

A new Life to rethink Design for Technology Enhanced Learning (Tutorial)

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Abstract

In a historic moment like this in which the learning technologies are challenged by both the social transformations and the need to rethink the pedagogical approach to the TEL processes, this tutorial is intended to introduce the audience to the new possibilities offered by a novel open-source and multilingual environment, LIFE (Learning in an Interactive Framework to Experience) - <http://life.mifav.uniroma2.it> - whose design has been inspired by:

- the need to overcome the old-style Virtual Learning Environments in favor of more social oriented and open Virtual Learning Places (VLP)
- the need for more empathic and personalizable VLP
- the need for more design oriented and flexible learning processes

After a quick review of the design principles, the speakers, with the aid of selected best practices, will illustrate the tools that allow

- a) to design collaborative learning processes inspired to the principle of the "organic process" and of the "person in place centered design"
- b) to personalize the experience and, in particular, to compose a personal space (MyLife) that can be enriched with the outcomes of the collective learning experiences and whose content is exportable and usable as e-portfolio

A description of i) the management's tools; ii) the integrated website editor; iii) of the guidelines for Life's developers will complete the tutorial.

1. Full Description and Method of Presentation

The introductory part of the tutorial will be devoted to recall the open debate that opposes the old Virtual Learning Environment to the recently proposed Personal Learning Environment. The critical discussion of both will introduce to the need for the development of a third class of environments for TEL: the Virtual Learning Places, to which belongs LIFE.

It will be shown that LIFE, due to the tools that have been developed and since it can be considered a "place":

- is able to encourage the making up of a learning community; not withdrawn but open to other communities, and more in general to social networking;
- is flexible enough to allow for the development of an high level of empathy with the user and his psychological, physical and mental status (thanks also to graphic and interaction choices);
- allow all the users to develop and organize a personal space to built up her/his own digital self and to write her/his own personal history that, if needed, can be exported also as an e-portfolio;



The second part of the tutorial will focus on the need for new and more flexible educational processes, design inspired. The illustration of the principles of the "person in place centered design" will lead to discuss examples of P³BL (problem-problem-project based learning) process that inspired the developments of other Life's tools like the Co-design lab.

The third part of the tutorial will be devoted to examine more closely LIFE from a technological point of view: the Life's modular architecture (LIFE is made of a "core" and a group of independent modules that can be treated as add-ons of the core) and the database model, the LIFE's Configuration module and the management system of the course instances.

An extensive and descriptive documentation, as well as an updated LIFE environment release, will be given out to the presents in electronic edition.

2. Objectives and Intended Audience

The first objective of the tutorial is to illustrate a transferable experience on the design and development of learning technologies and learning processes inspired by the design's principles.

The second objective is to illustrate the characteristics and the functionalities of the open-source technological framework that make such an experience transferable: LIFE

The tutorial is intended for all those that are interested in the interplay among pedagogy, design of learning processes and learning technologies; in particular it should attract people that are looking for novel and flexible environments (virtual places) that can be easily adapted to host learning processes inspired by the principles of the experience-design, and more in general of the design.

Moreover it should be of interest also for all those tools developers that are looking for an innovative and hospitable open-source virtual educational place, that can be used as a reliable frame into which integrate their own productions.

More in general the tutorial is intended for very brilliant and receptive users ready to evaluate best practices that could be integrated within their own framework.

LIFE, in fact, is, at the same time, both an environment that allows to perform innovative research and an open source environment for production.

3. Expected Outcomes for Attendees

The expected outcomes for the attendances are the following:

a) a stimulus to challenge the uncritical development of learning technologies and environments, detached from pedagogical considerations, contextualization and person centered design

b) the knowledge of transferable methodologies and guidelines to be applied in design inspired educational processes

c) the possibility to be acquainted with the design principle, the architecture, the data model, the tools

and the development guide lines of the LIFE environment

4. Brief biography of main presenter

Carlo Giovannella, graduated in physics, is now a recognized expert in Technology Enhanced Learning (TEL) and Interaction Design.

He is the leader of the ISIM_garage, a lab devoted to: a) the design and development of virtual and physical environments for the TEL and future classrooms; b) the design and development of multimodal interface for a more natural interaction; c) the test of the people behavior (cognitive and emotional + eye-tracking)

He is the designer and the leader of the project LIFE (Learning in an Interactive Framework to Experience) open-source environment whose first release was on 21st of May 2008 (<http://life.mifav.uniroma2.it>).

He has been Instructional designer and didactic coordinator) of many masters, honored masters and degrees, among them: honored master in New Media and Communication (1996-1998), honored Master in Photographic Languages (1998-2000), bachelor degree in Media Science and Technology (1996-2001), honored Master in Advanced Technologies of Interactive Communication (2003-2005), on-line honored Master in E-learning: methods, technologies and applications (2004 to now), on-line Master degree in Theory and design of New Media (2009).

He teaches "Theory and Technique of Photographic Languages", "General Physics", and "Multimodal Interfaces and Systems" within the bachelor degree course in MST. He has also taught Basics of Online Publication. Within the Masters' framework he teaches "Interaction Design", "Methods of object-oriented design and representation, and design processes", "Design for TEL".

Member of the scientific committee and of the referee panels of several International conferences; among them: Interact, ICALT, HCIED, Crea, CHIItaly, etc... It has been also vice-director of the e-learning Journal JeLKS. He works also as a consultant for the planning of communication projects and the design of innovative systems for mediated communication.

Since 1996 he is also the trustee of the MIFAV (Museum of Photography and Visual Arts) and scientific director of many cultural events; among them Interfacce (2001-2006)