Introducing e-learning in municipal contact centers

a Swedish case study

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Abstract

In order to increase the service for citizens municipal contact centres are developed in some municipalities in Sweden. The project Innoveta studies this process. One part of it is education of both clerks in the contact centre but also other officers in order to inform about the possibilities of a contact centre. A web based education material was developed but it failed to be used, despite several attempts. One reason seems to be confusion and mix up with traditional web pages. Another reason could be expectance of an objectivist approach, according to Vrasidas (2000) while we used a constructivist approach, as we usually do in our academic teaching.

Keywords: work integrated e-learning, municipalities, contact centres

Much research is done within the area of e-services in the municipalities both in Sweden and internationally (Torres, Pina et al. 2006)(Wiklund 2005) (Akman, Yazici et al. 2005). However, 80% of the contacts to the municipalities is taken via telephone and only about 50% of the calls are answered, insofar as the citizen can talk to somebody about the matter (Flensburg, Nåfors et al. 2009). Some municipalities have established a contact center which is a group of people who answer the phone and can answer most of the questions. This phenomenon have been investigated in a project called Innoveta, financed by VINNOVA. Some puzzling issues have been detected:

1. Despite many advantages (increasing service, more efficient management, better quality) few municipalities has established a contact center.
2. There seems to be a huge inertia before establishment starts
3. The knowledge about contact center as a phenomenon seems to be very low

Much of the problems associated with 1) and 2) seems to depend on resistance from clerks in the different administrations (Bernhard I and Grundén K 2010). It is also shown (Flensburg, Nåfors et al. 2009) that when the contact center has been established and used for a while the clerks in the administration realize its benefits. Concerning 3) it was one of the main goals of the project to develop a teaching material to increase the knowledge about contact centers.

Problem

This is a descriptive and narrative paper. I describe a case where a teaching material was developed, but not used. There was a need for it, the content was OK, but despite that the material was not used. The method I use in this paper is based upon the idea of the reflective practitioner of Donald Schön (Schön 2003). I will first in a narrative form describe the case as I experienced it and then propose two questions:

1. Why has all this happened?
2. How could it have been avoided?

The material was developed by the author, a person with almost 40 years experience of teaching at university level. Since 2006 I have been working with distance teaching. The model is movies, showing slides and a "talking head" either beside or inside the slide. One example can be find at the page http://e-cirkel.net/utveckling-av-kundcenter/projektorganisation/ The equipment used was an ordinary webcam. Students used to visiting 2 hours lectures accept that kind of stuff, but here we were aware of the need for keeping it short. The movies was kept under 15 min, with a few exceptions.

The case

Already when the project was established a need for education about contact centers, demonstrating the advantages, benefits, shortcomings and needs was anticipated. We thought it would be highly appreciated, since we had previous positive experiences from another project (Grundén K 2009; Grundén K 2010) but it turned out to be an extremely frustrating experience!

The education was to be provided as net-based. The model was a traditional study-circle, but on the net. Hence, we called it *e-circle*, which turned out to be confusing for the intended users. The idea was that a group of people, typically on an administration at a municipality, should individually study a general material and then during a half day session, lead by one of the managers they should discuss the consequences and possibilities for introducing a contact centre in their municipality. It was supposed that the researchers should develop the learning material and Sambruk, our partner representing the municipalities should engage the them in taking the circle.

A reference group was formed, consisting of representatives from about 25 Swedish municipalities. They were higher clerks, such as administrative manager, information manager, webmaster etc. The first task was to identify certain targets groups for the education. Politicians, municipal manager, clerks at the administration and of course contact center manager and personnel were identified. Then we asked about the need for knowledge of the different persons. But it turned out to be very vague needs formulated and as a result we decided to use a prototyping approach.

The first prototype was based on mind maps in two levels (fig 1 and fig 2) with clickable regions. The text was in Swedish and in the following pictures we will present the original text, but in the first the text has been translated, in order to get an idea what it all was about.
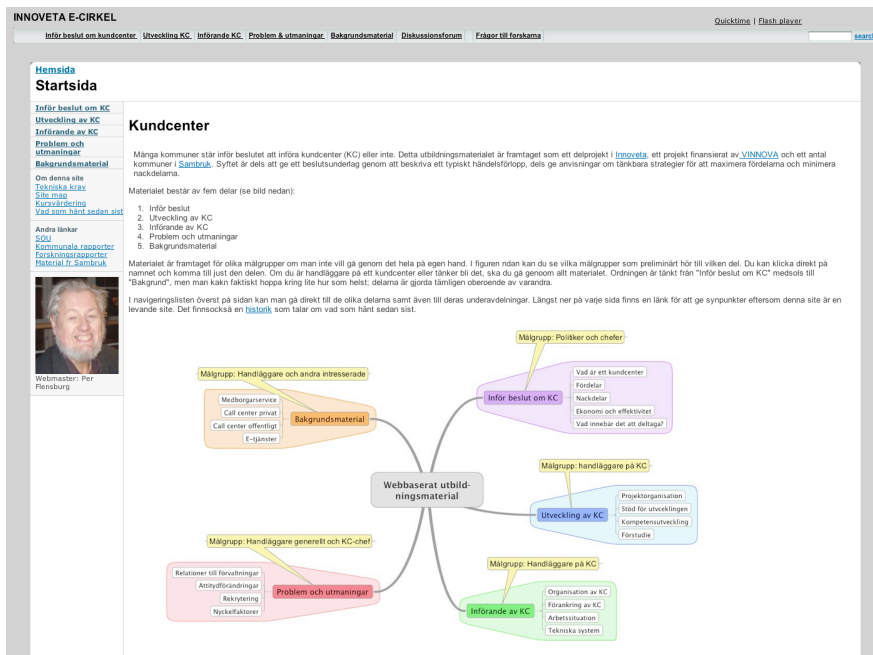
Fig 1. The first level in the mind-map version (translated)

The five rectangles in fig 1 with red frames was clickable and described the first level. The red splash with yellow text saying "Where am I?" was used as a way of navigation aid. There were also links back one step and also a link where comments could be given.

On level two (fig 2) every callout was clickable and the purple ones contained movies related to the subject described in the "owner" of the callout. The cloud-shaped callouts were movies where people from contact centers told about their experiences.

Fig 2. Example from the second level in the mindmap model.

From the beginning it was very much appreciated but at a second meeting we were simply told that the municipalities did not want that kind of fancy interface. Also some claimed they could not obtain any overview. A new version was then developed, looking more like a traditional web-page (fig 3).

Fig 3. The second prototype

The same main points was included, since we had met no critique on the content. The site had the same structure, in two levels. There were content on the first level but in some of the second levels there were only stubs, indicating a content will come (fig 4).
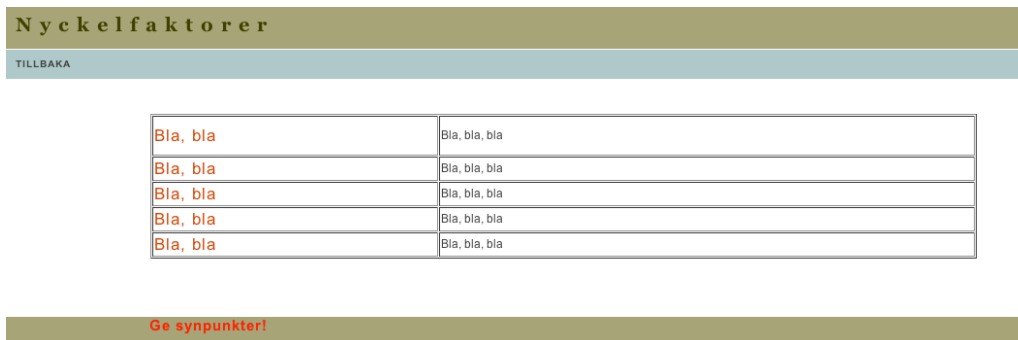

Fig 4. A stub in the second level

Presented to the reference group the reactions was moderate. Some thought the language was too simple (sic!), some did not liked the stubs, and on the whole, there was a negative impression. After that we hired a pedagogic expert on distance education and he developed a structure, based upon a WP-blog, where the full content was put. The starting page can be seen in fig 5.

Fig 5. Starting page in the third version

There was an extensive pedagogic introduction. There was a tag cloud and categories in the right column. Just under the top picture there was drop-down menus where you could navigate to the separate parts of the stuff. In fig 6 you see an example of it.

Införande av KC

Hem | Inför beslut | Utveckling | Införande | Utmaningar | Konsekvenser | Bakgrund

Införandestrategier

ATT INFÖRA KC
STRATEGIER OCH DERAS KONSEKVENSER

► ■ 00:06   14:37

Bilder till filmen ovan

Olika strategier för införande

- Top-down
- Deltagande
- Köpa-sälja

Top down

- Beslut fattas ovanifrån och är obligatoriskt
- Krävs någon eldsjäl i ledande ställning och ett klart politiskt beslut.
- Resurser tas från fackförvaltningarna och läggs på kundcenter
- Man måste visa de STORA vinsterna för förvaltningarna om de inte ska bråka

There was usually a flash movies at the top of the page, where I talked to some slides. The slides could be downloaded and the text was also available as plain text.

The material was provided and demonstrated at a conference. But to our great dismay it was not used! We could not understand why, so two persons at the municipalities evaluated the material and came up with rather heavy critique. Most of it was however based upon technical flaws, as for instance inconsistent format, bad sound quality, the same person always presenting. Some viewpoints was based upon misunderstandings such as the tag cloud, where critique was raised for different font size. However, there was some substantial critique of the content saying it was not suited to the different targets groups, but it was not explained why. So the first question will now be discussed.

Why does it happened?

Moore & Kearsley (1999) suggest that a distance education system should have the following components:

- content,
- design,
- communications,

- interaction,
- learner environment
- management.

Concerning the content we had a good idea of it, based upon a previous investigation of some already implemented contact centers (Flensburg, Nåfors et al. 2009). Some of it was already presented at various meetings and conferences with the municipalities. The reference group also thought the content was OK.

The site was designed as content-providing web-pages, with emphasis on appealing layout. The design clearly communicated: "This is content; this is something to read". However, there were no clue about the learning, nothing except the text indicated that this site provides learning material. So maybe we should have used a more learning oriented environment, clearly indicating that this was a learning environment and not an ordinary content-providing site. In fact, some months after the launch of the circle there were risen demands on a learning management system and in two of the municipalities they are currently looking at Moodle, an open source learning management system.

Interaction is one of the most important components of any learning experience (Dewey 1938), (Vygotskij and Cole 1978) and it has been identified as one of the major constructs in distance education research (Moore 1989; Wagner 1990)(McIsaac M.S. 1996). In this site, the interaction was intended to take place during the half-day meeting after the participants had studied the material. This was written several times on the page and it was also told on several meetings, but still: Since the material was static it was criticized, but in the critique the lack of interaction was not pointed out.

The learner environment is principally a hierarchical link collection where the different parts of the stuff can be downloaded. or looked at on the web-page. There were no obvious indication that our site was meant for learning, people might as well believe it is for ordinary browsing. Since there were no obvious learning related elements, the evaluation took ordinary web pages as starting point. Probably the evaluator was not aware of Moore & Kearsley (1999) but noticed the lack and interpreted it as low quality content.

Concerning the management, finally, we had no working group, only a working person. It was due to the fact that the other members of the research group should evaluate the e-circle and hence they could not be involved in its development. The organization with the dedicated purpose of promoting the use of the site had no success, since decisions had to be taken in the single municipalities and there were no political process about how this was to be done. The problems was well recognized, we tried to get the municipalities to sign contract of using the e-circle, but they didn't since there were no decision taken of introducing a contact centre. The e-circle were supposed to provide decision support for this decision, but that information was not understood.

The education was a distance education. Vrasidas (2000) points at two approaches to distance education: The objectivist approach and the constructivist approach. The objective approach is described as:

> An objectivist educator believes that there is one true and correct reality, which we can come to know following the objective methods of science.

A constructivist approach is described like this:

> Since constructivists believe that there are multiple truths and realities, education should be encouraging multiple perspectives. Learners interpret their world and

educators have to account for the meaning-perspectives of the learners and for their interpretations of the world.

The basic idea in the e-circle was constructivist. The researchers should provide a general material, which then should be interpreted by the clerks in the actual learning situation. However, the actual production was done according to the university teaching level, but no investigation was done if this was appropriate for the intended target group. Most persons in the target group had studied at the universities so we assumed they should be familiar with the used teaching style and level. When evaluated, an objectivist approach was used, focusing on shortcomings in the general material and compared it to a professional production. Hence, the reference group rejected the material.

Concerning learning management systems, Dalsgaard (2006) discusses the role of a them and claims that

> ... they, within a framework of a social constructivist pedagogy, should play only a minor role within organization of e-learning. It is argued that social software tools can support a social constructivist approach to e-learning by providing students with personal tools and engaging them in social networks. Using social software in this way requires that organization of e-learning moves beyond centralized and integrated LMS and towards a variety of separate tools which are used and managed by the students in relation to their self-governed work.

However, all this is based upon traditional, university teaching and the conclusions might not be valid for clerks at Swedish municipalities.

Summing it all up we conclude:

- The content was not questioned.
- The design of the sites did not communicate a learning environment
- There were no interaction in the sites, only possibilities for giving comments
- There were no management of the learning from the municipalities side
- One single person was doing the work
- The needs of the clerks was not possible to describe

How could the problems have been avoided?

The previous analysis indicated shortcomings within many areas. If these were to be corrected, will the e-circle then work? No, there's absolutely no guarantee for that! The framework we used for analysis is a general one, based upon teaching in a school of some kind. We have here a different learning situation, a work integrated learning situation, with specific characteristics:

1. Target groups with probably very different, but unfortunately, unknown, needs
2. Only the contact center clerks are really interested in the education, other groups need it to be familiar with the pros and cons with contact centers but they are not interested.
3. The first half of the education is supposed to be on their own
4. Some of the target groups are not used to have education at the workplace.

The analysis focused much on using a learning management system (lms). Dalsgard (2006) advocates for a more empowerment-oriented system where specific tools are used for specific purposes. He argues "*that social software tools can support a social constructivist approach to e-learning by providing students with personal tools and engaging them in social networks*" (Dalsgaard 2006). Grundén (2004) describes a case

where a simple web-page was used with good result. But this is perhaps not always the case. At least there are other opinions:

> For developing high quality, reusable multimedia courses for large heterogeneous groups of students studying at different times and places, however, the artisan[1] approach is not satisfactory. It does not produce the high quality required, the process is not efficient, the course components are not reusable and, moreover, the fields of expertise needed for developing these courses are seldom to be found in one person. (Schlusmans, Koper et al. 2004)

This indicates that a group of persons with different competencies should develop the material together.

The e-circle was supposed to increase the competence of the clerks in the municipalities. Ley et al (Ley, Ulbrich et al. 2008) suggest a kind of ER-model for modeling competencies for supporting work-integrated learning in knowledge work. It is supposed to be used in environments where competencies and the knowledge needed to obtain that competence are possible to identify very clear. In fig 7 we see an example from a package they have developed.
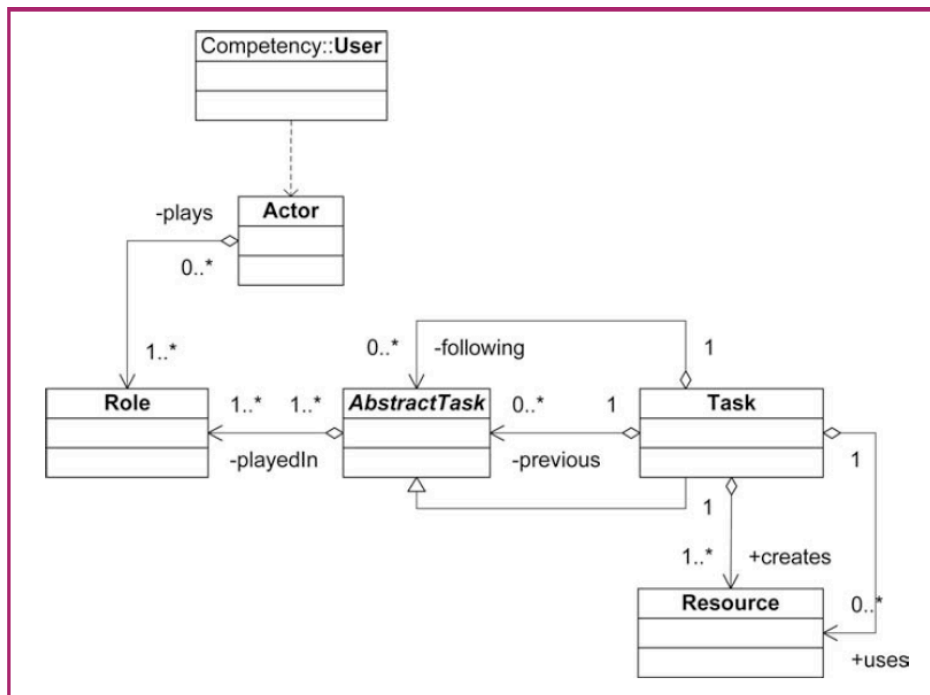

Fig 7. From (Ley, Ulbrich et al. 2008)

In our case we could identify some such specific competencies, namely the use of the specific systems in the authorities in the municipality. Since the e-circle was supposed to provide a general background, this type of knowledge was out of the scope for it.

Another toolkit for designing learning activities is described in (Conole and Fill 2005):

> ...learners are supported as they co-create temporal contexts where the time field of attention becomes detached from the perceptual field and unfolds itself in time, thus augmenting development and learning. Future work into Augmented Contexts for Development will have as a goal the desire to investigate the means

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[1] Artisan approach: The traditional approach with power point slides and texts to provide learning material via a lms.

by which digital technology and media can be used to mediate formal and informal learners meaning making as they independently navigate or unfold their attention in relation to temporal dimensions.

However, all the suggested tools and models are based on either teaching students or for strict competence development. In our case, the education was supposed to be a general one for clerks at different levels in the municipalities. It does not clearly fit into any category and a need for future research is identified.

An important lesson and an issue pointed out in several of the articles is the importance of making the goal clear. In our case there were several goals:

1. Marketing the idea of contact centre
2. General and basic education of clerks, both at the contact centre and the administrations
3. Obtaining hours from the municipalities when they used the circle. The hours were needed in order to fulfill the co-financing from the municipalities

We mixed them up and tried to fulfill all needs in one package. It was both the form and the content that should have been discussed and analyzed before the development.

Conclusions

Conclusions could be drawn at several levels. One is well-known from systems and software testing: *Use correct and real test data* (Elbaum, Karre et al. 2003). Stubs are for programmers, not for users! Programmers and designers work on the type level, while users work on the instance level. For them the content in the field is important, not the name of the field (Flensburg and Friis 1999). One example was a couple of librarians that should test a library system for a certain small area. The systems developers had put some data into the field and the librarians immediately saw that and rejected the system (ibid).

Another conclusion is that the design and the purpose should match (Shaft and Vessey 2006). A learning site should look like a learning site, not as an ordinary web-page. Using a learning management systems, which serves as a framework for providing the material, serves as an appropriate context. Also using slides or slide imitation software, such as Slidedeck, provides a familiar context.

However, the most important conclusion is that the constructive learning model we apply in ordinary university teaching is not always possible to apply when work integrated learning are to take place in the working place. We are used to create material for lectures, lasting about two hours. We usually don't put much efforts in telling the students why they should take this lecture or what its outcome might be. For this we must develop other models, which have been done to a certain extend such as (Lave and Wenger 1991; Schlusmans, Koper et al. 2004; Ulbrich, Scheir et al. 2006; Ley, Kump et al. 2008). What is needed is way to adopt work integrated learning to the context of Swedish municipalities. They expect an objective learning model, not a constructive one! Especially the quality of the multimedia material needs to be improved for these groups (Schlusmans, Koper et al. 2004).

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