



*Empowered lives.  
Resilient nations.*



“Tell me and I forget, teach  
me and I may remember,  
involve me and I learn”

Benjamin Franklin

# Overview

- i. Challenges of election training today
- ii. Understanding the eLearning concept – the LMS
- iii. Advantages through eLearning
- iv. Applications for eLearning within the EMB



## Challenges in training and education for EMBs

- Time constraints
- Changing rules
- Costly, one-time training events
- Frequent turnover
- Wide geographic distribution of trainings
- Varying levels of student knowledge\*
- Limited offerings/availability
- Little student/teacher interaction
- Long periods between application of knowledge
- Varying quality of trainers

# Training Methodologies

Manuals

Quick Reference Guides

cascade trainings

Videos

animations

Lectures

Posters

checklists

eLearning

# What is e(-)Learning?

- “E-learning is the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchange and collaboration” (Alonso et al., 2005).
- “E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters” (Guri-Rosenblit, 2005).
- E-learning is the delivery of education (all activities relevant to instructing, teaching, and learning) through various electronic media” (Koohang & Harman, 2005).
- “Method of studying in which lectures are broadcast or classes are conducted by correspondence or over the Internet, without the student's needing to attend a school or college. Also called distance education.
- “E-learning is education that uses computerised communication systems as an environment for communication, the exchange of information and interaction between students and instructors” (Bermejo, 2005).
- An educational experience aided and enhanced by communication and computing technology

# Trends

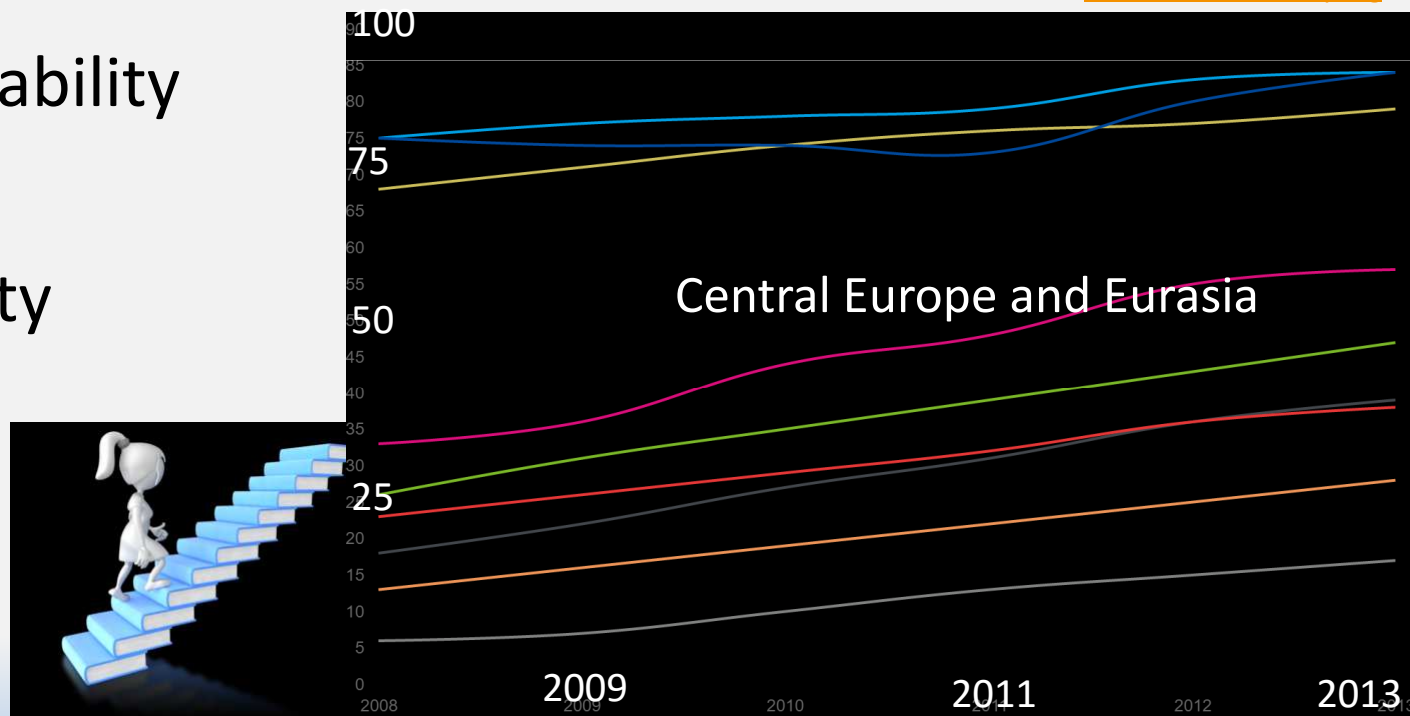
## Growth of eLearning

## Growth of internet

[www.internetsociety.org](http://www.internetsociety.org)

Portability

Affordability



- **Learning Management Systems (LMSs)** software application platforms used to facilitate a learning process ..LMSs provide an instructor a way in which to create and deliver content, monitor learners' participation, communicate with learners and assess their performance

## THE LMS TIMELINE



**1924**

Sidney Pressey invents the first teaching machine. The device resembles a typewriter with a window that could administer multiple-choice questions.



**1929**

M.E. LaZerte invents the "problem cylinder", a mechanical device that presented a problem to a student and checked whether the solution steps taken by the student were correct.



**1956**

Gordon Pask and Robin McKinnon-Wood invent SAKI, an adaptive teaching system that automatically adjusted the difficulty of the questions, based on the learner's performance.



**1960**

The University of Illinois at Urbana-Champaign develops PLATO (Programmed Logic for Automated Teaching Operations). This system lets different user types interact, including instructors and authors who could create course material, and students who could complete this material online.



**1969**

The U.S. Department of Defense commissions the creation of ARPANET, a precursor to today's World Wide Web.



**1970**

Hewlett-Packard introduces the first-ever desktop personal computer, setting the PC market into motion and making widespread e-learning possible.



**1982**

TCP/IP was introduced, giving birth of the World Wide Web. This made online learning possible.



**1983**

MIT announces "Project Athena," a five-year initiative to explore innovative uses of computers for teaching. In just two years, 60 such projects were undertaken.



**1990**

SoftArc launches LMS FirstClass for the Macintosh platform.



**1992**

GeoMetrics Data Systems releases the LMS TrainingPartner.



**1997**

Courselife develops the Interactive Learning Network. This was the first e-learning system of its kind to leverage a relational MySQL database.



**1999**

ePath first releases its LMS system ASAP.



**2002**

Open-source, internal network LMS Moodle is released.



**2004**

SCORM 2004 is released. This remains the current version that many LMS systems are based on today.



**2005**

NACON Consulting releases the distance education system, VirtualOnDemand, which can train users in software programs, using only a web browser. The Army later uses this to train IT support personnel.



**2006**

CLAT 5.0 - placing with Ajax support an emphasis on a collaborative environment.



**2008**

Eucalyptus was released as the first open-source, AWS API-compatible platform for deploying private clouds. This sparked an explosion in cloud computing that eventually enabled learning management.



**2012**

Today, most modern LMS systems are hosted in the cloud, freeing companies from the burden of installing and maintaining in-house.

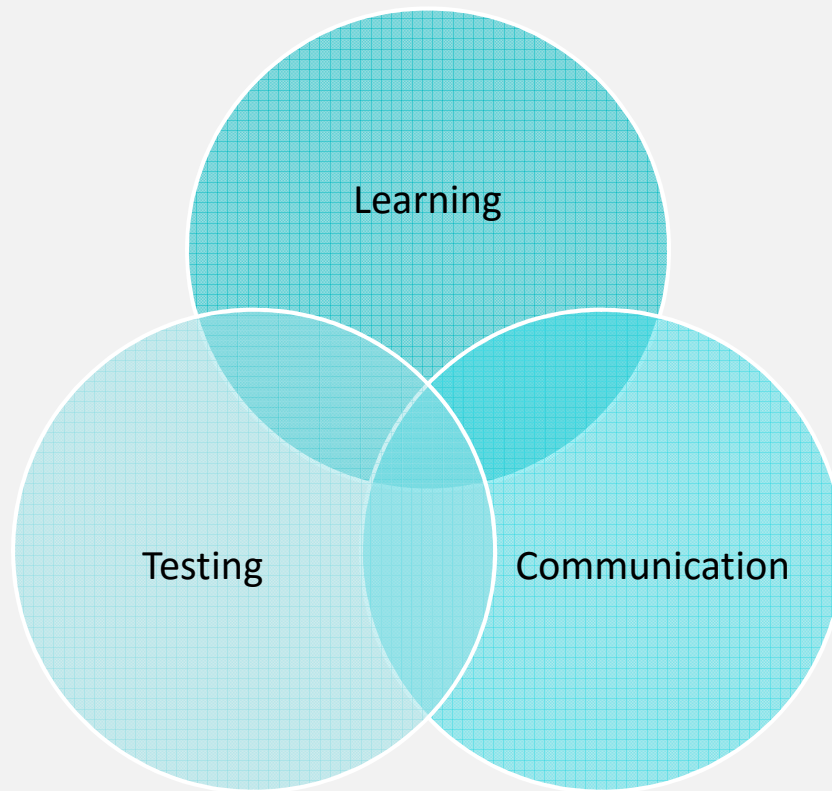
# An infographical history of the rise of Learning Management Systems

Source: <http://en.wikipedia.org/wiki/history-of-virtual-learning-environments/#>



# Learning Management Systems

## Objectives



## Techniques

- Surveys
- Assignments
- Video
- Readings
- Demonstrations
- Quizzes
- Gamification
- Scenario building
- Feedback mechanisms
- Webinars/conferences

\*how interactive a course/program is the effective combination of objectives and techniques

# Advantages of eLearning

## Learning

Higher retention

Self-paced learning

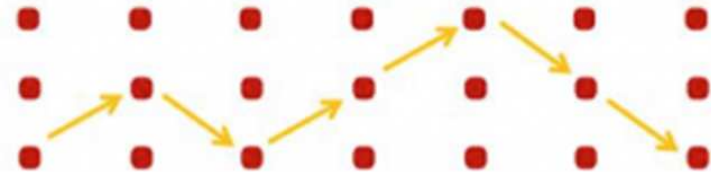
Instructional quality consistency

Adaptive-Interactive technologies\*

## Traditional Learning:



## Adaptive Learning:



НАВИГАЦИЈА

НАЈНОВИ ВЕСТИ

ПОСТАВУВАЊА

МЕНИ

- Пристан и најава на системот
  - Добредојдовте
  - Содржина
  - Пристан и најава
  - Како да се најдете на системот за Претседателски избори 2014?
  - Почетна страна и мени
- Статус на избирачко место
  - Како да отворите избирачко место?
  - Како да отворите повеќе избирачки места одеднаш?
  - Како да затворите избирачко место?
  - Како да затворите повеќе избирачки места одеднаш?
  - Како да поставите друг статус за избирачко место?
- Илнезност
  - Како да внесете илнезност?
- Резултати
  - Како да внесете резултати за избирачко место за втор круг Претседателски избори?
  - Како да припадате внесете резултати за избирачко место?
  - Како да внесете општиски резултати од СИК за втор круг на Претседателски избори?
  - Копи на екранските снимки

Корисничко упатство за оператори

Добредојдовте  
Упатство за оператори  
Систем за Парламентарни избори и втор  
круг Претседателски избори 2014

Да започнеме

Претходна страна    Наредна страна

lms.sec.mk/008/mod/scorm/player.php#

# Advantages of eLearning

## Communication

Instant feedback and progress

Greater peer communities

More student: tutor time

Learner driven adaptation of content and methodology



# Advantages of eLearning

Testing can be a learning tool; or genuine measurement

Can be used for qualification or attestation if legislation requires it

Instant feedback and scores

Testing competency can be in a controlled environment

## Testing

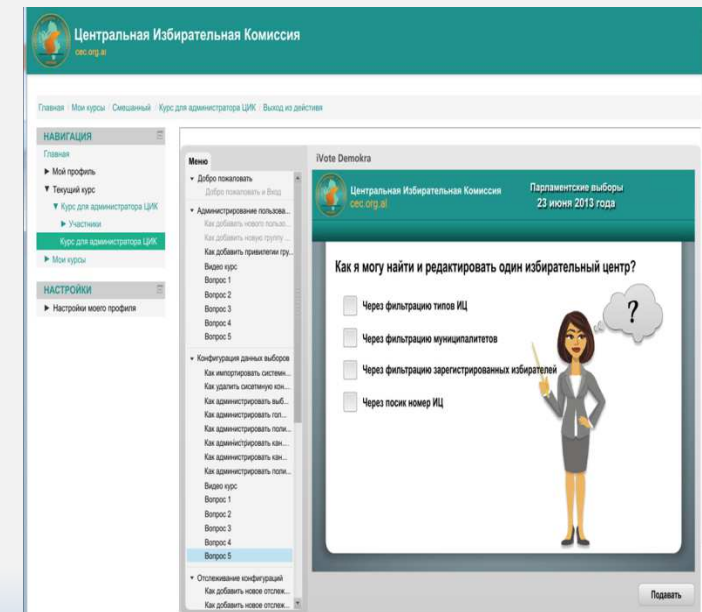
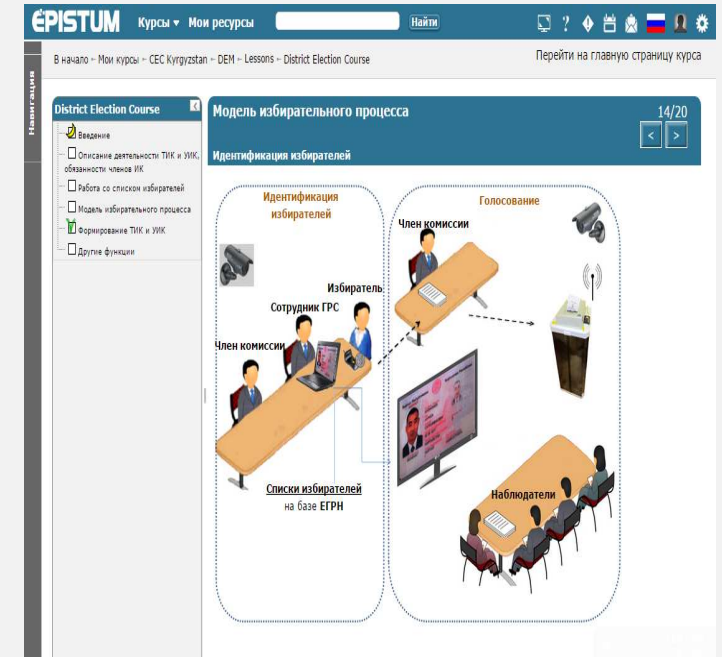
The screenshot displays a web application interface for the Central Election Commission (Центральная Избирательная Комиссия) at cec.org.ai. The page is titled "iVote Demokra" and shows the results of a test. The main content area displays the following information:

- Результаты**
- Ваш счет: 0% (0 баллы)
- Проходной счет: 80% (16 баллы)
- Результат: **✘ Вы не прошли**

At the bottom of the results area, there are three buttons: "Просмотреть тест", "Печатать результаты", and "Попробовать тест снова". The interface also includes a navigation menu on the left and a top header with the logo and name of the Central Election Commission.

# Potential uses for EMBs

- Staff orientation course
- Department/ functions courses
- SOP courses
- District Commission member/chair/secretary course
- Polling Station member/chair/secretary course
- Technical staff courses
- Observers guide
- Political party instructions (registration; campaign finance; etc)
- Voter and Civic education



# Strategic approach to using eLearning...

Who will be the 'owner' of the learning system?

What resources do we have (technical, educational, infrastructure); and what do we need?

Do we have the skills and capacity to maintain and create new courses?

What would you like the system to do (train, test, communicate)?

What is the capacity of the typical users?

–Thank you

Exhibit 1. The Components and Data Flow Through a Typical Adaptive Learning System

