People Management and Team Organization

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People management

- People have different goals

- People and productivity

- Group processes

- Coordination of work

- Importance of informal communication

Mintzberg's coordination mechanisms

- Simple: direct supervision
- Machine bureaucracy: standardization of work processes
- Divisionalized form: standardization of work products
- Professional bureaucracy: standardization of worker skills
- Adhocracy: mutual adjustment

External and Internal forces
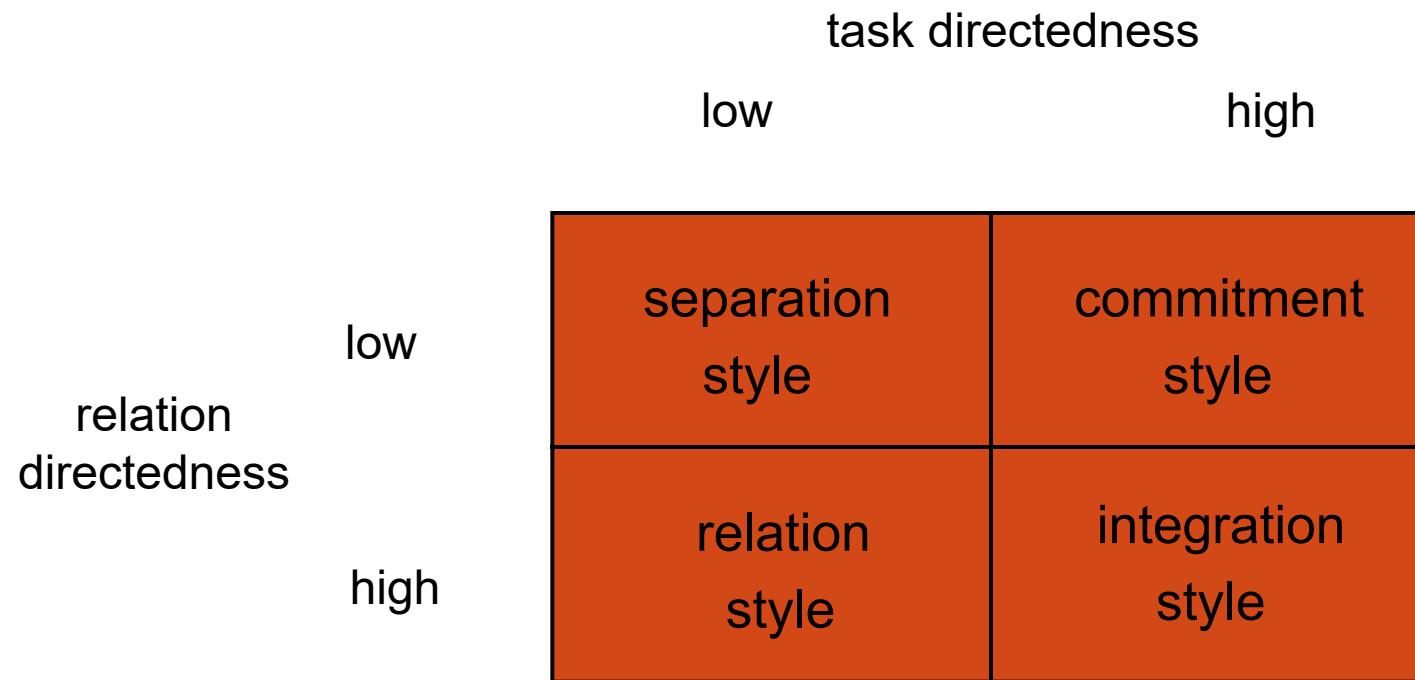
- Example context: a complex software development project in a new, not yet explored area, within a government agency

- External force: the bureaucratic context is likely to want to push a bureaucratic type of organization, with bosses, and hierarchical decision procedures

- Internal force: the project really requires a more democratic, consensus-based type of organization

Management Styles

Two dimensions in managing people:

- **Relation directedness** This concerns attention to an individual and his relationship to other individuals within the organization.

- **Task directedness** This concerns attention to the results to be achieved and the way in which these results must be achieved.

Reddin's management styles

task directedness

|		low	high
		separation style	commitment style
relation directedness	low		
	high	relation style	integration style

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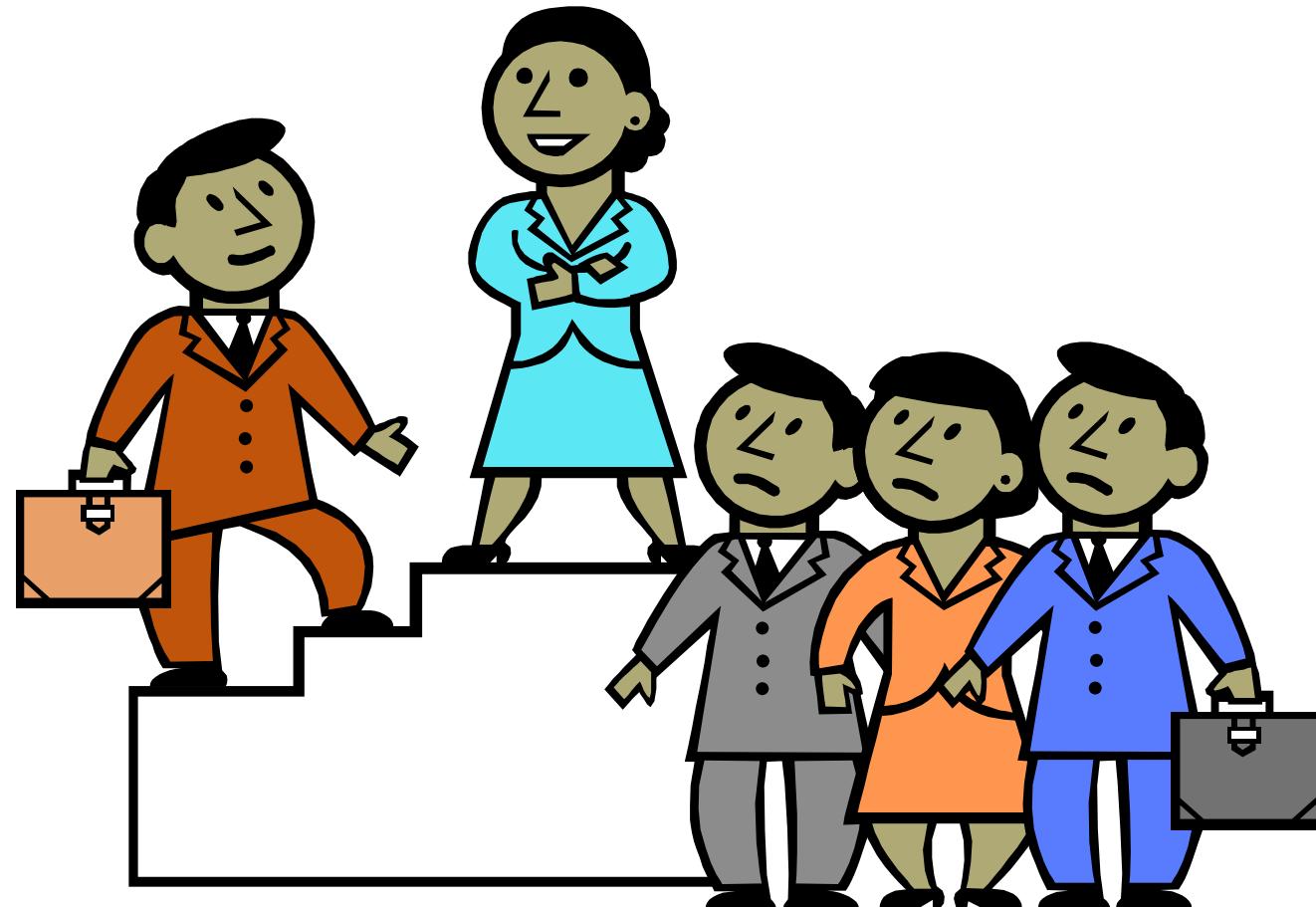
Focus

ଞ In both these schemes, we look from the <mark>manager</mark> to the team.

ଞ We may also take the opposite position, and consider the relation and task *maturity* of individual team members.

ଞ The manager should align his dealings with team members with their maturity.

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Team Organization

- Hierarchical organization
- Matrix organization
- Chief programmer team
- SWAT team
- Agile team/Extreme Programming (XP)
- Open Source Develoment
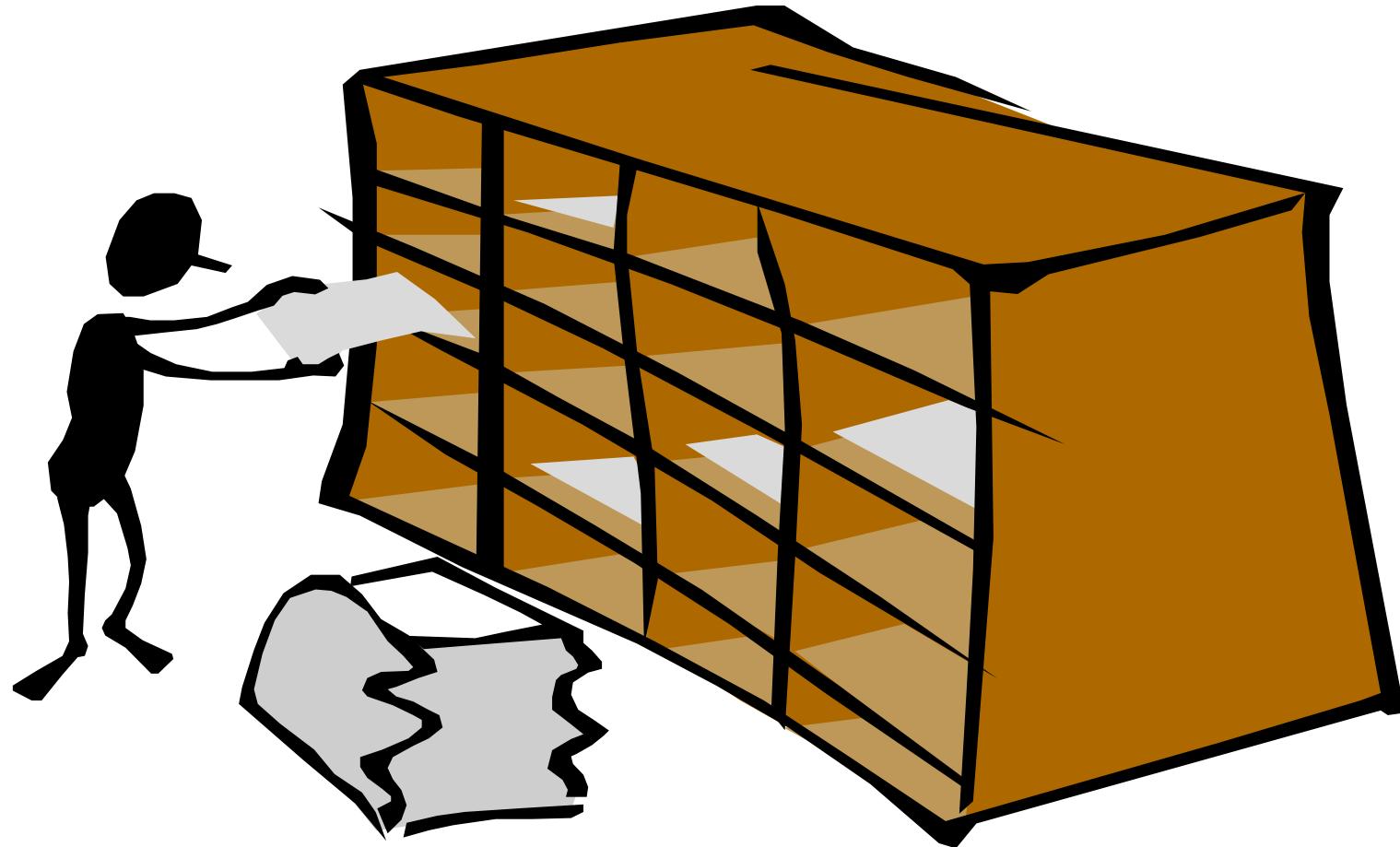
Hierarchical team

Hierarchical team

❑ bottom: we have severe troubles in implementing module X;

❑ level 1: there are some problems with module X;

❑ level 2: progress is steady, I do not foresee any real problems;

❑ top: everything proceeds according to our plan.

Matrix organization

Matrix organization

	real-time programming	graphics	databases	QA	testing
project C	X			X	X
project B	X		X	X	X
project A		X	X	X	X

Chief programmer team

Napoleon

Chief programmer team

- The kernel of such a team consists of three people.
    - The chief programmer is team leader. He takes care of the design and implements key parts of the system.
    - The chief programmer has an assistant who can stand in for the chief programmer, if needed.
    - Thirdly, a librarian takes care of the administration and documentation.
    - Besides these three people, an additional (small) number of experts may be added to the chief programmer team.

# Skilled worker with advanced tools (SWAT)
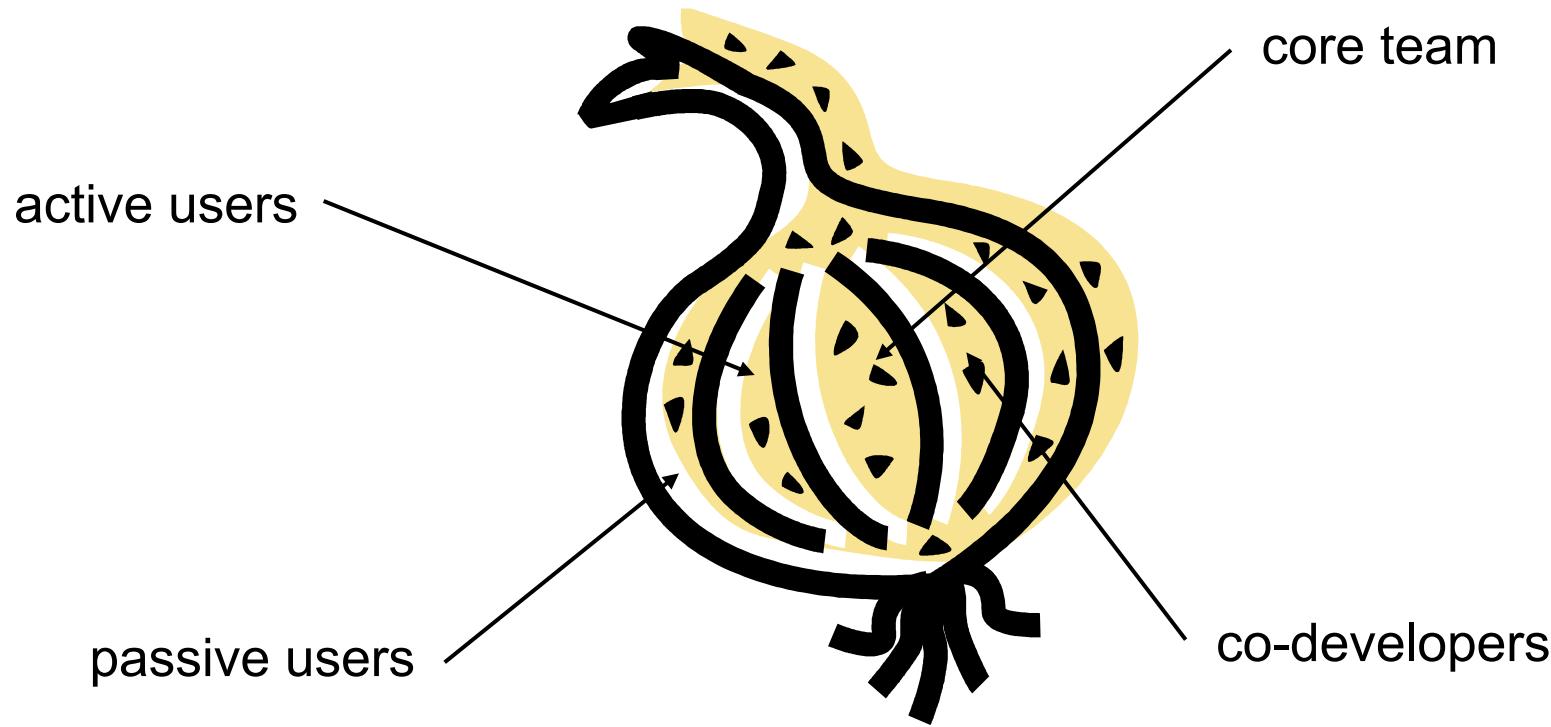
Skilled worker with advanced tools (SWAT)

- A SWAT team is relatively small. It typically has four or five members.
- Preferably, the team occupies one room. Communication channels are kept very short.
- The team does not have lengthy formal meetings with formal minutes.
- It uses workshops and brainstorming sessions of which little more than a snapshot of a white-board drawing is retained.

Agile team

In the same vein, an agile team has much in common with, e.g., a SWAT team: collocated, short communication channels, a people-oriented attitude rather than a formalistic one.

Often, people work in pairs, with a pilot and co-pilot, but without a hierarchy.

Agile teams need self-discipline.

> If a pair of programmers develops some code and subsequent tests fail, they must take a step back and redo their work.

Open Source Software Development

core team

active users

passive users

co-developers

Open Source Software Development

- The Core Team consists of a small team of experienced developers that also acts as management team. Changes in kernel components of the software can only be made by members of the Core Team.

- The Co-Developers are a larger group of people surrounding the Core Team. Co-Developers review code and do bug fixes.

- The Active Users are users of the most recent release of the system. They submit bug reports and feature requests, but do not themselves program the system.

- Finally, the group of Passive Users is merely

Some general rules

- Use fewer, and better, people

- Fit tasks to people

- Help people to get the most out of themselves

- Look for a well-balanced team

- If someone doesn't fit the team: remove him

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Summary

- Software is written by humans

- Coordination issues/management styles

- Common team organizations in software development:
  - Hierarchical team
  - Matrix organization
  - Agile team
  - Open source development