

# Procuring usable systems

## Proposal for full day workshop

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### ABSTRACT

The maturity of processes for producing usable systems is constantly increasing, but starts to level out, and reaching their limits of what they might achieve. Taking, as a contrast, the procurer's perspective, and providing them with processes, tools and competence to procure and require usable systems as well as user-centred processes, would function as a driver for the production of more usable systems. Among the challenges for procuring usable systems one can identify; the complex interplay between user, customer, commissioner, financier, procurer, vendor, producer; the going beyond systems development into early needs analysis stages; the possibility to strategically purchase only usable systems. This workshop explores experiences from procurement, taking a usability perspective, trying to chart out the issues ahead for research regarding the procurement of usable systems. During the workshop we also want to explore and formulate opportunities for procuring usable systems as a complementary perspective to producing usable systems.

### Keywords

Usability, use quality, procurement, workshop

## 1. Procuring usable systems

Today most research regarding usability and usable systems is performed at the producer side of a contract. Much less is done together with the procurers.

During the last decades a lot of work has been done to involve and ensure user involvement in the design and development process (see e.g. Schuler & Namioka 1993, Gulliksen & Göransson forthcoming). In parallel

to this a lot of work has been performed concerning the development of user interfaces (see e.g. Cooper 199X, Raskin 2000, Shneiderman 1998).

Much less is written about the procurement of systems, even less about procuring usable systems. Some of the research performed within HCI can be read and analysed from a procurer perspective even though that was not the primary focus for the research performed (e.g. Näslund 1996, Näslund & Löwgren 1999, Grudin 1991)

From most traditional system development models it seems that a project starts at a single point – when the procurer and the producer seems to have come to an agreement to produce the proposed system. The consequence has been an overweight of work focusing on the contractual process and the formulation of requirements. As quickly becomes evident the singular easy to pinpoint starting point is a construction of convenience, most systems starts to develop already when the procurer starts to think in terms of, or is forced to make, organizational change by means of technology. Typically usability and user centred design neither receive the attention it deserves in such early work nor in request for proposals/request for tenders from prospective producers.

For this workshop we are interested in how procurers can be engaged in and require usability and human centred design as product criteria as well as process requirements. Most human centred design models and methods, as practiced, rely on the considerate organization and that the producer is performing all the user centric tasks without being asked (or paid). All expects, and wants, usable systems – it seems so obvious that it does not have to be dealt with or specified until the producer has started to develop the system. In an ongoing study of nine publicly available government contracts the lack of users and usability is striking. Users are mentioned solely when training is mentioned, when access rights to the potential system is discussed, and in some cases when tests before delivery is discussed (Räsänen, personal communication)

In the Scandinavian system development tradition the idea has been to short-circuit the procurer/customer relation, and go directly to the users (Greenbaum & Kyng 1991). In the cases when this truly works, the result is good. The approach to short-circuit is used in many other cases, where it does not work; the reports on problems with user involvement are many. A major problem with the short circuit idea is that in the end it is the procurer that decides what kind of activities will be accepted in the contract, and which will be possible to perform despite a contractual agreement. The procurer holds the money, and has the ultimate decision where they go.

Some work has been done regarding government contracting (Downey, Laskowski, Buie & Hartson 1996, Winkler & Buie 1995). As such it poses challenges, because of legislation's and more or less rigid processes set up for equality purposes. It also poses opportunities because governments employ a lot of people, they are large procurers, and sometimes have the moral obligation to act as role models.

Literature that focus procurement (Dahlgren, Lundgren & Stigberg 2000) takes a mirroring perspective and focus economic issues of procurement or as (Clark & Heivert 1999) focus on functions rather than functioning. Most often the analysis ends after a return-on-investments analysis.

The few studies done regarding usability and procurers paint mainly the same picture as we have here. There is great need for research and development on system development from a procurement perspective.

By shifting focus from producing usable systems to procuring usable systems we see an avenue of research supporting the goals of users, interaction designers, usability architects and others interested in the use quality of the interactive artefacts produced.

## **2. Goal of the Workshop**

The goal of the workshop is fairly simple. We would like to gather a Nordic body of researchers and practitioners to share experiences formulate challenges and find project proposals regarding procurement of information technology from a usability perspective.

### **2.1 Outcomes of the workshop**

The results of the workshop will be written up as an article to be submitted to SIGCHI bulletin. There might be produced a poster during the workshop, to be displayed at NordiCHI. The model/s will be used to guide and structure further research and for future Nordic collaborative projects regarding usability procurement. We will also try to formulate possible themes for articles or special issues of an appropriate journal.

### **2.2 Participant solicitation and selection**

We will solicit the nordiCHI community through the usual mechanisms including e-mail and personal contacts. For reasons of diversity we will look for people who have experiences working with procurement issues as a procurer and not from the producers perspective.

We will be looking for participants who are willing to give this enterprise a serious, constructive try; we are not interested in a one-day debate on where responsibility should lie or if procurement is an issue at all.

We are looking for participants with experience in some aspect of procurement of interactive systems. Other things being equal, we will attempt to construct a list of,

at the most, twenty attendees with a large diversity of experiences.

We also expect people to have summarized their experiences from procurement activities in terms of both process and products. The selection of participants will be made on the basis of their experience, possible contributions to research on and interest in procurement issues, and to put together a diverse group of participants in order to be able to formulate a broad framework for research and development.

### 2.3 Method of Interaction

Initially, participants will present their view on usability procurement, and briefly share their experiences of good and bad procurement examples.

Secondly, there will be a moderated issue brainstorming session, followed by a brief bottom-up preliminary group clustering.

After a brief discussion and modelling of the process, we expect participants to interact in smaller groups. The goal for these group discussions is to focus on a set of issues, try to criticize them and expand the scope of the issues, as well as trying to establish relationship between issues.

In the larger group, we will then summarize all the group work into a model of usability procurement. A new discussion on clustering will then be performed.

Again, a discussion in smaller groups will be performed, this time to establish avenues and possibilities for research, research themes, research questions etc, for the outline framework.

At the end of the workshop, we expect to have established at least one framework for research on usability procurement. The goal is not to produce a homogenous view among the participants. Instead we wish to encourage heterogeneity and conflicting critical views. Thus, we expect to leave the workshop without a consensus regarding issues and frameworks.

We will also allow time for a general discussion of how to evaluate our output, how to continue the work in a distributed fashion, and how the results might be communicated.

### 2.4 Needed facilities

For this kind of workshop, the facilities needed are a room with nonfixed chairs and tables, post-its, paper, coloured pencils and large papers. A traditional OH projector is also needed, but no computer facilities.

## 3. ORGANIZERS' BACKGROUNDS

Stefan Holmlid is a research scientist at LinLab, Ericsson Radio Systems. He will earn his PhD in human computer interaction from Linköpings universitet later this year. He has organized practitioner workshops during the course of his research project, three Swedish workshops on usability procurement, developed several courses, basic as well as master's level, at Linköpings universitet. <http://www.ida.liu.se/~steho/>

Henrik Artman is associate professor at the Royal Institute of technology in Sweden. He earned his PhD in Communication studies and has worked as consultant. He has organized three workshops in Sweden on usability procurement, as well as domestic workshops at smaller conferences. <http://www.nada.kth.se/~artman/>

The organizers are directing a newly formed research project on procurement competence, running through 2001 to the end of 2004, also comprising three PhD students. They moderated a hearing on usability procurement competence at Vinnova in Stockholm last November.

<http://www.nada.kth.se/~artman/procurement/>

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