

# User Group: Kaleidoscope

## Case Study: User as participant in research

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### 1. Introduction and relevance of case study: user as participant on research

This case study aims to highlight the **users' needs** linked to the Higher Education domain, based on real experiences and examples on what learning is for them and which is their involvement in the participation on ICT research and the adaptation to their needs.

Therefore, within the user's group, this report reflects the point of view of a specific typology of users: those having an *active role during the design, development and adaptation of new e-learning solutions* in Higher Education Contexts.

The final objective of this case study is to give **inputs** to the Kaleidoscope community so they can create bridges between academia and users. For that we will detect the **critical points** among those users and developers, in order to give recommendations useful for the Kaleidoscope community and researchers.

Findings are coming from cases within the traditional Higher educations, continuous professional development, as well as informal learning in an European scale. Contributions are focused in the structural elements but also in the social-cultural ones of the networked learning environments. In addition they are related to critical points in different areas: in the design of ICT and in the pedagogical approach itself.

## 2. Description of case study

This *user's as participant in research case study* tracks points of view identified from different case studies, as specified below:

**The Case: “Facilitator’s invisible expertise and supra-situational activities in a telelearning environment”.**

*Authors:* Ulf Hedestig and Victor Kaptelinin from the Department of Informatics at Umea University, Sweden.

*Issue:* A Study of a video-conference-based environment in decentralized education and factors determining the success of teaching and learning in this environment.

**The Case: “Towards a Networked Community of Learners and Carrers: The WebAutism Project”**

*Authors:* Rachel Pilkington and Karen Guldberg, School of Education, The University of Birmingham.

*Issue:* Post-experience professional training to non-traditional university students-parents, based on a blended course with online module activities supported by face-to-face workshops and online tutorials. Analysis of a sample of discussions to the progress and develop of adult training.

**The Case: “Sharing Thoughts in Computer Mediated Communication”.**

*Authors:* Lars-Erik Jonsson, Sylvi Vigmo, Louise Peterson, Annika Bergviken-Rensfeldt, IT-University, Department of Education, Gothenburg University, Sweden.

*Issue:* A Study to analyze students’ textual participation in asynchronous computer mediated communication.

**The Case: “Human Centered Informatics- The emergence of an educational infrastructure”.**

*Authors:* Tom Nyvang, Ann Bygholm, Aalborg University, Denmark

*Issue:* How to organize ICT implementation in Higher Education.

**The Case: “eLearning in Austrian Teacher Colleges”.**

*Authors:* Andrea Bernsteiner, Angelika Lehner-Wieternik. Department of Telecommunications, Information and Media, Donau University Krems, Austria.

*Issue:* Discuss of the implementation of one eLearning Course, focusing on evaluation, in the Teacher College Baden near Vienna.

The consultation of these cases has allowed us to identify problems and critical issues related to the following **key areas of interest**:

- **Context analysis** in networked environments as a key factor to get the desired results.
- **Content importance and structure** and ways of teaching through e-learning to promote students interactivity.
- Findings on **appropriate support actions** to **prevent obstacles** for collaboration in e-learning.
- Relationship between **ICT**, and the **pedagogical and ethical approaches**.
- **Connections** between Communities to share and learn their knowledge and experience.
- **Users** as the main actors to create **their customized spaces** and to make their own learning environment.

### 3. Interesting elements, highlights and conclusions

In general, findings show that there is a lack of innovative use of ICT for learning and educational research to follow up<sup>1</sup>. Furthermore, the research at international scale and the use of results at different contexts are difficult to find.

By selecting the cases described above, we are trying to **highlight** the critical issues and benefits for users participating in research, in an international scale and be useful for the Kaleidoscope members.

Key Critical points are:

- Infrastructure and institutions involved.
- The connections and collaborations needed.
- User awareness and needs and
- The ethical dimension.

The conclusions are showing some **general gaps and barriers detected that user's should take into account:**

#### **Infrastructure and institutions: External factors**

- Learning is a **social process**, so the social context of learning is crucial and users should consider that when participating and evaluating an e-learning research and development.
- The **context** is important for the implementation process, and users should use their knowledge to adapt the research according to the culture, existing ICT and division of labour internally in the organization.
- **IT and pedagogical design** should be focus on individual learning in a social setting.
- Permanent review and **adaptation of strategy** is a crucial factor for success, and users together with researchers should collaborate to adapt to new requests.

#### **Pedagogical issues**

- The importance of **supra-situational activities**, especially for avoiding collaboration breakdowns in emerging types of learning environments should be recognized by users together with developers.
- Teacher **knowledge and skills** should be considered and used for developing a successful solution and implementation.
- Investigate **how to teach knowledge** in network learning environments should be reconsidered in any research and development, by all actors, including users.

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<sup>1</sup> PLS Rambol Management 2004)

- **Prescription of shared rules** during the e-learning design and implementation, provide a medium-high level of interactivity. Thus, users should consider the best rules to apply during and after research.

### About content demand

- **Content structure** - when linked between the different learning tools (blended learning or ICT) - results in higher student participation and engagement. Thus, content should provide a high value in the research design and development.

### Support and collaboration

- Users should consider the need of the **expertise** of a facilitator, acting as a technician and expert, crucial to have a successful teacher-student and student-student interaction, during and after implementation.
- While it is checked the need of the **permanent position** of a facilitator, users should be aware of their important role, which is not always considered so important by users and managers.
- **Support and collaboration tools** (coaching, management, coordination and administration) are of high importance as most teachers are not frequent users of learning technologies.
- **Close collaboration and understanding** between users and researchers are needed to avoid design and implementation problems, even their goals are different and may enter in conflict. The final objective is to find a common language to be applied in the new area of research.

### ICT vs. Educational approach

- A strong **relationship** between the educational technology design and the need of continuity in educational activities is required.
- The need to have a **better understanding** on what implementation of ICT in a learning environment is and how it affects learning practices. Researchers and users must further investigate in this field.
- ICT not only have to be integrated in the organization but **support present learning practices**, and users should be the link between the research project and the current reality.
- **Integrating concepts** from different disciplines (IT and learning) involves a cost in terms of intellectual work, but is necessary so the concepts are integrated in the perspective of the new practices.

### Ethical issues

- **Emotional distance** and **discourse conflicts** in e-learning systems should be further analysed as risks of building up and effective e-learning system. Users have a more practical and real perspective on this issue and should give their feedback.

### **Conclusions:**

There are projects in the Higher Education sector in which the users are asked to participate in the design from the very first steps of the project development / implementation. Although this approach seems to show positive results, there are some barriers to the execution.

**Main conclusions** confirm the importance of user's involvement during research but keeping in mind specific difficulties and breakdowns that already occurred in some of the cases analysed:

- **Successful e-learning environments are customized solutions.** Adapted solutions can only be achieved with user participation. Users are providing researchers with a value feedback about the real context needs. At the same time, users benefit as they get a customized solution, they feel involved and motivated in.
- **Content and course structure** influence in a great extent the interactivity of final students. Users should intervene and readapt the research design and strategy according to their pedagogical knowledge.
- Users –mainly those that usually do not work in an IT environment- need **assistance** to understand the e-learning network potential, its functioning and potential. The role of the facilitator, a technician that is giving support in all the areas to the users, is highly important to cover the gap between researchers and users.
- A **common language** between ICT and pedagogical actors should be established at early stage, for effective and easy collaboration between users and researchers.
- e-learning is an Individual learning in a social setting, so **social and ethical issues** should be considered during the design and implementation of any e-learning solution within Higher Education. While researchers are taking into account more theoretical results, users would have an active role to redefine assumptions according to last trends.

At this stage, we can conclude saying that an effective learning model should be applied according to the Higher Education needs, jointing the results through the active participation of users in research.