Global Information Systems:

Project Management

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Project Planning

Planning of the process
- Distribution of actors / organization
- Staff selection
- Cost estimation
- Schedule / workflow
- Coordination activities
- Communication tools

Results
- Project plan, workflow, …
- Staff plan: roles / competencies / effort
- Coordination planning
- Supporting tools: Guidelines / rules / standards
Project Planning: Offshore vs. Nearshore

“Offshoring”
– Assigning (parts of) a knowledge-intensive development process to a geographically remote partner
– Cost reduction
– Accelerating the production process

“Nearshoring”
– Assigning (parts of) the development process to a geographically close partner
– Possible advantages concerning distance, language, time, culture, politics, …
Project Planning: Offshore vs. Nearshore

- Need to analyze and estimate…
  - Coordination
  - Cultural misunderstandings
  - Communication cost
  - Team building / training cost
  - Mistakes / prolonged life cycle

- Findings for India (Carmel, Abbott, 2006)
  - Nearshore locations provide a politically stable atmosphere
  - India is a long way away
  - India is called “distant lands;” difficulties with long distance management and cultural differences
  - India is too difficult to manage remotely; too many time zones away. Cheaper, real-time communication relative to India.
  - Nearshore better for outsourcing business-critical work
  - Nearshore offers lower costs of communication, shipping and tariffs
Project Planning: Cost estimation (Sangwan et al., 2006)

- Calibrate cost estimation tool
- Estimate module sizes
- Allocate modules to development iterations
- Estimate code size for each iteration
- Estimate development time, effort and peak staff
  - Including coordination / communication effort
- Estimate iteration development time and average team staff size
- Estimate development schedule time
  - Including time differences
- Estimate development cost
Project Planning: Sample coordination activities

Instruments to monitor and control the development process (Boland, Fitzgerald, 2004)

- Single software manager and weekly task reports
  - Reducing coordination efforts
  - Tools to assign tasks properly

- Delivery reports
  - Awareness
  - Trust

- Quarterly synchronisation meetings

- Informal meetings and instruments
Project Planning: Risk Management

- **Risk**: The possibility of suffering a loss (Sangwan et al, 2006)

- **Risk lifecycle**
  - Identify
  - Analyze
  - Plan
  - Track
  - Control
  - Communicate

- **Risk in GSD processes**
  - Coordination
  - Architecture alignment
  - Uncertainty and change
Risk Management: Identifying risks

- Organizational aspects / coordination capability
  - Background and skills
  - Domain knowledge of teams
  - Communication / collaboration history
  - Organizational separation / integration
  - Shared culture / language

- Organizational stability
Risk Management: Avoiding risks

- Monitoring and control
- Skill improvement and training
- Unified tool structure
- Management communication
- Frequent builds / prototypes
- Frequent status meetings
- Cross-team reviews
- Contingency planning: If something goes wrong…
At the end of this phase, the following results should be ready:

- Project plan
  - Outsourcing / offshoring decisions and agreements
  - Cost planning
- Adapted process model
  - E.g., Global OpenUP
- Risk management
- Coordination planning (to be refined)
Summary

- Distributed development processes lead to new aspects regarding project planning
- A variety of decisions before the development process influence project success
  - Distribution of actors
  - Coordination activities
  - Management strategy
- Cost estimation must include influence factors
  - Not all factors can be estimated sufficiently in advance
  - Supporting instruments have to be taken into account
- Complex process, decision alternatives should be taken into account
Summary (2)

Key element: extending the process model
- Decision making (locations, …)
- Cooperation partner choice
- Staffing
- Culture analysis and moderation
- Coordination points
- Supporting systems
References

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