

ENJOY: guidelines for designing engaging eLearning environments

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ABSTRACT

This case study proposes a new methodology, a set of guidelines that are necessary to design motivating and engaging e-learning environments. With the focus having been on the design of motivating and engaging e-learning tasks and processes, very little has been done to understand the impact of the e-learning environment, known as the virtual campus, in the students' learning experience. This paper illustrates how this methodology can help designers, faculty and learning designers and technologists ensure that the users' overall experience in a virtual learning environment is both engaging and motivating and therefore contribute to the ultimate goal, to learn and be motivated to learn.

INTRODUCTION

Students' engagement and motivation is an area extensively researched in the learning technology and overall educational sector. Both Susan E. Metros and John G. Hedberg [3] have greatly contributed to the field with their studies on e-learning task and interface design to enhance engagement and motivation. But most of the work done in the area focuses on the study tasks and very little on how the overall online learning experience. In this paper, we present a methodology for designing elearning environments that go beyond the study needs and into the students' personal needs and feelings, with the goal to improve their overall e-learning experience.

Just as the external environment beyond the classroom influences the student in a traditional learning environment, the online environment is also a source of motivation and engagement for online students. Elements such as the school's campus and social activities, the sight of students studying and the surroundings, are factors that also have a direct influence on the students' life, engagement and motivation to learn. Therefore, students' interaction with their learning environment goes well beyond their day to day learning tasks and interactions, and into their social and aspirational needs.

In his latest book, Henry Jenkins mentions the importance of understanding the subcultures of the students if we wish to understand them, as these have a great influence in their educational experience [2]. As we learn about their subcultures, we confirm that the learning experience is intertwined with their lives, and that considering them as separate entities only frustrates and causes inconveniences to the students. The approach we here present takes into account the students' personal attitudes and behaviours and incorporates these into the design process of the institution's virtual campus.

This project presents a methodology to help design engaging and motivating online learning environments for these e-learners.

OUR TECHNIQUE

We conducted a significant amount of user analysis which provided us with the key factors that seemed to be affecting students learning experience and behaviour. In summary, e-learners are between 24 and 50 years old on average, often hold a previous degree, have jobs, a family, are usually tired, have little leisure time are concerned about their health, their personal lives and have a strong need to feel as part of the educational community they have joined. These are just some of the key aspects that are affecting our e-learners and which cannot be omitted when designing an online learning experience.

In our study we were not concerned about designing engaging pedagogical learning tasks, a key aspect in educational institutions which are currently focusing in the use of multimedia and games, edutainment, for increasing the engagement of the learning process [5]. In our study we wanted to focus on the other aspects of the learning environment: the homepage, the community tools, the structure, design, functionalities and other elements of the virtual campus that could, if designed properly, motivate and engage the student.

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Focus groups and interviews were used to gather subjective qualitative data, and user evaluation tests using Morae [4] were used to gather quantitative data that would help us ensure that the designs were actually working for these users.

The ENJOY guidelines have been generated from the information gathered from the user analysis, and the information gathered from stakeholders such as the institution. The key aspects identified during the data gathering have been translated into design guidelines, in a way that those participating in the design of a virtual campus would understand what the key elements are not to be omitted. The ENJOY guidelines are meant to be used in conjunction with the other user centered design (UCD) methodologies carried out to design virtual campuses [1]. As UCD methodologies always ensure the efficiency, efficacy and satisfaction at a very functional basic level, the ENJOY methodology aims at supplying an emotional layer, to increase satisfaction.

The following are 12 easy-to-follow guidelines for designers, developers, learning technologists and others participating in the e-learning design process:

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1. **Personalization** – the environment must make the student feel like a person and not like a user. Use of communication strategies that are more personal, common language and options for this person to participate in this environment.
2. **Identity** – utilizing real images to help the student identify him/herself with the values and the community in a quicker and more efficient way.
3. **Brand** – ensuring that the brand and the brand values are reflected throughout the virtual environment to reinforce the relationship between the student and the institution.
4. **Community** – offering options to communicate, relate and participate. Making them visible and easily accessible.
5. **Surprise** – introducing positive surprise elements or special events in the initial entry pages or in strategic locations to make the students feel that they are part of a creative and dynamic community.
6. **Innovation** – integrating innovating elements in the virtual environment, those that they may begin hearing or reading about in the media and other trend environments.
7. **Zen** – ensuring that there is not an overload of text in the screen, that white spaces are used, as well as photographic or graphic elements. Need to avoid unnecessary noise.
8. **Search** – providing shortcuts to students that have little time, ensuring that they can find the information they need by doing a simple search.
9. **Clarity** – utilizing lively and bright colors to facilitate interaction, reading and information visualization.
10. **Situation** – ensuring that the student quickly recognizes the structure or map of the environment in a glimpse, without needing to scroll.
11. **Aesthetics** – ensuring a consistent aesthetic throughout, to help guide the student through his or her tasks and objectives.
12. **Recognition** – utilizing standard icons and symbols that can be easily and quickly understood without requiring the alternative text or an extra click to understand it.

RESULTS

The ENJOY guidelines were used in two different projects during their pilot phases. In both cases, user centered design methodologies were used: information and requirements gathered during the initial phase, and low fidelity prototypes developed. In both these projects, when the users participated in the evaluation of the low fidelity prototypes, they agreed that the pilot reflected their needs but did not feel as these were engaging. Users could express clearly the difference between an environment that works and it's OK and of one that is engaging and motivating. Applying these guidelines helped improved the prototypes significantly.

In a second evaluation phase the prototypes were revised using the ENJOY guidelines. Five user experience specialists independently evaluated the prototypes utilizing the guidelines, and the results were then evaluated in conjunction. All specialists agreed that the guidelines allowed them to add significant value to the original proposal.

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A revised prototype was then brought to different groups of students and potential students to be evaluated. All participants expressed a higher satisfaction than in the previous evaluation and related the benefits to their lifestyle, aside from their specific learning objectives and tasks. That these second round of prototypes were more engaging and motivating to the users than the previous ones.

Our results show that this easy-to-implement methodology can contribute to increasing the motivation of the students and other users of an online learning environment.

The ENJOY guidelines are a work-in-progress, continue to be evaluated in other projects and are expected to grow and be revised accordingly. We look forward to presenting the results in the very near future.

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