Is This What We Should Be Doing?

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Has this happened to you?

- Someone hears about a new IT service
- Someone in the IT department works on it
- It gets rolled out
- No one cares
Trust gap

- IT: Why won’t the community use this neat stuff?
- Community: Why does IT keep cramming useless stuff down our throats?
Discovery at MIT

- A defined, consistent methodology applied to every project proposal

- Thoroughly investigate project proposals before they start

- Bring project management discipline to the front end of every project
The fuzzy front end

“The biggest mistakes in any large system design are usually made on the first day.”

Robert Spinrad
Vice President, Xerox Corporation
Doomed

Interview with Sue Young, CEO of ANDA Consulting, *Computer World*, 8/25/2003

Q: Are some IT projects just plain doomed from the start?

A: Yes, I still see that. Either the data required for the project doesn’t exist anywhere in the company, or the project is out of alignment with the business strategy, or the objective is simply unattainable.
Types of requirement errors

Purpose of Discovery

- Should we be doing this at all?
- If so, what will it take to make this project a success?
Areas of investigation

- Feasibility
- Cost
- Cost-benefit
- Staffing
- Integration into the IT environment
- Alignment with IT strategic vision
- Support and maintenance requirements, and impact on staff
- Customer needs and impact
- Product requirements
- Roll-out strategy
Example

- Strategic goal: Extend the academic computing environment
- Specific investigation: Improve support of high-performance parallel computing
- Project sponsor: Director of Academic Computing
Project charter

- What’s the business reason for considering this?
- What questions should we be asking?
- How might we gather data?
- What do we expect as an outcome of this Discovery effort?
Investigating team

- Professors
- Research labs
- Graduate student
- Networking/technical staff from academic departments and IS&T
- IS&T support staff
Results

- No need to begin a new service.
- Academic departments and research labs had already made a choice, to use Beowulf cluster model for high-end computing.
What we really need is...

- Give guidance to new projects
- Help parallel computing projects take advantage of infrastructure services
- Improve other parts of the MIT infrastructure
More on Discovery

- Discovery relies on openness:
  - Recruiting team members
  - A project notebook
  - Final report as a public document

- Discovery delivers *recommendations*, not implementations
Other projects this year

- Knowledge base
  - Useful to IS&T, but other departments had a greater need for document or content management

- Cell phones and pagers
  - Guidelines for choosing cost-effective services
  - Savings from renegotiating contracts not as great as we thought
Other projects (2)

- Asset management
  - How to implement an SAP solution, and consolidate several independent systems
- Remote access to campus computing
  - Access is now possible from almost anywhere in the world, at affordable rates, and even some cost recovery
Other projects (3)

- Web-based system for requesting parking spaces
  - Saved thousands in consulting fees to gather system requirements
  - Saved nearly $100K in paperwork during first year
  - Will shorten procedure time from 3 months to 1
Can we spend the time?

- Discovery takes anywhere from 3 to 6 months

- Is it worth it?
  - 30-50% of all project work is rework
  - 70-85% of rework involves requirement errors
  - 1-10-100 rule
    - $1 to fix during design
    - $10 to fix during development
    - $100 to fix after implementation
Keys to success

- Alignment with strategic goals
- Strong sponsorship
- Team representing multiple interests
- Flexibility
- Openness
And one more thing

- Do this work *before* the rest of the project gets started!
Contact

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