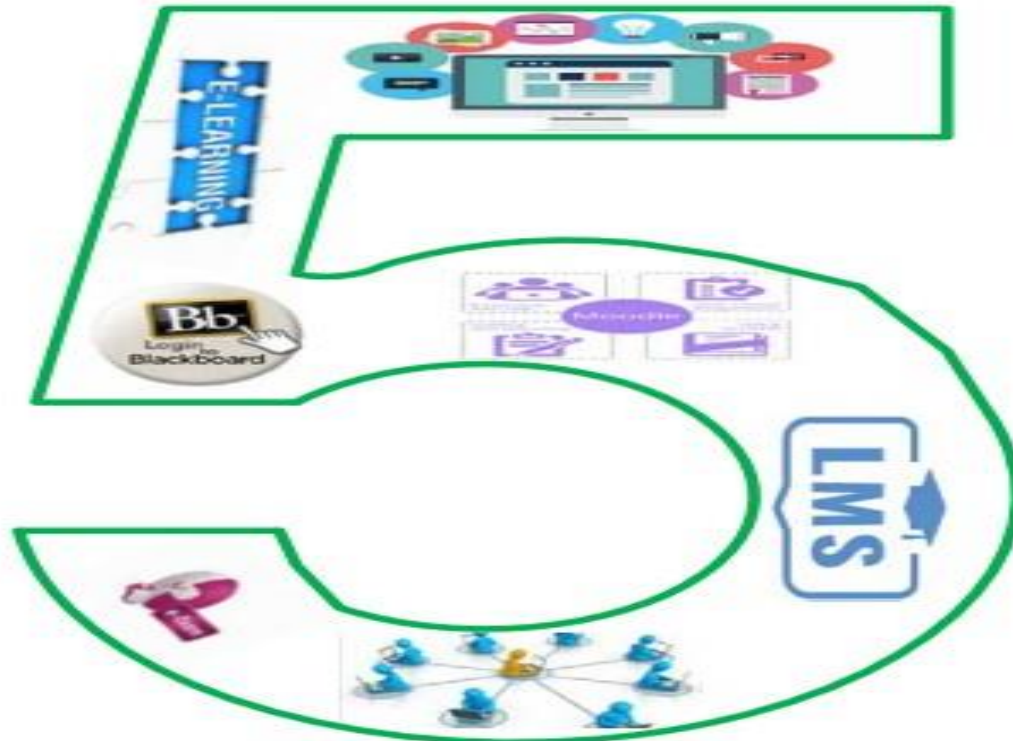




# COMPUTER SKILLS E-learning

# Chapter 5

## E-learning



# Objectives

Main objectives:

1. Knowing about e-learning, methods and systems
2. Known about e-learning terms

# Objectives

## Sub-Objectives

1. Know about e-learning in terms of origination and components.
2. Know about e-learning objectives.
3. Distinguish between e-learning systems and their different types.
4. Know about e-learning methods.
5. Know about the Blackboard system used in the university.
6. Distinguish between different e-learning systems.
7. Know about one of the distinguished e-learning platforms (Shams platform)

# Introduction to E-learning

The emergence of digital e-learning is linked to the emergence and spread of the Internet, although early e-learning attempts exist, for example:

- ❑ In the 1920's, the educational radio appeared.

- ❑ In the 1950's, television appeared

- ❑ In 1963 the University of the Air in Britain appeared and was later called the Open University.

- ❑ In 1985 the emergence of distance education and the use of the Internet.

- ❑ In 1990, distance education spread using digital technology via computers and the Internet.

# Introduction to E-learning

However, e-learning systems did not appear until 1995 AD, and developments continued until the emergence of the Blackboard system in 2006 AD in Washington, America

## *Among the most important modern trends in e-learning:*

- ***Massive Open Online Courses (MOOCs)***

These open online courses allow millions of people around the world to train together in one session.

- ***Mobile-learning***

Training courses are available online on portable electronic devices such as mobile phones, tablets, etc. This allows learning opportunities at any time, from anywhere.

- ***Learning through Social Media***

Social media can become an essential forum for sharing ideas and academic lessons. Therefore, it may be a fertile environment for e-learning, as did educational channels appear on YouTube, for example.

- ***Virtual Technology***

Future virtual reality technology can place learners in the role of explorer, astronaut, historical character, etc. Wearable tech devices like Google glasses and others can be a way to learn.

- ***Gamification***

Future e-learning courses are more likely to resemble an interactive video game rather than a traditional lecture.

# E-learning is presented in two methods:

- ❑ self-e-learning, also called Web-based training (WBT) in which educational programs are usually placed on a web server.
- ❑ e-learning that is provided by the professor provides lectures and electronic activities.
- ❑ Various types of e-learning components can be combined together, such as **e-learning content**, **e-teaching and training**, **collaborative learning**, and **virtual classes**.

# E-learning Components

**E-learning Components are.**

- E-learning Content*
- Teaching and E-training*
- Collaborative E-learning*
- Virtual Classes*



# E-learning Content

## E-learning content is provided in the following ways:

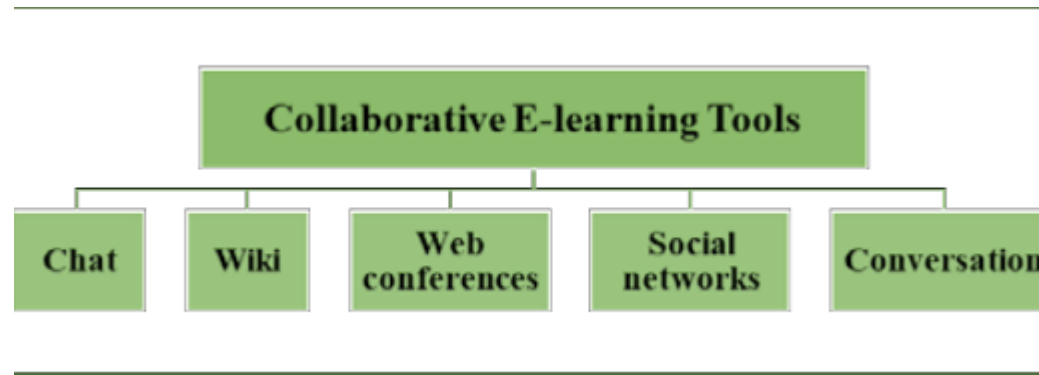
- Simple Learning Resources: uses simple non-interactive resources such as documents, presentations, videos or audio files. These materials are noninteractive so that students can read only or view the content without doing any other work.
- Interactive e-lessons: it is the most used method for e-learning and is used to interactive electronic materials, and includes text, animation, audio and video.
- Electronic simulations: it is the use of simulations for the real world, which allows learning to be more effective than ordinary e-learning.

# Teaching and E-training

- ❑ Teaching and e-training can deliver services that provide human and social dimensions for students to support them through the learning experience.
- ❑ E-training is defined as the process in which an interactive environment that depends on the computer, networks and multimedia is created, which enables the trainee to obtain the training objectives by interacting with such sources, in the shortest time possible, with the least effort exerted, and at the highest quality levels without being restricted to the limits of the place and time.
- ❑ E-learning is offered at different levels for the educational institution. For example, at Bisha University, teaching is offered at three levels: supportive e-learning, blended e-learning, and full e-learning. E-learning provides individual support to the student through e-learning tools.

# Collaborative E-learning

Collaborative e-learning is a strategy that helps students to learn together using collaborative learning tools. Collaborative activities are formed through e-learning management systems and from collaborative programs such as chat, wiki, web conferences, social networks and conversation. Figure 51- explains the most important Collaborative e-learning tools.



# Virtual Classes

Virtual classes, smart classes or virtual classes are one of the types of synchronized e-learning in which the staff member and students meet at the same time through a virtual environment, and not necessarily in the same place. This is done by virtual classroom systems and through which the staff member can provide electronic content and electronic activities for students over networks to participate in collaborative learning situations.

# E-Learning Objectives

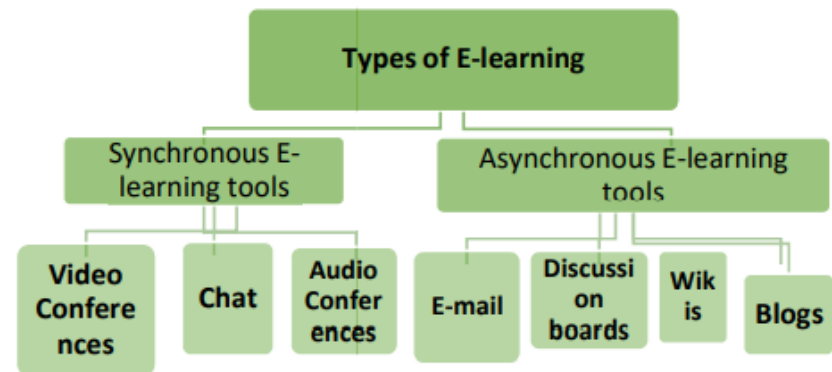
## E-learning aims to many objectives, including:

- It increases opportunities for learning.
- Develops students' skills and competencies by using web and other technologies.
- Presents content in various electronic forms.
- It improves the learning process, and helps the staff member to improve and develop the course.
- It enables students to self-learn.
- It provides an opportunity for collaborative learning among students.
- It works to keep abreast of technological developments in the field of learning. It enables staff members from abroad to participate in the learning process.
- Contributes to the creation of infrastructure and a base of information technology for universities.
- Provides multiple sources of knowledge.

# Types of E-learning

E-learning is divided into synchronous and asynchronous, and each type has its advantages.

- ❑ Synchronous E-learning
- ❑ Asynchronous E-learning



# Synchronous E-learning

Synchronous e-learning is sometimes called direct learning and it requires that its activities occur at the real time, but not in the same place. Its tools include text chat, audio and video conferences. Figure 52- shows these tools.

## Synchronized Communication Tools:

- **Chat:** it is a tool of synchronized communication tools in the form of text messages, helping students and staff members to discuss a specific topic of the course topics, and it is an integrated tool in all e-learning systems.
- **Audio Conferences:** it is a tool of synchronized communication tools that are in the form of audio messages, connecting the speaker (the lecturer) with a number of recipients (students) in separate places.
- **Video Conferences:** in which the audio and video are delivered directly over the air via the virtual session of the lecture and are in real time.

# Asynchronous E-learning

*Asynchronous e-learning* is one of the most common types of learning because it does not require synchronization in time to learn, as the student can interact with the content in its various forms in their spare time. Examples of its tools are wiki, blog, forum and e-mail.

## Asynchronous Communication Tools:

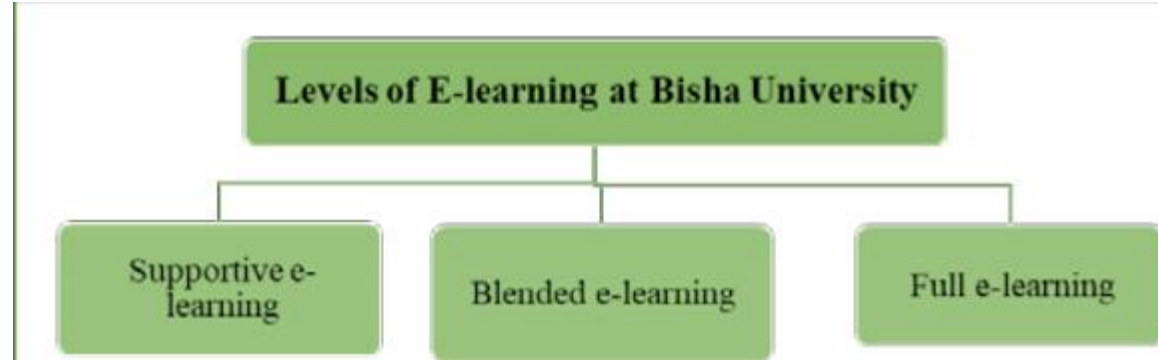
- E-mail: It is considered as one of the most important means of communication between the student and the staff member, or the students among themselves. In each course, there are different e-learning systems that are used by students and the staff member to communicate with each other.



# Asynchronous E-learning

- Discussion boards: It is the most used in learning and it is considered one of the interactive activities, in which the teaching member participates and the students respond or participate without being present at the same time.
- Blogs: It is the most used Web 2.0 technology, and it is one of the basic interactive electronic activities in learning management systems. It is a specific activity that is activated by the staff member, whereby students write their ideas to participate in this activity.
- Wikis: It is an interactive activity, whereby the staff member raises a topic in the relevant wiki activity. All students participating in the course are allowed to amend and add the relevant topic, which develops students' knowledge.

# E-learning Methods



# Learning by Computer

The use of computers has led to the development and improvement of the learning process electronically, so computers and networks are the backbone of e-learning management systems.

## Uses of computer and network in e-learning:

- Individual learning.
- Computer aided learning.
- Learning as a computer a source of information.
- Computer networks are the basis for e-learning systems.

## Necessaty of learning by computer:

- Because of the knowledge explosion and the information revolution.
- Easy to learn and use.
- Low prices compared to its big benefits.
- Provides a new and developed way of learning.

# Learning in a Virtual Environment

- ❑ It is a modern type of learning similar to regular classroom learning in terms of meeting students and staff members at the same time, except that it provides electronic content from electronic sources and activities over e-learning management systems with its various tools.
- ❑ There are numerous systems for managing virtual classes, including (Bb Collaborative).
- ❑ Interactive tools in the virtual classes include:
  - Video call.
  - Text chat.
  - Electronic whiteboard.
  - Voice dialing.
  - Shares an application from the staff member device.
  - Share files.

# Learning through the Web

The web has provided many services for learning through the stage 1.0 and the web 2.0. Examples of services provided by the web 2.0, which are used successfully in learning, are site feeds, blogs, wikis and other web 2.0 technologies.

# Learning over the Internet:

- ❑ It means delivering e-content and activities via internet learning management systems.
- ❑ The most important factors that helped to use the Internet in learning:
  - Address the temporal and spatial dimensions.
  - Save time and effort to obtain information in terms of speed of access to information.
  - Provides collaborative learning opportunities.
  - Developing teaching methods and systems.

**End Of Lecture**