A Descriptive Classification for End User-Relevant Decisions

of Large-Scale IT Projects

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Problem

User participation and involvement in software development is essential for system success....

- Improved quality due to more precise requirements
- Prevention of expensive features
- Positive attitude of users towards system
- More effective use of system

...But many large-scale IT projects still use traditional development with low level of user participation and involvement

- Users do not feel integrated in project
- Users do not recognize the requirements
- Users have low motivation to participate
- Frustration and inefficiency

User-Developer Communication Methods for Large-Scale IT Projects

All End Users



What decisions made by IT project members are relevant to end users? Train developers on capturing decisions



Use Cases for Descriptive Classification



- Better understand decisions in the design and implementation phase
- Explicitly describe their notification



preferences IT personnel

- Use the examples to understand the implications of their decisions
- Use classification to categorize decisions for documentation

C Project managers

- Use checklist to identify important decisions
- Use classification structure to track notification preferences
- Section presentations or workshops

Descriptive Classification of User-Relevant Decisions

	Trigger Points	Example of User-Relevant Decision			Sum	Reoccurring Topics
Abstraction level		Context	Decision	Implication		1 License cost incl. tradeoff
Project level	Cost allocation (project and operations)	CRM telecommunication contract system	Flexibility of promotions for contracts, i.e. adaptable from the business team or need to change system configuration	Large implementation cost implications	9	open source vs. proprietary software
	Timing (project and operations)	ERP system	Adaptations of original template for some business units	Changes in roll out alters the whole project plan	10	2 Staffing for tests
	Organization/Skills*	Insurance industry (with seasonal business)	Changes in project schedule	Requires early communication to all stakeholder	4	
Business process level	Business processes	n/a	Integrate content management system function within larger system	Changed business process as user needed only to use one system instead of two	9	3 Standard central processes
Task level	Responsibilities of users	n/a	Automatic validation checks from legacy health care system cannot be implemented in new system	End users now need to implement new process to check validity of input, e.g. double entry	9	4 Access rights and
Domain level	To-be activities	CRM system in call center	Automatic assignment of queues	Employees no longer get to choose (even though it's a limited choice that is relevant for them and their motivation)	6	automation of approvais
	Features	Online system for sales in insurance	No implementation of offline functionality	system not usable as sales employees sometimes have no internet access	12	5 Manual vs. automated
	Domain data	n/a	SAP standard system did not allow 20-digites account numbers	Dismissal of SAP for accounting system	4	activities
Interaction level	Workflow of the system	Travel booking system	Decision on order of transactions, e.g. 1. flight, 2. hotel, 3. rental car	Significant influence on rollback effort	5	6 Unfeasible user
	User Interface	n/a	Usage or non-usage of back-button in browser	Different user experience	4	<i>requirements</i> due to complexity
	System Interfaces*	Call center	Decide how many systems are used in parallel	Call center employees need to know how many systems	2	
System level	Technology	n/a	No support of iPads due to usage of standard calendar package	User cannot use iPads	7	7 Support of end user devices
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Research Method – Expert Interview

- 12 semi-structured interviews with experts in large-scale IT projects
- ~18 hours of interview time
- Transcribed 322 pages
- Coded with descriptive codes

- No communication setup captures decisions of design and implementation
- Majority of experts consider the classification valid and comprehensive
- Two new trigger points included (see *)
- 81 examples of user-relevant decisions collected