Project Management

Responsible for Project Management

- Jan Gulliksen, "Gulan"
- Professor in Human Computer Interaction
- Dept. For IT/HCI, Uppsala university.
- Lägerhyddsvägen 2, house 1, room 153
- E-mail: Jan.Gulliksen@it.uu.se
- Phone: 018-471 2849
  (Forwarding to my mobile)
Your task for the assignment:

- Goal: To make a website for the group and present its members – a certain amount of time is allocated
- Focus on project work
- Working in 6 groups of 5 persons
- Project milestones
  - Today: Form the group and identify roles, goals and subtasks.
  - Next time: Project meeting: Revise goals, decide on actions based on identified problems and risks
  - Last time: Oral presentation and discussion of your projects (focus on project work and not so much on the result)
- Document the project in a report (on the web site)
- Continuous time reporting

Reporting time

- 30 hours per student is expected to be dedicated to this project.
- 3 mandatory lectures (makes out 6 hours)
- Plan disposal of your time carefully
- Allocate people to different roles and responsibilities to deliver specific results.
- Appoint one to be project manager
- Report your time on a continuous basis and follow up time consumption in relationship to the results
How do I design a website?

- Where to put it?
- Technical solution?
- Make sure everyone can update it?
- Who is it aimed for? What are the goals with it?
  - Present your group and its individuals
  - If it is good you might continue to use it in the future
- Evaluation and reflections on the design of it.

Documentation and assessment

- Document your work in an electronic report
- Document time on a continuous basis
- Logg what everybody does in order for you to be as efficient as possible
- Oral presentation of your project:
  - Focus on project work, experiences on cooperation, allocation of time and assignments, organisation and goals
  - Was it a successful project?
  - Everybody should play an active part in the final presentation of the project (15 minutes per group)
Project management – basic concepts

What is a project?

“Series of actions to achieve a result”
Project management: History

- Already the Egyptians… (Crucifixion raids or east India trips were organized as projects, but without any management philosophy)
- 1911 Taylorism/Scientific Management: Henry L Gantt invents the Gantt scheme
- 1931: Karol Adamiecki creates the first network diagram, the so called Harmonogram
- 1942-45: The Manhattan project (USA). 2 billion dollar turnover, at most 120,000 employees. Goal control, parallel activities
- 1950ies: Operations analysis, RAND Corporation
- 1957: The Sputnik chock, initiating the Polaris project

The Polaris project: 250 main suppliers and 9000 secondary suppliers coordinated to perform ca 70,000 different activities using PERT (Program Evaluation and Review Technique).

- 1956-59: CPM (Critical Path Method) is created at DuPont, independent of PERT.
  - PERT and CPM are very similar and are both examples of network planning of projects
- 1959: The concept of "project manager" is coined in Harvard Business Review.
- 1960ies: Great interest in matrix organizations
- 1967: INTERNET (IPMA) and PMI is established.
Project management: History

- 1968: The Nätplan interest group is created in Sverige (later to be named Svenskt Projektforum).
- 1980ies: Increasing interest in organizational and project management issues in projects. The project philosophy spreads to other fields, to smaller activities and to internal activities.
- 1987: PMBOK (Project Management Body of Knowledge) presents its first issue by PMI. The ambition to create certified project management, so called PMPs (Project Management Professionals).
- 1990ies: Management by projects (the project based company)

Project: Definition

"Series of actions to achieve a result"

- **Single occurrence** – a unique, non-repetitive assignment
- **Time limitations** – with a pre-defined date of delivery
- **Clear purpose** – specified from one or more goals (well defined, measurable and realistic), do not mix project goals and effect goals
- **Unpredictable structure** – it consists of a number of complex activities with mutual interdependencies
- **Own organisation** – e.g. Not in the original line of work
- **Procurer** – internal or external acquirer that has expectations on the result
What is a project plan?

The aim of a project plan is to go through, document and agree upon important issues that define the work in the project.

Project organisation

Diagram showing the project organisation with nodes for Steering group, PM, Analysis group, Reference group, and Technical Group.
Project Management: concepts

- System theory
- Project triangle

Gantt schedule
Positive and negative things about a Gantt diagrams

**Advantages:**
- Good for planning.
- Good overview
- Sequence of activities
- Easy to know who does what
- Better picture of project status

**Disadvantages:**
- Things never turn out the way we think
- Time
- Difficult to maintain
How do you calculate time?

- Have a good guess?
- Calculate?

- Guess at minimum (A), probably (B) and maximum (C)

- Calculate
  - \((A + 3B + C)/5\)

Information and communication

Common problem in projects

- Lack of communication and structure is often a problem in projects
- Difficulty in involving the project members, the customer, the procurer and other stakeholders.
Meeting and meeting techniques

- To succeed it is necessary to have a goal with the meeting and an agenda.

- Meetings are necessary, but need to be efficient. A good way of organising is an agenda.

Different meetings

**Steer group meetings**
At milestones or when needed
Protocol written by PM

**Project Management Meetings**
Every Friday
Protocol written by PM

**Project Meetings**
Every second Monday
Protocol written by PM.
Information – reports at meetings

Agenda
Summary
What has happened since last time?
What happens next?
Time plan
Risks and options

Project risks

The only thing we truly know about the future is that we do not know anything about it.
Results from a risk analysis

- A list of risks in prioritized order
- Suggestions of how to eliminate, reduce or meet risks

Workflow in a Risk Analysis

- Use project idea and goal as starting point
  - Make a list of risks and threats individually
  - Make a common list
  - Look for reasons for risk
  - Make a risk calculation
    - 1) Likelihood that the risk might occur
    - 2) Effect of risk
  - Make suggestions of ways to deal with the risk
  - Write a report
  - Decide about what to do
Aspects not included in project management perspective

- Motivation
- Joy to work together
- Group dynamics
- Creativity
- Spontaneity

Standardized project management models
Example 1: PROPS

- 80% of Ericsson employees are involved in projects on a daily basis
- Three main project based processes:
  - Product development projects (Time to market)
  - Customer delivery projects (Time to customer)
  - Internal project (supporting processes)

PROPS

- Ericsson’s general model for all types of projects in the entire organization
- Are also used in organizations such as Saab, Telia, Statoil, etc.
PROPS: A success story

- Based on best practices (internal and external)
- Is continuously being developed
- Has a special unit for support, development and training
- Information distribution among its users
- Strong management support
- 3500 project managers, 150 project office managers, 100 PROPS coaches

And what is PROPS?

- Traditional project management method based on milestones/tollgates:
  
  TG 0. Initiating a pre study?
  TG 1. Shall a feasibility study be initiated?
  TG 2. Should the project be performed?
  TG 3. Shall the project continue with original or revised plans?
  TG 4. Shall the result be reported to the client?
  TG 5. Can the project be approved and a project summary report be made?
Four perspectives in PROPS

- The business perspective
- The human perspective
- The project organization perspective
- Project flow perspective

All perspectives must be considered in all decision points/tollgates!
The business perspective

- Focus all efforts in the organization towards the same business goals,
- focus on the client,
- Focus on business profits
- Effective resource allocation

The human perspective

The individuals in an organization are the organization’s most important resources. A mutual project culture with an understanding of teamwork and management, can liberate creativity and make use of the knowledge and experiences of all individuals.
The project organization perspective

Identifies the project stakeholders and participants and identifies their functions and roles in the project organization as well as each responsibilities. In addition to the project participants and the project manager PROPS identifies which role higher management in the line organization should have in a certain project.

The project flow perspective

To be able to fulfil the project and reach the goals that have been set, PROPS identifies a general work model that defines what should be done and when. Different phases in the project and control functions, as well as advice on how the project manager should coach the project participants is described.