IT systems – success factors and pitfalls

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http://www.it.uu.se/research/hci
IT – success or failure?

- Some IT projects are successful
- Other IT projects are complete or partial failures
- Why do some succeed and other fail? Explanations?
- What can we learn about
  - How to succeed? Success factors?
  - What to avoid? Pitfalls?
The role of usability

- How important is usability for success or failure?
- Can a non-usable system be successful?
- How to succeed in having a focus on usability, benefits, effects, work environment etc. when developing information systems?
Failures....

- One typical example
- IT-failure costs SEK 155M...
- News 2009-01-31
- The Swedish Social Insurance Agency (Försäkringskassan) has invested several hundred million SEK in their new IT system. The project failed and the system can not be used. Approx 155 MSEK is lost. The Agency now asks the Government for additional 950 MSEK to be able to develop the new system.
Success and failure?

- How to define success and failure?
- Different "stake holders", (intressenter).
- What is success to one, can be a failure to another....
- Or.....?
Project failure

- Where do they fail?
- How?
- Why?
- What could have been made different?
- What can we learn and apply?
Successful projects

- Why are they successful?
- What can we learn and apply?
- Are there some more general knowledge and experiences?
- Are success factors general or domain specific?
Usability?

- How important is usability for success in IT development?
- Are there special problems related to projects with a focus on usability?
Assignment 5

The assignment should:

- Summarize what is known about successful IT projects and IT failures
  - How to define success and failure?
  - What is known about possible explanations?
  - What experiences are reported?
  - Is there a “recipe” for success?

- Describe some cases to exemplify this: Why did a specific project succeed or fail?

- Can we specify some kind of “checklist” of success factors and pitfalls?
  - What could this look like?

- What can be said especially in relation to *usability* aspects?
Assignment 5

- Some more general information can be found from the so called “chaos report”
- Many sources to these investigations can be found via Internet.
"Chaos" about IT development projects

- 30% of all projects are never finished
- 50% of all projects
  - cost 190% of planned budget
  - for 40% of planned functionality
- 20% are finished within time and budget
  - For large projects: 10%
  - For VERY large projects: 0%

(www.standishgroup.com)
Chaos 2004 & 2009 reports

CHAOS 2004
Survey Results

Resolution of Projects

Challenged = late, overbudget, and/or with less than the required features and functions
Succeeded = delivered on time, on budget, with required features and functions
Failed = cancelled prior to completion or delivered and never used

Chaos 2009

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Chaos

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<td>16%</td>
<td>27%</td>
<td>26%</td>
<td>28%</td>
<td>34%</td>
<td>29%</td>
<td>35%</td>
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<tr>
<td>Challenged</td>
<td>53%</td>
<td>33%</td>
<td>46%</td>
<td>49%</td>
<td>51%</td>
<td>53%</td>
<td>46%</td>
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<tr>
<td>Failed</td>
<td>31%</td>
<td>40%</td>
<td>28%</td>
<td>23%</td>
<td>15%</td>
<td>18%</td>
<td>19%</td>
<td>24%</td>
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Other sources...

- http://www.it-cortex.com/Stat_Failure_Rate.htm
- http://www.projectplace.com/
  - Search for articles...
Chaos...SUCCESS/FAILURE PROFILES

- The most important aspect of the research is discovering why projects fail. To do this, The Standish Group surveyed IT executive managers for their opinions about why projects succeed. “What is the main reason for success?”

1. User Involvement 15.9%
2. Executive Management Support 13.9%
3. Clear Statement of Requirements 13.0%
4. Proper Planning 9.6%
5. Realistic Expectations 8.2%
6. Smaller Project Milestones 7.7%
7. Competent Staff 7.2%
8. Ownership 5.3%
9. Clear Vision & Objectives 2.9%
10. Hard-Working, Focused Staff 2.4%
Other 13.9%
Chaos...

The survey participants were also asked about the factors that cause projects to be *challenged*.

1. Lack of User Input 12.8%
2. Incomplete Requirements & Specifications 12.3%
3. Changing Requirements & Specifications 11.8%
4. Lack of Executive Support 7.5%
5. Technology Incompetence 7.0%
6. Lack of Resources 6.4%
7. Unrealistic Expectations 5.9%
8. Unclear Objectives 5.3%
9. Unrealistic Time Frames 4.3%
10. New Technology 3.7%
Other 23.0%
Chaos…

- Opinions about why projects are impaired and ultimately cancelled ranked incomplete requirements and lack of user involvement at the top of the list.

1. Incomplete Requirements 13.1%
2. Lack of User Involvement 12.4%
3. Lack of Resources 10.6%
4. Unrealistic Expectations 9.9%
5. Lack of Executive Support 9.3%
6. Changing Requirements & Specifications 8.7%
7. Lack of Planning 8.1%
8. Didn't Need It Any Longer 7.5%
9. Lack of IT Management 6.2%
10. Technology Illiteracy 4.3%

Other 9.9%
Success factors

- The “chaos” report and other sources try to evaluate and list important factors related to success of failure. This concern explanations on a “macro scale”.

- What can you find more from literature?

- Are there specific cases/projects where you could analyse success and failure in more detail?
Background material

- You can find a lot via Internet.
- You can focus on the IT project (specification, development, deployment...) as such or more on the usability and user aspects.
- There are books discussing this, e.g. “Usability success stories” by Paul Sherman.
Site visits

- An IT-consultant company, with high expertise in usability
  - EDB, ErgoGroup
- Eva Olsson, GE Health Care, Usability Expert

- What can we ask them about?
Assignment 5 report

- Write a short “paper” describing the situation, what is known, what are the explanations, experiences etc?
- What could be improved? How?
- Have focus also on usability. (Can a non-usable system be successful?)
- Give advice to people engaged in IT development and deployment how to act in order to promote success and avoid pitfalls.
- Give references!
Ass 5, cont.

- Present it orally Monday Dec 19