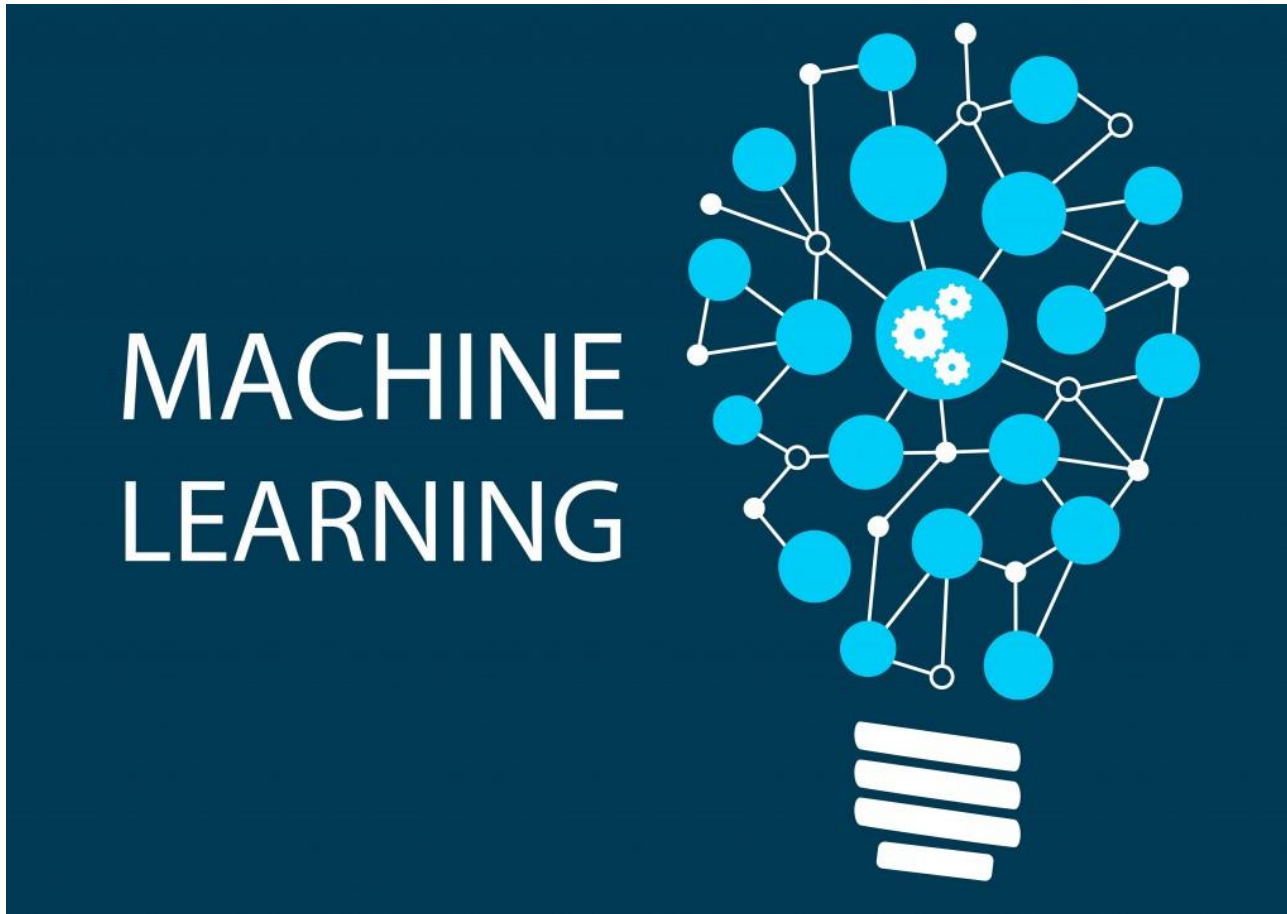


- <https://www.youtube.com/watch?v=XvzNuw5VjBU>

Computer “Support”



Computer “Support”



Computer “Support”

- Machine learning
- <https://www.youtube.com/watch?v=mJeNghZXtMo&t=28s>
- <https://www.youtube.com/watch?v=0VAXezSC2gg>

Collective Intelligence

- <https://www.youtube.com/watch?v=xLtp8vss8J4>

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