Emerging Research Topics in the Area of Digital Cultures

Summary
This paper highlights the further prospects of media-based learning; in particular the affordance of web-based communities intending mutual learning and personal development. The core of the paper presentation is about the MICC "Migration, Identity, Culture and Communication" project in which multicultural meetings between visitors and their ethnic homeland are facilitated with both virtual real artistic environments. As extrapolations of these study objects a more visionary exposition will be given on the longer-term effects of so-called concept-oriented communities for sustainable understanding and emotional attachment. The role of 'Digital Communities' will be taken into account.

Preliminary Interests

Digital Communities
Via telecommunication in combination with computers new types of communities and cultures may arise. Subsequently new fields of interest arise like: What are the most fascinating problems around digital communities?

1. ‘How’ and ‘why’ / ‘why not’ the intelligence at an individual level adds up to intelligence at a collective level?

   It seems that media are going to play an ever more crucial role in the evolution of global learning. Salomon and Perkins have expressed one of the more articulated notions about 'shared knowledge' as they introduced “Distributed
Cognition”: Human expertise can increasingly be found between rather than in the individuals. The research agenda here should aim at identifying communication and transaction tools that promote and facilitate mental synergy during learning, gaming and job performance.

2. How can media play an ever more meaningful role in the transition from information into knowledge and the quality of life?

In other words: How can media intensify the mutual stimulant between media and the human mind. Media so far have taken a number of roles like transferring and processing information. Now it seems that multi-modality, continuous virtual realities and the amazing number of connections between situations all over the world become mental tools to assist us in the generation, selection and implementation of new and exploitable ideas.

3. Are media taking an ever more dominant position in our perception, apprehension and social awareness?

Human consciousness seems to be a mental epiphenomenon rather than the control room of our ego. Not only subliminal perception but also the well-arranged broadcasting scenarios make citizens ever more vulnerable to political and sociographic priorities.

4. What is the changing role of spatial imagination during the use of the WWW?

The awareness of “space” is changing; Transport has made the world “smaller”. The personal communication between Internet users makes the personal space bigger.

**Epitome**

Though traditionally recognized social psychological mechanisms may continue, the media landscape will gradually elicit new elements in the ways people interact, negotiate, learn and develop themselves.

**Media for Communication, Collaboration and Co-operative Learning**

1. **Human Communication** will gradually shift from face-to-face into CMC (Computer Mediated Communication).
   - Synchronous Communication via chatting, web-phone and video conferencing (PictureTel, CU-SeeMe, Netmeeting etc).
   - Asynchronous Communication via Email, Electronic Conferencing Systems (First Class), Shared Workspace (BSCW) accompanied by the new possibilities to work simultaneously at one task, share documents and collaborative decision making.

   The general research outcome at this moment is that the CMC does not only bridge distances in time and space; it also breaks down the barriers to join
discussions in the sense that persons will more easily express their opinions, even if they have a minority opinion. (V.S. Rao & S.L. Jarvenpaa, 1991). Several research studies have shown that in CMC participants appear to have a more equal participation compared to face-to-face settings. (McGuire e.a., 1987; Siegel e.a., 1986; Weisband, 1992). Not only logistic but also social barriers to actively participate in discussions seem to be reduced, as participants feel more or less anonymous and less committed to their formal role and setting; (McLeod, Baron, Marti, Yoon, 1996).

At the same time however some of the research reports that CMC sessions show a lower impact of the argumentation compared to the face-to-face condition.

Research seems to be necessary to clarify the social, emotional and cognitive mechanisms that play a crucial role during mediated communication, in order to improve and complete redesign the current generation of CMC systems.

2. The **trigger of telematic applications** to launch and further sustain new dynamics in to-morrow's society: Globalization, free-market mechanisms, 24-hour economy, heterarchical rather than hierarchical relations, ideological pluriformity, social constructivism and an inherent need for innovation. They all need a highly integrated infrastructure. Interconnectivity rather than Transport has become the priority in order to cope with these inherent evolution and 21st century ambitions.

3. **Electronic Conferences via the WWW** are becoming more popular. They have the prospect of allowing workers to join knowledge communities without being withdrawn from their work settings for days. Better facilities to easily synchronize the attention and commitment of its members are needed. Also the role of the moderator is in question. Preliminary practices have shown that sharing these virtual meetings need a strong content expertise, rather than the more social charisma that is needed in face-to-face conditions.

4. **Designing new Media Facilities** is likely to become a more artistic and creative issue instead of the more systematic and deductive approach that has dominated the world of information technology so far. Methods like "Concept Engineering" and "Method Engineering" need to be further developed and researched for strength/weakness in certain types of media projects. Opportune elements for improving media design are:
   - User-oriented design (making use of ethnographic analyses)
   - The careful selection of metaphors
   - Optimizing prototypes for the affordance; the way systems elicit a spontaneous attitude and task approach from the user
   - The further integration of 3D elements in the user interface in order to promote a full immersion and intuitive control by the user
   - Concurrent design approaches in order to include notions about the final integration in real settings, already in the beginning of the design process
5. **Learning Together at a Distance** is a vital mechanism both for de-schooling society and the need for learning organizations as well. Though there is a well-organized body of knowledge on how and when peer students can help each other at different stages of learning and maturation; it is not that clear how mutual learning can be supported in job settings and among organizations. It seems that the processes of persuasion and the consolidation of appreciation, conception and understanding have not sufficiently been captured in CMC (Computer-Mediated Communication) and EPSS (Electronic Performance Support Systems) nowadays. As it comes to persuasion and mental synergy, the use of adequate rhetoric, body language and dedicated symbol systems, need to be explored further. Current research is going on in respect to "Narrative Identity and non-linear media", and "The Role of Video Conferencing in Ethics and Normative Education."

6. The role of **New Media in 'Virtual Cultures'** in globalization and ICT (Information and Communication Technologies) in particular parts of the world like for instance Africa, China or the Middle East. In my role as ambassador of new educational media I worked in several of these areas and perceived that media go beyond their role as instruments; in fact they have impact in social mobility, new democratic practices and the emancipation of the elderly, the youngsters, women and the disabled.

7. **Gender Effects in the Conceptualization, Design and Dissemination of Technology**; (especially in regard to new media.) It is highly typical that the technology for housekeeping, shopping, body care etc. are often ignored as areas for technology awareness; It seems that the further propagation and integration of ICT is hampered by the image that it has to do with highly specialized, mysterious and industrial activities, and typically prospers by a so-called 'nerd' and/or macho attitude. The further building and facilitation and dissemination of digital cultures will benefit from an explicit awareness of these gender effects.