The procurer organizations role in systems development: The practice of successful acquisition

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Alternative title:

>> Don't know what I want but I know how to get it>>
Sex Pistols, Anarchy in the UK

Background

— personal experience

The myth of the software partner
Double bind of usability consultants
Usability is often put as “nice and easy”
Procurers seemed not to take their operational terms seriously
Background

- HMI-research
  Heavily development oriented
User-centred methods heavily researched
General complain: Usability always too late
Research also in the hands of the supplier (or the users)
Procurer management invisible
Usability often seen as product attributes

Basic competence

- Plan – user involvement early
- Communicate – beware of interpretation
- Monitor – monitoring project focus
- Evaluate – do evaluation continuously

Procurers have the basic power to redirect resources
- how can resources be directed for the benefit of HCI?
- what do procurers gain from usability activities?
- what are the constraints for making usable systems?
The missing link

- Usability is quality of use
- Procurement organizations do not focus on actual use
- Difficult to introduce HCI in a supplier process
- UCD is about foreseeing and designing future use
- Only products in use realize sought-for investments
- UCD could be used to realize business goals

<table>
<thead>
<tr>
<th>Business value</th>
<th>Business processes</th>
<th>Business goals</th>
<th>Business requirements</th>
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<tr>
<td>User goals</td>
<td>User requirements</td>
<td>User groups</td>
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<tr>
<th>Usability</th>
<th>Information architecture</th>
<th>Interaction design</th>
<th>Visual design</th>
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<tr>
<th>Technology</th>
<th>System architecture</th>
<th>Technical requirements</th>
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The procurer

A role that should act competent, lead and distribute resources in order to make actability and requirements in order for developers to develop usable systems

Asymmetric relations

P → Contract → U → D → UCD/PD
Objective and Aim

Understand procurers view of and motives for usability

Understand what procurers do

Examine the prerequisites of Usability work

Re-organize usability

Bridge management and usability

Critically examine our community

Early is not enough!

Unknown

Idea

Decision

RFT

System

SyaDev

Selection

Tender

Known

RS

Shared objectives

– organizational motive our first focus
Results – general

Procurers value and do usability work, but think of Usability as Interface Design
Broader definition – not singular focus, traditional connotations late
Usability as organizational development and investment
Usability work can resolve organizational conflicts

Procurers are in need of confidence and a model
Suppliers try to hi-jack Usability (evaluation of own work!!!)
Usability competence @ procurer organizations
Redefining early!

What is usability?

Context

Users
Tasks

Measures
Goals
Efficiency
Subjective
Satisfaction
Who has responsibility for Usability?

Swedish law says that the employer organisation:

- Technology, work organisation and work content should be designed in such a way that the employee is not exposed to physical or psychological stress that might result in damage to health or accidents.

  "Teknik, arbetsorganisation och arbetsinhåll skall utformas så att arbetstagaren inte utsätts för fysiska eller psykiska belastningar som kan medföra ohälsa eller olycksfall."

- Work should be experienced as meaningful and enriching part of life.

  "Målet är att arbetet ska kunna uppfattas som en meningsfylld och berikande del av livet."

Procurer organizations understanding of usability

- Business is usability
  - What technology can accomplish, not how!
- Interface issue
- Vision is independent of actual work
- This does not match usability work, method or perspectives.

Usability perspectives

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<th><strong>Procuer</strong></th>
<th><strong>Contractor</strong></th>
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<tr>
<td>Process</td>
<td>Attribute</td>
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<tr>
<td>User involvement</td>
<td>Visual ergonomics</td>
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<tr>
<td>Efficiency</td>
<td>Nice design</td>
</tr>
<tr>
<td>User orientation</td>
<td>Client focused</td>
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<tr>
<td>Business utility</td>
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Project and requirement formulation

**Procurer**
- User focused
- Wide ranging
- Experience / sporadic
- Felt uninformed
- Living document
- Dialogue

**Contractor**
- Technology focused
- Specified
- Develop UCD-methods
- Own understanding
- Living document
- Dialogue

Conclusion
- Lack of consensus – lack of conflict awareness
- Procurers and contractor have different views and motives for usability, design and involvement
- Procurer are left to users wishes – no support in HCI literature
- Strong procurer usability might loosen contract usability

Role of Procurer Organisations
Pt. 1
Case 1: The vision of the perfect...

Vision- and usability conflicts


Vision and use-conflicts

Processer

Differences...
- Top down (usability)
  - Measure and evaluate
  - Criteria
  - Use quality
  - Values
- Bottom up (use quality)

Role of Procuer Organizations pt. 2
Case 2.

How did they get there?

- **Product specification**
  - fast/quick system
  - adaptable to the old system
  - some new functions

- **Prototyping**
  - worked in groups, paper / OH / prototypes
  - used the developer design as background
  - focus on short cuts – no mouse
  - new functions along the process
  - redesign developed a new work organization

- **Supplier implemented**
  - surprised about short cuts
  - surprised about that operators needed to talk.

- **Technical test**
  - no usability tests.

Ex. Requirement with focus on Usability

- "It should be easy for users of category U to decide parameters of type X in situation Y"

- Simple means: can be done within Q minutes and by done at least by 70% of first time users

  Who, what and in which situation
Ny design

Role of Procurer Organisations
Pt. 3

Business benefits, goals & requirements
Users' goals and requirements

Business and user requirements are gathered in a research phase, and detailed and evaluated in an iterative design phase.

Procurement & contract development process
Delivered product

A proposed alternative approach: The usage-centered design process is used to integrate and prioritize among user and business goals, and to detail a requirement specification based on both. The procurement is based on the result of this process.

Business level - Business processes - Business case/motives - Business requirements
Activity level - Individual/group activities - Personal motives - User requirements
Interaction level - Individual computer actions - Design requirements
Technical level - System architecture/infrastructure - Technical requirements

Management in the acquiring organization
Developing organization
Users in the acquiring organization

Acquiring usable systems
Personas

Nasrin Rahmani

Career:

- Social worker
- Case level social work
- Work with elderly people

Skills:

- Good social skills
- Understanding of social work
- Experience in elderly care

Personas

Prototypes

Manage Project

- Continuous evaluations
  - Independent evaluations
  - Ask developers for whom and what situations they program for
  - Concrete changes

- Follow up effects
  - Usability tests
  - Organizational effects
  - Learning effects
  - RoI effects $$$

Arbetsuppgifter

Prototypes as a way of discussing

Possible recommendations

- Usability professionals should be working on the procurer-side
- Usability activities must be required, planned and monitored continuously
- Propose more activity changes than technology changes
- Evaluations should be done by procurer or by independent contractor
- Contractor involvement in evaluations should be required
- Negotiations must be foreseen
- HCI-research must focus on management
- System development models from the procurers perspective must be developed

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Slutsatser

- Den ideallista visionen har vanligen en större förfinelningskraft – än jordnära exempel
  - Men det är användning som skapar nytta
  - Användbarhet är centralt – men marginaliserat
  - Systemegenskaper får inte användningsnytta
  - Företagapporter fungerar vanligen första gradens förändringar
  - men bortom från andra gradens förändringar
  - Detta skapar ofta konflikter
  - Detta skapar konflikter
  - Inder vad tekniken kräver av användaren och vad användaren önskar av tekniken

- Visualiseringsstöd är viktigt
  - Visualisering är ett effektivt sätt att skapa överblick och konkretisering – men kräver agens och reflektion

- Beslutsfattande är mer rationaliserad – än rationellt
  - Det är vanligt att beslutsfattare redan bestämmer nytta, oberörande av praktisk och sedan rationaliserar alla motändringar av detta beslut

Olika behov

- Produkter
  - Bestäm nytta och användning
  - Beakta produktspecifikationer
  - Prioritera
  - Risk: Köper det minst dåliga

- Parameterstydda system
  - Bestäm nytta
  - Designa lager, säkerställ dess tillgänglighet
  - Risk: Att köpa systemarkitektur eller någon annans verksamhetskunnande

- Skräddarsydda system
  - Bestäm nytta
  - Designa med kompetens
  - Använd prototyper som upphandlingsunderlag
  - Risk: Att man nonchalera verksamhetskunnande