Risk Management In Software Intensive Projects

Lecture 1 - Introduction

Agenda

- Who am I and why am I teaching you this
- What is the risk
  - Definitions
- Different ways of looking at risk
- Risk and project management
- The case for and against doing risk management in projects

What is Risk

“A problem is a risk whose time has come...”

Risky Business

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Risk Defined

- The possibility of suffering loss
  - Webster's dictionary, 1981
- The measure of the probability and severity of adverse effects
  - William W. Lawrence, "Of Acceptable Risk", 1976
- No universally excepted definition exists
- All definitions share the following characteristics:
  - Uncertainty - an event may or may not happen
  - Loss - an event has unwanted consequences or losses

Is Risk Necessarily Bad?

“Risk in itself is not bad; risk is essential to progress, and failure is often a key part of learning. But we must learn to balance the possible negative consequences of risk against the potential benefits of its associated opportunity.”

Roger L. Van Scoy

Different Ways to Look at Risk

- There are various approaches to look at risk
  - Dynamic vs. Static
  - Loss and gain
- The way we look at risk and its management is subjective and to an extent depends on
  - Experience
  - Attitude
  - Perception
- Nonetheless, two elements persist:
  - Chance
  - Choice

Risk and Project Management

“Risk management is a process of identifying, assessing and prioritizing risks followed by coordinated and economical application of resources to minimize, monitor, and control the impact of those risks on an ongoing project.”

KPMG

Makes the Pieces fit together

Risk management is aimed at addressing the risks within the project management environment
The Need to Manage Risk

Increases With System Complexity

The Case For Risk Management

- Risk Management provides
  - Options, tradeoffs, effects, interactions
  - Systematic view of the problem scope
  - Contingency planning, action vs. reaction
  - Active vs. passive management
  - Feed forward, push vs. pull in design, planning and execution
  - Better, knowledgeable decision making
  - Less exposure to risk

The Case Against Risk Management

- We rather “manage for success”
- No real data for effective risk management exists
- We don’t know how to...
- Why spend money on it, if it might not happen
- Our stakeholders are not mature enough to face up to the risks

Questions?