

# Exploratory research on the advantages and drawbacks experienced by university management students in an « e-learning » environment.

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## Context

The study reported in this paper was undertaken in 2004 by the AWT (Agence Wallonne des Télécommunications – “Walloon Agency for Telecommunications”<sup>1</sup>) and the CVG (Campus Virtuel en Gestion – “Virtual Management Campus” a consortium of 3 Belgian Universities (ULB-Solvay, Brussels; UCL-IAG, Louvain-la-Neuve and ULG-HEC, Liège)<sup>2</sup>. The study empirically explored the e-learning environment within business schools.

## Questions and methodologies

**PREAMBLE** - *E-learning covers quite different realities! Throughout this research we refer to “e-learning” as defined by Rosenberg<sup>3</sup> i.e. quite a vast concept including “the use of Internet-based technologies making it possible to access a large portfolio of solutions whose objective is the acquisition of knowledge and competences”*

This paper discusses two main questions:

**Q 1 - “what are the setbacks experienced by university management students in front of e-learning courses?”**

First, it concentrated on determining the **main setbacks and risks** among all the actors in the learning process (professors, assistants, students and supporting IT departments) from the triple perspective: technological, pedagogical and human. This qualitative study took the form of face-to-face interviews as well as focus groups whose objectives were to discover the actors’ beliefs and attitudes towards e-learning. It was completed by a quantitative research on the evaluation of specific e-learning courses. Internet questionnaires have been collected to assess the students experience within e-learning courses in the master programs of the 3 universities. The next step consisted in identifying the **specific setbacks and risks** viewed by management students (both undergraduate and graduate) towards an “online test” of a real e-learning case study - the “e-business guide” (<http://guide.awt.be>) designed by the AWT. This research had three main purposes:

- to assess the user’s experience of this e-business guide in terms of advantages and disadvantages in the learning process
- to analyze its efficiency
- and to generate basic recommendations for future e-learning deployment.

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<sup>1</sup> <http://www.awt.be/index.aspx>

<sup>2</sup> \***CVG** : **C**ampus **V**irtuel en **G**estion [www.campusvirtuel.be](http://www.campusvirtuel.be) is a pilot project lead by HEC (Management School of the University of Liege, ULG <http://www.hec.ulg.ac.be>) in partnership with Solvay (Business School of the University of Brussels, ULB <http://www.solvay.edu/>) and IAG (Business School of the University of Louvain-la-Neuve, UCL <http://www.iag.ucl.ac.be/>). In this project, the partners want to play a role in the development of training methodologies using NTIC.

<sup>3</sup> Rosenberg, « E-Learning: Strategies for Delivering Knowledge in the Digital Age », McGraw-Hill,2001

The elements that were taken into account in evaluating the e-learning course were mainly linked to the following items:

- **Objectives** (well identified, understood and adapted to the learners' needs and expectations ? Elements of satisfaction and dissatisfaction ?)
- **Target audience** (adequacy of the target to the identified objectives)
- **Content**
  - understanding, utility, structure, language and detail level
  - adapted bibliography, additional sources of information and technical glossary
  - interactivity in the learning process (relevance of illustrations, schemes and diagrams)
- **Pedagogical strategy**
  - Varied and adapted (cognitive overload, logical learning units)
  - Individualized and adapted to the learner's rhythm
  - Efficiency of the tools to maintain the motivation and interest
- **Interactivity, Navigation, Graphism**

## Q 2 - "what is the e-learning landscape in management within universities?"

The main objective was to identify the best practices and make recommendations for future developments. The first objective was to collect as much information as possible on e-learning in universities and long life learning. Then some e-learning experiences in European universities particularly in the management discipline have been pointed out and analyzed.

## CONCLUSIONS

Globally speaking, this research comforted the idea that the success of e-learning deployment has a number of critical components. This study allowed us to identify and describe different e-learning experiences within 3 Belgian business schools which portrayed the complex nature of the e-learning environment.

In the business schools education , institutional e-learning adoption is still low and in the early development stage. Nonetheless, the four targets that have been interviewed (professors, scientific teams, students and institutions) share similar views.

The main perceived **advantages** are:

- ✓ a greater learning individualisation (modular content);
- ✓ increased interactions in time and space between all actors (geographically distant experts) and less formal exchanges;
- ✓ increased auto-evaluation within or after the learning process;
- ✓ acquisition of soft skills whatever the topic is (autonomy, initiative, responsibility, grasping of the new media ...);
- ✓ varied learning methodologies due to the rich and interactive media (possibility to access varied sources, more flexible and homogeneous course administration).

On the other hand, e-learning represents several **risks** that need to be carefully considered from the pedagogical perspective (such as the learner's isolation – less contacts with the pedagogical team-, decrease in motivation, cognitive overload for students, work overload for professors (with no recognition in the academic career) who have to conceive and update after each experience, unbalanced ratio added value/time...), the human perspective (huge coaching infrastructure to provide constant feedback to the learners, difficulty to share the professor's charisma...) and institutional

perspective (financial costs in infrastructure, return on investment, necessity of creating teams mixing content and graphics experts, need for institution collaborations,...). Finally they agree on the fact that e-learning is not to be considered during the total curriculum of students and probably less in the bachelor than in the master or post-graduate programs.

The main setbacks is the **cultural resistance to change** from all actors : professors still consider e-learning as an overload of work preventing them from dedicating to publications, assistants also committed to their thesis and having to spend more time in tutoring, students mainly educated in class sessions and not ready to spend time online rather than with their social environment and institutions with a long "verbal" tradition rather than today's "image/communication" culture).

Another significant setback is **pedagogical**: e-learning implies revisiting each content, adapting it to the learner's environment and transforming professors from "knowledge transmitters" to "knowledge coaches". Besides, the individualisation of the learning process can lead to an isolated feeling from the learner's side which can lead to a decrease in motivation when facing a problem.

Last but not least, there is a financial barrier for the institutions that lack either the necessary infrastructures or resources to support e-learning projects.

The research at this stage provided some indicative factors for successful e-learning courses:

- ✓ adaptation to the targeted learner (the content and design will definitely vary whether it is graduate or undergraduate, business or universities, level of mastering of the topic (beginners, expert),...
- ✓ adaptation to the learner's environment (individualisation of the content)
- ✓ necessity for coaching (preference for "blended learning")
- ✓ tools to maintain and increase the learner's motivation (technically through auto-evaluation, exercises, ... but also through collaborative work)
- ✓ tools that enable to materialize the teaching ("real life" case studies, testimonials,...)
- ✓ tools that stimulate creativity (simple and short, enabling to transfer the knowledge to other fields,...)
- ✓ proper e-learning pedagogy: not just a simple transfer of an "off line" course content, modularity, management of the learner's rhythm avoiding linear progress,...
- ✓ use of the richness of the media (audio, video, graphics, online glossaries, library resources, online help,...)

The full text of the report can be viewed (only in French) and downloaded in PDF format from the following website:

<http://www.awt.be/web/edu/index.aspx?page=edu,fr,400,000,000>

The research is now being completed by a new test of the adapted version of the "e-business guide" and a thorough analysis of the best practices in management.

## Relevant websites and readings

- portail européen de l'e-learning -WHAT IS E-LEARNING? - <http://www.elearningeuropa.info>
- AFNOR (Association Française de NORmalisation), « Référentiel de bonnes pratiques », ouvrage collectif, avril 2004.
- Anja BALANSKAT, « Aperçu des politiques en matière d'e-learning : 18 rapports Insight », European Schoolnet News, 2003.

- Christian DEPOVER, Bruno DE LIEVRE, Fabienne WINCKEL, Marc ROMAINVILLE, Amaury DAELE, Emmanuelle LIBON, « L'enseignement à distance en mutation : diagnostic et perspectives en Communauté Française de Belgique », travail de recherche, 2004.
- Fabienne FONTAINE, « Intégration des Technologies de l'Information et de la Communication pour l'Education à HEC », note interne HEC, 2003.
- Keld HVAM, « e-learning », Associate Dean at the IBA, Danemark. Michel KALIKA, « Le e-learning et la formation continue au Management », étude présentée lors des XIVème Journées Nationales de l'Enseignement en Gestion, FNEGE, 2001.
- Nadia KHAMLICHI, « e-learning : concept et perspectives », mémoire présenté en vue de l'obtention du grade d'ingénieur de gestion, année académique 2001–2002.
- Rod McCOLL and Bill CALLAGHAN, « Lesson in On-line Learning – The experience of an Australian University with two Marketing courses », NIBS International Seminar, 2000
- Société de conseil danoise Ramboll Management, “ Virtual Models of European Universities”, étude réalisée pour la DG Education et Culture.