

## Introduction to the course

### Contact information

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### Topics of today's Lecture

- Concepts regarding project and project management especially information system and its project and management
- Look inside reality of IT project management
- Goals for the Course and benefits for You
- Topics what I plan to cover in following lectures

## Project

### Project definitions

Here are some Project definitions from different sources. They are formulated differently, but the meaning is the same

- a temporary organization to which resources are assigned to do work to bring about beneficial change. (The resources may be human, material or financial (*J. Rodney Turner*))
- a work system designed to produce a product and then go out of existence (*Steven Alter*)
- a temporary endeavor undertaken to create a unique product, service, or result (*Project Management Institute*)

### Characteristics of a Project

- a project is a temporary endeavor (has definite starting and ending point)
- that is progressively (in incremental refinements) planned, controlled, and executed by people,
- working within some constraints on resources (time, money, etc),
- that results in a unique product, service, or result
- that isn't possible for the organization to achieve through its normal operations

### Comparison of project work and operational (every day) work

This is illustrated in the next table:

**Table 1. Comparison of Project and Operations**

<b>Projects</b>	<b>Operations</b>
<b>Differences</b>	
temporary	ongoing

Output: unique	Output: repetitive
Purpose: attain its (strategic) objective and then terminate	Purpose: sustain the business
Concludes when its specific objectives have been attained	Adopt new set of objectives and the work continues
<b>Similarities</b>	
Performed by people	Performed by people
Constrained by limited resources	Constrained by limited resources
Planned, executed, and controlled	Planned, executed, and controlled

### Project method

If we wish something purposefully (systematically) achieve, then main method is to use projects. This applies to any kind of problem solving, especially making changes. In the context of organization projects are means to implement strategic changes and organize corresponding activities. These activities are not possible to perform in frames of everyday work. In the context of organizations information system projects are means to manage changes concerning organizations information work (at any management level described earlier) and system work

### **Information system definition**

Information system is a work system what comprises of organizational information and system work with respective IT infrastructure, methods and techniques. A work system is a system in which human participants and/or machines perform work using information, technology, and other resources to produce products and services for internal or external customers.

Under information work we can understand processes what organization people perform daily with data and information (procurement, selling, planning etc) and information processing processes supporting IT systems in organization (user support – helpdesk, in ITIL incident, events management etc)

We can define system work as processis what build or change information and system work processes in organization with respective IT infrastructure, methods and techniques. To these processes belong introduction of development frameworks, methodologies and arrangement of those implementation processes with corresponding resource management processes. These processes are bound up with organizing and managing of projects. Following picture illustrates information system consisting of information and system work:

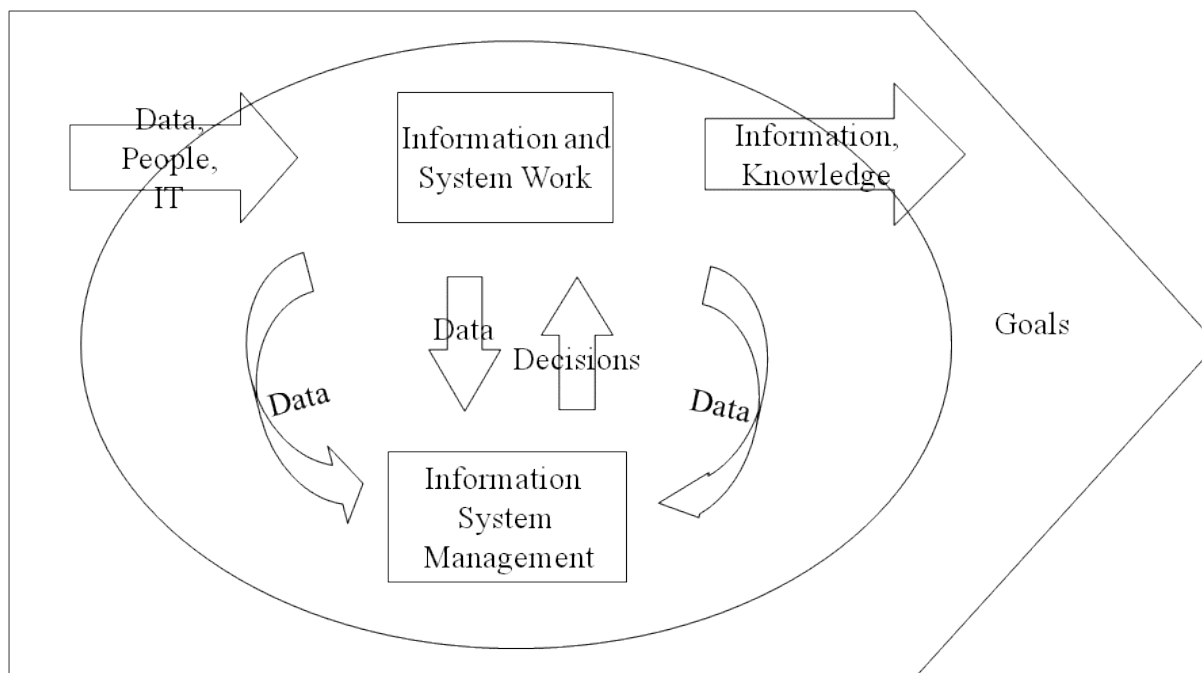


Figure 1 Information system model

System as such consists of parts collaborating and performing processes.

These parts are subsystems and in the context of organization as business system are generally groups of people or individuals who do information work and system work.

Inputs for system are data, people, IT infrastructure and capital. Individuals or groups of individuals modify data in information work processes and results are information and knowledge

In system work inputs are the same (I mean, general parts – data, people, IT infrastructure etc, but specifically different), but results are modified/changed information work and system work inputs, processes and even goals.

System work plays one important role in information system, that is control or more generally, management role. In this role, system work takes data as inputs from information systems inputs, processes and outcomes, transforms them to information and knowledge to make decisions to change (modify) information systems inputs and processes or even system goals or let the system operate as is usual.

The overall goal of that information system with its information and system work and corresponding management is to satisfy organizations and its environment needs for quality information and knowledge.

## Information Systems Project

### Proposed Definition

A temporary endeavor (organization) designed to give to organization a beneficial information or system work change. Following picture illustrates project as means to manage information systems change:

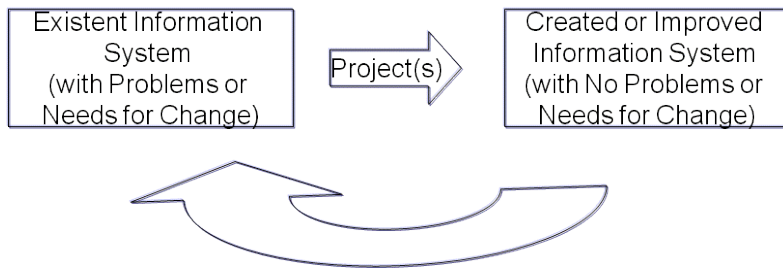


Figure 2. Project Location in Information Systems Development

Examples of information systems development projects

- building and introduction of new application systems (software) in organization
- modifying already existing application systems in organization
- transition to new technologies and business
- reorganizing work processes in organization
- adjusting and introduction information systems development framework

Information systems project as organization expresses following picture:

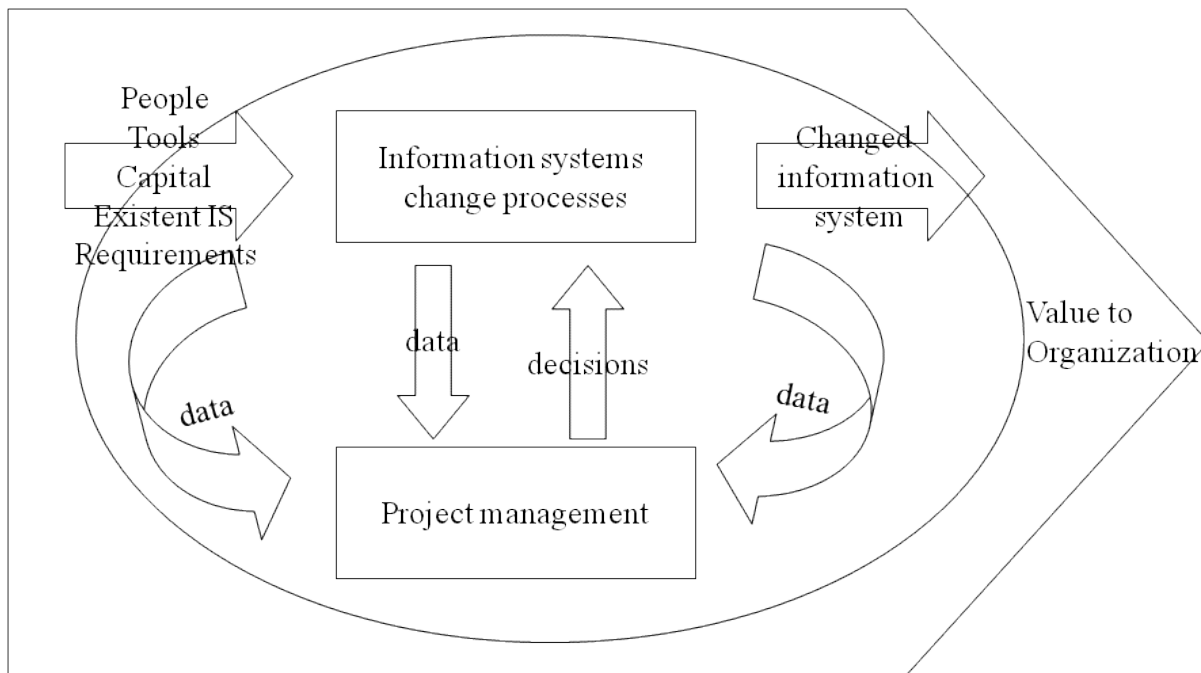


Figure 3 Information systems project as organization

Here is again one system model describing project, and especially information system project as organization or work system. Main processes are as earlier mentioned, information systems change processes. Inputs are again people, their skills and knowledge and respective IT infrastructure (modeling, developing, testing tools or software etc). Outcome from these processes if they succeed is changed information system what brings to the organization benefits or value. Management part of that work system is project management. Here sits project manager who is responsible for all that this system performs properly

Changing information system with projects when 1 or more following criteria are satisfied:

- 2 or more people are needed
- undertaking needs work coordination from 2 or more departments
- must collaborate with outside partners – subcontractors
- work is beyond everyday operating scope
- requires more than 2 weeks effort or 1 month time usage
- includes essential risks
- succeed or failure has great impact
- includes introduction of new technology
- includes creation or change of information system architecture (logical and/or technical)

In other situations we can handle information systems change as routine work process

## Project Management

### Definitions

Here are some definition to project management

The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (*PMI*)

Tools and methods by which the work of the resources assigned to the temporary organization is managed and controlled to deliver the beneficial change desired by the owner. (*Turner*)

Project requirements = beneficial change desired by the owner

### Project management

includes:

- planning – planning of temporary organizations work,
- organizing – defining resources needed by work,
- performance – work assigning to resources
- control – performance monitoring, making corrective actions to insure that required outcome (change) is achieved and this is capable to bring benefit to the owner

includes among other things:

- understanding the project
- specifying clear and achievable goals
- balancing mutually competing requirements related with quality, scope, time and costs
- adapting definitions, plans and approaches to meet interests of several stakeholders . This is most difficult part
- risk management

provides better possibilities to communicate (share information) and adapt to changing circumstances (concerning every aspect in project)

## Project Stakeholders

Persons or organizations (e.g., customers, sponsors, the performing organization, or the public), who are actively involved in the project or whose interests may be positively or negatively affected by the performance or completion of the project (*PMI*)

They may have varying levels of responsibility and authority when participating on a project and these can change over the course of the project life cycle

There are positive and negative stakeholders. Positive stakeholders gain from project outcomes some kind of benefit. Negative not. The interests of negative stakeholders are served by impeding the project's progress. Project Managers job is in the first place determine negative stakeholders, with them he/she must be cautious and of course positive stakeholders are they who give help to project manager when he/she is needed it.

## Main Roles in Project Management

These roles are presented on the following figure:



**Figure 4. Main Roles in Project Management**

The role of the customer is to give right and complete requirements of desired result to the executor (through project manager); to give appropriate preconditions to fill these requirements and to accept created result. The role of the project manager is to manage executor's work of fulfilling these requirements under customer's preconditions. The role of executor is to create the result under given preconditions.

## Project manager

Project Manager is as manager of little (temporary) company. He is responsive of everything what is needed to be project successful. Project success lies in bringing benefit to the owner. Full success lies in bringing optimal benefit to the owner. Project manager must be capable of listening, producing administrative documents, manage meetings, acquire information, build and hold team performing, communicate and manage his time

## **Reality statistics**

The Standish Group CHAOS Report 2010 (2008 - 2006 - 2004), USA

- Successful IT projects – 33% (32% - 35% - 29%)
- Challenged projects– 41% (44% - 46% - 53%)
- Failed projects – 26% (24% - 19% - 18%)

Successful project meets time, scope and costs requirements. In challenged projects 1 or 2 or all 3 requirements were not meet. Failed means project was terminated and no results were gained or attained change was not introduced.

### Some Failure Reasons

- lack of user input
- lack of executive support
- unclear objectives
- project management incompetence
- technology incompetence

### Some Conclusions

Individuals who participate on projects don't have mutual understanding of to where they must reach and why and how to reach to there. They don't have mutual agreements at all or they are unrealistic and therefore it is not possible to follow them. These agreements are subject to uncontrolled changes

### Proposed Solution

Introduce and follow Project management methodologies, standards and best practices

First of all have healthy mind, logical thinking and willingness and skills to work with people to insure satisfaction of all projects participants

The main goal of project management is doing right projects right!

## **Information System Project Management Course**

### Goals are to Give Knowledge

- about information systems development project and it management
- about initiation and starting a project and associated problems
- about project performance and closing and associated problems
- about expressing project life cycle in project management tool, especially in MS Project 2007

### the Benefit to the Student

The opportunity to increase students competency level by creating or enhancing understanding in follows:

- What are responsibilities of information systems owner in information system change project
- What are responsibilities of project manager in managing information systems change project
- What are responsibilities of executor in information system change project

### Topics in Lectures

- project management frameworks, methodologies, standards
- project environment and success factors
- project initiation and justification
- project planning – nature, processes and objects
- project performance, tracking, control and project information system
- project change and risk management
- people management principles, team work and collaboration
- project closing

- project management in multi-project environment and project management office
- program and portfolio management
- project management maturity in organization

### Main Literature

- Jolyon E. Hallows: Information Systems Project Management, 1998
- Project Management Institute: Project Management Body of Knowledge (PMBOK®), 2004
- Walker Royce: Software Project Management, 1998
- Alistair Cockburn: Agile Software Development, 2002
- Articles from Internet

### **Used Literature in the Lecture**

- Jolyon E. Hallows: Information Systems Project Management, 1998
- Project Management Institute: Government Extension to Project Management Body of Knowledge (PMBOK®), <http://www.scribd.com/doc/8796960/PMI-PMBok-Govt-Ext-To-The-PMBOK-Third-Edition>
- Introduction to Project Management, <http://www.scribd.com/doc/4744097/Intro-to-Project-Management>
- J. Rodney Turner, Towards a theory of project management: The nature of the project, [http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6V9V-4HVF0YG-2&\\_user=553274&\\_origUdi=B6V9V-4HVF0YG-3&\\_fmt=high&\\_coverDate=01%2F31%2F2006&\\_rdoc=1&\\_orig=article&\\_origin=article&\\_zone=related\\_art&\\_acct=C000028238&\\_version=1&\\_urlVersion=0&\\_userid=553274&\\_md5=fad73c7ea472ab9d8670c21bfbd9bf0b](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V9V-4HVF0YG-2&_user=553274&_origUdi=B6V9V-4HVF0YG-3&_fmt=high&_coverDate=01%2F31%2F2006&_rdoc=1&_orig=article&_origin=article&_zone=related_art&_acct=C000028238&_version=1&_urlVersion=0&_userid=553274&_md5=fad73c7ea472ab9d8670c21bfbd9bf0b)
- Steven Alter, Work Systems Theory, [http://istheory.byu.edu/wiki/Work\\_systems\\_theory](http://istheory.byu.edu/wiki/Work_systems_theory)
- David F. Rico, Lean & Agile Project Management for Large Programs & Projects, <http://davidfrico.com/rico11a.pdf>
- Project Vs Operational Work, <http://leadershipchamps.wordpress.com/2008/02/19/project-vs-operational-work/>
- How Projects Really Work (version 1.5), <http://www.projectcartoon.com/pdf.php?CartoonID=2&PaperSize=A4>