

Designing a Web-based Education Platform for Swedish Civic Orientation

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Abstract. Newcomers in Sweden face a problem of learning the Swedish society with respect to laws, culture, democratic values, education system, labor market and aspects of taking the role as a parent. The municipality of Gothenburg and the county administrative board in Västra Götaland are appointed by the Swedish government to educate newcomers in civic orientation. This paper describes some problems in providing distance education for Swedish civic orientation in forms of *advanced learning modules* (ALM). Requirements for implications for design were gathered through several conducted workshops together with relevant stakeholders through a participatory design approach. We concluded that our design for implications can be processed for future research and used together with a system solution.

1 Introduction

Immigrants entering into Sweden (newcomers) face a problem of learning the Swedish society with respect to laws, culture, democratic values, education system, labor market, education and parenting. People from all around the world with different types of background migrate to Sweden for different reasons and many of them have various life background, educational background, professional background, family relations, norms and values. The phenomenon of increased throughput of immigrants and newcomers, is not only attached to Sweden, but also other countries in Europe (SCB, 2013). However, from the perspective of UN (United Nations), the dimension of citizenship and human kinship is seen as a means for discussions about integration in the Swedish society and how municipalities shall introduce newcomers in Swedish civic orientation (Abraha, 2007). Today, a newcomer gets educated in civic orientation through their native language and the education is held in classroom environments by tutors at the municipalities. But because of the increased throughput of newcomers, demands and needs are increasing for a more flexible form of education where the participants (newcomers) are not constrained to only classroom environments and predetermined geographical locations (e.g. cities and counties). Research which emphasizes on the concept of distance education for civic orientation has internationally been conducted in various forms (Fawcett et al., 2000; Bers, 2008; Raynes-Goldie & Walker, 2008). However, in Sweden the body of knowledge and research in this field is on going, and recently the municipality of Gothenburg and the county administrative board in Västra Götaland are appointed by the Swedish government to design flexible tools of IT in civic orientation through a project called: “Proximity and Distance: Civic Orientation and IT”. This paper describes central challenges and issues in designing a web-based education platform for Swedish civic orientation through a case-description together with a research question for further investigations.

2 Case Description

The newcomers must accomplish 60 hours of education in Swedish civic orientation. The teaching is today carried out in ordinary classroom education under guidance of a tutor. The municipality of Gothenburg organizes the education and the teaching material is organized in the following parts:

1. **Course Book** – is updated by the municipality of Gothenburg together with the county administrative board, and is published on their website.
2. **Background Material** – is published and updated by the municipality of Gothenburg.
3. **Slides** – is published and updated by the municipality of Gothenburg.

The course book is provided in more than ten languages and is updated once a year in December before printing (it is also provided electronically at: www.informationsverige.se). Background material gets updated once a year during the summer and it’s content is reused in the slides, which are updated more frequently than the course book and background material.

There are a considerable amount of thoughts in providing the basic education (or parts of it) on the web. A reason for providing the basic education on the web is to increase the service and give the newcomers possibilities to educate themselves through distance education. Another reason is to enhance flexibility for newcomers so that they can participate in lectures through videoconferencing together with other newcomers and tutors that are situated in different geographical locations (e.g. different counties and cities).

The municipality of Gothenburg also plans to develop *advanced learning modules* (ALM) in civic orientation for newcomers who have accomplished the basics in civic orientation. The classes for basic civic orientation has approximately 300 students, divided into X classes (depends on their origin and use of native language) while the ALM are independent of classes. Because of this, the advanced learning modules are considered to be provided on the web.

2.1 Problem

This paper is a narrative and conceptual-analytic paper (Järvinen, 2012). Besides the already described case-description, we propose a problem based on some issues and aspects of producing and maintaining educational material within Swedish civic orientation. These activities, together with the requirements for distance education (advanced), create challenges towards designing a web-based education platform for Swedish civic orientation. Therefore, we propose the following problem definition:

What essential features and functions are necessary to establish in order to incorporate IT-support for online-education in Swedish civic orientation, especially concerning the distribution of advanced learning modules?

A traditional learning management system (LMS) have functions for these issues. However, we think they are too complicated, it is something like chasing mosquitoes with an anti-aircraft gun. An LMS supports many activities, such as examination and grading. This is not needed here. The only demand put on the students is their presence for 60 h. There are no formal examination, but a need for registering the activity of each student. Also, many of the newcomers don't have access to a computer of their own, so they need to visit some study center, school or library in their home municipality. Maybe they can have a tablet, smartphone or a used computer. Also the content of the advanced learning will change frequently. So the overall most important demand on the system should be very high flexibility, both concerning use and updating.

3 Literature study

There is a body of literature that addresses and presents potentials with distance education for civic orientation and citizenship. The literature stresses the importance of combining IT-supported technologies together with a purposive pedagogy and interaction for quality teaching, where facilitating online learning is thought to be substantially different from teaching traditional face-to-face classes (Kearsley, 2000). The importance of social processes and learning can be found in both older literature such as (Vygotsky, 1978; Vygotsky, 1981) and the *Zone of Proximal Development*, but also, modern literature such as (Garrison et al., 2000; Anderson et al., 2001; Osman & Herring, 2007) stresses out the importance of a sound strategy for interactive learning processes together with advanced learners that possesses a rigid pedagogical insight in teaching with technology as a tool in learning environments. However, the notion of developing IT-supported tools and distance education can vary in terms of content, design, communication, interaction, learner environment and management (Moore & Kearsley, 2005). Literature within the context of civic orientation and distance education shows how different tools, web-based resources, learning modules, virtual communities and other online based learning material is provided for citizens in different

international communities for their capacity to grow as citizens in their societies through interactive online civic orientation (Fawcett et al., 2000; Bers, 2008; Montgomery et al., 2004; Raynes-Goldie & Walker, 2008; Lenhart et al., 2008).

An important aspect of our literature study, shows how design concepts should be used to bridge the gap between design theories and distance educational practice focused on e-learning design and the interplay between structure, content and functionality as a potential of letting the designer work with an integrated design rationale rather than with separate design agendas for instruction and technology (Svensson & Östlund, 2007; Svensson & Östlund, 2005). Another aspect deals with the notion of using a technology throughout an ongoing process, and how this process enact structures which shape the users understanding and situated use of the technology (Orlikowski, 2000; Robey & Sahay, 1996; Leonardi, 2012). Viewing the use of technology as a process of enactment, also enables a more profound understanding of the role of social practices in the ongoing use and change of technologies in workplaces. Otherwise, the technology in itself tends to disappear from view, be taken for granted, or simply be presumed to be unproblematic once it is built and installed (Orlikowski & Iacono, 2001). This notion of Orlikowski & Iacono (2001) is also relevant for technologies and systems that are provided online and seldom used as expected by the system designers (Flensburg, 2012). Therefore, we think that it is necessary to design system features that derives from user requirements emerging from a participatory design approach (Westerlund, 2007) where different stakeholders are engaged and contribute with their ideas and thoughts as input for further development of design features that provide a praxi-based learning pedagogy (Bers, 2008) mapped together with different aspects of *know how's* in civic orientation and distance education.

4 Research Approach

Multiple workshops were conducted with clerks and tutors from the municipality, forming a design team. The workshops were conducted using the philosophy of participatory design (Greenbaum & Kyng, 1991; Schuler & Namioka, 1993; Bjercknes et al., 1987), where the participants were enabled to express themselves not only by talking but also by acting and providing new ideas as input for further analysis.

The outcomes from the workshops resulted into collectively gathered input provided through dialogues and feedback between the participants to establish extended forms of understanding about respective ideas and thoughts on digitalizing the civic orientation programme. Therefore, the overall result of data-collection are summed up through one category only:

1. **Input from workshops** – handwritten post-it's, pictures and audio recording

We will in the next coming sub-sections describe the workshops through a narrative form (Schön, 2003) as we experienced them, and also present their outcomes. The participants were clerks from the municipality of Gothenburg, dealing with updating the learning stuff and clerks from the county administration, dealing with the same thing. They had a basic IT literacy and could use basic office programs well.

4.1 **Input from workshops**

The workshops were emphasizing on the concept of advanced learning modules and distance education. Altogether, we held four workshops with clerks and tutors from the municipality. Each and every workshop had its own theme focusing on different aspects of the learning

material in Swedish civic orientation, distance education and technological implications for the basic (as well as the advanced) form of education. The workshops are divided into the following categories:

4.1.1 Workshop 1 - Advanced Learning Modules

Participants from the first workshop were asked to answer the two following fundamental questions regarding the purpose of advanced learning modules:

1. **What shall the advanced learning modules provide the newcomers with?**
2. **What are the newcomers going to face in the advanced learning modules?**

Input from workshop participants were collected through individual notes and post-it's. Each post-it were then by the participants put on a whiteboard visible for other participants. The workshop was concluded through open dialogues between the participants, where each participant got the chance to motivate and extend their thoughts about the purpose and value of advanced learning modules. Not only did this process result into hand-written notes on post-it's, but it did also generate an wider understanding about the purpose of advanced learning modules, which is to extend the content of basic education in civic orientation and provide newcomers with interactive learning material about a specific aspect of civic orientation such as the aspect of Swedish labor market (e.g. how to apply for a job in Sweden) and the aspect of being a parent in Sweden (e.g. the role of parents at home).

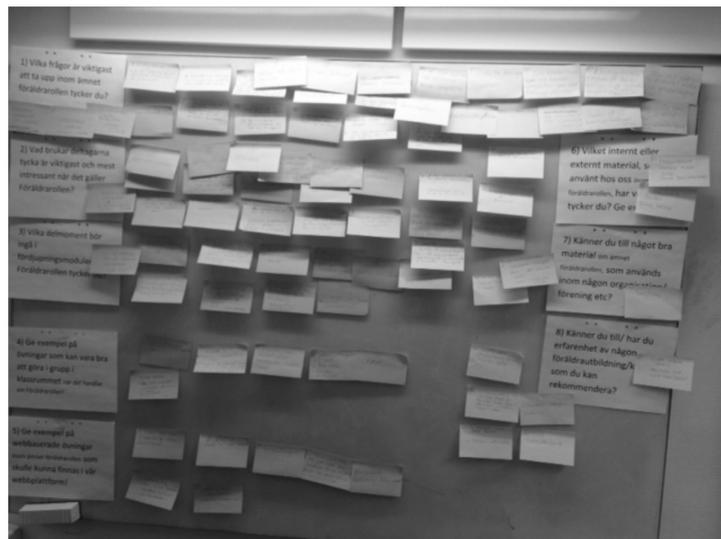


Figure 1: Workshop 3 - Collection of Post-it's on the whiteboard: answers from different participants at the workshop.

The outcome from the first workshop can be summarized as following:

1. Interactive learning modules in Swedish civic orientation with emphasize on certain aspects in civics shall be provided online for newcomers and tutors.
2. Advanced learning modules shall provide an extended form of content based educational material deriving from background material and course book.
3. Tutors shall use the learning modules for distributing certain learning material in civics.
4. Newcomers shall use the distributed learning material and interact with the modules through interactive features.

4.1.2 Workshop 2 – Defining Requirements for Advanced Learning Module 1

A second workshop was conducted for defining requirements for the first advanced learning module. During the workshop, clerks and tutors (totally 8 persons) got the opportunity to express their ideas on how we should incorporate learning material about the Swedish labor market in the module. Each and every participant got the chance to reflect upon the two central questions presented in section 4.1.1.

The participants were also engaged in dialogues regarding the specific purpose and content of the first advanced learning module. They discussed the different aspects of being a citizen in Sweden and a member of the Swedish society, but also how the Swedish labor market works according to the facts presented in the background material and course book.

By the end of the workshop, the participants suggested that the first advanced module should incorporate features that provide interactive learning material about different aspects of the Swedish labor market.

The outcome from the second workshop can be summarized as following:

What shall the advanced learning modules provide the newcomers with?	What are the newcomers going to face in the advanced learning modules?
<ul style="list-style-type: none"> ▪ <i>Know how</i> to write a CV. 	<ul style="list-style-type: none"> ▪ CV-templates.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on how to apply for a job. 	<ul style="list-style-type: none"> ▪ Template for job application letters.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on the relation between studies and work – why studies can be important in different professions. 	<ul style="list-style-type: none"> ▪ Videoclips on different people from different professions describing their daily work.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on how to establish realistic career goals (e.g. how to become a doctor, how to become a carpenter). 	<ul style="list-style-type: none"> ▪ Links to different sites providing information on how to articulate goals and methods for fulfilling them.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on how to establish a network of contacts (e.g. through social media sites such as LinkedIn). 	<ul style="list-style-type: none"> ▪ Instructions on why social media can be important in the context of building networks and networking skills.

Table 2: Outcome from the second workshop.

4.1.3 Workshop 3 – Defining Requirements for Advanced Learning Module 2

A third workshop was conducted for defining requirements for the second advanced learning module. During the workshop, clerks and tutors (totally 9 persons) got the opportunity to express their ideas on how we should incorporate learning material about the aspect of being a parent in Sweden. Each and every participant got the chance to organize their thoughts and present them on a whiteboard through a collection of notes on post-it's. Throughout the workshop, questions and suggestions were provided by the participants to discuss the purpose of the second advanced learning module. Definitions on learning material together with desired interactive features in the module were presented as being a central aspect to incorporate in the learning module. Furthermore, the workshop ended through open dialogues between the participants, where they summarized their original thoughts verbally.

The outcome from the third workshop can be summarized as following:

What shall the advanced learning modules provide the newcomers with?	What are the newcomers going to face in the advanced learning modules?
<ul style="list-style-type: none"> ▪ <i>Know how</i> in Swedish custom and laws (e.g. forbidden to discipline the child). 	<ul style="list-style-type: none"> ▪ Similarities and differences between normative values in raising children in Sweden, and the newcomers native country.
<ul style="list-style-type: none"> ▪ <i>Know how</i> in Swedish social services. 	<ul style="list-style-type: none"> ▪ Link to social services website.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on conflicts between parents and children (e.g. conflict at home, conflict at school) 	<ul style="list-style-type: none"> ▪ Interactive role plays on the concept of being an parent and a child in a family, with fictive conflict scenarios and solutions.
<ul style="list-style-type: none"> ▪ <i>Know how</i> on the relation between the role of being a parent and the school system (e.g. parents duties to manage the childrens presence in school). 	<ul style="list-style-type: none"> ▪ Informative text-sections together with questions and to-answer choices on fictive scenarios (e.g. how to solve dilemmas at home and school).
<ul style="list-style-type: none"> ▪ <i>Know how</i> on how to meet and interact with other parents in the society (e.g. social events for parents). 	<ul style="list-style-type: none"> ▪ Link to different communities and forums for parents who wants to meet other parents.

Table 3: Outcome from the third workshop.

4.1.4 Summary of workshops

Three workshops were conducted for defining the concept of advanced learning modules together with their individual purpose. Each and every workshop resulted into gathered input through notes on post-it's, pictures and voice recording. Throughout the workshops, the participants got the chance to express their ideas and thoughts on the content of each module. The overall input were collected and organized together with the two fundamental questions on what the advanced learning modules shall provide the newomers with, and what the newcomers are going to face in the advanced learning modules.

A summary on the different outcomes can be summarized as following:

Workshop	Description
1	<ul style="list-style-type: none"> • A fundamental definition for the purpose of advanced learning modules were founded together with tutors and clerks from the municipality of Gothenburg. • Questions were formulated to find out what the advanced learning modules shall provide the newcomers with and also what the newcomers are going to face in the advanced learning modules.
2	<ul style="list-style-type: none"> • A definition on the purpose of the first advanced learning module was formulated by the tutors and clerks at the municipality of Gothenburg. • A central theme of interactive learning material about the Swedish labor market is intended to be incorporated in the module together with defined features that provides specific knowledge in Swedish civic orientation and the Swedish labor market (e.g. how to write a CV, how to apply for jobs, how to

	establish a network of contacts).
3	<ul style="list-style-type: none"> • A definition on the purpose of the second advanced learning module was formulated by the tutors and clerks at the municipality of Gothenburg. • A central theme of interactive learning material about the parenting role in Sweden is intended to be incorporated in the module together with features that provides specific knowledge in Swedish civic orientation and the aspect of being a parent in Sweden (e.g. what the swedish custom and laws are, what expertise the swedish social services provide citizens with).

Table 4: A summary from the workshops.

5 Results

The outcomes from workshops resulted into gathered requirements provided through dialogues, audio recorded material and direct input on post-it's from the workshop attendees. Combined with the literature studies, we identified some important implications for design of system features of the coming system (see section 3). These features are together with the ALM's mapped with inspiring literature and presented in sections 5.1 and 5.2.

5.1 The labor market

5.1.1 Feature: How to apply for a job

A system feature that provides the users with supporting functionality in writing and evaluating CV's through provided templates in the system. The feature shall incorporate and provide the users with *know how* and examples on the difference between "better" and "less better" written CV's. Furthermore, the feature shall also provide the users with digital learning environments in how to use their written CV's together with a job application letter before applying for a job in Sweden.

The feature can be defined as a praxis-based feature because of its learning-as-doing characteristic. An understanding for the concept of CV and job application can grow and shape throughout the process of using the feature.

Design implication: A text module about the role of a CV incl. examples of different kinds of CV:s. A movie describing how CV:s are used in job application. Exercises, where participants write their CV, which are evaluated by the teachers.

Literature: Bers (2008), Orlikowski (2000)

5.1.2 Feature: The relation between studies and work

A system feature that provides the users with descriptive *know how* on the relation between studies and work. The feature shall describe in a narrative way (e.g. videoclips) a general notion on how the results of studying can effect the possibilities to work with desired professions.

The feature shall incorporate descriptive learning material in a practical and comprehensive format, so that the users can obtain user-friendly information on the relation between studies and work.

Design implication: Movies describing how the human relations department discusses applications. Interview with HR-managers where they describe their view on studies and work

Literature: Fawcett et al., (2000)

5.1.3 Feature: How to establish goals

A system feature that provides the users with learning material through digital training environments on how to articulate and establish realistic goals (e.g. career goals). The feature shall also provide the users with links to different websites providing further information on how to process articulated goals.

Design implications: External links. Exercises where the participants formulate their goals. Comments on these from the teachers.

Literature: Bers (2008).

5.1.4 Feature: How to establish a network of contacts

A system feature that provides the users with instructions on why social media can be important when establishing a network of contacts and networking skills. The feature shall also provide the users with links to actual social media sites (e.g. LinkedIn, Facebook) so that the users can establish their skills in a representative environment.

The feature shall provide knowledge about networking and interacting with other peoples through social media, but also, why interacting with other people through online-communities can be important for further development of skills in establishing contacts.

Design implications: Teaching material from LinkedIn and Facebook. Demonstrations of configuration. Interview with people about the importance of having a good network.

Literature: Montgomery et al. (2004)

5.2 The parenting role

5.2.1 Feature: The Swedish customs and laws

A system feature that provides the users with descriptive learning material in what the Swedish customs are, and how the law operates in the society. The feature shall also provide the users with further information on normative values in raising children in Sweden, emphasizing on similarities and differences between parenting in Sweden and other countries (e.g. the newcomers native country). Furthermore, the feature shall incorporate links to social services website so that the users can learn more about the role of parenting in Sweden.

The feature shall provide the users with access to social services, information and tools to learn the Swedish customs and laws in the context of parenting.

Design implications: Texts about the Swedish laws, court cases, news paper reportage about law breaks.

Literature: Raynes-Goldie & Walker (2008)

5.2.2 Feature: The role of parenting

A system feature that provides the users with interactive learning material on how to handle conflicts between parents and children. The users shall be provided with interactive tools for role-playing (e.g. interactive animations) together with fictive scenarios that describes what a conflict could look like at home, or at school. Furthermore, a clarification on the relation between the role of parenting and the school system shall be incorporated and described, with links to different communities where parents meet and interact with each other.

The feature shall provide the users with necessary means in form of interactive tools and links to communities so that the users can interact and learn more about the role of parenting in Sweden.

Design implications: interactive tools for role-playing, movies with scenarios both with and without connection to school, interviews with teachers and Swedish parents

Literature: Bers (2008), Montgomery et al. (2004)

5.3 Overall design implications

The above presented system design implications are examples for further design. They should be presented to the design team and iteratively modified in true participative design mode. The features are also preliminary defined, meaning that the shape of their definitions may change during the process of enactment and use (Orlikowski, 2000). Therefore, we propose these features as being implications for design rather than defining them as being absolute in their nature.

The overall design principles must be, as was indicated before, easiness to change. It is the clerks and some of the tutors that will maintain the stuff, change the texts and providing new multimedia material. Since they are no computer experts, manipulation of the stuff must be very easy and intuitive. During the iterations we will gather information on how the clerks and teacher would like to work with the future system.

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

- content,
- design,
- communications,
- interaction,
- learner environment
- management.

So far we have talked about content and design and we have touched management. Remaining issues must however be resolved in coming projects.

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 approach in ordinary academic teaching is constructivist. However, this particular approach seems to be rather objectivistic, hence indicating that traditional academic teaching cannot be used.

Concerning the teacher interface, the situation is different. Here we must open for a constructivistic approach, since the teachers should manage the further development themselves. Dalsgaard (2006) discusses learning management system 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.

This points at a preliminary idea that no LMS should be used, however, this investigation is not part of the current project.

6 Conclusions

The small piece of work presented in this paper indicates that there are some central challenges and issues when designing a web-based education platform for Swedish civic orientation. A central aspect of our work dealt with the concept of advanced learning modules and distance education. Both aspects are meant to be incorporated in the future together with a system solution that provides necessary learning material through key-features. Finally, in future research, we hope to process our implications for design of system features together with developed tools and modules which incorporates the features in coming system solution.

At the moment, only minimal (close to none) actual research studies have been made in the intersection between Swedish civic orientation as phenomena, together with information systems and distance education. However, there exists ongoing work, and we hopefully will see even more, that will be presented in arenas where Swedish civic orientation and distance education correlates with each other.

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