

iCamp: a cross-cultural research approach for a cross-cultural learning design

Barbara Kieslinger, Sebastian Fiedler

Centre for Social Innovation

Austria

e-mail: kieslinger@zsi.at, fiedler@zsi.at

Abstract

Although the Internet offers worldwide data exchange possibilities e-learning experiences so far have been to a large extent carried out locally, regionally and nationally. The technical infrastructure available today holds a variety of means to support international collaboration. However, cross-cultural learning experiences spanning over national borders are still rather few. In this paper we will present the design approach that a European research group is following in a joint project on cross-national e-learning in higher education.

1. Introduction

One of the great innovations that have been brought forward by ICT (Information and Communication Technology) is the fact that physical location does not matter. You can access and share content from any part of the world. You can communicate and exchange ideas with people you do not meet physically. In the educational context this potential has been exploited mainly within the boundaries of national borders where e-learning environments have been implemented for regional and national settings in formal education. There are of course good reasons for this: participants often share the same educational system, a common language,

cultural background, and so forth. Formal education is a national concern that is driven by the political agenda of each country.

However, opening up virtual learning environments across national borders offers new opportunities for competence development and supports the process of harmonization that is on the political agenda for Europe's higher education. Overall, cross-national collaboration is only a natural step in a computer-networked world.

In the context of a European funded research project called iCamp [1] a group of researchers from 10 organizations across 9 countries (Austria, Slovenia, Spain, UK, Lithuania, Estonia, Poland, Turkey and the Czech Republic) is developing a set of interoperable tools – the iCamp building blocks - which serves the pedagogical concept of self-directed learning, collaboration and social networking in a cross-national context. This collaboration amongst students and facilitators from different countries is taking place in higher education, where we are dealing with adult learners.

The design and development process within iCamp has to be realized itself in a distributed way since the project team is scattered across Europe. As a research group we are facing some of the same challenges and opportunities as those that we are

anticipating for the participants of our learning experiments.

The research methodology that is driving the project is related to the methodological approach of design-based research [2], which stresses the interplay between theory, intervention, and empirical research. A cyclic process of design, enactment, analysis and redesign is a main characteristic of this methodology.

In iCamp we started with some theoretical and conceptual work. In parallel some first technical developments have started in order to resolve relevant interoperability issues that currently exist between different open-source e-learning systems and tools. At a very early stage the researchers have entered an active dialogue with the practitioners, as the project is putting a strong focus on validation trials in real-life settings. This dialogue has already revealed that we are facing a challenging context, with a lot of constraints at the different trial sites, which are located in culturally diverse countries.

In this paper we want to describe some of the guiding principles that the design approach of iCamp follows. As this paper describes work in progress it relies on interim results. The initial findings that we want to address here are mainly related to the internal collaboration process. We would like to give an overview of the challenges encountered so far and derive some implications for the design process of a portfolio of tools and services for technologically enhanced cross-national collaboration.

2. Guiding principles for the iCamp design approach

The research methodology that we follow in iCamp is closely related to the design-based research approach that started to emerge in the last decade as an attempt to bridge educational theory, design and practice

[2]. Compared to other lines of research that have been practiced in the field of education, the deliberate blending of theory-driven design of learning environments and interventions with empirical research has already shown some very promising results (see [3-6]).

Some of the basic characteristics of this approach are reflected in the iCamp research design: the cyclic interaction of design, trial and analysis, the collaborative partnership between researchers and practitioners as well as the authentic settings [2] for user trials. A simplified image of the design-process for the iCamp pedagogical model is depicted in Fig.1.

The conceptual work has been guided by an analysis of previous experiences and theories with a focus on constructivist approaches. User stories that were collected by various partners helped to shape a common understanding and joint vision. A tools and service survey has been conducted in order to give some insights into the current technological infrastructure in Europe's higher education institutions. In the preparatory work we also identified some promising tools, especially amongst social software applications, that may be implemented and refined for the iCamp building blocks.

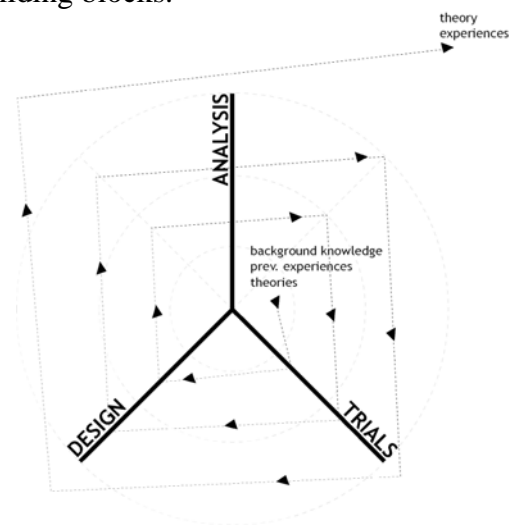


Fig.1: iCamp's cyclic and spiral design process

The empirical validation trials are a driving force and also a hindering one at the same time. In total the project plan foresees three trial phases, each taking place within the normal curriculum of various higher education institutions across Europe. Formal constraints such as accreditation, time schedules and curriculum are critical contextual factors that have to be taken into account. There is a risk that the whole validation setting fails due to one or a combination of these contextual constraints. Researchers and practitioners have to work closely together to limit the possible impact of these contextual constraints on the intended learning experiment.

From a pedagogical perspective, the attitudes and competences of the facilitators and student participants, as well as their willingness to collaborate with peers across Europe, are critical influence variables. Cultural differences and language problems seem to be equally important and need to be addressed, too.

3. iCamp collaboration setting

As mentioned above, the iCamp research team is an interdisciplinary mix of individuals working at different locations across Europe. The group itself can be considered a cross-national team that is working (and learning) in a distributed way. The main aim of this research group is to jointly execute the iCamp project and thus communication and collaboration has to be digitally mediated.

Digital media form part of our daily working environments. Synchronous and asynchronous means of communication are vital for an active collaboration process. Apart from e-mail, telephone, instant messaging and video-conferencing, a virtual collaborative information-sharing platform has become the core for our joint work. This

collaboration space called “iCamp Projectspace” combines features of weblogs, wikis, group calendaring, bookmarking, tagging, advanced search-technology, and so forth. The software has been developed by Permalink and is currently also being implemented in Austrian schools [7]. Fig 2. Depicts a screenshot of the member activity view of iCamp Projectspace.

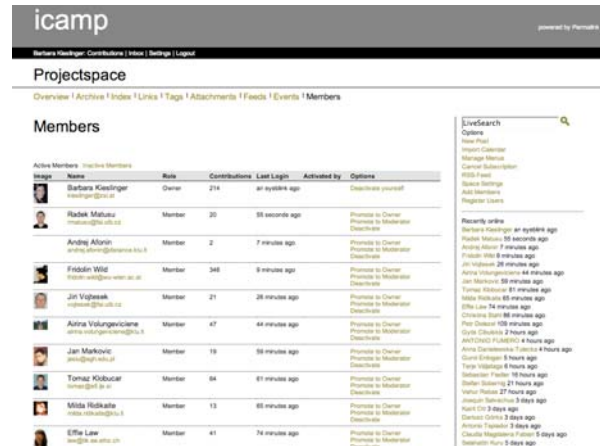


Fig.2: iCamp collaboration space

The iCamp research team has been working and “living” on this platform for eight months now (from November 2005 to June 2006) and the experience has been very positive so far. It allowed the team to experience the use of social software elements for real collaboration.

Some of the elements in this collaboration space, e.g. weblogs and wikis, will also be considered in the design for the personal learning environments provided for the facilitators and the students during the iCamp trials.

The dialogue with the facilitators, who do not form part of the core team in iCamp, has been conducted via face-to-face meetings and via flashmeeting [8], an easy-to-use video conferencing service. For a more intensive cooperation with these key performers in the trials we are planning to introduce them into the use of the iCamp Projectspace as well.

The students will be introduced to the collaboration tools during the first trial phase, which is scheduled to start in October 2006.

4. Collaboration experiences

4.1 Distributed working environment

As mentioned above, the distributed iCamp research team has been jointly working on the learning design for approximately eight months now. The efforts have been focused mainly on pedagogical and technical issues. Via self-observation and interviews within the peer group we have been able to derive some implications related to cross-cultural and digitally mediated collaboration. These implications might be of relevance also for the iCamp learning experience. In the following paragraphs we want to discuss some of the key aspects that determine successful cross-cultural, digitally mediated collaboration based on the iCamp experience.

First of all, the communication overhead in distributed settings is very high and thus requires a set of different communication means – synchronous and asynchronous – in order to account for the different communication practices of all participants.

In the beginning the battle for common semantics has to be fought. An agreement on terms and what they mean in the context of the joint project is highly recommendable. If this process is not concluded successfully participants will end up talking about different concepts when using the same word or using different words for the same semantic concept. This is not only a result of different linguistic backgrounds, but can also be very prominent when participants who are coming from different disciplines enter a collaboration project.

Interpersonal factors are also highly important for virtual collaboration. Online relationships are built on trust and confidence, similar to physical relationships. The digital

environments shall thus provide means for establishing a confident and familiar atmosphere. Visual material such as pictures and videos of the participants are important means for breaking the ice and making participants acquainted with each other.

The virtual environment shall ideally account also for the individual habits of the participants. People have different working and communication styles. It always takes a while until participants who do not meet physically feel comfortable to collaborate. The environment should thus offer alternative ways to find out about the others and to create a digital representation of self.

Finally, in a distributed digital environment it is highly recommendable to find out about infrastructure and system constraints in different countries before designing intervention strategies. In the case of iCamp we were, for example, surprised to find out that certain universities in Europe do not allow the use of instant messaging services on their campus.

4.2 Key questions for cross-cultural collaboration

Relying on these experiences and based on previous studies (e.g. [9]), we can derive some key questions for cross-cultural collaboration. These questions should be negotiated during the initial collaboration phase and should be settled at a very early stage:

- Do the participants have shared common values?
- Do the participants have shared common goals for a specific project?
- Do the participants have shared common knowledge?
- Does the group have an agreed structure of leadership?
- Does the group have an agreement on how to handle problems?

- Do the participants have confidence about the skills required for cross-national collaboration?

This is clearly not an exhaustive list of key questions for cross-cultural collaboration. It drafts a starting point and will be further extended and refined with the results from the iCamp validation trials.

4.3 Implications for the iCamp design

The experiences from the distributed working group as described under 4.1 were focusing on favorable aspects of the technology provided for collaboration. The key questions mentioned under 4.2 were targeted more towards interpersonal attitudes and behaviors. Both these aspects are influencing the design of iCamp.

With the iCamp building blocks we will provide a set of tools and services that can be combined according to the needs and preferences of particular users. A decision support tool will provide support in selecting the most appropriate tools. Different styles of interacting and communicating as well as personal preferences can thus be better addressed.

Regarding cross-cultural issues the iCamp team will work on ways for scaffolding competence advancement for interacting in heterogeneous groups. Intervention strategies that raise awareness of and create sensitivity for cultural differences will be included in the pedagogical design. The cyclic and spiral design process will help to fine-tune the approach based on the experiences with different user groups during the trial phases.

5. Conclusions

As already mentioned this research endeavor is currently work in progress and cannot rely on any final results or theories. However, the design process itself has already provided a number of insights into the

challenges of cross-national distributed environments. As researchers we have been following the principle of making use of our own tools and applying some of the concepts that we develop for the learning environment also for our own distributed working environment. This has been a fruitful experience so far as we are all learning every day a little bit or as Elliott Masie put it the other day, we are “nano-learners” [9], learning little things every day in conversations with experts.

6. Acknowledgements

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