MANAGING PEOPLE & TEAMWORK

SOFTWARE PROJECT MANAGEMENT

10/2020

Contents

Part 1: Managing people

1. Introduction
2. Motivating people
3. Personality types

Part 2: Teamwork

1. Introduction
2. A good group
3. Factors influence the effectiveness of a group

Contents – Part 1: Managing people

1. **Introduction**
2. Motivating people
3. Personality types

Introduction

- The people working in a software organization are its greatest assets.
  - It costs a lot to recruit and retain good people.
- In successful companies and economies, this is achieved when people are:
  - respected by the organization and
  - assigned responsibilities that reflect their skills and experience.

Introduction

- It is important that software project managers understand the technical issues that influence the work of software development.
- Unfortunately, however, good software engineers are not necessarily good people managers.
  - Software engineers often have strong technical skills but may lack the softer skills that enable them to motivate and lead a project development team.

Introduction

- There are four critical factors in people management [Sommerville 2011]
  - Consistency
  - Respect
  - Inclusion
  - Honesty

Introduction

- **Consistency**
  - People in a project team should all be treated in a comparable way.
  - No one expects all rewards to be identical but people should not feel that their contribution to the organization is undervalued.

People management, in my view, is something that has to be based on experience, rather than learned from a book.

Sommerville

Introduction

- **Respect**
  - Different people have different skills and managers should respect these differences.
  - All members of the team should be given an opportunity to make a contribution. In some cases, of course, you will find that people simply don’t fit into a team and they cannot continue, but it is important not to jump to conclusions about this at an early stage in the project.

Introduction

- **Inclusion**
  - People contribute effectively when they feel that others listen to them and take account of their proposals.
  - It is important to develop a working environment where all views, even those of the most junior staff, are considered.

Introduction

- **Honesty**
  - As a manager, you should always be honest about what is going well and what is going badly in the team.
  - You should also be honest about your level of technical knowledge and willing to defer to staff with more knowledge when necessary.
  - If you try to cover up ignorance or problems you will eventually be found out and will lose the respect of the group.

Contents – Part 1: Managing people

1. Introduction
2. **Motivating people**
3. Personality types

Motivating people

- As a project manager, you need to motivate the people that work with you so that they contribute to the best of their abilities.
- Motivation means
  - – organizing the work and the working environment …
  - – to encourage people to work as effectively as possible.

If people are not motivated…

- They will not be interested in the work they are doing.
- They will work slowly, be more likely to make mistakes,
- and will not contribute to the broader goals of the team or the organization.

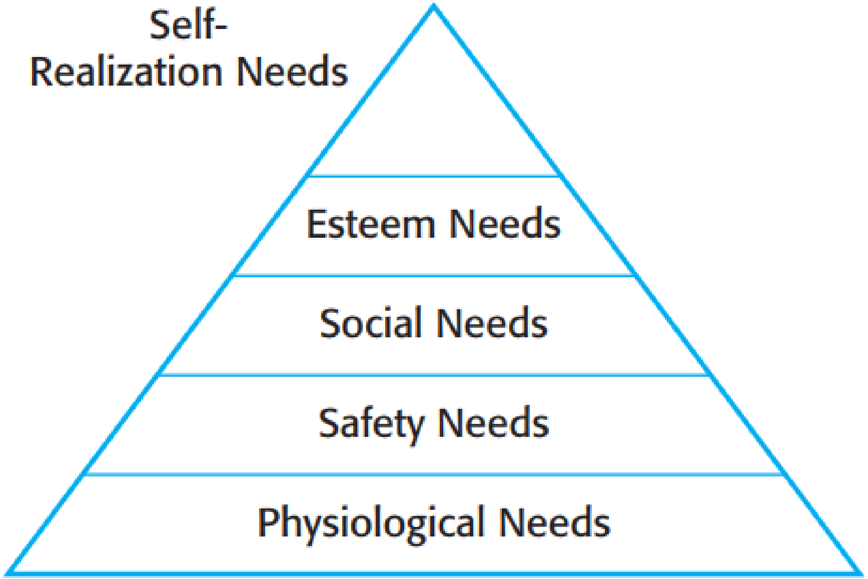
Image src: https://www.inc.com/drew-hendricks/12-tips-you-can-be-happy-at-a-boring-job.html

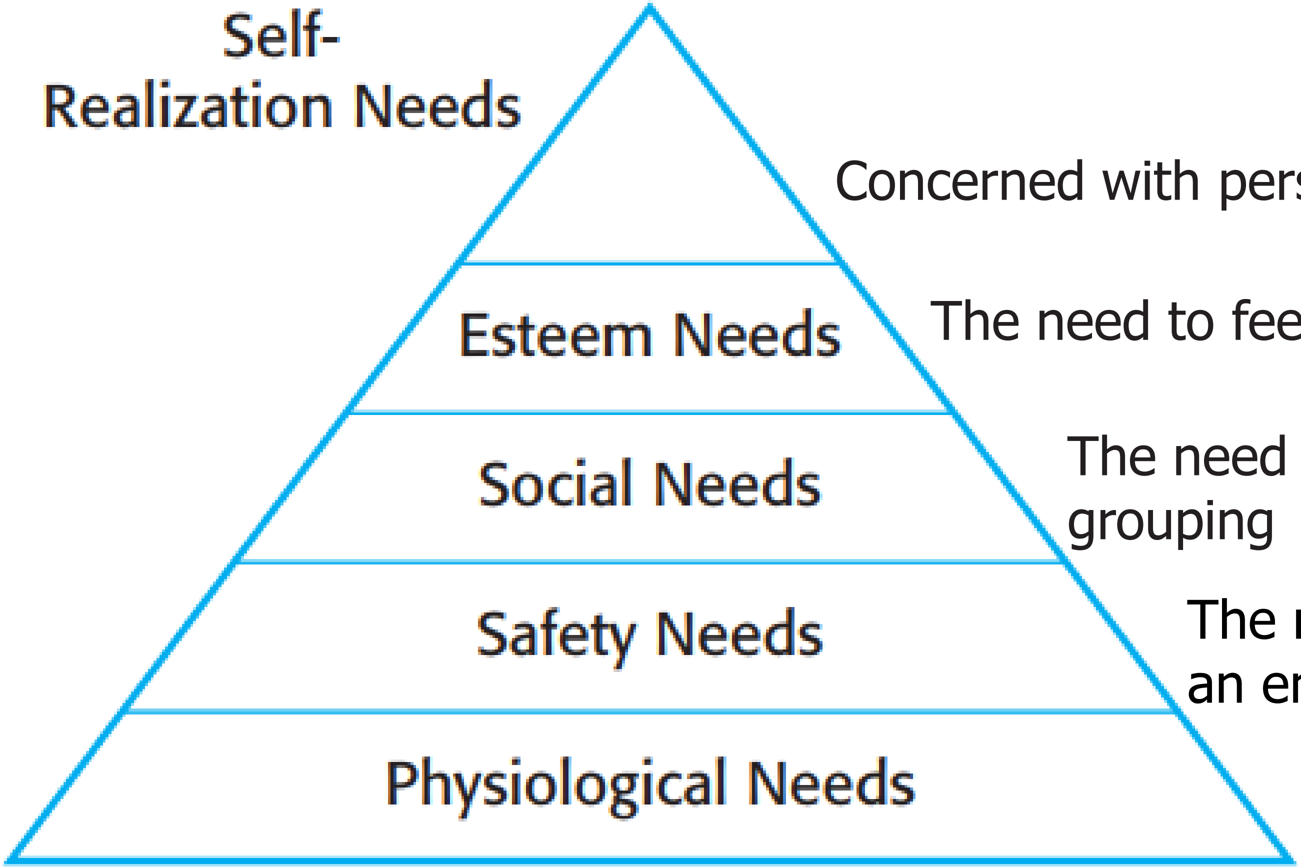
How to motivate your employees

Image src: https://www.trophiesplusmedals.co.uk/the-teachers-guide-to-keep-students-motivated-in-class/

Motivating people

- To provide this encouragement, you should understand a little about what motivates people.
  - – Maslow (1954) suggests that people are motivated by satisfying their needs.





Concerned with personal development

The need to feel respected by others

The need to feel part of a social grouping

The need to feel secure in an environment

Food, sleep...

Human needs hierarchy
(Maslow)

People need to satisfy lower-level needs like hunger before the more abstract, higher-level needs

Motivating people

- ***Physiological Needs***: thức ăn, nước uống, thở…
- ***Safety Needs:*** *a*n toàn khi tai nạn, chấn thương, an toàn tài chính, an toàn sức khỏe và tài sản.
- ***Social Needs:*** tình bạn, tình yêu đôi lứa, gia đình, các hội/nhóm, các nhóm cộng đồng..
- ***Esteem Needs: n***hu cầu được kính trọng, quý mến.
- ***Self-realization needs***: nhu cầu được thể hiện/ chứng tỏ giá trị bản thân mình (đây là nhu cầu của con người muốn khai phá các tiềm năng và thể hiện đúng con người mình)

Motivating people

- People working in software development organizations are not usually hungry or thirsty or physically threatened by their environment.
- Therefore, making sure that people's social, esteem, and self-realization needs are satisfied is most important from a management point of view.

Motivating people

- **To satisfy social needs**, you need to give people time to meet their co-workers and provide places for them to meet.
  - This is relatively easy when all of the members of a development team work in the same place but, increasingly, team members are not located in the same building or even the same town or state. They may work for different organizations or from home most of the time.
  - Social networking systems and teleconferencing can be used to facilitate communications but my experience with electronic systems is that they are most effective once people know each other.

Motivating people

- **To satisfy social needs…**
  - You therefore need to arrange some face-to-face meetings **early** in the project so that people can directly interact with other members of the team.
  - Through this direct interaction, people become part of a social group and accept the goals and priorities of that group.

Motivating people

- **To satisfy esteem needs**, you need to show people that they are valued by the organization.
  - Public recognition of achievements is a simple yet effective way of doing this.
  - Obviously, people must also feel that they are paid at a level that reflects their skills and experience.

Motivating people

- **To satisfy self-realization needs**, you need to give people responsibility for their work, assign them demanding (but not impossible) tasks, and provide a training programme where people can develop their skills.
  - Training is an important motivating influence as people like to gain new knowledge and learn new skills

Case study: Motivation

- **Problem**:
  - A competent group member **loses interest** in the work and in the group. The **quality** of her work **falls** and becomes **unacceptable**.
  - This situation has to be dealt with quickly. If you don’t sort out the problem, the other group members will become dissatisfied and feel that they are doing an unfair share of the work.
  - Dorothy’s motivation problem is one that is quite common when projects develop in an unexpected direction.

Case study: Motivation

- **Solution:** in those circumstances, you may decide that:
  - The team member should leave the team and find opportunities elsewhere.
  - In this example, however, Alice decides to try to convince Dorothy that broadening her experience is a positive career step.
    - She gives Dorothy more design **autonomy** and organizes **training courses** in software engineering that will give her more opportunities after her current project has finished.

Contents – Part 1: Managing people

1. Introduction
2. Motivating people
3. **Personality types**

Personality types

- Personality type also influences motivation. Bass and Dunteman (1963) classify professionals into three types:
  - **Task-oriented people**
  - **Self-oriented people**
  - **Interaction-oriented people**

Personality types

- **Task-oriented people**
  - Who are motivated by the work they do. In software engineering, these are people who are motivated by the intellectual challenge of software development.
- **Self-oriented people**
  - Who are principally motivated by personal success and recognition. They are interested in software development as a means of achieving their own goals.
  - This does not mean that these people are selfish and think only of their own concerns. Rather, they often have longer-term goals, such as career progression, that motivate them and they wish to be successful in their work to help realize these goals.

Personality types

- **Interaction-oriented people**
  - Who are motivated by the presence and actions of co-workers.
  - As software development becomes more user-centered, interaction-oriented individuals are becoming more involved in software engineering.

Personality types

- Interaction-oriented personalities usually like to work as part of a group,
- Whereas task-oriented and self-oriented people usually prefer to act as individuals.
- Women are more likely to be interaction-oriented than men. They are often more effective communicators.

Personality types

- **Individuals can change their motivation**:
  - For example, technical people who feel they are not being properly rewarded can become self-oriented and put personal interests before technical concerns.
  - If a group works particularly well, self-oriented people can become more interaction-oriented.

TEAMWORK

SOFTWARE PROJECT MANAGEMENT

10/2020

Contents

1. Introduction
2. A good group
3. Factors influence the effectiveness of a group

Contents

1. **Introduction**
2. A good group
3. Factors influence the effectiveness of a group

Introduction

- Most professional software is developed by project teams that range in size from two to several hundred people.
- Large teams are usually split into groups:
  - Each group is responsible for developing part of the overall system.
  - Groups should not have more than 10 members.
- **Why we should split into small groups?**

- When small groups are used, communication problems are reduced.
  - Everyone knows everyone else and the whole group can get around a table for a meeting to discuss the project and the software that they are developing.

Contents

1. Introduction
2. **A good group**
   - Benefits of a cohesive group
   - How to encourage group cohesiveness
   - Case study: Team spirit
3. Factors influence the effectiveness of a group

A good group

- A good group is cohesive and has a team spirit.
  - – The people involved are motivated by the success of the group as well as by their own personal goals.

A good group

- **In a cohesive group**, members think of the group as more important than the individuals
  - Members of a well-led, cohesive group are loyal to the group. They identify with group goals and other group members.
  - They attempt to protect the group from outside interference.
- This makes the group robust and able to cope with problems and unexpected situations.

Benefits of a cohesive group

- **The benefits of creating a cohesive group are:**
  1. **The group can establish its own quality standards:** Because these standards are established by consensus, they are more likely to be observed than external standards imposed on the group.
  2. **Individuals learn from and support each other:** People in the group learn from each other. Inhibitions caused by ignorance are minimized as mutual learning is encouraged.

Example: a rule of a team:
when fixing bug, comment [who], date, reason of changing
// [SLV] 20/10/2019 Fix issue #123

Benefits of a cohesive group

- **The benefits of creating a cohesive group are:**
  3. **Knowledge is shared:** Continuity can be maintained if a group member leaves. Others in the group can take over critical tasks and ensure that the project is not unduly disrupted.
  4. **Refactoring and continual improvement is encouraged:** Group members work collectively to deliver high-quality results and fix problems, irrespective of the individuals who originally created the design or program.

How to encourage group cohesiveness

- Good project managers should always try to **encourage group cohesiveness**.
  - They may organize social events for group members and their families.
  - Try to establish a sense of group identity by:
    - naming the group
    - establishing a group identity and territory
    - or they may get involved in explicit group-building activities such as sports and games.

How to encourage group cohesiveness

‘Working with parents’ Day (a FPT event)

How to encourage group cohesiveness

TMA Parents’ Day

How to encourage group cohesiveness

TMA Parents' Day

Team building

How to encourage group cohesiveness

- One of the most effective ways of promoting cohesion is to be inclusive.
- This means that you should treat group members as responsible and trustworthy, and make information freely available.
  - Sometimes, managers feel that they cannot reveal certain information to everyone in the group. This invariably creates a climate of mistrust.
  - Simple information exchange is an effective way of making people feel valued and that they are part of a group.

Case study: Team spirit

- Alice arranges regular informal meetings where she tells the other group members what is going on.
- She makes a point of involving people in the product development by asking them to come up with new ideas derived from their own family experiences.
- The 'away days' are also good ways of promoting cohesion — people relax together while they help each other learn about new technologies.

Contents

1. Introduction
2. A good group
3. **Factors influence the effectiveness of a group**
   - Group composition – Case study
   - Group organization
   - Group communications

Factors influence the effectiveness of a group

- There are three generic factors that affect team working:

Group composition

Group organization

Group communications

Factors influence the effectiveness of a group

- There are three generic factors that affect team working:
  - **The people in the group:** You need a mix of people in a project group as software development involves diverse activities such as negotiating with clients, programming, testing, and documentation.
  - **The group organization:** A group should be organized so that individuals can contribute to the best of their abilities and tasks can be completed as expected.

Factors influence the effectiveness of a group

- There are three generic factors that affect team working:
  - **Technical and managerial communications:** Good communications between group members, and between the software engineering team and other project stakeholders, is essential.
- As with all management issues, getting the right team cannot guarantee project success.
- However, if you don’t pay attention to group composition, organization, and communications, you increase the likelihood that your project will run into difficulties.

Contents

1. Introduction
2. A good group
3. Factors influence the effectiveness of a group
   - **Group composition**
   - Group organization
   - Group communications

Selecting group members

- A manager or team leader’s job is to create a cohesive group and organize their group so that they can work together effectively.
- This involves creating a group with the right balance of technical skills and personalities, and organizing that group so that the members work together effectively.

Selecting group members

- Sometimes, people are hired from outside the organization;
- More often, however, software engineering groups are put together from current employees who have experience on other projects.
- However, managers rarely have a completely free hand in team selection.
  - They often have to use the people who are available in the company, even when they may not be the ideal people for the job.

Selecting group members

- Many software engineers are motivated primarily by their work. Software development groups, therefore, are often composed of people who have their own ideas about how technical problems should be solved.
- This is reflected in regularly reported problems of:
  - interface standards being ignored,
  - systems being redesigned as they are coded,
  - unnecessary system embellishments, and so on.

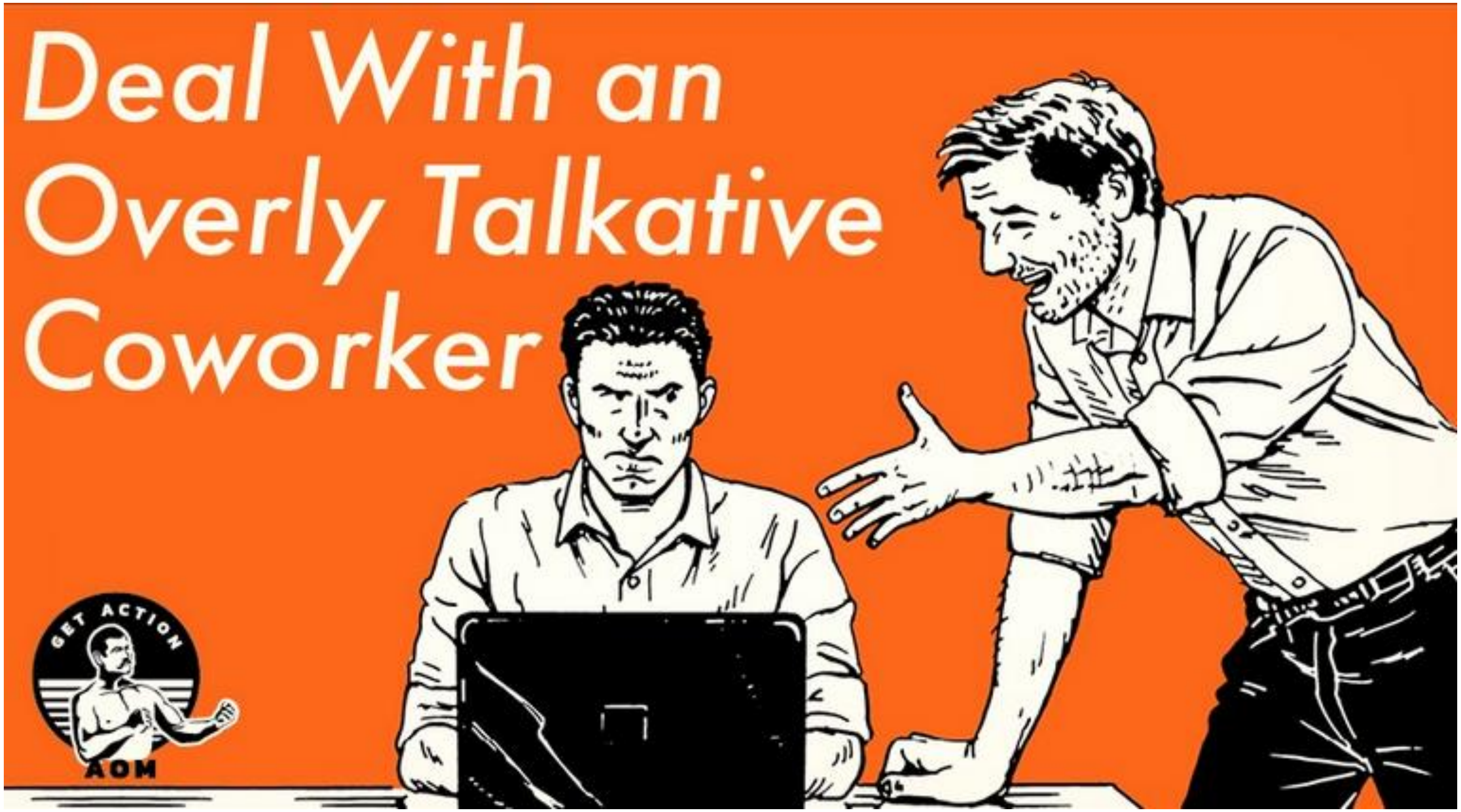
Selecting group members

- A group that has complementary personalities may work better than a group that is selected solely on technical ability.
  - People who are motivated by the work are likely to be the **strongest technically**.
  - People who are self-oriented will probably be best at **pushing the work** forward to finish the job.
  - People who are interaction-oriented help **facilitate communications** within the group.

Selecting group members

- [Sommerville] think that it is particularly important to have interaction-oriented people in a group.
  - They like to talk to people and can detect tensions and disagreements at an early stage, before these have a serious impact on the group.

However…



Case study: Group composition

- Alice has tried to create a group with complementary personalities. This particular group has a good mix of interaction- and task-oriented people.
  - Alice — self-oriented
  - Brian — task-oriented
  - Bob — task-oriented
  - Carol — interaction-oriented
  - Dorothy — self-oriented
  - Ed — interaction-oriented
  - Fred — task-oriented

Case study: Group composition

- However, there are some problems:
  - Dorothy's self-oriented personality has caused problems because she has not been doing the work that she expected.
  - Fred's part-time role in the group as a domain expert might also be a problem. He is mostly interested in technical challenges, so he may not interact well with other group members. The fact that he is not always part of the team means that he may not relate well to the team's goals.

Selecting group members

- **It is sometimes impossible to choose a group with complementary personalities.**
  - If this is the case, the project manager has to control the group so that individual goals do not take precedence over organizational and group objectives.
  - This control is easier to achieve if all group members participate in each stage of the project.
  - Individual initiative is most likely when group members are given instructions without being aware of the part that their task plays in the overall project.

Selecting group members

- For example, say a software engineer is given a program design for coding and notices what appears to be possible improvements that could be made to the design.
- If he or she implements these improvements without understanding the rationale for the original design, any changes, though well intentioned, might have adverse implications for other parts of the system.
- If all the members of the group are involved in the design from the start, they will understand why design decisions have been made. They may then identify with these decisions rather than oppose them.

Contents

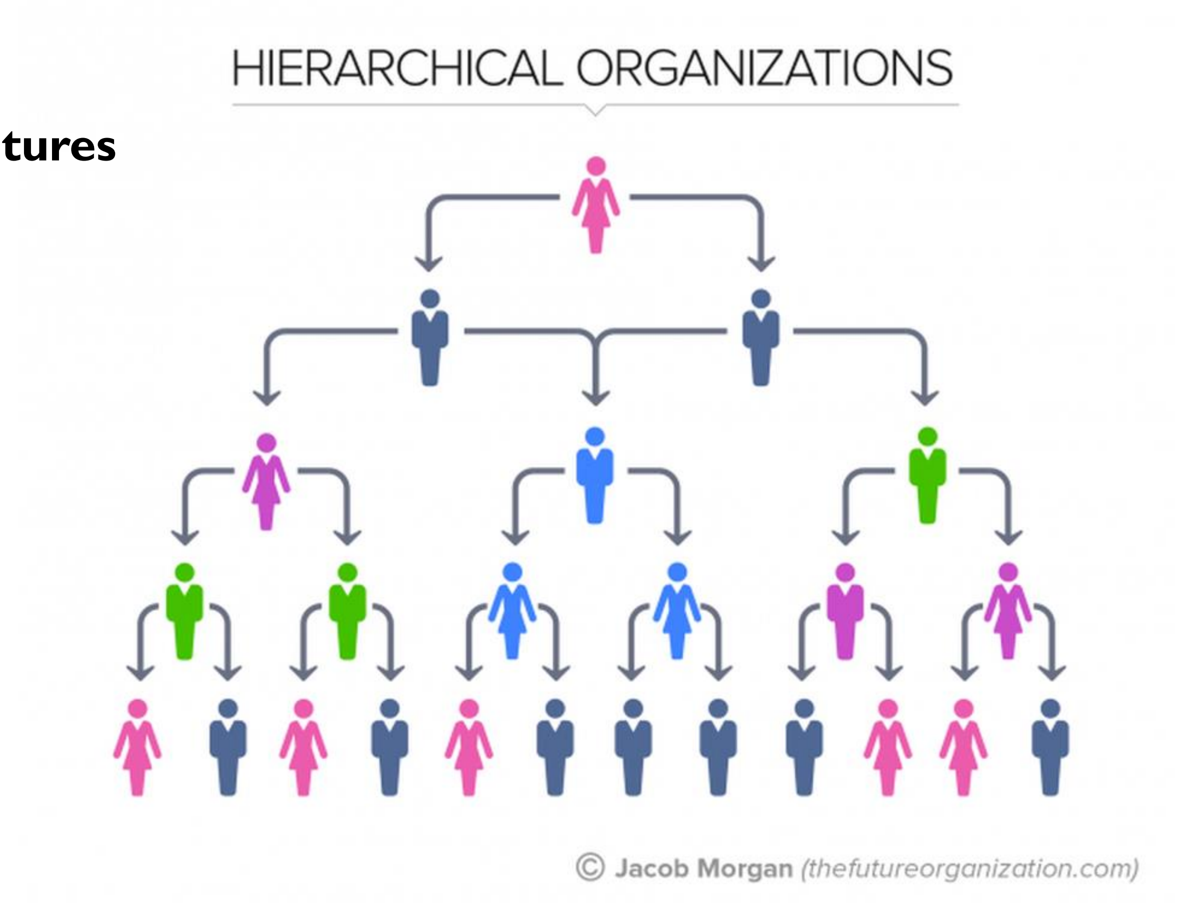
1. Introduction
2. A good group
3. Factors influence the effectiveness of a group
   - Group composition
   - **Group organization**
   - Group communications

Group organization

- The way that a group is organized affects
  - the decisions that are made by that group,
  - the ways that information is exchanged, and
  - the interactions between the development group and external project stakeholders.

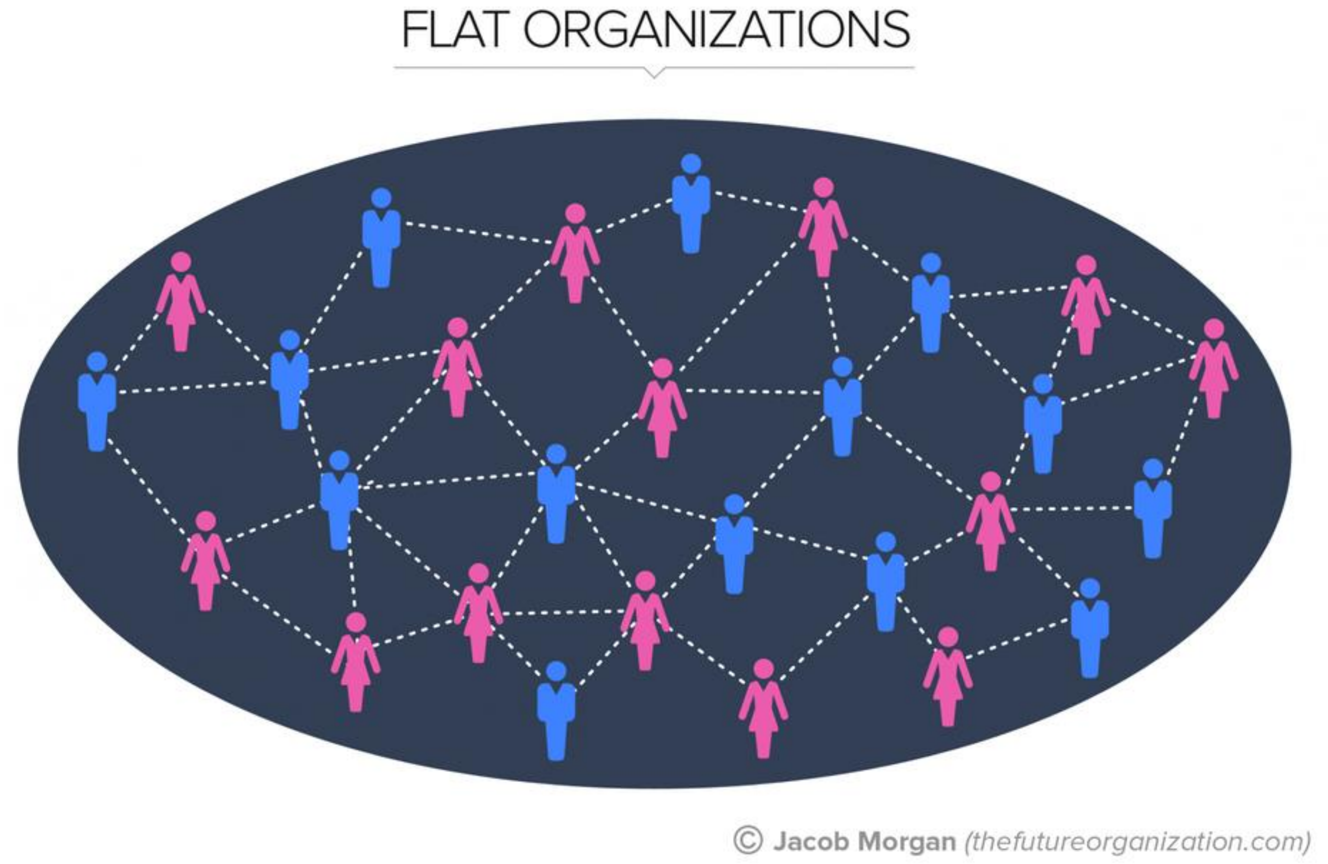
Group organization

The 5 Types Of Organizational Structures
by Jacob Morgan
at Forbes.com


HIERARCHICAL ORGANIZATIONS
© Jacob Morgan (thefutureorganization.com)

Source: https://www.forbes.com/sites/jacobmorgan/2015/07/06/the-5-types-of-organizational-structures-part-1-the-hierarchy

Group organization



Source: https://www.forbes.com/sites/jacobmorgan/2015/07/06/the-5-types-of-organizational-structures-part-1-the-hierarchy

Group organization

- Important organizational questions for project managers include:
  1. Should the project manager be the technical leader of the group?
  2. Who will be involved in making critical technical decisions, and how will these be made?
  3. How will interactions with external stakeholders and senior company management be handled?
  4. How can groups integrate people who are not colocated?
  5. How can knowledge be shared across the group?

Group organization

1. Should the project manager be the technical leader of the group?

- The technical leader or system architect is responsible for the critical technical decisions made during software development.
- Sometimes, the project manager has the skill and experience to take on this role. However, for large projects, it is best to appoint a senior engineer to be the project architect, who will take responsibility for technical leadership.

Group organization

2. Who will be involved in making critical technical decisions, and how will these be made?

- Will decisions be made by the system architect, the project manager, or by reaching consensus amongst a wider range of team members?

Group organization

3. How will interactions with external stakeholders and senior company management be handled?

- In many cases, the project manager will be responsible for these interactions, assisted by the system architect if there is one.
- However, an alternative organizational model is to create a dedicated role concerned with external liaison, and appoint someone with appropriate interaction skills to that role.

Group organization

4. How can groups integrate people who are not colocated?

- It is now common for groups to include members from different organizations and people to work from home as well as in a shared office. This has to be taken into account in group decision-making processes.

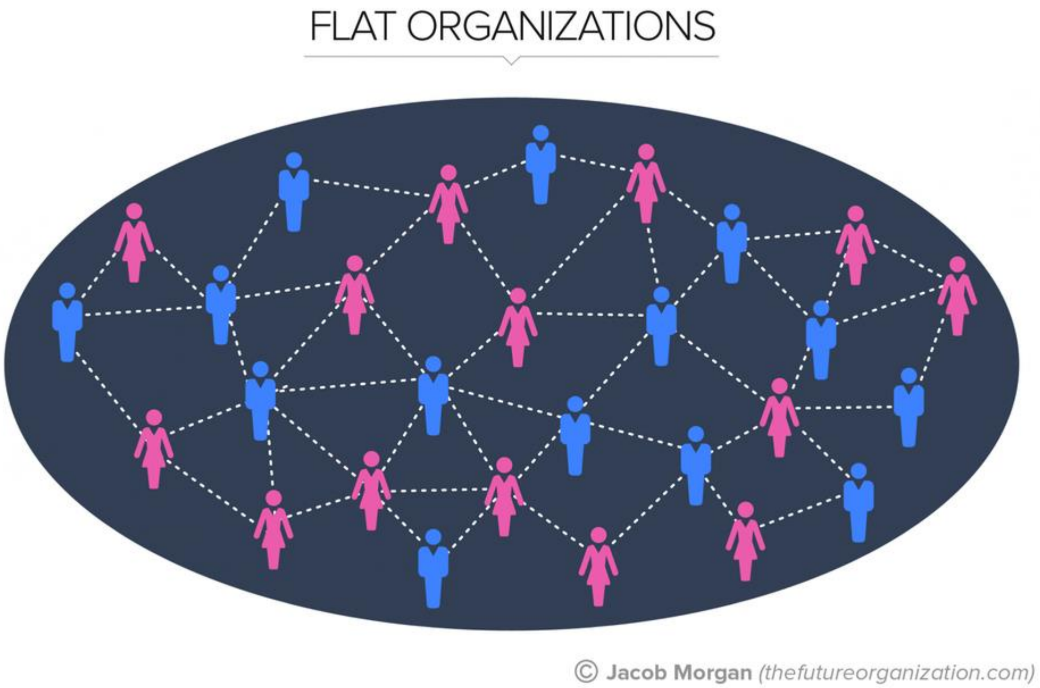
Group organization

5. How can knowledge be shared across the group?

- Group organization affects information sharing as certain methods of organization are better for sharing than others.
- However, you should avoid too much information sharing as people become overloaded and excessive information distracts them from their work.

Group organization - informal

- Small programming groups are usually organized in a fairly informal way.



FLAT ORGANIZATIONS

© Jacob Morgan (thefutureorganization.com)

In an informal group, the work to be carried out is discussed by the group as a whole, and tasks are allocated according to ability and experience.

Group organization - informal

- The group leader gets involved in the software development with the other group members.
- More senior group members may be responsible for the architectural design.
- However, detailed design and implementation is the responsibility of the team member who is allocated to a particular task.

Group organization - informal

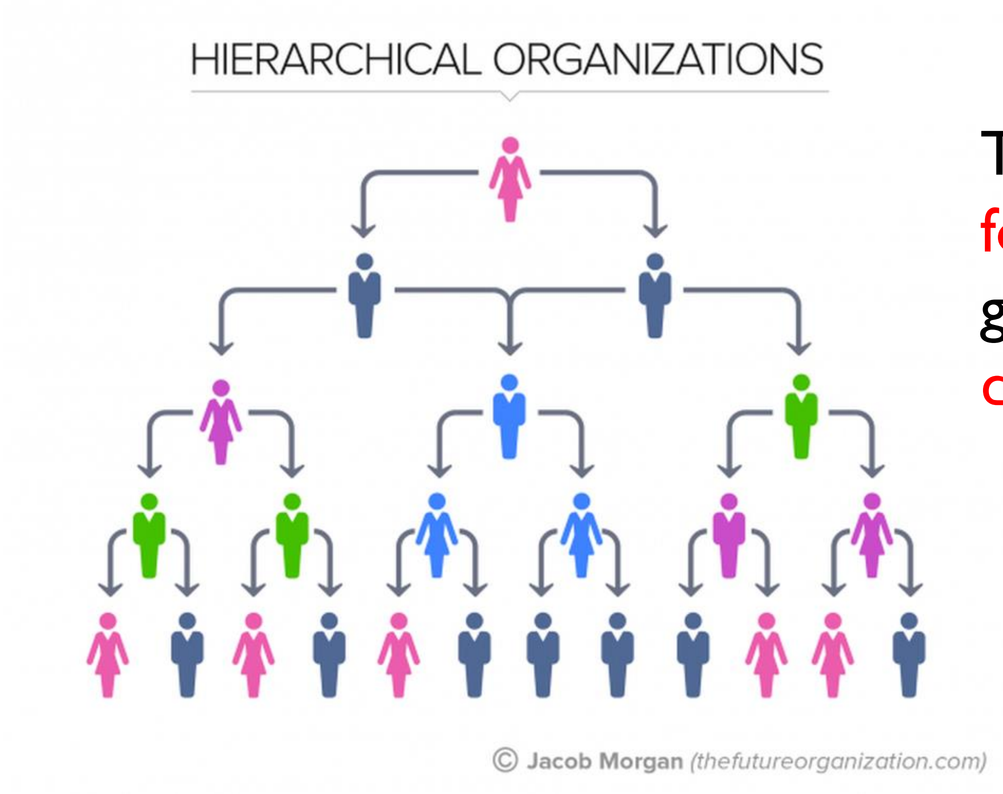
- Extreme programming groups (Beck, 2000) are always informal groups.
- XP enthusiasts claim that formal structure inhibits information exchange.
- In XP, many decisions that are usually seen as management decisions (such as decisions on schedule) are devolved to group members.
- Programmers work together in pairs to develop code and take joint responsibility for the programs that are developed.

Group organization - informal

- Informal groups can be very successful, particularly when most group members are experienced and competent.
- Such a group makes decisions by consensus, which improves cohesiveness and performance.
- However, if a group is composed mostly of inexperienced or incompetent members, informality can be a hindrance because no definite authority exists to direct the work, causing a lack of coordination between group members and, possibly, eventual project failure.

Group organization - Hierarchical

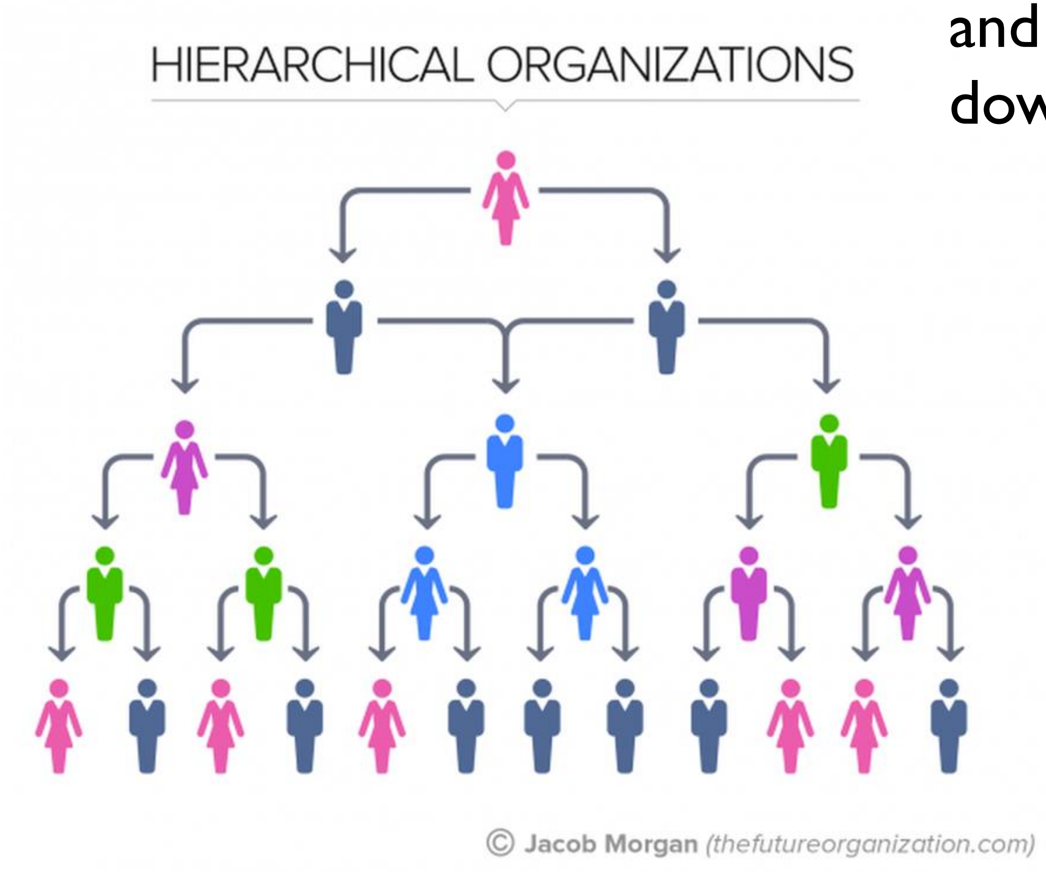
- **Hierarchical groups** are groups that have a hierarchical structure with the group leader at the top of the hierarchy.



© Jacob Morgan (thefutureorganization.com)

The group leader has more formal authority than the group members and so can direct their work.

There is a clear organizational structure and decisions are made towards the top of the hierarchy and implemented by people lower down the hierarchy.



© Jacob Morgan (thefutureorganization.com)

Communications are primarily instructions from senior staff and there is relatively little ‘upward’ communication from the lower levels to the upper levels in the hierarchy.

Group organization - Hierarchical

- **This approach can work well** when a well-understood problem can be easily broken into subproblems with subproblem solutions developed in different parts of the hierarchy.
- In those situations, relatively little communication across the hierarchy is required. However, such situations are relatively rare in software engineering for the following reasons:

Group organization - Hierarchical

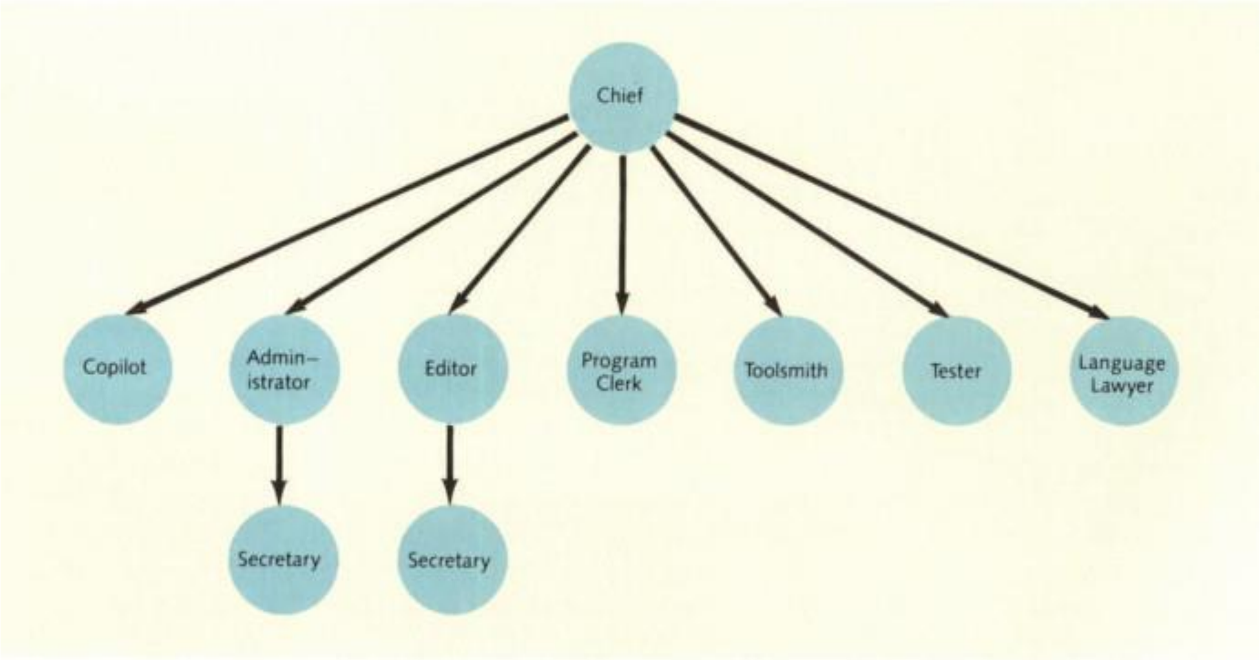
- Reasons:
  - Changes to the software often require changes to several parts of the system and this requires discussion and negotiation at all levels in the hierarchy.
  - Software technologies change so fast that more junior staff often know more about the technology than experienced staff. Top-down communications may mean that the project manager does not find out about the opportunities of using new technologies. More junior staff may become frustrated because of what they see as old-fashioned technologies being used for development.

Group organization –
Chief Programmer Team

- Democratic and hierarchic group organizations do not formally recognize that there may be very large differences in technical ability between group members.
- The best programmers may be up to 25 times more productive as the worst programmers.
- It makes sense to use the best people in the most effective way and to provide them with as much support as possible.
- An early organizational model that was intended to provide this support was the chief programmer team.

Group organization – Chief Programmer Team

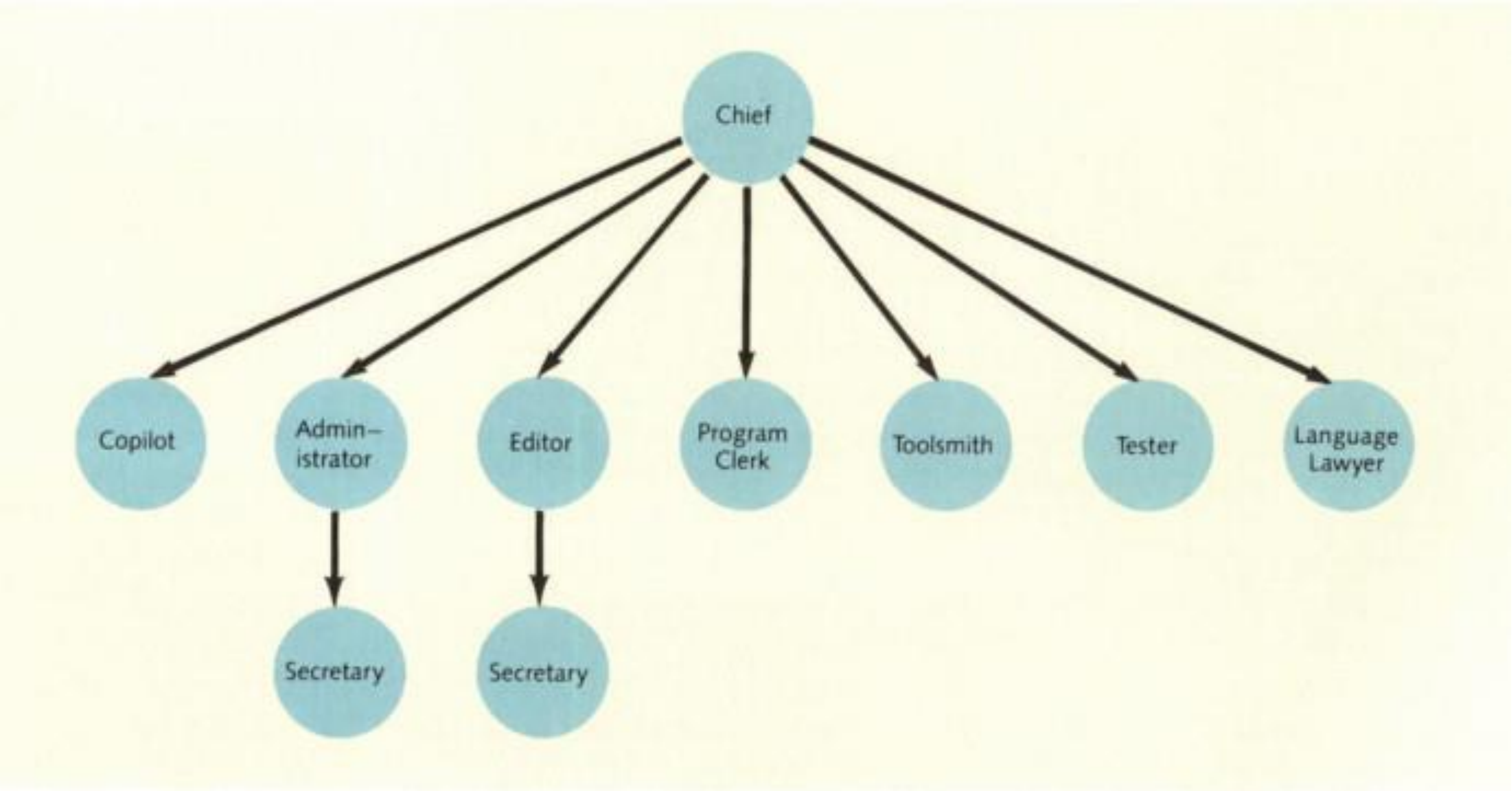
- To make the most effective use of highly skilled programmers, Baker (1972) and others (Aron, 1974; Brooks, 1975) suggested that teams should be built around an individual, highly skilled chief programmer.



Group organization – Chief Programmer Team

- The underlying principle of the chief programmer team is that:
  - The skilled and experienced staff should be responsible for all software development.
  - They should not be concerned with routine matters and should have good technical and administrative support for their work.
  - They should focus on the software to be developed and not spend a lot of time in external meetings.

Group organization –
Chief Programmer Team



Read more in **Structured Programming**, *HARVEY M. DEITEL, BARBARA DEITEL, in An Introduction to Information Processing, 1986*

Group organization –
Chief Programmer Team

- **The chief programmer**:
  - who does it all from problem definition to programming, testing, debugging, and even documentation.
  - In every sense, the chief must be a “super programmer,” most likely with 10 or more years' experience in computing, plus considerable expertise in the area of the application being designed.
- **The copilot**,
  - The copilot is less experienced than the chief but is able to take over in the chief's absence.

Group organization – Chief Programmer Team

- **The administrator**, a skilled person designated to handle administrative matters that the chief can't attend to because of limited time.
- **The editor**, who frees the chief from much of the tedium of the clerical work, proofreading, and edit corrections associated with producing the documentation. The chief writes or dictates the generalized versions of the documentation.

→ Two secretaries, one to serve the administrator and the other to serve the editor.

Group organization –
Chief Programmer Team

- **The program clerk**, who handles all inputs, outputs, program files, backup files, and the like.
- **The toolsmith**, who constructs the special programs that support the chief's efforts. The toolsmith builds programs, called utilities or software tools, that make the chief's job easier.
- **The tester**, who prepares test cases and appropriate test data to ensure that the programs written by the chief run properly.
- **The language lawyer**, an expert in the structured programming language being used in the project.

Group organization –
Chief Programmer Team

- **Some disadvantages:**
  - Chief programmers are very hard to find.
  - The chief programmer team organization is overdependent on the chief programmer and their assistant.
  - Other team members who are not given sufficient responsibility may become demotivated because they feel their skills are underused. They do not have the information to cope if things go wrong and are not given the opportunity to participate in decision making.
  - There are significant project risks associated with this group organization and these may outweigh any benefits that this kind of organization might bring.

Contents

1. Introduction
2. A good group
3. Factors influence the effectiveness of a group
   - Group composition
   - Group organization
   - **Group communications**

Group communications

- It is absolutely essential that group members communicate effectively and efficiently with each other and with other project stakeholders.
- Group members must exchange information on the status of their work, the design decisions that have been made, and changes to previous design decisions.
- They have to resolve problems that arise with other stakeholders and inform these stakeholders of changes to the system, the group, and delivery plans.

Group communications

- Good communication also helps strengthen group cohesiveness.
- Group members come to understand the motivations, strengths, and weaknesses of other people in the group.

Group communications

- The effectiveness and efficiency of communications is influenced by:
  - Group size
  - Group structure
  - Group composition
  - The physical work environment
  - The available communication channels

Group communications

- **Group size** As a group gets bigger, it gets harder for members to communicate effectively.
  - The number of one-way communication links is $n * (n - 1)$, where n is the group size, so, with a group of eight members, there are 56 possible communication pathways. This means that it is quite possible that some people will rarely communicate with each other.
  - Managers and experienced engineers tend to dominate communications with less experienced staff, who may be reluctant to start a conversation or make critical remarks.

Group communications

- **Group structure** People in informally structured groups communicate more effectively than people in groups with a formal, hierarchical structure.
  - In hierarchical groups, communications tend to flow up and down the hierarchy. People at the same level may not talk to each other. This is a particular problem in a large project with several development groups.
  - If people working on different subsystems only communicate through their managers.

Group communications

- **Group composition** People with the same personality types may clash and, as a result, communications can be inhibited.
  - Communication is also usually better in mixed-sex groups (Marshall and Heslin, 1975) than in single-sex groups.
  - Women are often more interaction-oriented than men and may act as interaction controllers and facilitators for the group.

Group communications

- **The physical work environment** The organization of the workplace is a major factor in facilitating or inhibiting communications.

LUNCH BREAK
EAT
TEAMWORK
Community
COWORKING
relax!
MOTIVATION
flexible
SOCIAL
REst

Group communications

- **The available communication channels**
  - There are many different forms of communication — face-to-face, e-mail messages, formal documents, telephone, and Web 2.0 technologies such as social networking and wikis.
  - As project teams become increasingly distributed, with team members working remotely, you need to make use of a range of technologies to facilitate communications.

Group communications

- Project managers usually work to tight deadlines and, consequently, they may try to use communication channels that don’t take up too much of their time.
- They may therefore rely on meetings and formal documents to pass on information to project staff and stakeholders.

Group communications

- Although this may be an efficient approach to communication from a project manager’s perspective, it is not usually very effective.
  - There are often good reasons why people can’t attend meetings and so they don’t hear the presentation.
  - Long documents are often never read because readers don’t know if the documents are relevant. When several versions of the same document are produced, readers find it difficult to keep track of the changes

Group communications

- **Effective communication** is achieved when communications are two way, and the people involved can discuss issues and information and establish a common understanding of proposals and problems.
- This can be done through meetings, although these are often dominated by powerful personalities. It is sometimes impractical to arrange meetings at short notice.
- More and more project teams include remote members, which also makes meetings more difficult. **→ How to counter these problems?**

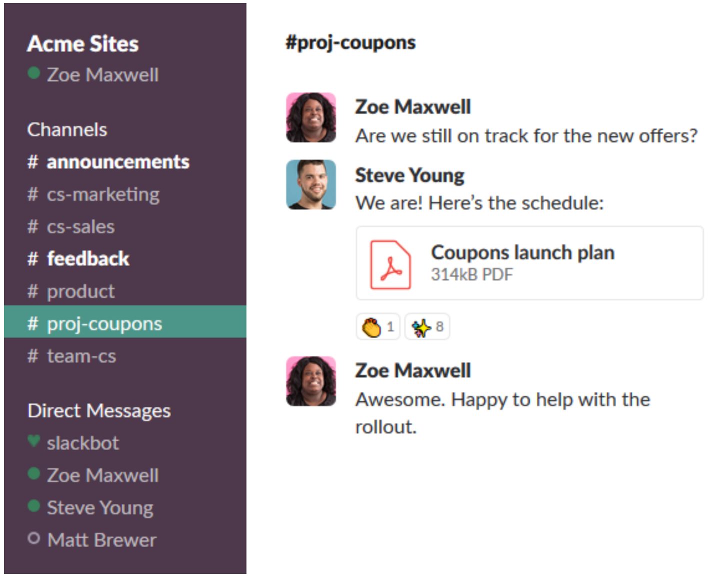
Group communications

- To counter these problems, you may make use of web technologies such as wikis and blogs to support information exchange.
  - Wikis support the collaborative creation and editing of documents, and blogs support threaded discussions about questions and comments made by group members.
  - Wikis and blogs allow project members and external stakeholders to exchange information, irrespective of their location. They help manage information and keep track of discussion threads, which often become confusing when conducted by e-mail.

Group communications

- You can also use instant messaging and teleconferences, which can be easily arranged, to resolve issues that need discussion.

slack



Acme Sites
● Zoe Maxwell

Channels
# announcements
# cs-marketing
# cs-sales
# feedback
# product
# proj-coupons
# team-cs

Direct Messages
♥ slackbot
● Zoe Maxwell
● Steve Young
○ Matt Brewer

#proj-coupons

Zoe Maxwell
Are we still on track for the new offers?

Steve Young
We are! Here's the schedule:

Coupons launch plan
314kB PDF

1 8

Zoe Maxwell
Awesome. Happy to help with the rollout.

skype™

Key points

- Software development groups should be fairly small and cohesive.
- The key factors that influence the effectiveness of a group are the people in that group, the way that it is organized, and the communication between group members.
- Communications within a group are influenced by factors such as the status of group members, the size of the group, the gender composition of the group, personalities, and available communication channels.

References

As described in the Introduction slide.