



Universidad de Jaén



Universitatea Tehnică  
din Cluj-Napoca

**IFM<sup>2</sup>E 2017 Seminar**

12<sup>th</sup> International Forum of Mechanical  
and Mechatronic Engineering

Nov 15-16 2017. Cluj-Napoca Romania

# Learning Management System as Communication Tool

Ildefonso Ruano Ruano, GRAV\*, University of Jaén

Elisabet Estévez Estévez, GRAV\*, University of Jaén

*\*GRAV: Grupo de Robótica, Automática y Visión por Computador (Group of Robotic, Automatic and Computer Vision)*



Universidad de Jaén

# LMS as Communication Tool

## Contents

- Introduction and uses of LMSs
- LMS Overview and Trends
- LMS Communications Possibilities
- LMS-Systems Integration
- Conclusions

# Introduction and uses of LMSs

A **LMS** (Learning Management System) is the main representative and best example of the use of ICTs\* in education. Nowadays it is an **essential tool** in university education.

Other names:

- ◆ Course Management System (CMS)
- ◆ Learning Content Management System (LCMS)
- ◆ Virtual Learning Environment (VLE)
- ◆ Virtual Learning System (VLS)
- ◆ Learning portal
- ◆ e-learning platform

## LMS Classification (based on working space)

**Corporate LMS.** Used in companies for employee training. Centered on business needs:

- Knowledge transfer and skill training.
- Help generate new knowledge.

**Academic LMS.** Focused on:

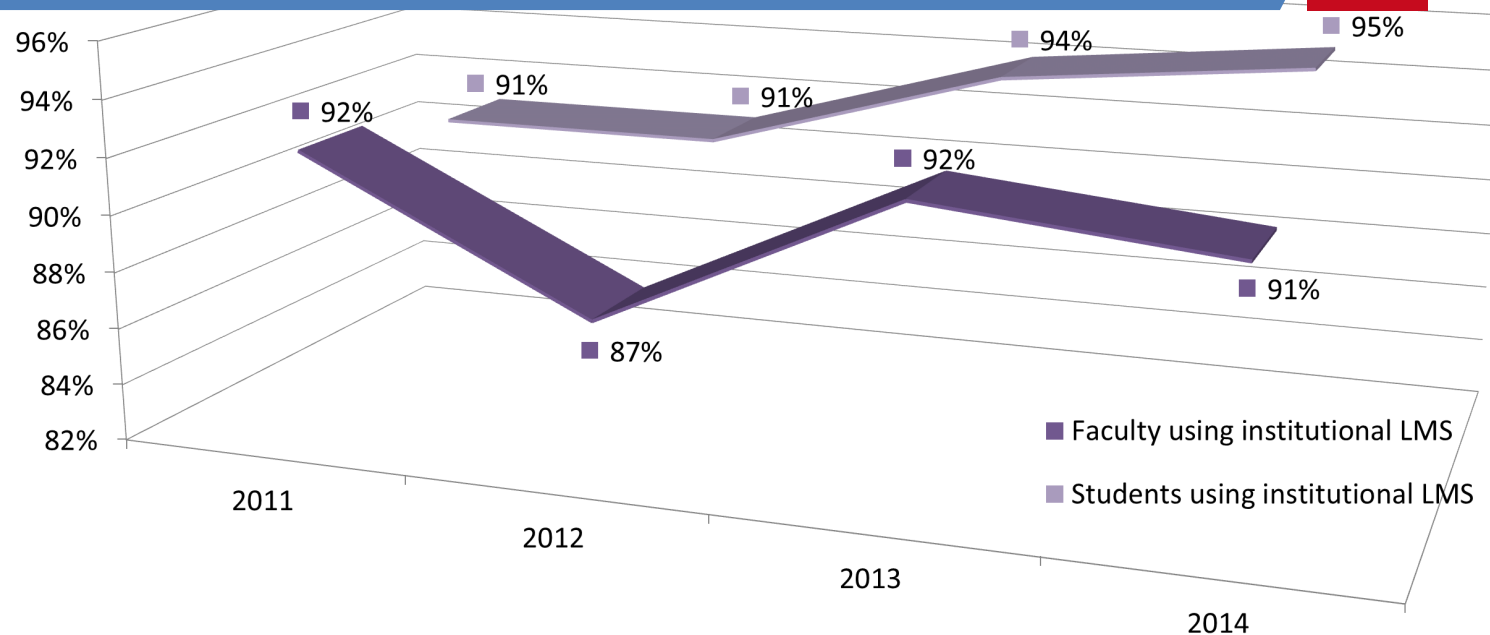
- Knowledge transfer.
- Teaching and Learning with a global scope (learning environment management).

**Integrated LMS/LCMS:** Systems integrating:

- Learning management features
- Funcionality for developing, managing, and delivering learning contents.

## LMS: Natural working environment of HEI Faculty and students in Internet

### Use of the institucional LMS in Spanish Universitiesin (*"UNIVERSITIC 2015", 2016*)



### Use of LMS in USA (*"The Current Ecosystem of Learning Management Systems in Higher Education: Student, Faculty, and IT Perspectives", 2014*)



**99%** of institutions have an LMS in place

**85%** of faculty use the LMS and **56%** of faculty use it daily

**83%** of students use the LMS and **56%** say they use it in most or all courses

## Resources and Services in Web environment

User/Group/Resources management

Custom virtual space

Tracking of learning progress

Learning contents in different formats (pods, pdfs, archives, modules, vídeos,...)

Integration possibilities

Tools to...

...build contents (wikis, blogs, ...)

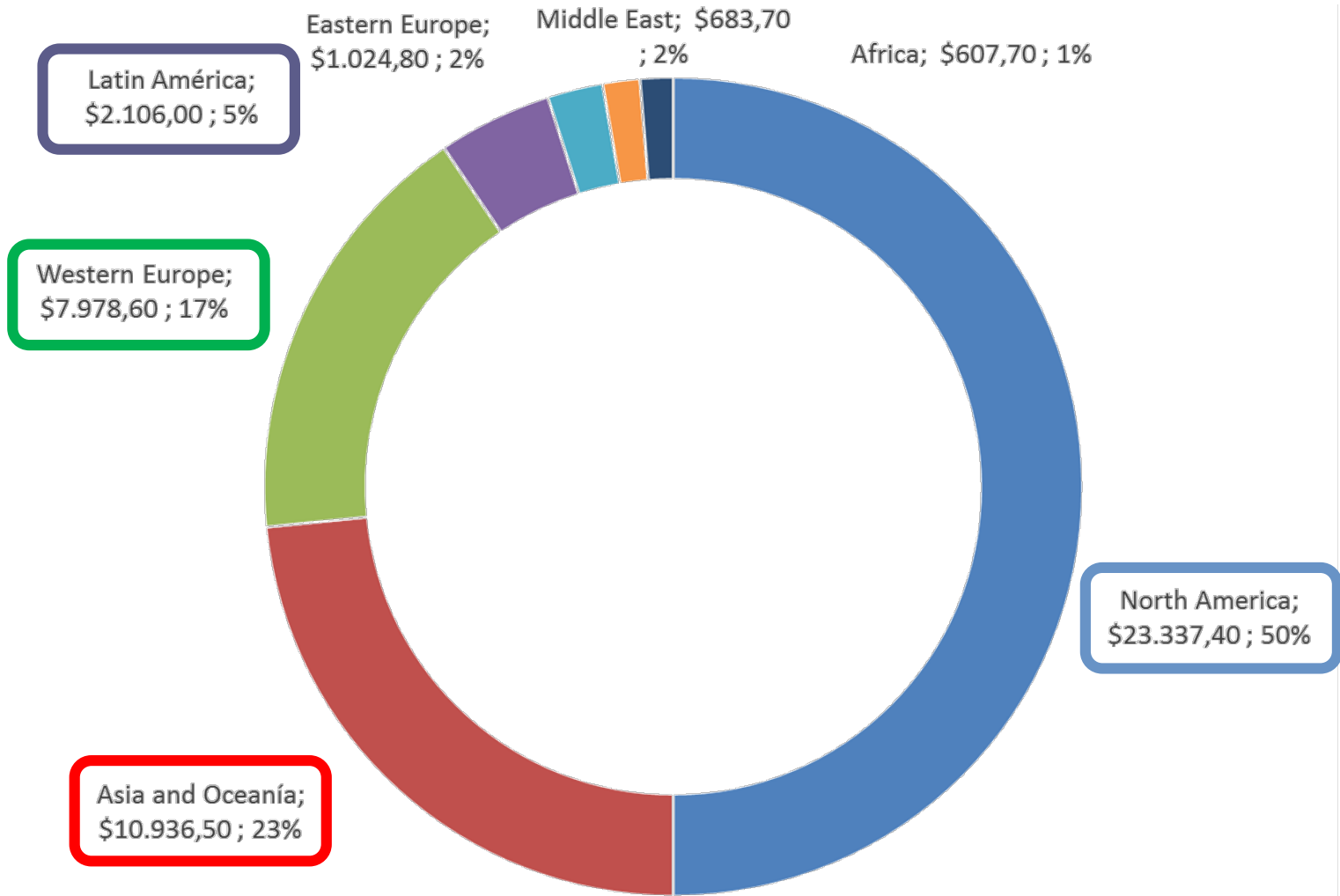
...collect user opinions  
(surveys)

...evaluate users

...communicate users (mail, forum,  
chat, videoconference...)

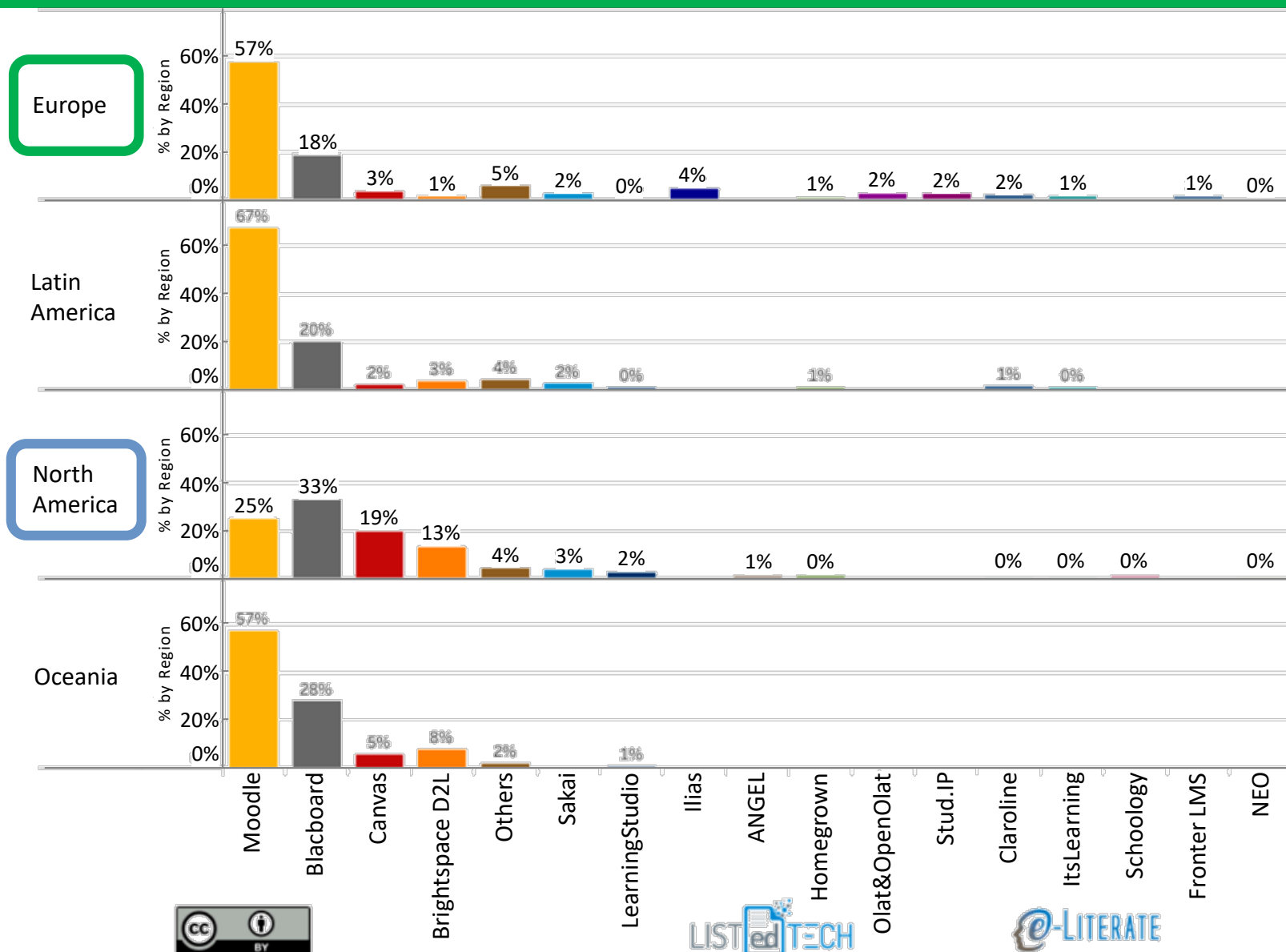


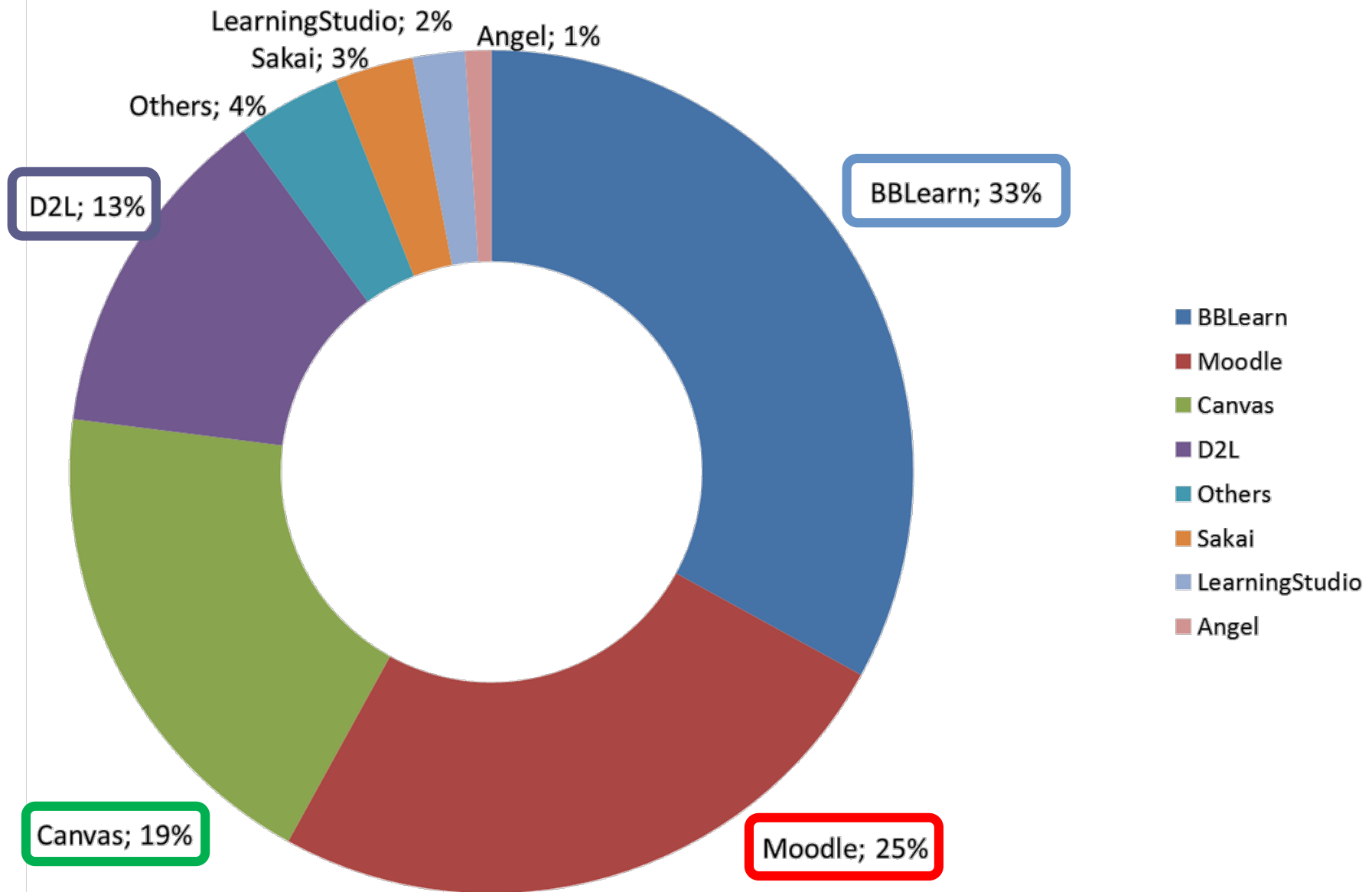
# LMS Overview and Trends

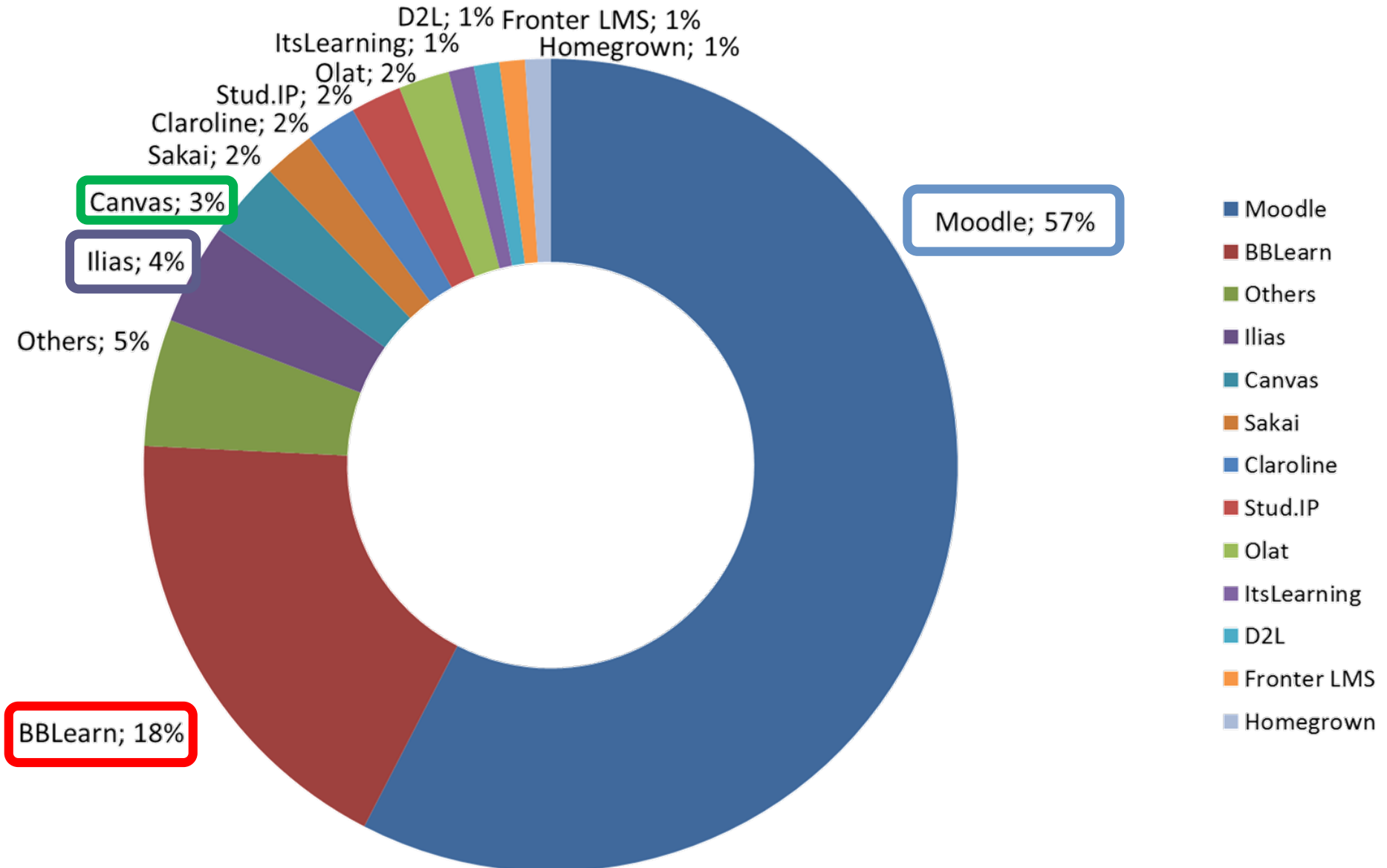


2016 Worldwide revenue for self-paced elearning products and services by region in US\$ millions (*"Elearning market trends and forecast 2017-2021"*, 2016)





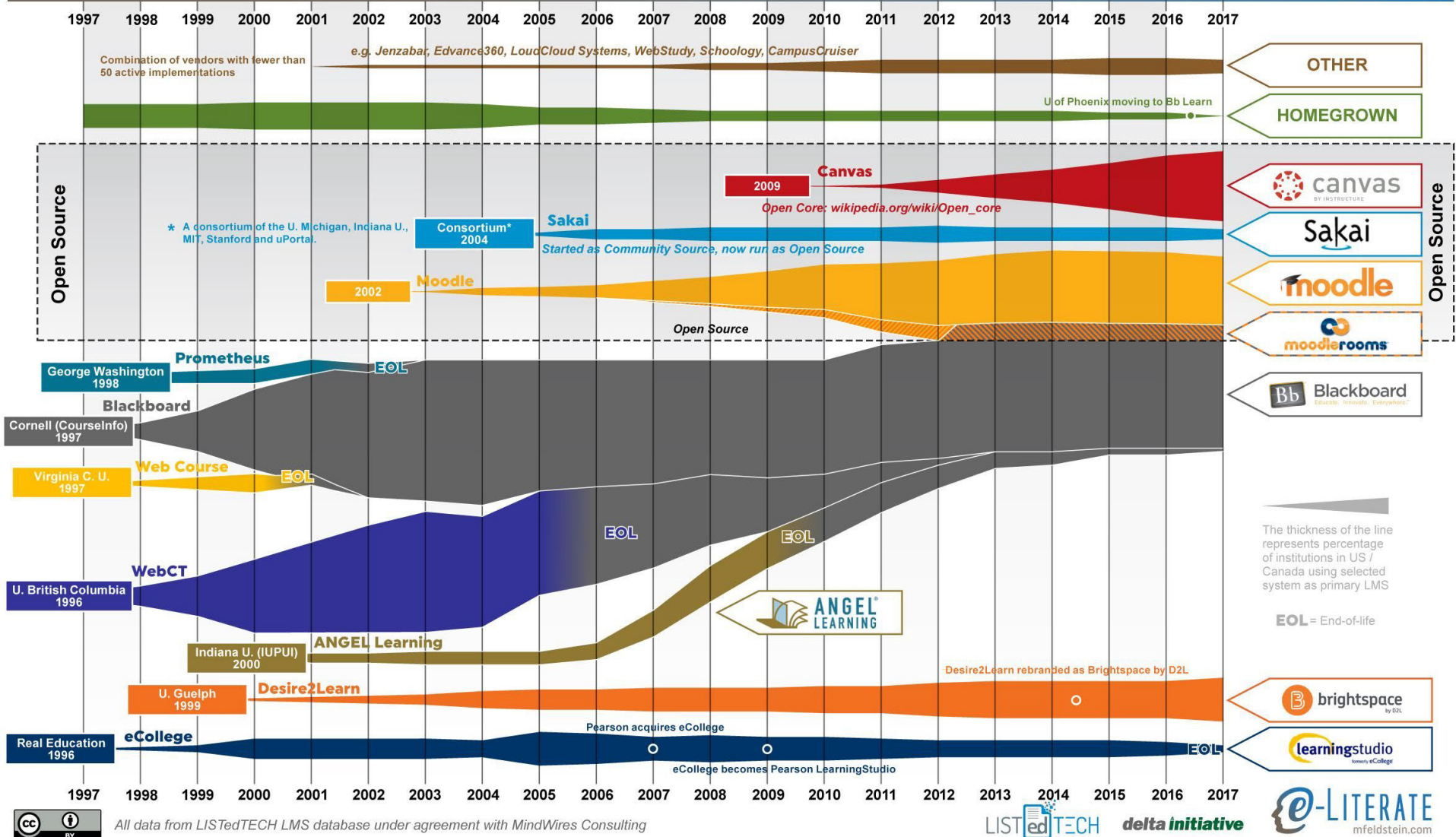


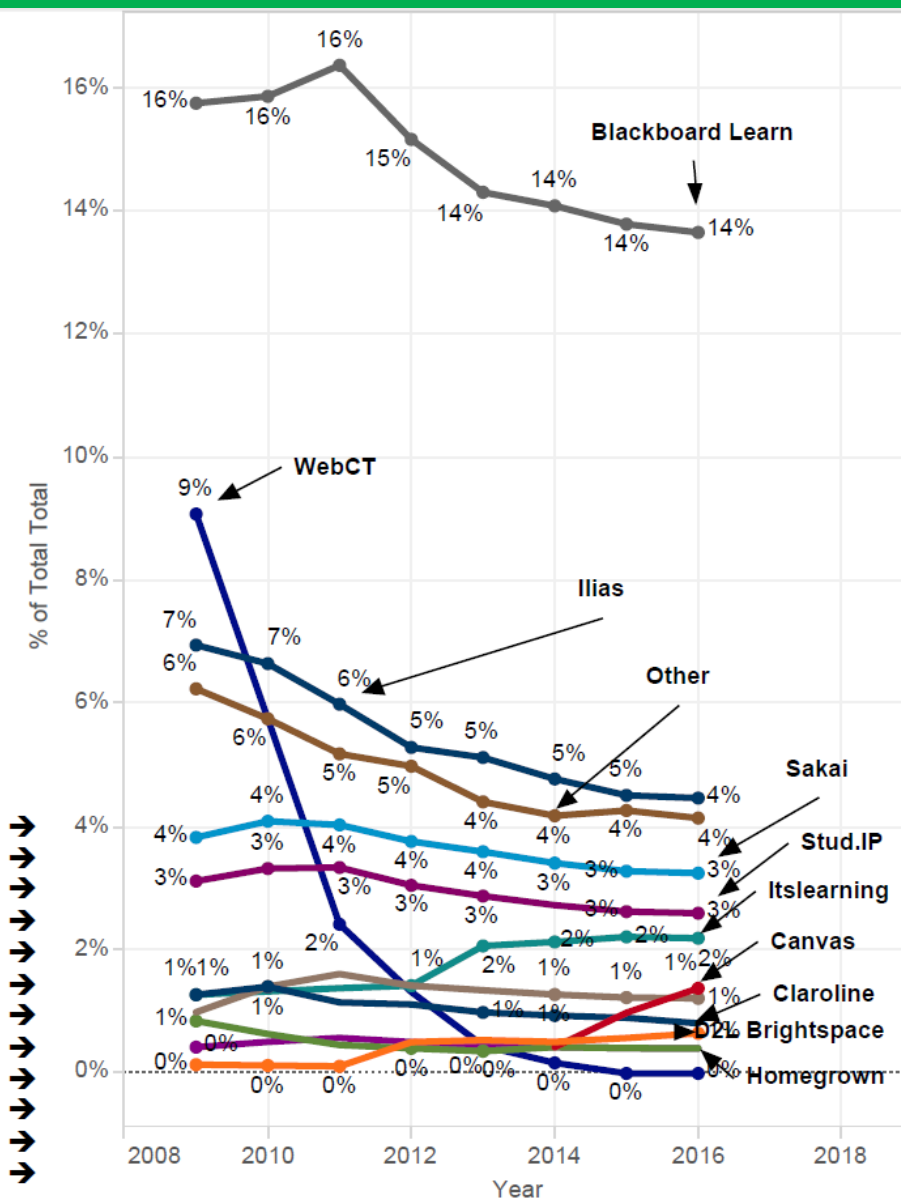
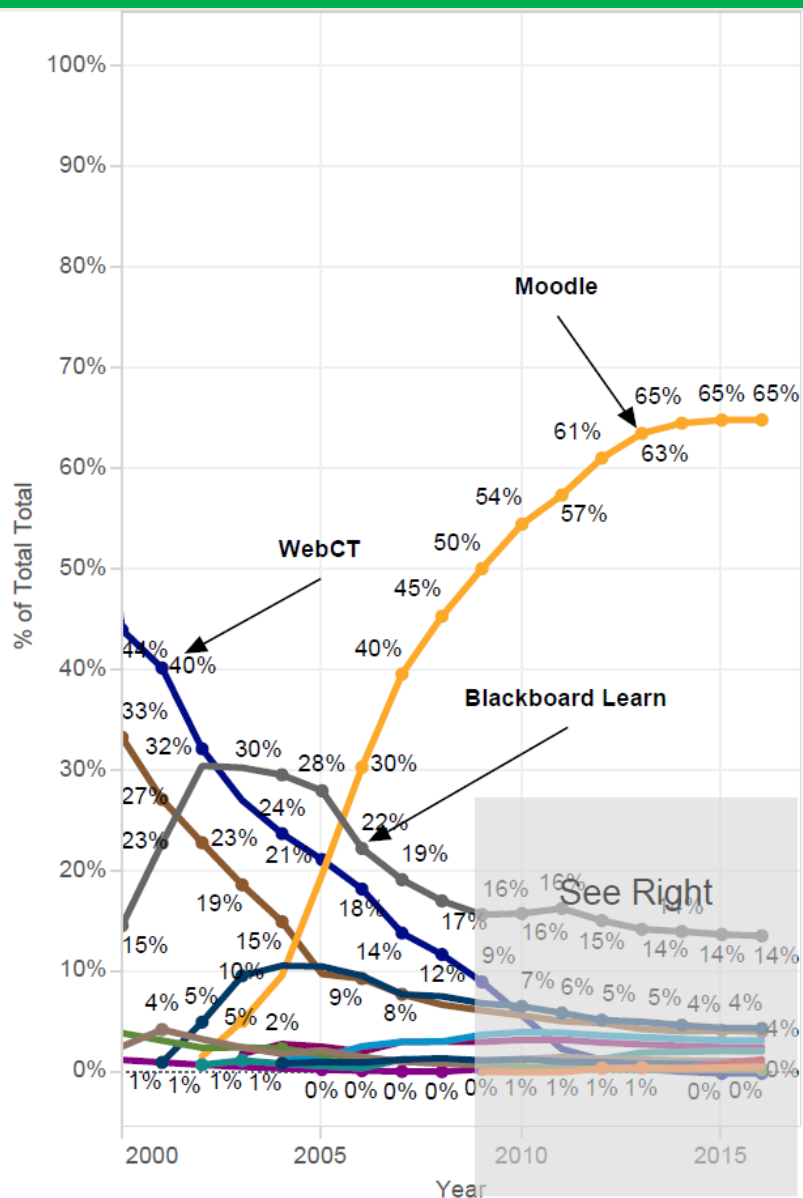


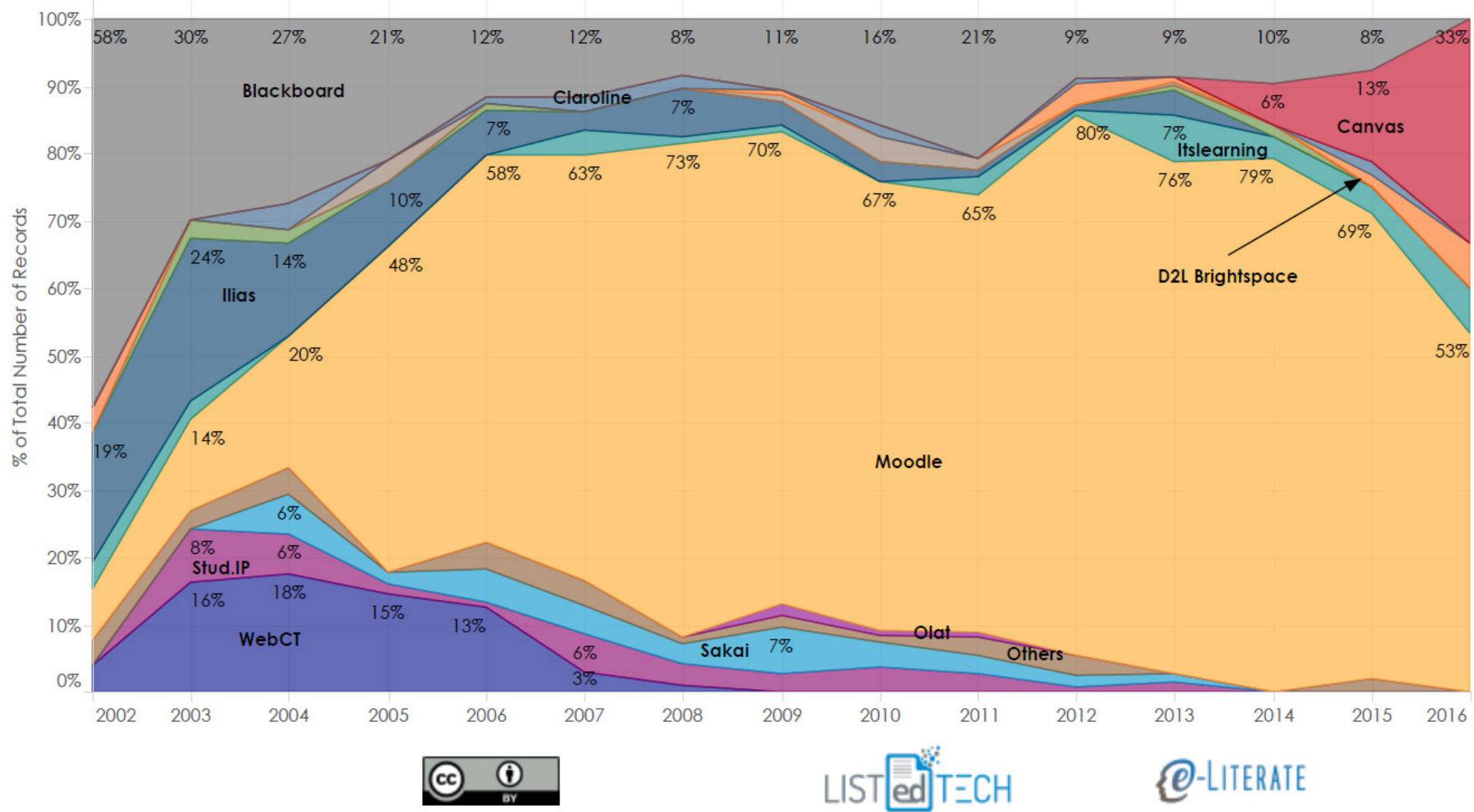


## LEARNING MANAGEMENT SYSTEM

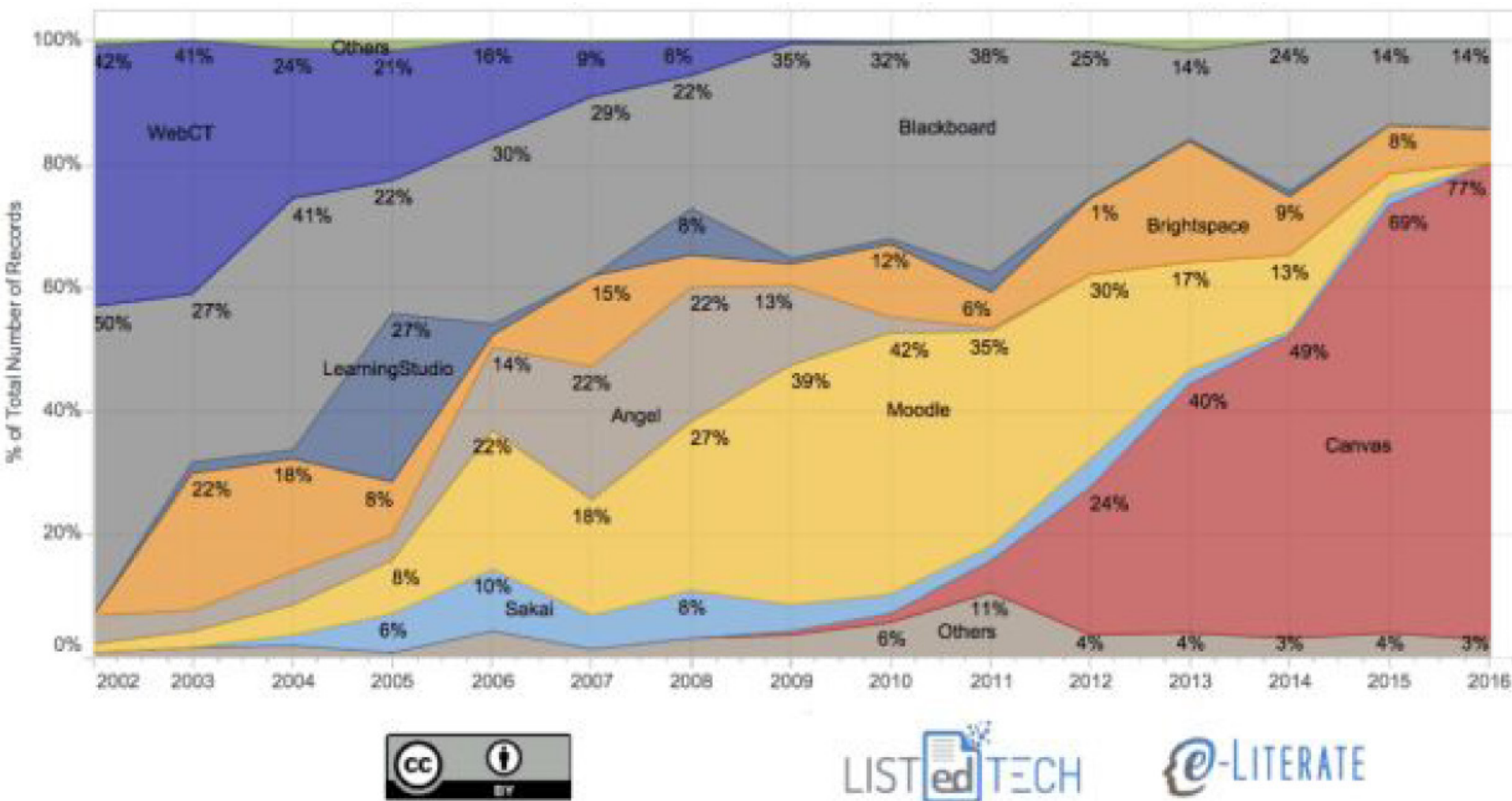
## LEARNING PLATFORM



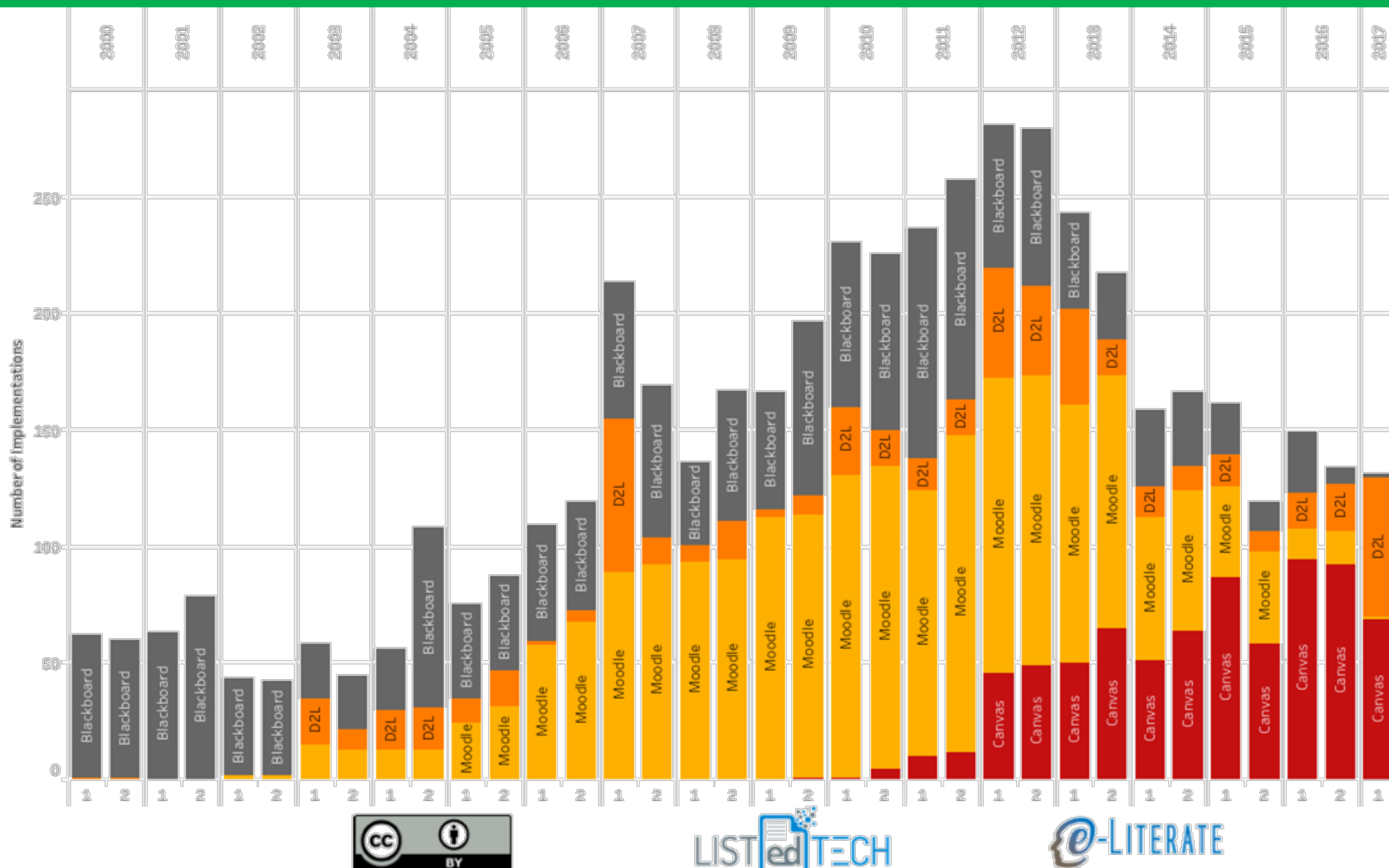






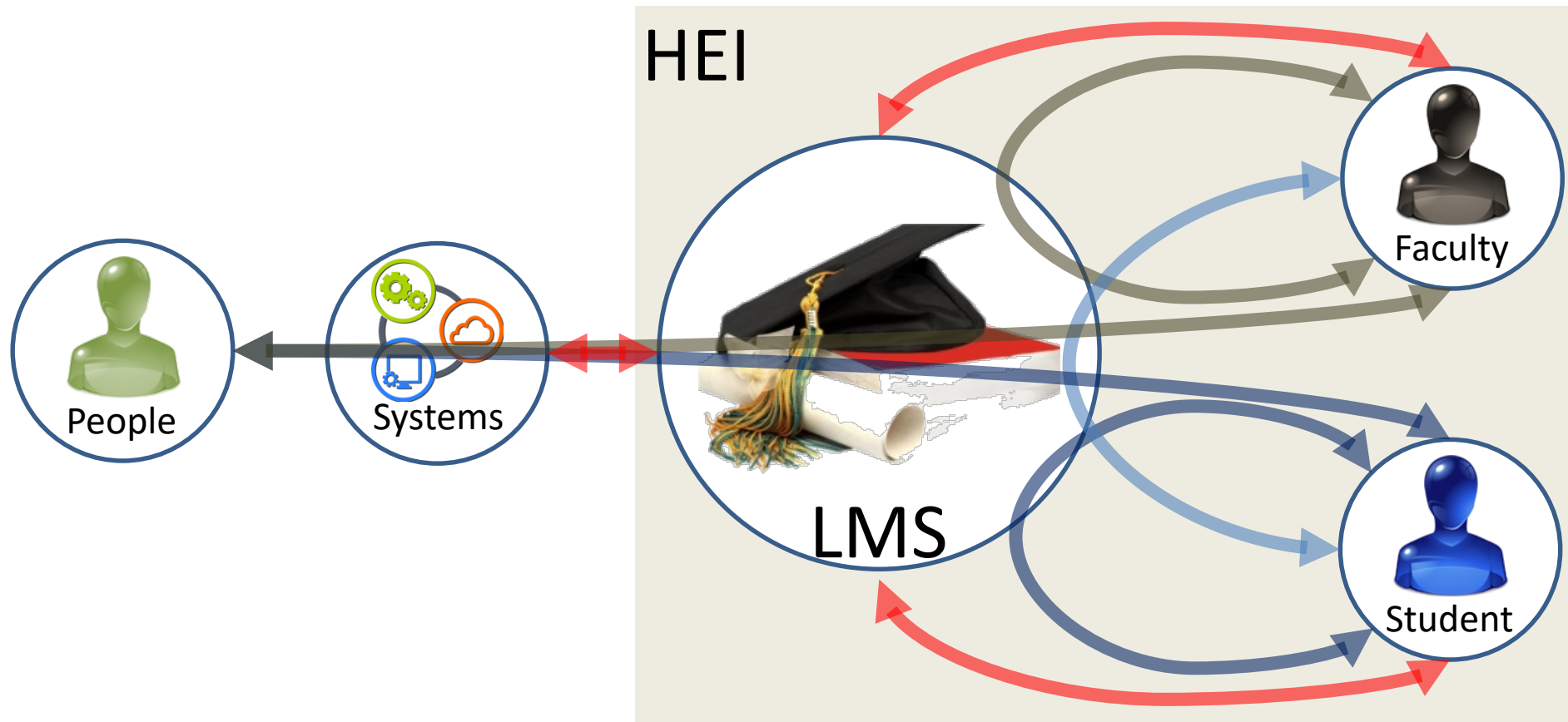






Combined New HEI Implementations in North America and Europe  
per Half-Year Period (*e-Literate*, June 2017)

# LMS Communication Possibilities



LMS  $\leftrightarrow$  Faculty, Students

Faculty  $\leftrightarrow$  LMS  $\rightarrow$  Students

Faculty  $\leftrightarrow$  LMS  $\rightarrow$  Faculty  
Students  $\leftrightarrow$  LMS  $\rightarrow$  Students

Systems  $\leftrightarrow$  LMS

Faculty, Students  $\leftrightarrow$  LMS  $\leftrightarrow$  Systems  $\leftrightarrow$  People





# LMS-Systems Integration



## Conclusions







Universidad de Jaén

# LMS as a Communication Tool



Universidad  
de Jaén

Ildefonso Ruano Ruano  
alonso@ujaen.es

Elisabet Estévez Estévez  
eestevez@ujaen.es