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Virtual Learning Environment: what it is and how to make it effective

The importance of creating an effective VLE in e-learning training. All the characteristics of the virtual learning environment.

New technologies are increasingly increasing the use of virtual mechanisms for socialising, learning and teaching. As a result, many activities that were previously only carried out in the presence are now practised remotely or are supported by digital tools. Among other aspects of daily life, education has also evolved and expanded, moving out of classrooms and physical workplaces and into virtual platforms. Thus, e-learning has become a widespread and effective mode of learning. What's more, traditional education has also been equipped with new tools, useful for an ever-growing generation of digital natives, so that online tools can be placed alongside face-to-face lessons. And to enable the transmission of knowledge and digital tools, it became necessary to create a virtual learning environment: this is the **Virtual Learning Environment**, the VLE.

What is the Virtual Learning Environment?

The term Virtual Learning Environment is literally translated into Italian as virtual learning environment. The VLE, in fact, is a **virtual space where teachers and students transmit and assimilate knowledge** at a distance. It is a web-based platform where a set of **digital tools** designed to complement traditional training or to help a student improve his or her learning are available.

Typically, a Virtual Learning Environment makes it possible for users to interact remotely, to consult learning content online, to obtain course information and perform secretarial tasks, to share learning materials with other users and to assess their own progress online. Not only that. In fact, a VLE may contain course syllabuses, payment and enrolment information, some learning content (or the whole course if it can be done entirely online), self-assessment tests, chats to communicate with other users, links to external sources and interactive lessons.

Often, a VLE is linked to a particular educational institution and, in this case, the available resources will be based on the needs of the students and teachers attending that particular school. Other virtual learning environments, on the other hand, are created with the aim of making content accessible to any learner, who can purchase the online course without being enrolled in a specific institution and begin their education via the Web.

The creation of these platforms brings with it several advantages for the student, who can find teaching resources, course information and interact with other students remotely. The VLE can also be very useful for students who need support during individual study, as it allows them to access diagrams, maps and multimedia materials in addition to those they already have. In addition, the Virtual Learning Environment also allows those who cannot travel to a physical location to follow courses at a distance. These are, in general, the typical **advantages of e-learning**.

VLE characteristics

Although each VLE is different from the other in specifics, virtual learning environments can be identified by certain common characteristics that distinguish them. A **study on VLEs** emphasises that a platform can be defined as a virtual learning environment if:

- It is a designed **information space**, with content stored in the platform's databases and produced by different authors. In order to create an effective information space, it is good to indicate sources, to allow the sharing of materials and content and to follow the technical evolution, so that the VLE is always up-to-date.
- It is a **social space**. The importance of educational interactions is at the heart of teaching and learning: therefore, a set of web pages and digital materials do not constitute a VLE unless there is social interaction about the information shared.

The social space can be created either synchronously or asynchronously: the important thing is that there is interaction.

- It is explicitly represented in various ways, from the use of text to 3D immersive worlds.
- Within it, **students** are not only active but also actors, i.e. they constitute the virtual space together with the content. In this way, users are not only called upon to receive information from the Web, but **become producers of information themselves**, taking an active role in learning and putting themselves at stake, since the product of their knowledge could potentially be seen or read by anyone.
- It is not limited to distance learning, but can **include non-computer-based activities** such as face-to-face discussions, workshops or educational outings. In this way, virtual learning will be enriched with classroom lectures or practical and laboratory activities that students can carry out in a more traditional way.
- It **integrates different technologies**, which are able to exchange data structures with each other, creating links to support all student needs and provide multiple pedagogical approaches.
- It often **overlaps with physical environments**. VLEs, therefore, are not only able to complement traditional learning and classroom instruction with a range of digital media, but can also provide all the physical tools typical of face-to-face classrooms.

How to create an effective VLE

With time and the evolution of technologies, the Virtual Learning Environment has also been transformed. In addition to the possibility of computer-based access, applications have been developed that can be used from smartphones, allowing users to access the VLE from anywhere and at any time. The structure of the lessons has also been enriched, moving from the presence of simple multimedia material to the possibility of holding virtual classes, chatting with other users or professors and playing virtual games that simulate real-life situations.

Despite the presence of many common elements, however, virtual learning environments are not all the same. Their structure depends, in fact, on the needs of the school or university to which the platform is linked. There are, however, seven steps to follow in order to create an effective VLE:

1. Make it easily **accessible** by organising the material in the virtual environment in the best possible way, so that it is easy for the user to find the content he or she is interested in. A range of different types of content can be included in a VLE, from text material in PDF format to videos, audio files and presentations. Given the quantity, it is a good idea to organise the content in a logical way, perhaps grouping it by topic or by the category to which students or professors may have access, so that the student does not get lost in the VLE network.
2. **Make the learning experience customisable**, allowing the student to form their own curriculum and choose the best path for their needs. In addition, a good way to personalise the student's learning is to include in the virtual environment the possibility of adding information about the student's assessment and needs, so that you can provide useful suggestions to the user for creating their own pathway.
3. **Involve the student** even when he/she is not physically present in the classroom or in individual study moments. The self-assessment tests and multimedia tools available in Virtual Environment Learning can motivate the student to learn. Teachers can create ad hoc content for their students and make additional study resources available online, accessible and interactive.
4. Use the Virtual Learning Environment as a **communication tool**, making messaging systems available within it, such as a chat, forum or shared sheets, to allow students to communicate with each other and with their teachers. This allows information and content to be shared effectively, as it gives the possibility of interaction in case of need or learning difficulties. For a VLE to be effective, it is important that all actors in the environment (students, teachers and administrative staff) communicate with each other clearly, using quick and easy-to-use tools.
5. **Encourage students to collaborate with each other**. This can be done by providing shared documents that anyone can edit, based on a common project, allowing pupils to work together and share their experiences. Another possibility is to create discussion groups, in which students can discuss the course content.
6. Provide a section for each student, where all his or her data can be collected, so that he or she is able to consult them at any time. A VLE can also be used as an **administrative tool** for a variety of information on students, such as their progress, learning classes, lessons in progress, exercises or tests taken and other bureaucratic information. Having all this data aggregated in one place helps administrators and students to navigate effectively within the virtual environment.
7. Allow **real-time interaction**, so that even those who were not able to go to the school or course can follow the physical lesson, or allow them to communicate with a teacher or other user at the point of need, as in traditional face-to-face exchanges.

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