

OnlineHE project

A practical toolkit for integrating eLearning in Higher Education Curricula

Building the capacity of HE teaching staff, academics, and learning designers in integrating eLearning into their educational programmes



Co-funded by the
Erasmus+ Programme
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Axis 3: The most common eLearning platforms and tools

An overview of the main and widely known technologies used to develop and support e.Learning in higher education institutions

- **Theoretical part:** about 60'
- **Practical part:** activities in pairs and groups – about 45'

Learning outcomes

Knowledge

- Identify platforms and tools used in HEIs for eLearning purposes
- Explain the principles and features of technologies used in higher education
- Explain the criteria used to select platforms and tools for the development, deliver, and maintenance of the course

Skills

- Select appropriate tools and implement pedagogical models of learning
- Apply tools and platforms for the delivery of eLearning content
- Assess and improve digital competences

Attitudes

- Collaborate with colleagues to share best practices and experiences
- Independently define criteria to help find, evaluate and apply appropriate educational technology
- Share their digital competences with colleagues

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Overview of Topics

- **Topic 1: The meaning of technology in education**
- Topic 2: Categories of eLearning technologies
- Topic 3: Selection of tools and platforms

Platforms and Tools in HEI

eLearning technologies

Educational technology - the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources (Richey, 2008).

Instructional technologies refer theory and practice of design, development, management and evaluation of the processes and resources in order to achieve better teaching and learning results (Ivanova, 2020).

eLearning technologies aim to deliver rich learning experience and optimize knowledge transferred to learners (Ivanova, 2020).

DIGITAL TEACHNOLOGIES

INNOVATIVE TECHNOLOGIES



Platforms and Tools in HEI

License Types

☐ Free

☐ Commercial



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Platforms and Tools in HEI

Criteria for selecting technologies

- Accessibility
- Cost
- Didactic learning characteristics
- Interactivity support
- User-friendliness
- Organizational needs
- Novelty
- Speed

Bates, A., Sangrà, A. (2011). *Managing Technology in Higher Education: Strategies for Transforming Teaching and Learning*. San Francisco: Jossey-Bass/John Wiley & Co.



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Platforms and Tools in HEI

Categories of eLearning technologies (Craig et al. 2012)


- ❑ **Assessment and Survey Applications** (Survey Monkey, Quiz Builder, StudyMate, Respondus)
- ❑ **Synchronous Communication Tools** (Google Talk, iChat, Skype, ICQ, MSN/Yahoo messenger)
- ❑ **Asynchronous Communication Tools** (Email, Announcements, SMS, Discussion forum)
- ❑ **Digital Repositories** (Google Scholar, ePortfolio, Youtube)
- ❑ **Management and Administration Tools** (Turnitin, Gradebook, iGoogle, myYahoo)
- ❑ **Photosharing** (Flickr, Gallery2, Zoomr, Picasa, Photobucket)
- ❑ **Podcasts and Streaming** (Podcast, iLecture, iTunesU, MyPod, ePodcast)
- ❑ **Shared Documents** (Google Docs, Zoho Writer, SlideShare, Elgg, Clearspace)
- ❑ **Social Bookmarking** (CiteULike, Simple, Diigo, Connotea, digg, reddit)
- ❑ **Social Networking** (Facebook, MySpace, Bebo, Ning, LinkedIn)
- ❑ **Subscribed Content Delivery** (Google Reader, Bloglines, RSS Feeds)
- ❑ **Virtual Worlds** (Second Life (SL), Virtual Graffiti, eSimulations)
- ❑ **Weblogs and Microblogs** (Blogger, Wordpress, Twitter, RAMBLE, Yammer)
- ❑ **Wiki** (PBWorks, Wikispaces, MediaWiki, WikidPad, Zwiki)

Platforms and Tools in HEI

Categories of eLearning technologies

Why is the virtual learning environment not mentioned in the list of categories?



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Platforms and Tools in HEI

Categories of digital technologies used to support learning in HEI (Pinto & Leite, 2020)

- ❑ **Virtual learning environment:** Moodle, Blackboard, WebCT, Platforms supporting online courses, etc.
- ❑ **Publish and Share tools:** Blogs, Wikis, Flickr, YouTube, Podcast, Social Bookmarking, ePortfolio, Digital storytelling, e-books, Video lectures, etc.
- ❑ **Collaborative systems:** Google Docs, Social Bookmarking, Mind Maps, Wikis, Blogs, etc.
- ❑ **Social networking:** Facebook, Twitter, Hi5, LinkedIn, Ning, Academia.edu, etc.
- ❑ **Interpersonal Communication tools:** email, MSN, Skype, Forums, Video-conferencing, etc.
- ❑ **Content Aggregation tools:** RSS feeds, NetVibes, Google Reader, etc.
- ❑ **3D Virtual Worlds:** Second Life, Habbo, Augmented reality, Games, Virtual labs, etc.
- ❑ **Assessment and Feedback systems:** Electronic marking, Clickers, Audio feedback, Computer note taking, etc.
- ❑ **Mobile tools:** mobile applications internet based.
- ❑ **Information and Communication Technologies:** software or applications internet based (a set of technologies)



Platforms and Tools in HEI

Categorization of technologies

The categorization of technologies depends on how they are used and in what way

There are three most common categories used for training purposes:

- Virtual learning environment
- Information and communication technologies
- Technologies for publishing and sharing



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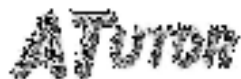
Platforms and Tools in HEI

Classification of virtual learning environments

- Learning Management System
- Learning Content Management System
- Course Management System
- Computer Supported Collaborative Learning
- Content Management System
- Managed Learning Environment



Blackboard



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Platforms and Tools in HEI

Virtual learning environment (features 1)

❑ Learner Tools

❖ Communication Tools

discussion forums, file exchange/internal email, online journal/notes, real time chat, video services/ white board

❖ Productivity Tools

book marks, help, calendar/progress review, work offline synchronize

❖ Student involvement Tools

group work, self-assessment, student community building, student portfolios



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Platforms and Tools in HEI

Virtual learning environment (features 2)

❑ Support Tools

❖ Administration Course

authentication, course authorization, registration integration, hosted services)

❖ Delivery Tools

course management, instructor helpdesk, online grading tools, student tracking, automated testing and scoring

❖ Curriculum Design

accessibility compliance, source templates, curriculum management, customized look and feel, instructional standards compliance, instructional design tools, content sharing/reuse

Platforms and Tools in HEI

Virtual learning environment (features 3)

❑ Technical Specification

❖ Hardware/Software

client browser request, database request, server software, unix server, windows server

❖ Pricing/Licensing

company profile, costs, open source, optional extras, software version



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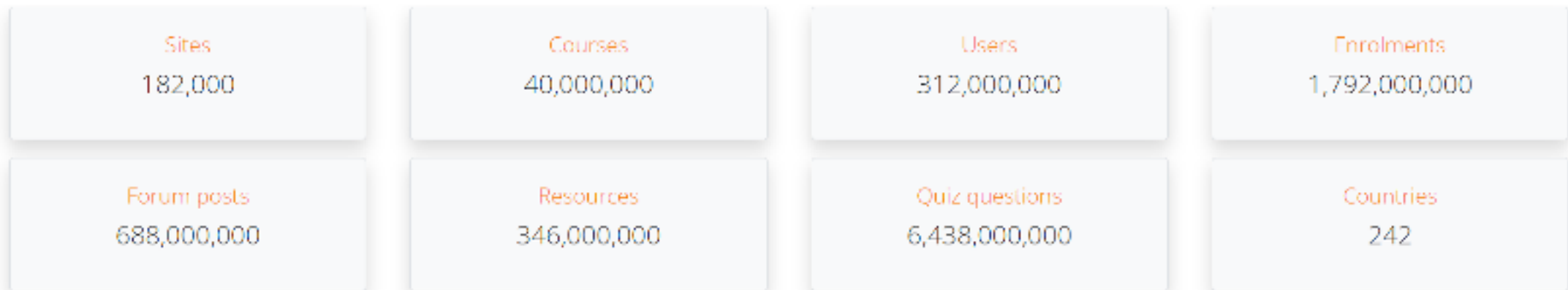
Platforms and Tools in HEI

The world's most widely used virtual learning environment

Data: 05 April 2022



Statistics



<https://stats.moodle.org/>

<https://www.youtube.com/watch?v=3ORsUGVNxGs> (*Creative Commons license*)



Platforms and Tools in HEI

Information and communication technologies

The set of technological tools and resources used for communication, creation, dissemination, storage and management of information.

Technologies used to develop digital competencies in the learning processes, e. g. create videos (Wondows Movie Maker, iMovie), presentations (Prezi, PowerPoint, Emaze), concept maps (Creately), create and analyze surveys (Google Forms), provide real-time questions and answers (Socrative), share knowledge through active methedologies (Kahoot), etc. (*Cueava and Inga, 2022*)

SEARCH

SELECT

SENSE MAKING

SHARE



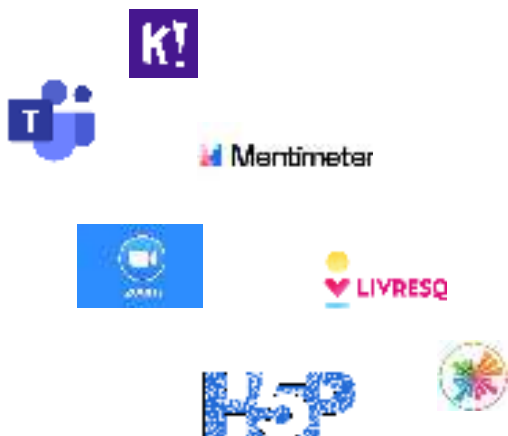
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Platforms and Tools in HEI

Technologies for publishing and sharing

Aims to support students learning, maintain communication and interaction between participants, engage them with learning materials and collaboration.

The example of the most popular tools is video technologies used to provide videos of lectures or field experiences.



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Group work

TASK 1. Technologies in practice. Discussion questions:

1. Which information and communication technologies (ICT) are used in teaching in your institution?
2. What tools and platforms do you use in your practice?
3. How do you apply these tools and platforms?
4. Which category do you think the tools, platforms used in your practice can be placed in and why?
5. What do you see as the advantages and disadvantages of the technologies used in your practice?

*Please provide your answers on the worksheet for this activity
„ONLINEHE_Axis3_Worksheet1.docx“*



Presentation of group work

TASK 1. Technologies in practice. Summary of the discussion

Review your answers and select 3 most important words that describe your experience:

- 1) tool or platform
- 2) course content
- 3) competence

Provide your answer [here](#).



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Your questions and comments



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Module 3: The most common eLearning platforms and tools

References

Aguilar-Peña, J.D., Rus-Casas, C., Eliche-Quesada, D., Muñoz-Rodríguez, F.J., La Rubia, M.D. (2022). Content Curation in E-Learning: A Case of Study with Spanish Engineering Students. *Appl. Sci.* 12, 3188. <https://doi.org/10.3390/app12063188>

Al-Ajlan, A.S (2012). A Comparative Study Between E-Learning Features.

Bates, A., Sangrà, A. (2011). *Managing Technology in Higher Education: Strategies for Transforming Teaching and Learning*. San Francisco: Jossey-Bass/John Wiley & Co.

Cueva, A., & Inga, E. (2022). Information and Communication Technologies for Education Considering the Flipped Learning Model. *Education Sciences*.

Ivanova, M. (2020). eLearning Informatics: From Automation of Educational Activities to Intelligent Solutions Building. *Informatics Educ.*, 19, 257-282.

Pinto, M., & Leite, C. (2020). Digital technologies in support of students learning in Higher Education: literature review. *Digital Education Review*, 343-360.

Richey, R.C. (2008). Reflections on the 2008 AECT Definitions of the Field. *TechTrends*, 52, 24-25.



Pair work

TASK 2. Technologies in practice. Practical work in pairs

Worksheet 2 contains the text you have to present to a remote audience.

- 1) Choose the tool(s) you will use to complete the task.
- 2) Create a presentation

DIGITAL TECHNOLOGIES

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SEARCH

SELECT

SENSE MAKING

SHARE



Presentation of pair work

TASK 2. Technologies in practice. Presentation of practical work

Present your practical work to the audience.

Explain which technologies you have chosen for the task and why.



Concluding discussion

Platforms and Tools in HEI

Discuss what you have observed and discovered.



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