



ΠΑΝΕΠΙΣΤΗΜΙΟ
ΠΑΤΡΩΝ
UNIVERSITY OF PATRAS



E-learning@Upatras: Developing academic e-learning services

Dr. Victoria Daskalou, Dept. of Economics
George Lekatsas, UPnet
University of Patras, Greece, 20-24/11/2017



Erasmus+

About us

<https://blogs.upatras.gr/daskalou/>

<http://www.upnet.gr/>

Presentation scope

- Present steps of establishing e-learning services at academic environment: the case of Upatras
- Share experiences
- Discuss lessons learnt

E-learning@Upatras: 15 years of experience

The background

9/2001: Network Operation Center (UPnet)

- Scientific Committee with 3 faculty members (appointed by Senate)
- Personnel:
 - 2 network admins
 - 2 system admins
 - 2 service admins / programmers
- Budget:
 - National & EU structural funds-> Infrastructure
 - PATREASnet project: EU Investment funds
->personnel



Upnet offices are located at Library building

Establish central administration unit for academic ICT services: embedded in existing administrative structure or not?

2002: Central student user accounts

- Central user account for each student:
 - Create account for newcomers before their arrival
 - Print & distribute credentials during student initial registration @ Dept. secretariat
- Services:
 - Email (webmail, POP/IMAP)

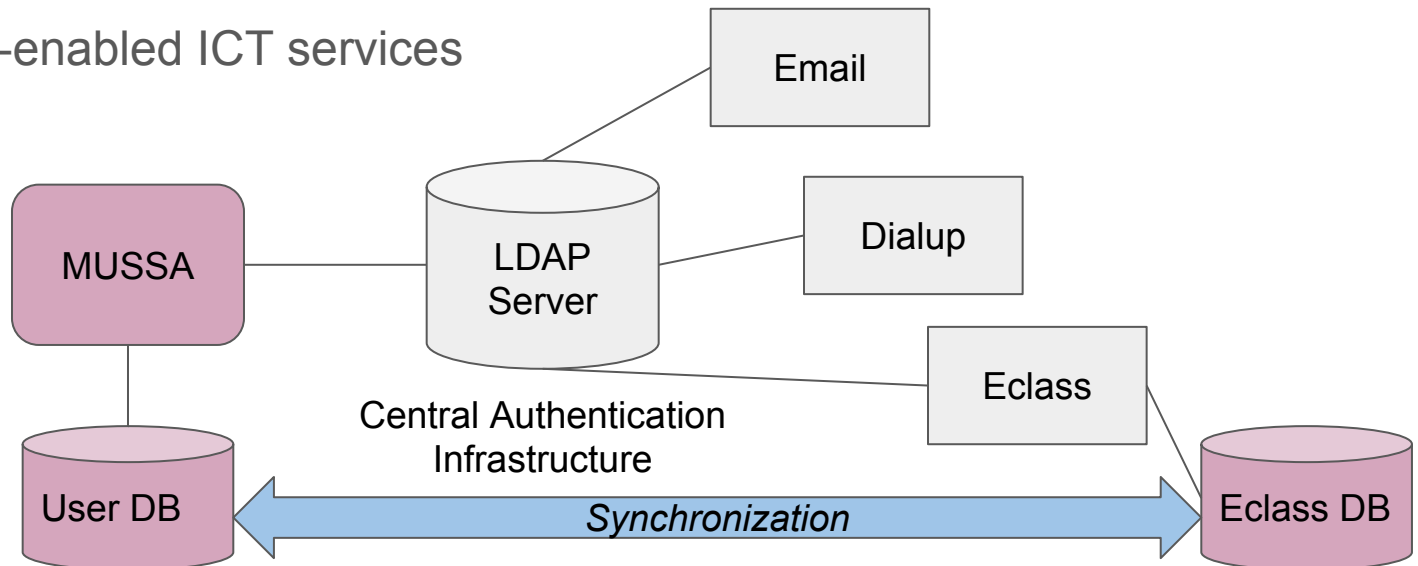
Infrastructure:

- Email server (SMTP, POP, IMAP)
- LDAP server
- Webmail

How do we organize massive account management?

2002: Organize user account mgmt

- **Consolidate user accounts** of permanent staff from different services into one central user account:
 - Central LDAP Server
 - LDAP-enabled ICT services
- Develop internal web-based **user management system**
 - MUSSA: Management of Users, Services, Systems and Applications



2002: Specify regulations & procedures

- Account life-cycle management procedures
- For each service:
 - (Online) application procedure
 - Terms & conditions
 - User guides
- Operation Regulation of Telematics Network
- Organize Helpdesk
 - Central helpdesk email@NOC
 - Technical Responsible at the Departments
- Publish everything on NOC Website:
 - <http://www.upnet.gr/>

*Procedures! Procedures!
Procedures!*

The beginning

2002: E-learning infrastructure

- Central Tele-education room
- Tele-conference:
 - Small dedicated tele-conference room
 - Mobile equipment
- Streaming infrastructure:
 - Media server
 - Encoding station for analog broadcasting media (public TV, University Radio UPfm)
 - Mobile encoding station
 - Seminars
 - Conferences



Central tele-education room @ 6/2003

2003: Pilot campus LMS

- Use GUnet [open eclass](#):
 - a Greek fork of claroline.net open-source LMS
- Strategic cooperation with:
 - [GUnet: Greek Universities Network](#) (non-profit civil company of all Greek Higher Education and Academic Institutions)
 - Upatras [Library](#)

How do we choose the LMS platform?



UPatras eclass @ 6/2003

The evolution

2004-2006: PATREASnet 2004

- Project “Create content & introduce advanced ICT services in Upatras education process”:
 - EU Investment funds
- E-learning services:
 - Synchronous elearning
 - Asynchronous elearning
- Supported NOC operational costs (personnel)

Ο καθηγητής

Ο καθηγητής έχει κεντρικό ρόλο στην πλατφόρμα e-Class καθώς είναι ο υπεύθυνος για την εισαγωγή και διαχείριση των ηλεκτρονικών μαθημάτων.

Ο καθηγητής μπορεί να δημιουργήσει όλα μαθήματα επιθυμεί, να εγγράφει και διαγράφει φοιτητές στα μαθήματα, να εισάγει το ψηφιακό υλικό του μαθήματος, να οργανώνει ομάδες συζητήσεων καθώς και δημιουργεί ασκήσεις αυτοαξιολόγησης.

Διαδικασία Εγγραφής: Εισάγετε στο φυλλομετρητή (browser) της προτίμησής σας το URL: <http://eclass.upatras.gr/>

Επιλέξτε “Αίτηση Καθηγητή” στην πρώτη σελίδα του συστήματος. Τα στοιχεία πρόσβασης θα σας αποσταλούν μέσω ηλεκτρονικού ταχυδρομείου.

Ο φοιτητής

Ο φοιτητής μπορεί να εγγραφεί σε όλα μαθήματα του επιτρέπεται, να μελετήσει το ψηφιακό υλικό, να συμμετάσχει σε ομάδες συζητήσεων, να παραδώσει τις εργασίες του και να ελέγξει την πρόδότη του, απαντώντας σε ασκήσεις αυτοαξιολόγησης.

Διαδικασία Εγγραφής: Εισάγετε στο φυλλομετρητή (browser) της προτίμησής σας το URL: <http://eclass.upatras.gr/>

Επιλέξτε “Εγγραφή Χρήστη” στην πρώτη σελίδα του συστήματος. Οι φοιτητές εγγράφονται καταχωρώντας τη διεύθυνση ηλεκτρονικού ταχυδρομείου και τον αντίστοιχο κωδικό πρόσβασης που έχουν παραλάβει από το ΚΕΑΔΔ/ΠΤΠ.

Πληροφορίες

Η πλατφόρμα e-Class αναπτύχθηκε από το Ελληνικό Ακαδημαϊκό Δίκτυο GUnet και βασίζεται σε τεχνολογίες ανοικτού κώδικα.

Η ΒΥΠ και το ΚΕΑΔΔ/ΠΤΠ υποστηρίζουν την εγκατάσταση της πλατφόρμας στο Πανεπιστήμιο Πατρών, στα πλαίσια των έργων “ΤΗ/ΕΦ/ΑΕΔΣΣΑ” και “PATREASNet”.

Για περισσότερες πληροφορίες:

- URL: <http://eclass.upatras.gr/>
- E-mail: eclass@upatras.gr

Υποστήριξη

Για θέματα υποστήριξης φοιτητών στη χρήση της πλατφόρμας μπορείτε να στείλετε e-mail στη διεύθυνση: vs_help@is.upatras.gr

Για τεχνικά θέματα, μπορείτε να στείλετε e-mail στη διεύθυνση: helpdesk@upnet.gr

ΠΑΤΡΕΑΣNet UPnet

Πανεπιστήμιο Πατρών

Πλατφόρμα Ασύγχρονης Τηλεκπαίδευσης

[http://www](http://www.upatras.gr)

<http://eclass.upatras.gr/>

First e-class flyer

How can we support e-learning operational costs?

2004-2006: Actions for e-learning

- Stabilize configuration of services
- Support operation & maintenance:
 - End-user helpdesk
 - Account life-cycle mgmt
 - System & software upgrades
 - Online room reservation system
- Promote e-learning services
- Educate users



UPatras eclass @2006

2004-2006: E-learning services

- Synchronous e-learning:
 - Using tele-education and tele-conference rooms
 - Real-time streaming of lectures & scientific events
- Asynchronous e-learning:
 - Asynchronous e-learning platform->eclass
 - Video-on-demand of educational material



Teleconference between the hospital morgue and the conference center for a medical seminar



Tele-education using the central tele-education room

LMS use @ 2006

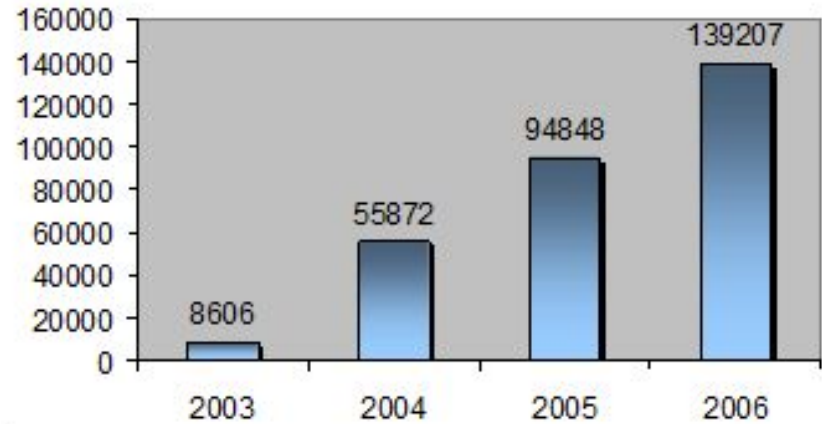
2004:

- 200 courses
- 120 faculty users
- 2100 student users

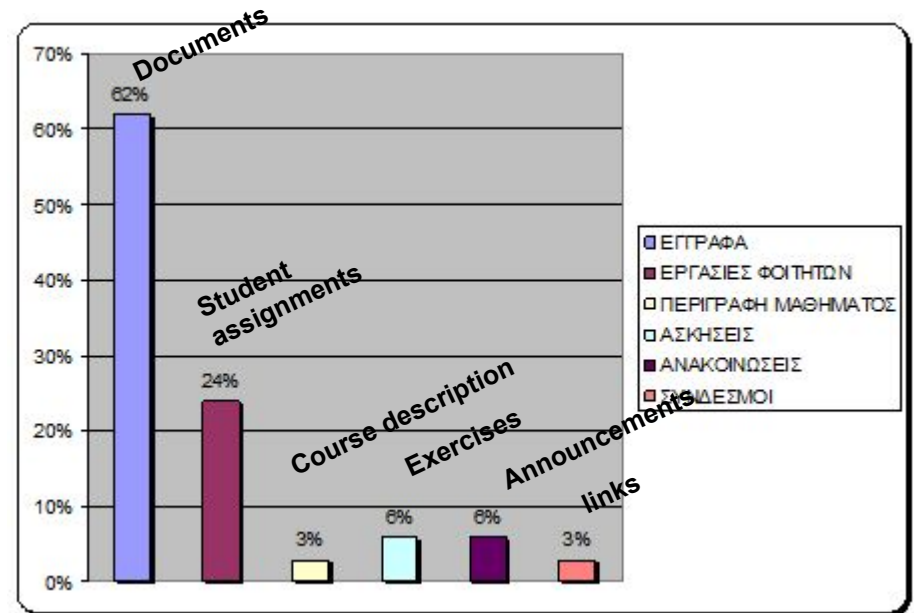
2006:

- 380 courses
- 192 faculty users
- 5000 student users

2 main reasons for using LMS: a) course website b) delivery of assignments



UPatras eclass logins (per year) @2006



Faculty user Research@2006: Which eclass tool helped you the most?

The innovators



Source: <http://delos.upatras.gr/opendelos/videolecture/show?rid=976d451d>



Source: <http://delos.upatras.gr/opendelos/videolecture/show?rid=ae0a15b9>

“The innovators”:

Faculty who use extensively the e-learning services for supporting their university courses

They can be used as examples of best practices. Collaborate with them to promote e-learning!! The others will follow them...

The openness

10/2012: Open courses @ Upatras

- EU-funded project
“Open Academic Courses at Upatras”:
 - Create Open Educational Resources (OER) with CC licenses
 - Promote Open Education
 - Part of a national action
- Project team:
 - Steering Committee
 - Support Unit: join forces of LIS, NOC, IT services (11 personnel)
 - Departments’ Support Teams(194 personnel)



Source: https://www.youtube.com/watch?v=YSDDu4R9s_g

*Why should we support
open education?*

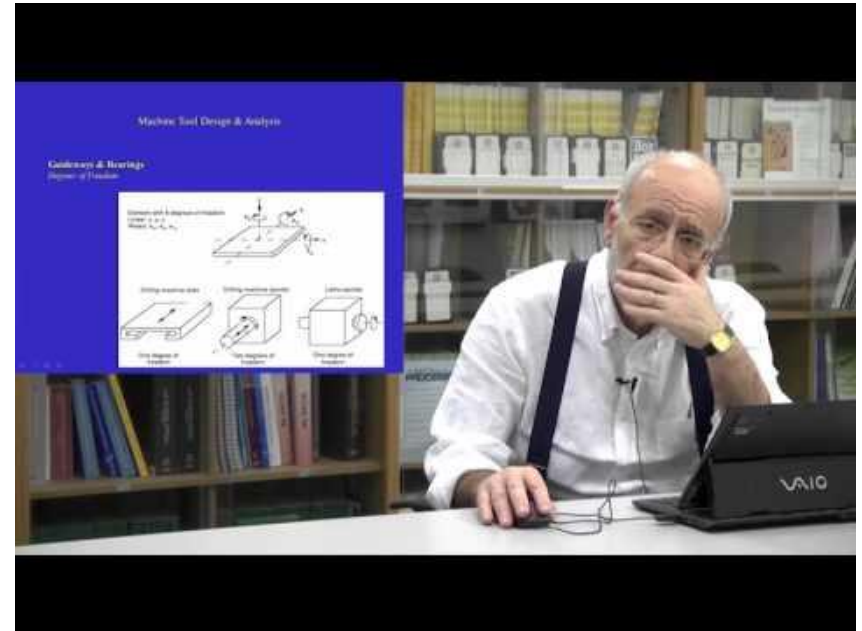
*How can we open our
education?*

Open education






















OER Leaders Interviewed - Benefits of Open Education Resources

CC Attribution License 4.0 Some Right Reserved by
Centrum Cyfrowe



Open academic courses @ Upatras

Open Courses: Specifications

	Digital Course (A-)	Course with Video lectures (A+)
Analytical course description		
Learning objectives		
Key-terms for course		
Organization in Course-units		
Course-unit objectives		
Key-terms for course-unit		
Notes, slides, etc per lecture		
References		
Exercices		
Links to library sources		
Multimedia content (videlectures, podcasts, annotated video)		

OC @ Upatras: High-level results

269 Digital Courses

+85 Digital Courses with Video Lectures

354 Open courses -> **16%** of Upatras courses*

149 Faculty members-> **19%** of Upatras faculty*

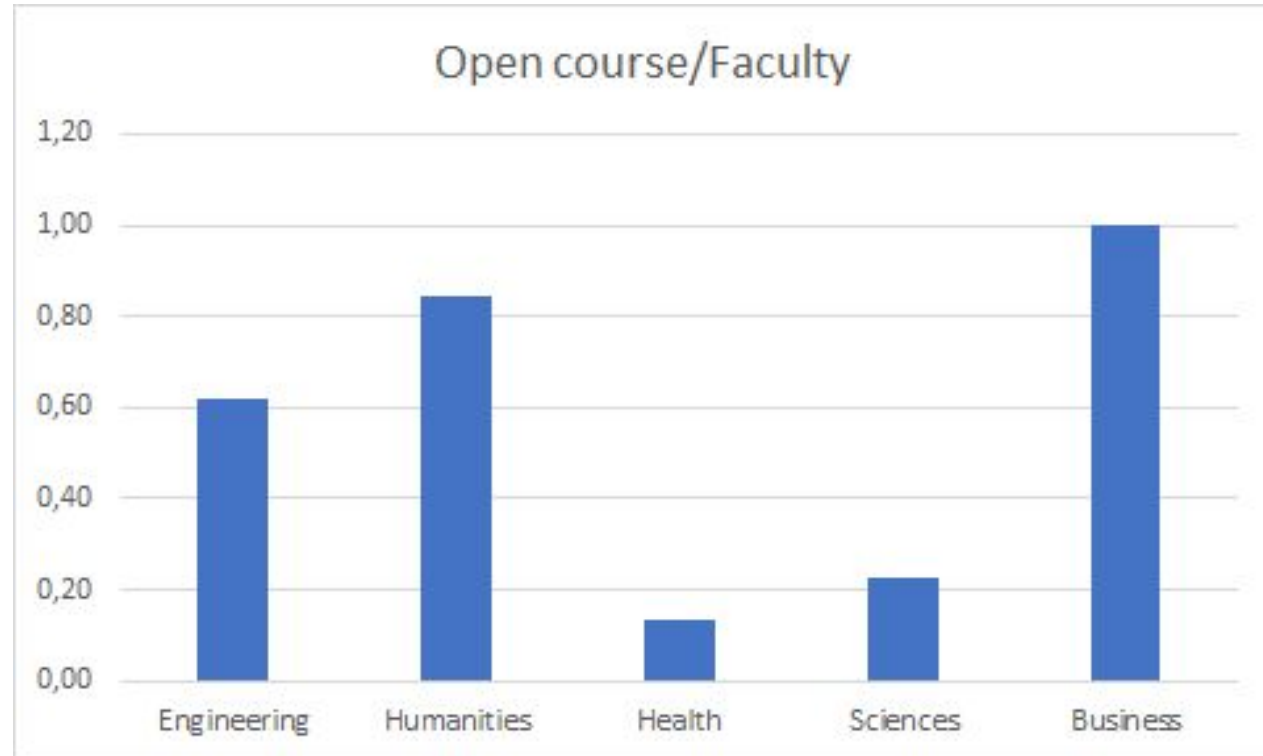
*Totals of academic year 2012-2013

Open courses @ Upatras: More results

	Course type					
School	A-	A+	Mix	#OC	#Faculty	OC/Faculty
Engineering	116	24	6	146	236	0,62
Humanities	53	30		83	98	0,85
Health	19	3	2	24	177	0,14
Sciences	37	7	3	47	206	0,23
Business	44	7	3	54	54	1
Total	269	71	14	354	771	

Open courses @ Upatras: Schools*

- Business & Humanities more active
- Health & Sciences more skeptical

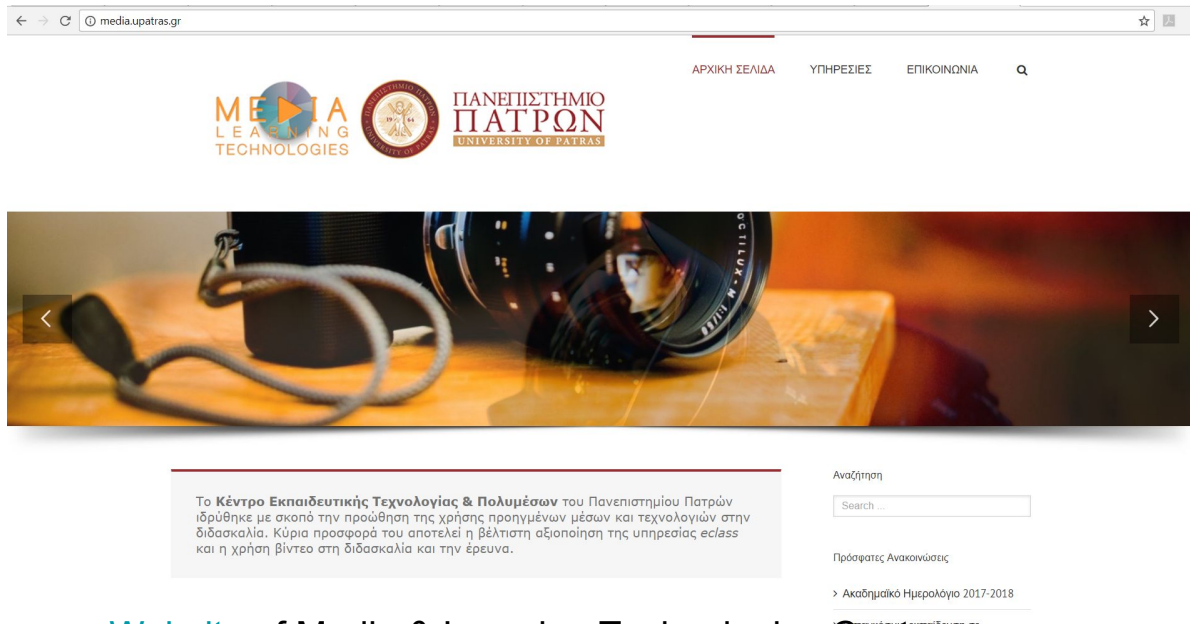


*Based on data of academic year 2012-2013

Open Courses @ Upatras: Some skepticism

- Transform existing educational material to OER
 - Copyright issues and CC
- Focus on video-lectures and streaming technology
 - What about “talking heads”?
- National action designed by technologists
- Kept the same pedagogy:
 - Teacher-centric
 - What about students?
 - What about designing blended learning activities?

7/2014: Media & learning technologies center



[Website](#) of Media & Learning Technologies Center

A new structure outside NOC?:

- Supported only by a scientific committee?
- Without personnel or projects?

How can we guarantee sustainability of e-learning services?

The present

Upatras eclass@11/2017

The screenshot shows the Upatras eclass website interface. At the top, the browser address bar displays "Ασφαλές | https://eclass.upatras.gr/index.php?localize=en". The page header includes the University of Patras logo on the left and the text "E-Learning Platform" on the right. A navigation menu on the left lists "Basic Options", "Courses", "Register", "Manuals", "About", "Contact", and "Open Courses". The main content area features a background image of a laptop, a notebook, and a pen. A "User login" form is overlaid on the right, with fields for "Username" and "Password", an "Enter" button, and a "Forgot your password?" link. Below the login form, a text box describes the platform as a complete Course Management System. To the right, a box shows "Online Users: 174". At the bottom right, there is a logo for "ανοικτά μαθήματα" (Open Courses) with the text "ΕΥΡΕΤΗΡΙΟ ΜΑΘΗΜΑΤΩΝ" and a large "348" followed by "open courses" in a blue arrow.

Ασφαλές | https://eclass.upatras.gr/index.php?localize=en

E-Learning Platform

1964 UNIVERSITY OF PATRAS

Basic Options

- Courses
- Register
- Manuals
- About
- Contact

Open Courses

User login

Username

Password

Enter

Forgot your password?

The **upatras eclass** platform is a complete Course Management System that supports Asynchronous eLearning Services via a simple web browser. Its goal is the incorporation and constructive use of the Internet and web technologies in the teaching and learning process. It supports the electronic management, storage and presentation of teaching materials, independently of the spatial and time limiting factors of conventional teaching and creating the necessary conditions for a dynamic teaching environment.

Online Users: 174

ανοικτά μαθήματα
ΕΥΡΕΤΗΡΙΟ ΜΑΘΗΜΑΤΩΝ

348 open courses

<http://eclass.upatras.gr/>

Eclass: An active e-learning tool

- Courses: 2869*
 - Open Access: 1375
 - Registration required: 1160
 - Closed: 334
- Users: 54630*
 - Teachers: 1057 (of 827 permanent faculty & scientific staff members**)
 - Students: 53395 (of 36151 students*:
 - 32328 undergrad. students
 - 1777 M.Sc. students
 - 2046 Ph.D. candidates)
 - Guest users: 178

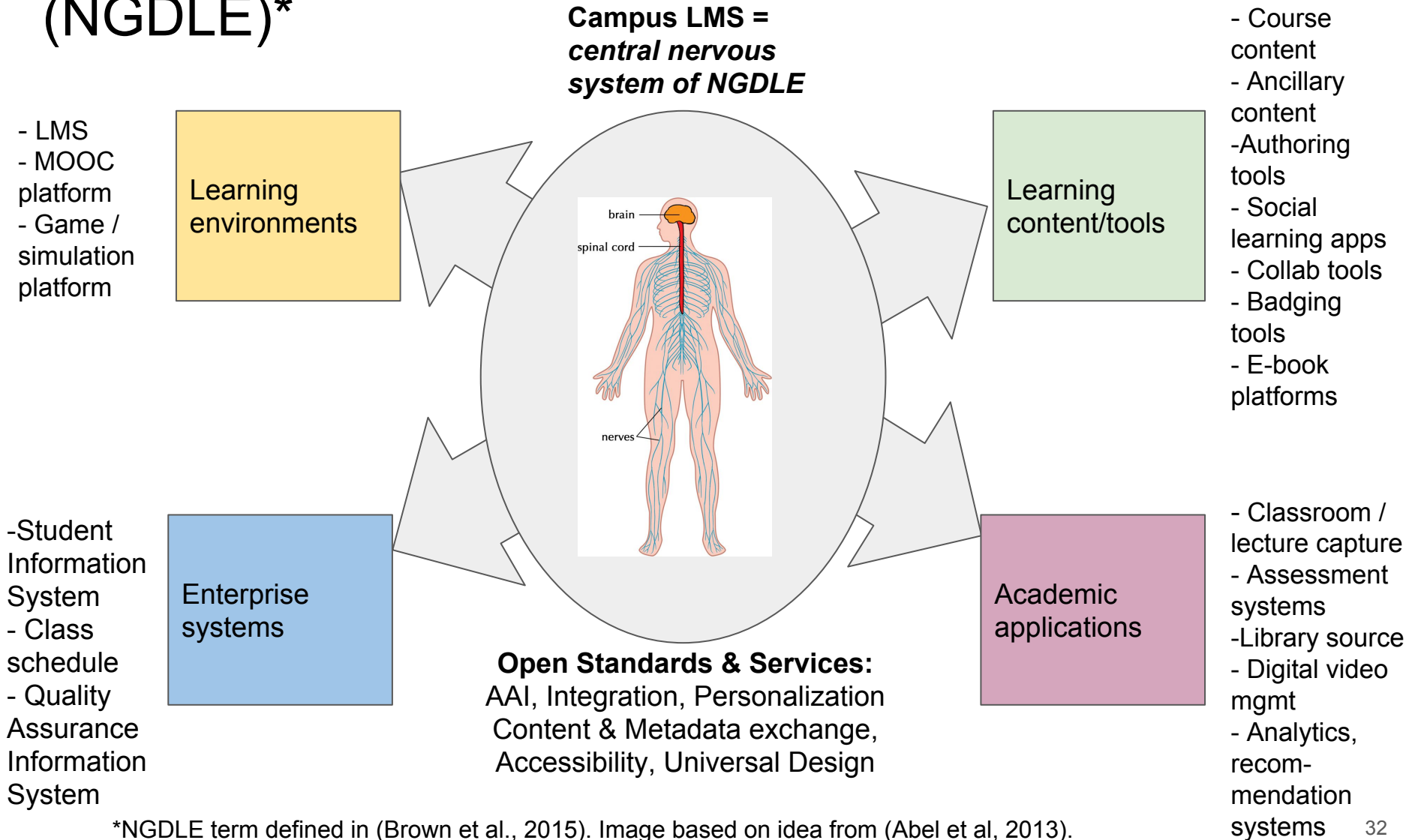
The need for a campus LMS will go on increasing (in proportion to the need for blended learning methods)

* Eclass courses & users as of 11/2017, source: <https://eclass.upatras.gr/info/about.php>

** Faculty, scientific staff and students as of 31/8/2017 without newcomers for academic year 2017-2018, source <http://www.upatras.gr/el/university> (retrieved@11/2017 in greek)

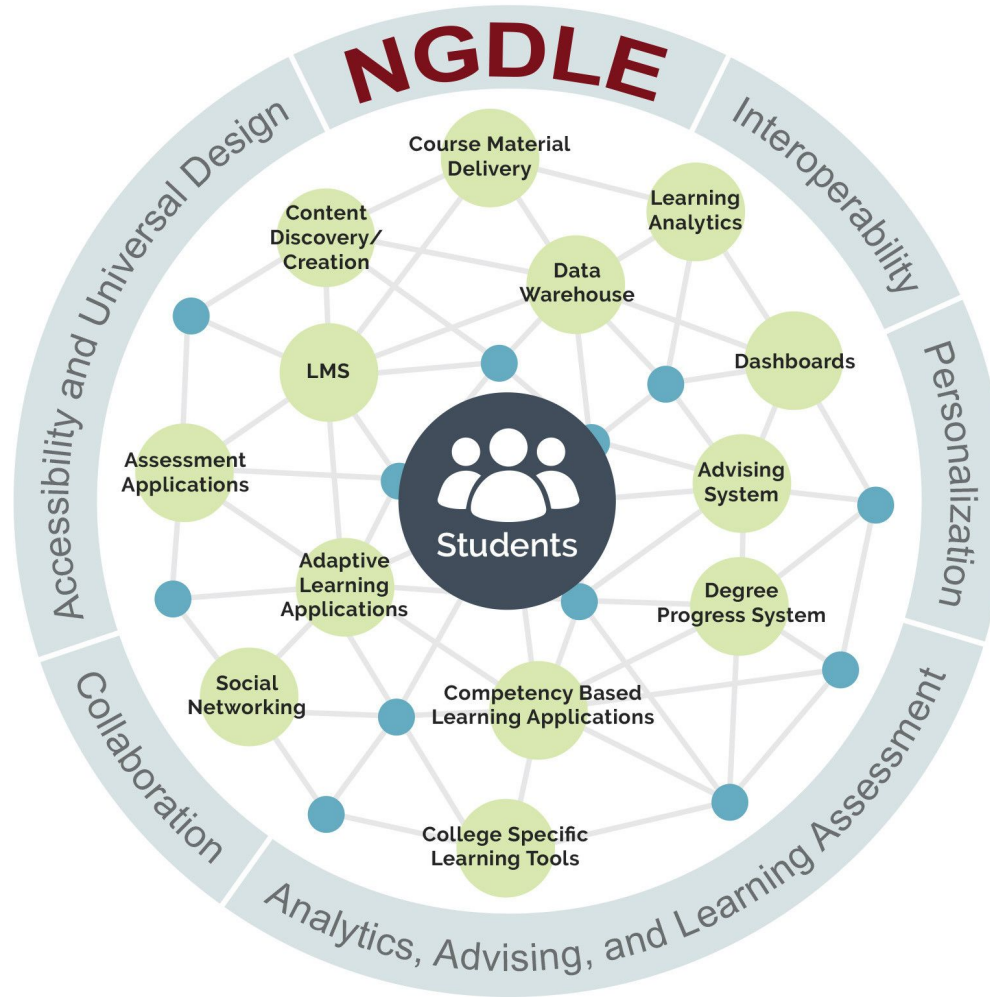
The future

Next Generation Digital Learning Environment (NGDLE)*



*NGDLE term defined in (Brown et al., 2015). Image based on idea from (Abel et al, 2013).

What does an NGDLE look like?



Lessons learnt (?)

Learning is changing (Bonk, 2016)

Learning has increasingly become more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, and so much more.

How learning is changing: Mega trends of 2016

Mega trend #1: Learner engagement

Mega trend #2: Pervasive access

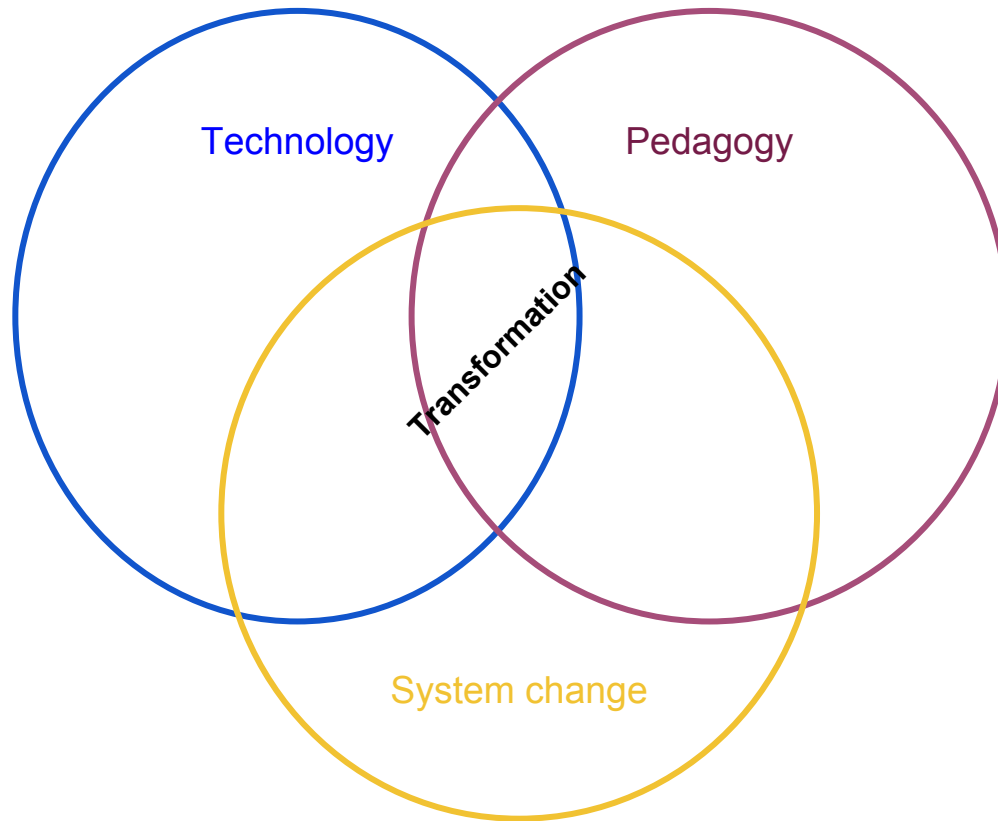
Mega Trend #3: Customisation

Design your NGDLE now!

- Specify your university vision & policy about digital learning, as expressed by official collective bodies (e.g. senate), to follow the trends
- Organize a central ICT/e-learning unit/center
- Establish the basic telematic services (university accounts & mgmt) & procedures
- Establish a Campus LMS as the *central nervous system* of your NGDLE
- In each department find/collaborate with “*the innovators*”
- Dedicate resources to e-learning support & development
- Open your education

and finally....

Humanizing your NGDLE



Source: Baker (2017)

Thank you!

daskalou@upatras.gr

lekatsas@upatras.gr

Funding

- This educational material is developed within the project "OPATEL: Online Platform for Academic TEaching and Learning in Iraq and Iran", under the contract 573915-EEP-1-2016-1-DE-EPPKA2-CBHE-JP.
- The OPATEL project is funded by the Erasmus+ programme of the European Union.
- *The European Commission support for the production of this material does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.*



Erasmus+

Notes

Note on History of Published Version

The present work is the edition 2.0

Reference Notes

Abel, R., Brown, M., & Suess, J. (2013). A New Architecture for Learning. *Educause Review*, 48(5), 88. Retrieved @ 10/11/2017 from

<https://er.educause.edu/articles/2013/10/a-new-architecture-for-learning>

Baker J. (2017). Updating the Next Generation Digital Learning Environment for Better Student Learning Outcomes, *EDUCAUSE Review*, 52, no. 4 (July/August 2017). Retrieved @ 20/11/2017 from

<https://er.educause.edu/~media/files/articles/2017/7/erm17413.pdf>

Bonk, C. J. (2016). Keynote: What Is the State of E-Learning? Reflections on 30 Ways Learning Is Changing. *Journal of Open, Flexible and Distance Learning*, 20(2), 6-20.

Retrieved @ 1/11/2017 from <https://files.eric.ed.gov/fulltext/EJ1120844.pdf>

Brown, M., Dehoney, J., & Millichap, N. (2015). *The next generation digital learning environment. A Report on Research. ELI Paper*. Louisville, CO: Educause April. Retrieved @ 10/11/2017 from

<https://library.educause.edu/resources/2015/4/the-next-generation-digital-learning-environment-a-report-on-research>

License Notes

The current material is available under the Creative Commons AttributionNonCommercial-ShareAlike 4.0 International license or later International Edition. The individual works of third parties are excluded, e.g. photographs, diagrams etc. They are contained therein and covered under their conditions of use in the section «Use of Third Parties Work Note».

[1] <http://creativecommons.org/licenses/by-nc-sa/4.0/>

As Non-Commercial is defined the use that:



- Does not involve direct or indirect financial benefits from the use of the work for the distributor of the work and the license holder.
- Does not include financial transaction as a condition for the use or access to the work.
- Does not confer to the distributor and license holder of the work indirect financial benefit (e.g. advertisements) from the viewing of the work on website.

The copyright holder may give to the license holder a separate license to use the work for commercial use, if requested.

Preservation Notices

- Any reproduction or adaptation of the material should include:
 - the Reference Note,
 - the Licensing Note,
 - the declaration of Notices Preservation,
 - the Use of Third Parties Work Note (if available), together with the accompanied URLs.

Note of use of third parties work

This work makes use of the following works:

Pictures/Shapes/Charts/Photos

- Prof. Avouris' photo from video
<http://delos.upatras.gr/opendelos/videolecture/show?rid=976d451d>, CC BY 4.0
- Prof. Karakantza's photo from video
<http://delos.upatras.gr/opendelos/videolecture/show?rid=ae0a15b9>, CC BY-NC-SA 4.0

Video

- OER Leaders Interviewed - Benefits of Open Education Resources
CC BY 4.0 Some Right Reserved by Centrum Cyfrowe, URL:
<https://www.youtube.com/watch?v=pLbg2p6scQY>
- Open courses @ Upatras, URL: https://www.youtube.com/watch?v=YSDDu4R9s_g