



FIRST FACULTY OF MEDICINE
CHARLES UNIVERSITY IN PRAGUE



e-Learning and Distance Education for Laboratory Medicine on Charles University in Prague

Kocna P., Zima T., Štuka Č.



Education in Clinical Chemistry and Laboratory Medicine
EFLM Symposium, Prague, April 24 - 26, 2015



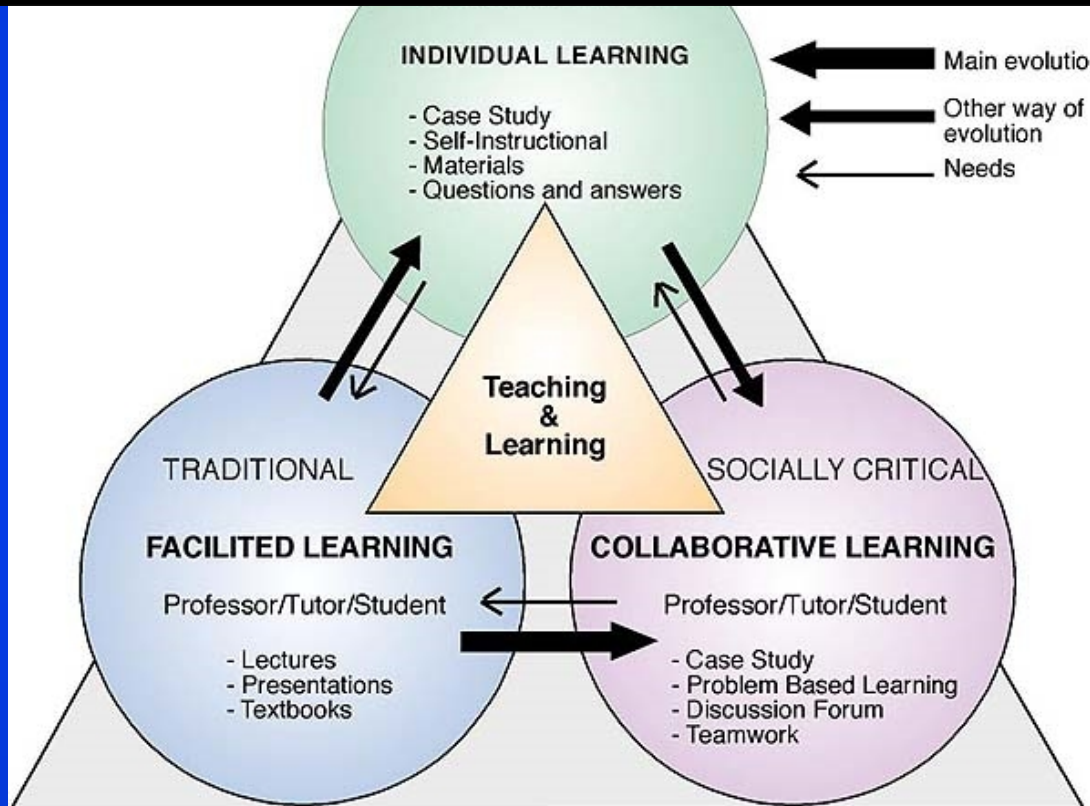
E-learning (or eLearning)
is the use of **electronic educational technology** in
learning and teaching.

Information and communication technology (**ICT**) in education,
learning technology, multimedia learning,
technology-enhanced learning (**TEL**), computer-based instruction (**CBI**),
computer managed instruction, computer-based training (**CBT**),
computer-assisted instruction or computer-aided instruction (**CAI**),
internet-based training (**IBT**), flexible learning,
web-based training (**WBT**), online education, virtual education,
virtual learning environments (**VLE**) and digital education.

The term "**e-learning**" is used frequently,
but is variously and imprecisely defined and applied.

<http://en.wikipedia.org/wiki/E-Learning>

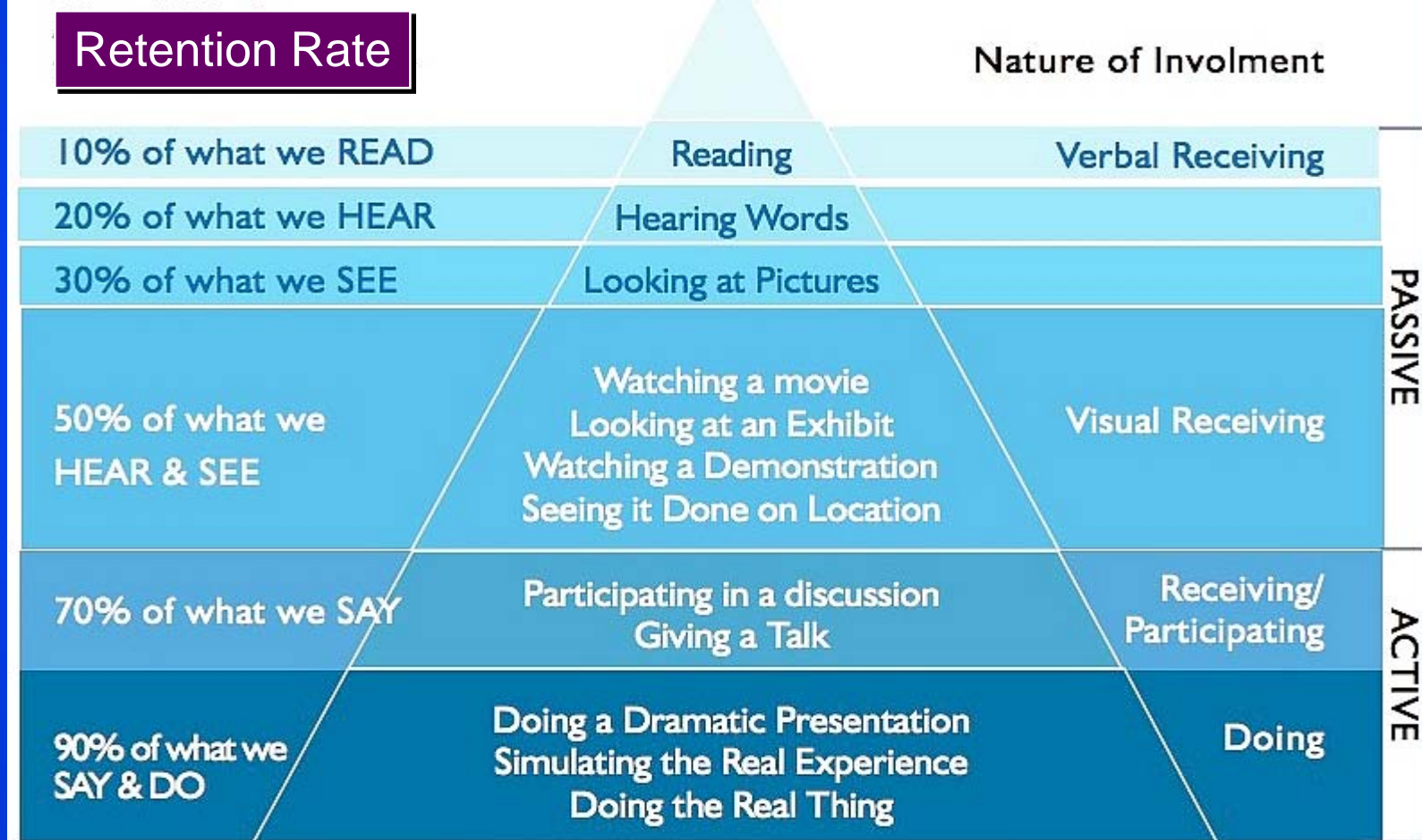
Effective pedagogy, not the technology, is at the centre of the process.



Pedagogical approaches in online education
Sven Ake Bjorke, February 2014



The importance of active forms of education

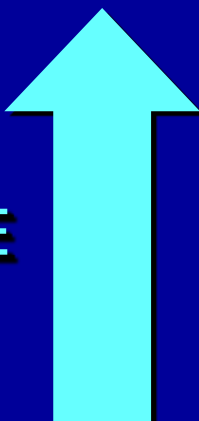


Edgar Dale's cone of learning

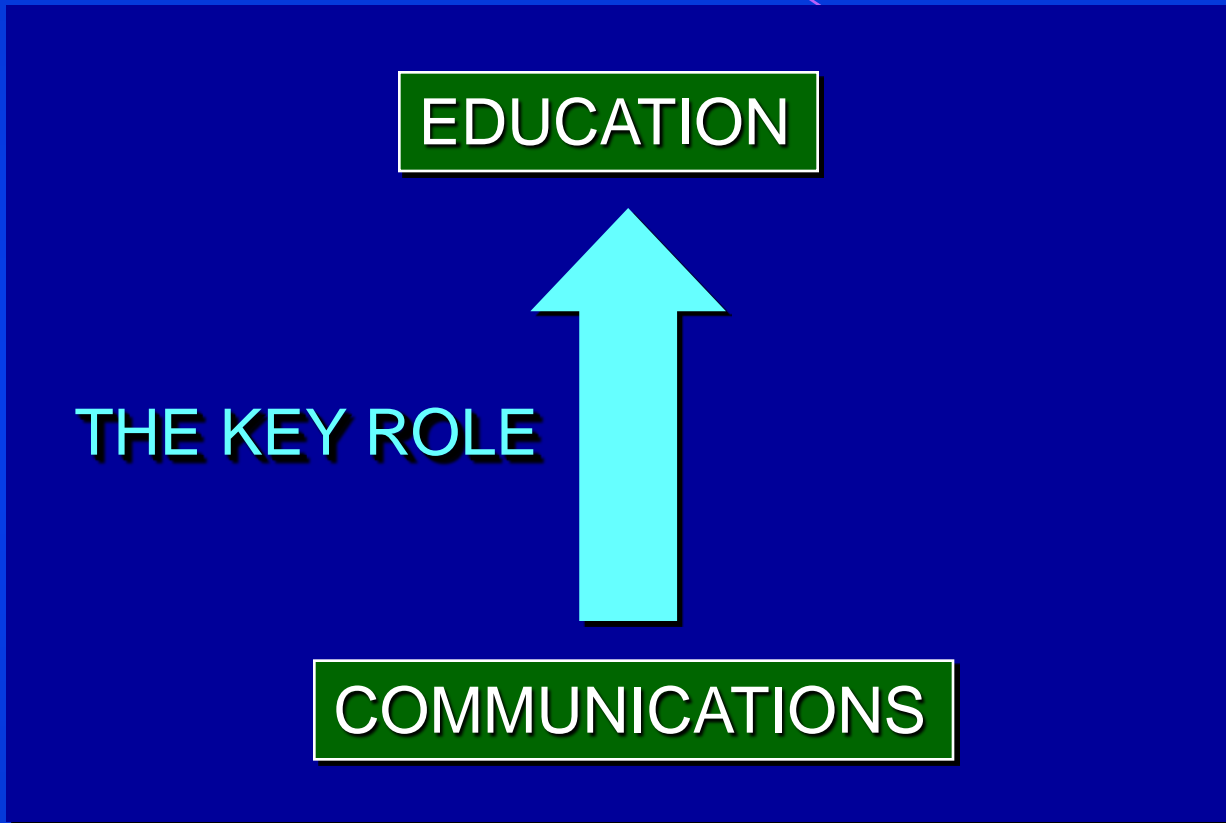
Dale, E. Audio-visual methods in teaching. New York: Dryden. 1969



EDUCATION

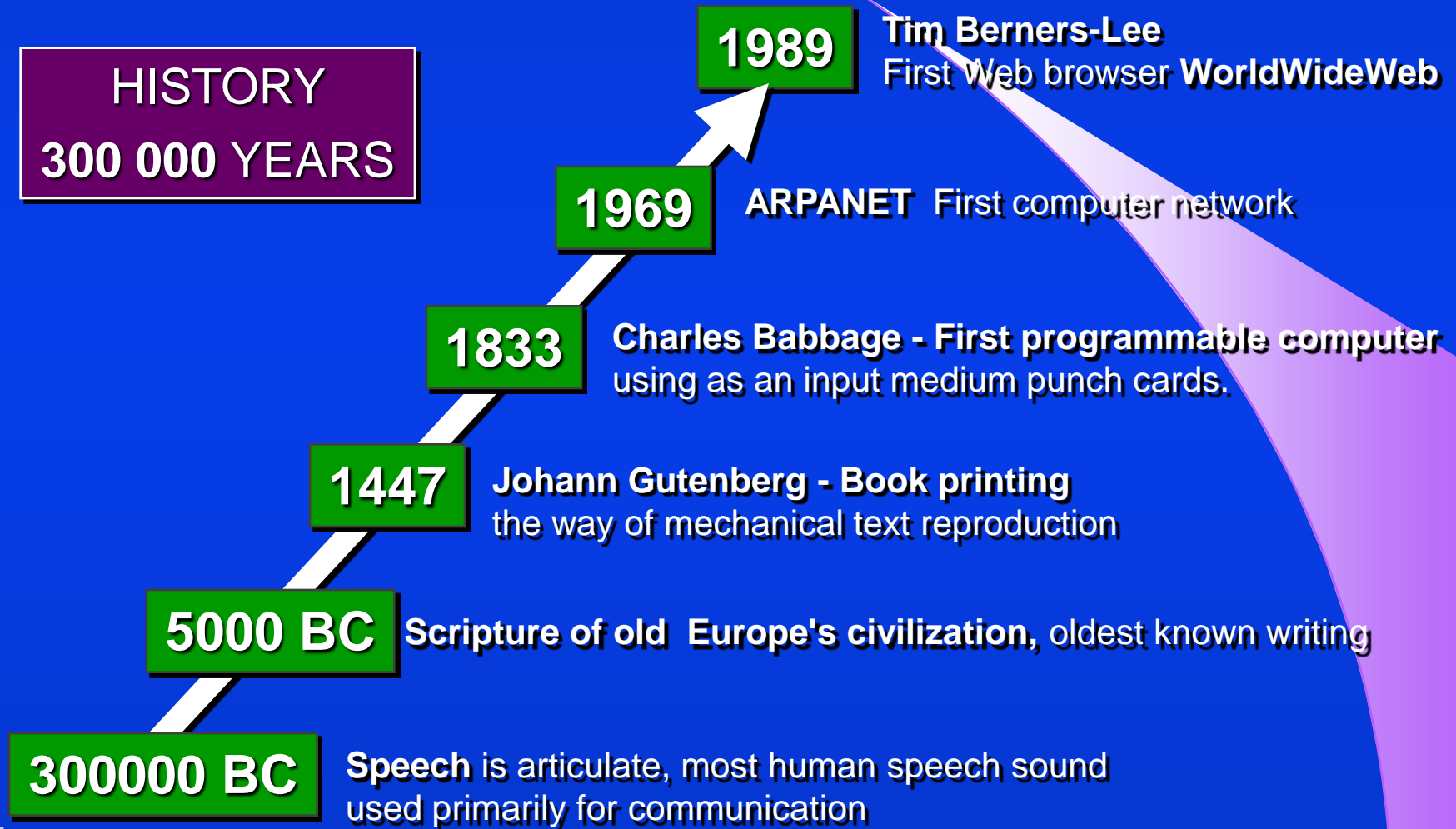


THE KEY ROLE



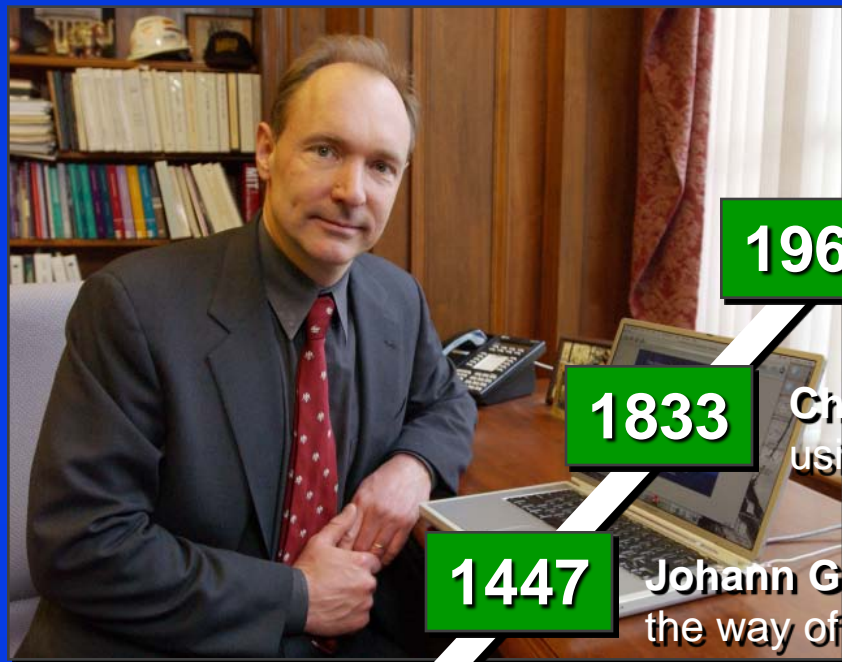


Turning point in history of communication





Turning point in history of communication



1989

Tim Berners-Lee
First Web browser **WorldWideWeb**

1969

ARPANET First computer network

1833

Charles Babbage - First programmable computer
using as an input medium punch cards.

1447

Johann Gutenberg - Book printing
the way of mechanical text reproduction

5000 BC

Scripture of old Europe's civilization, oldest known writing

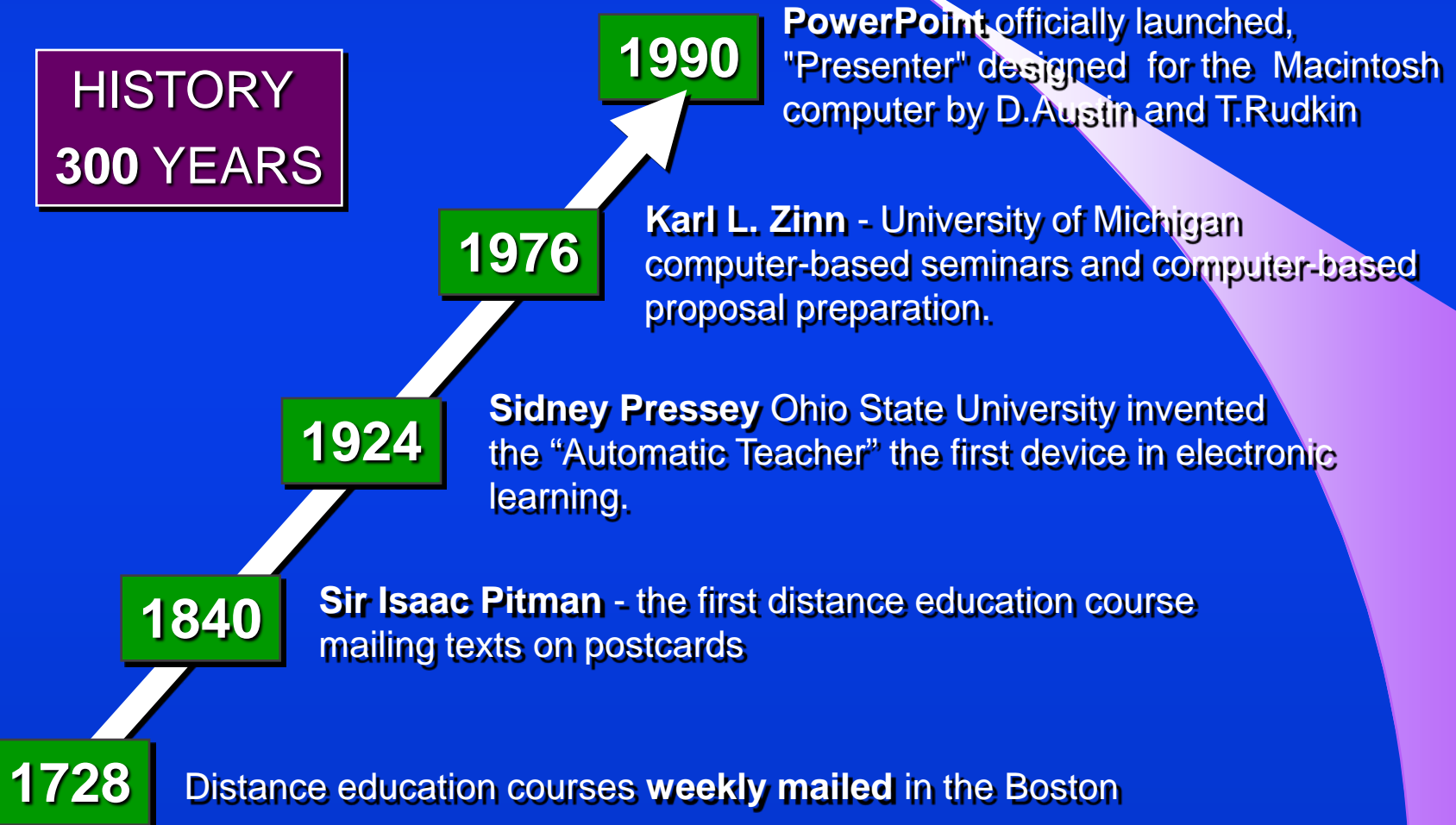
300000 BC

Speech is articulate, most human speech sound
used primarily for communication



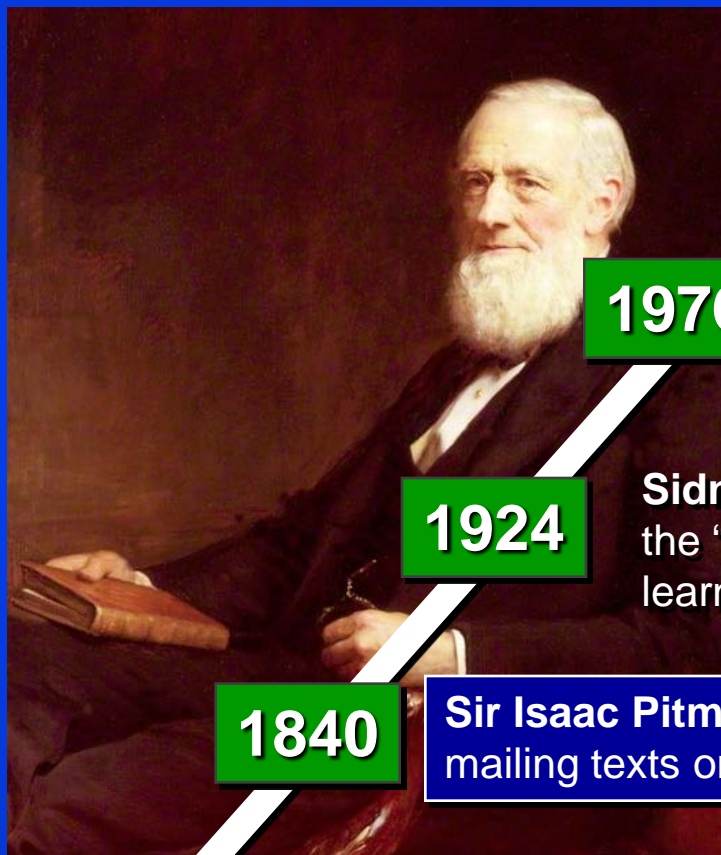
Turning point in history of distance education

HISTORY
300 YEARS





Turning point in history of distance education



1990

PowerPoint officially launched, "Presenter" designed for the Macintosh computer by D.Austin and T.Rudkin

1976

Karl L. Zinn - University of Michigan computer-based seminars and computer-based proposal preparation.

1924

Sidney Pressey Ohio State University invented the "Automatic Teacher" the first device in electronic learning.

1840

Sir Isaac Pitman - the first distance education course mailing texts on postcards

1728

Distance education courses **weekly mailed** in the Boston



Turning point in history of distance education



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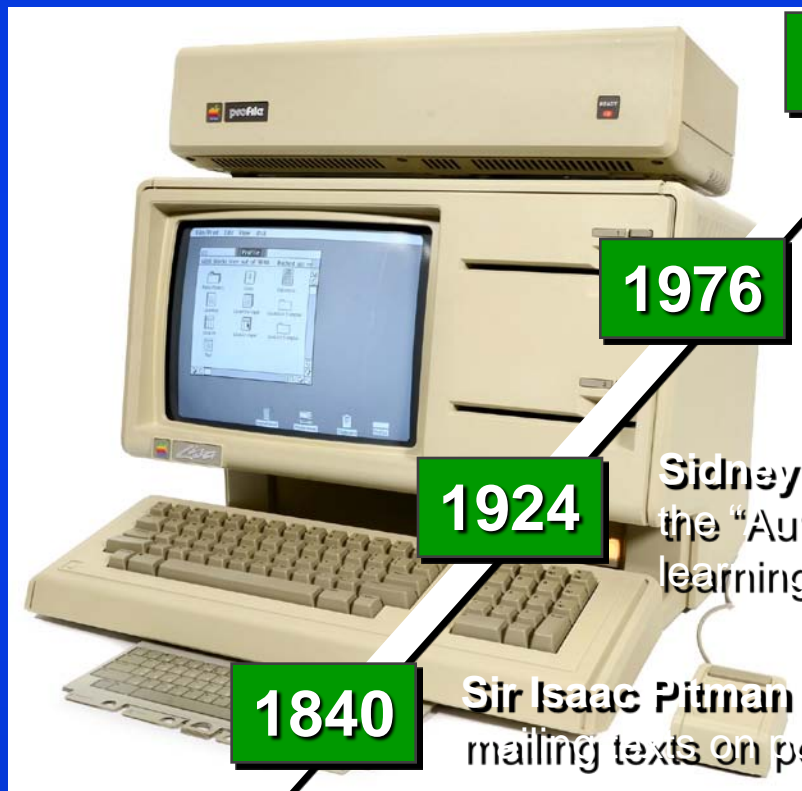
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Turning point in history of eLearning

HISTORY
30 YEARS

2010s

The future holds a new wave of e-learning inspired by **social media**, Massive Open Online Courses (MOOCs), Selective Open Online Courses (SOOCs) and even **websites like YouTube**.

2000s

In the 2000s, businesses began using **e-learning to train** their employees.

1990s

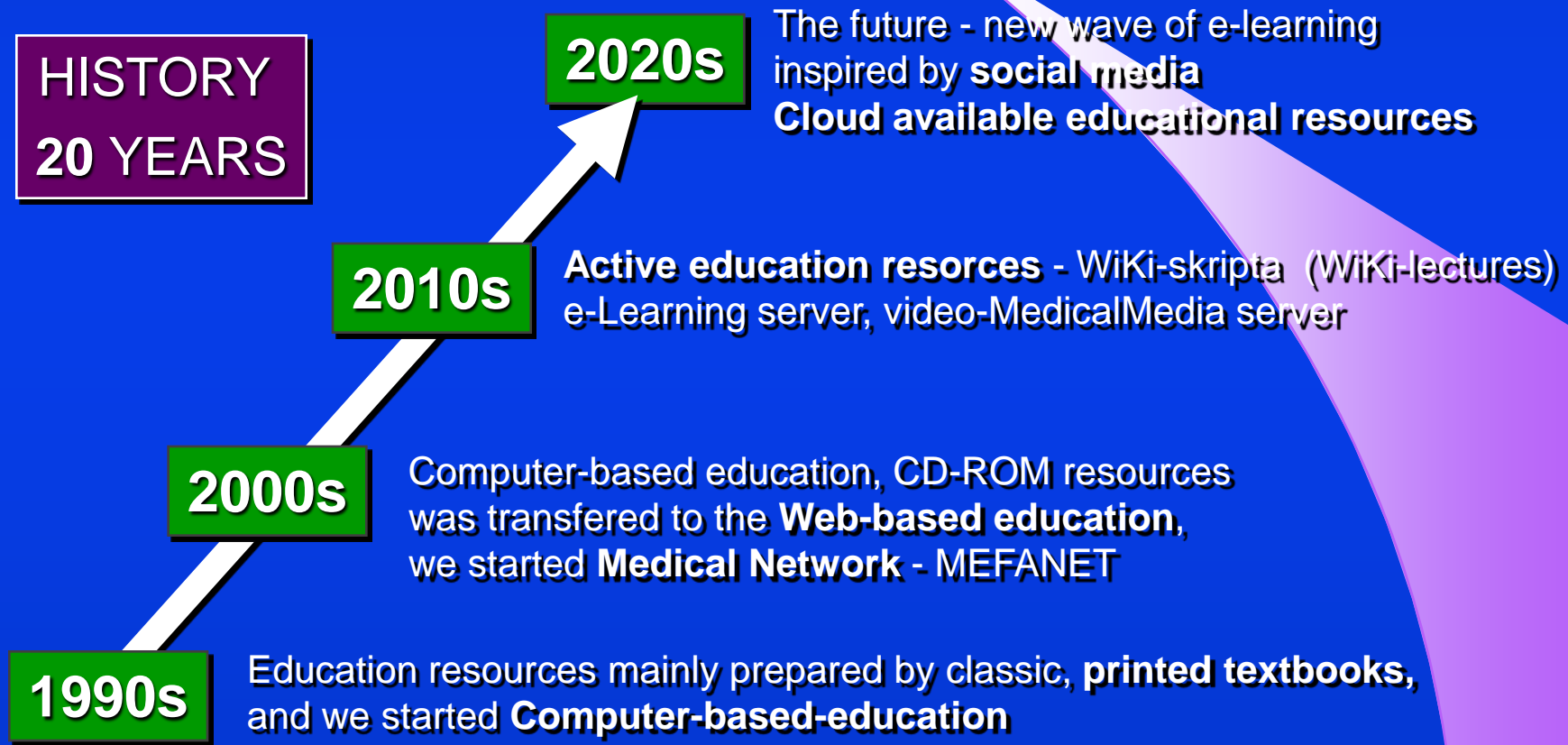
At the end of the 90s the **learning management systems (LMS)** spread widely. Some universities preferred to design and develop their own systems, but most of the educational institutions started with systems from the market.

1980s

The origins of the **term e-Learning** is not certain, although it is suggested that the term most likely originated during the 1980's.

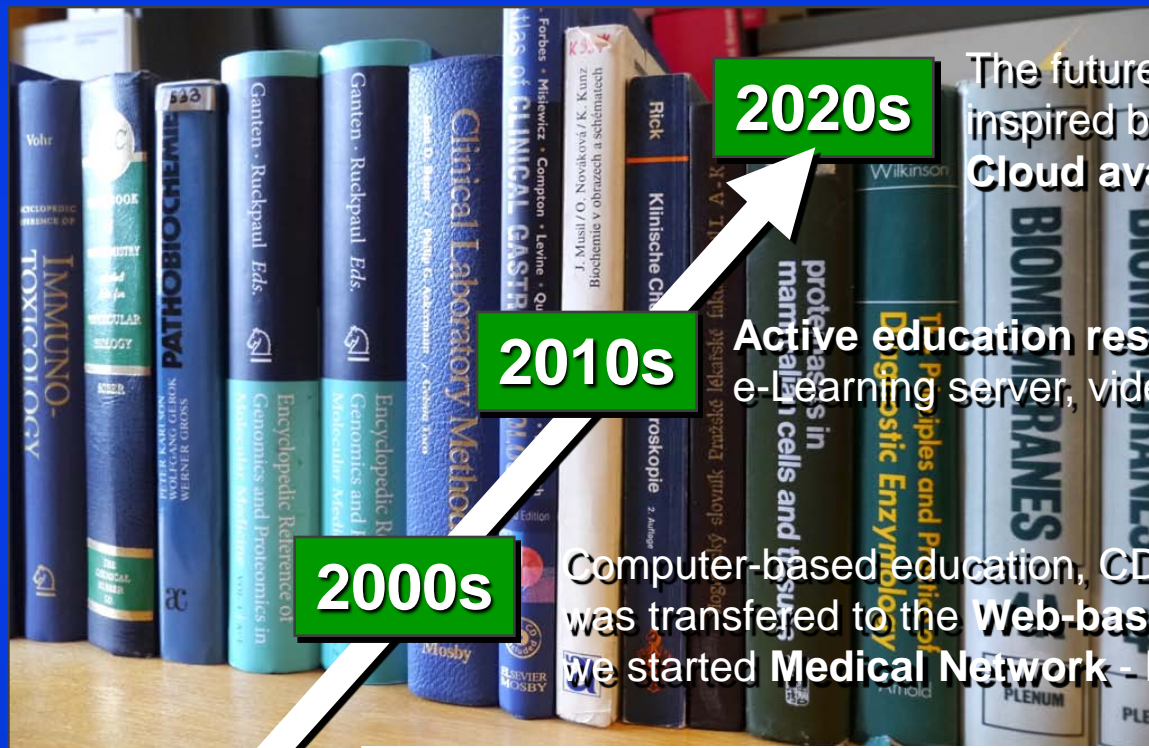


Turning point in history of eLearning on 1st Medical Faculty





Turning point in history of eLearning on 1st Medical Faculty



1990s

Education resources mainly prepared by classic, **printed textbooks**, and we started **Computer-based-education**

2000s

Computer-based education, CD-ROM resources was transferred to the **Web-based education**, we started **Medical Network - MEFANET**

2010s

Active Education resources - WiKi-skripta (WiKi-lectures) e-learning server, video-MedicalMedia server

2020s

The future - new wave of e-learning inspired by **social media**
Cloud available educational resources



**Department of Clinical Biochemistry was the first one started
Computer-based education with PowerPoint - Windows 3.1
and LCD projection**



**LCD Projection Panel Monitor
Proxima Ovation 820
Cyclop Monitor Synchronization**



Turning point in history of eLearning on 1st Medical Faculty



2020s

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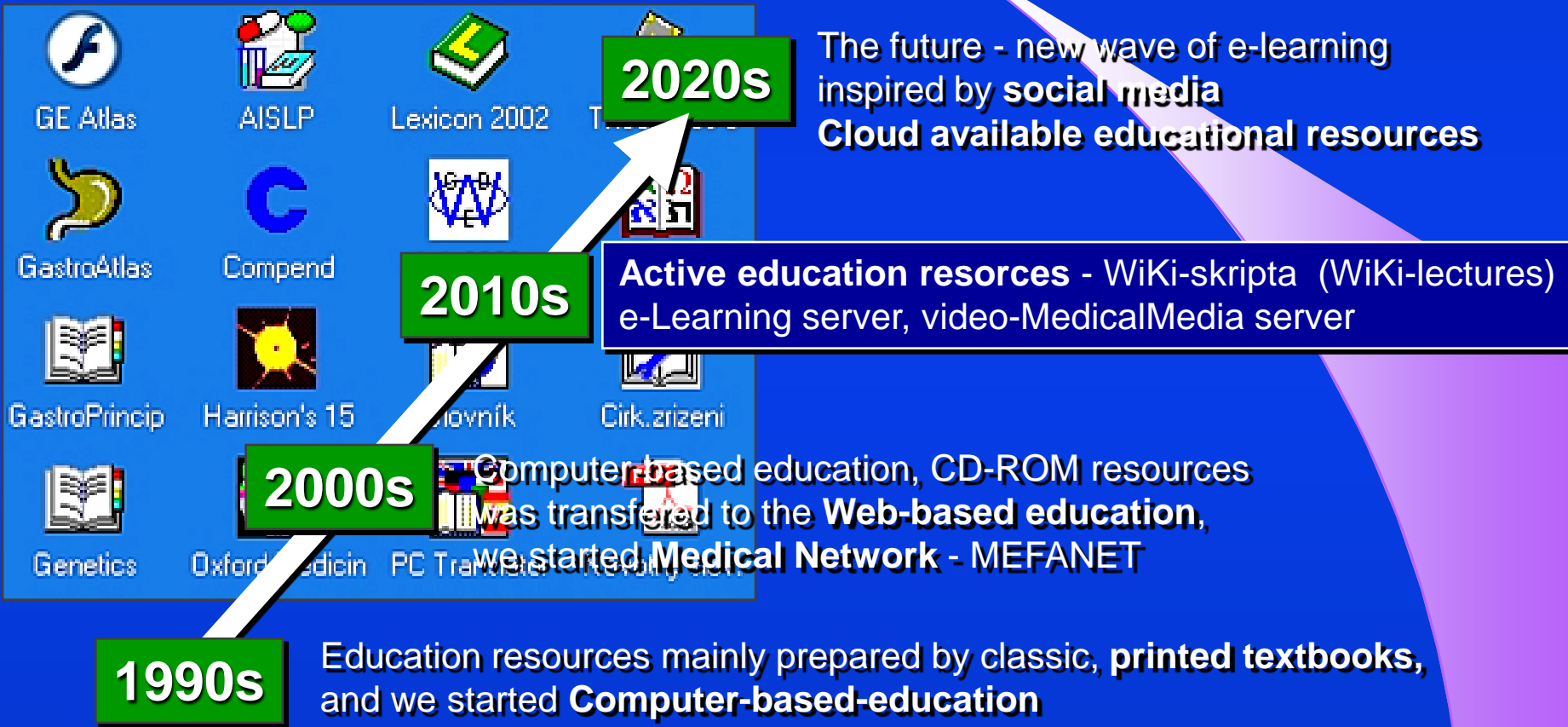
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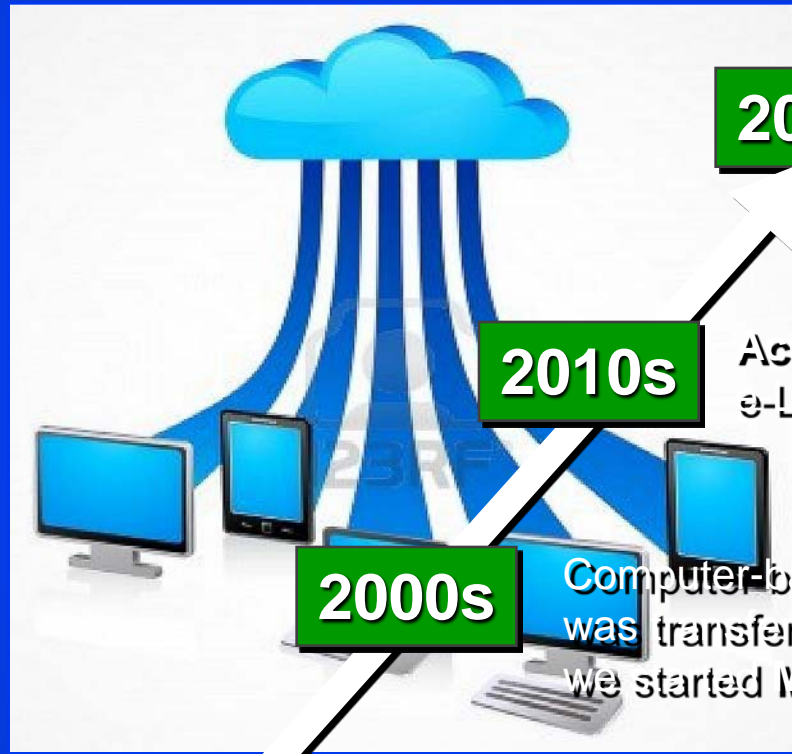


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Educational Portal od 1st. Medical Faculty

Educational portal
of 1-st Faculty of Medicine - Charles University in Prague

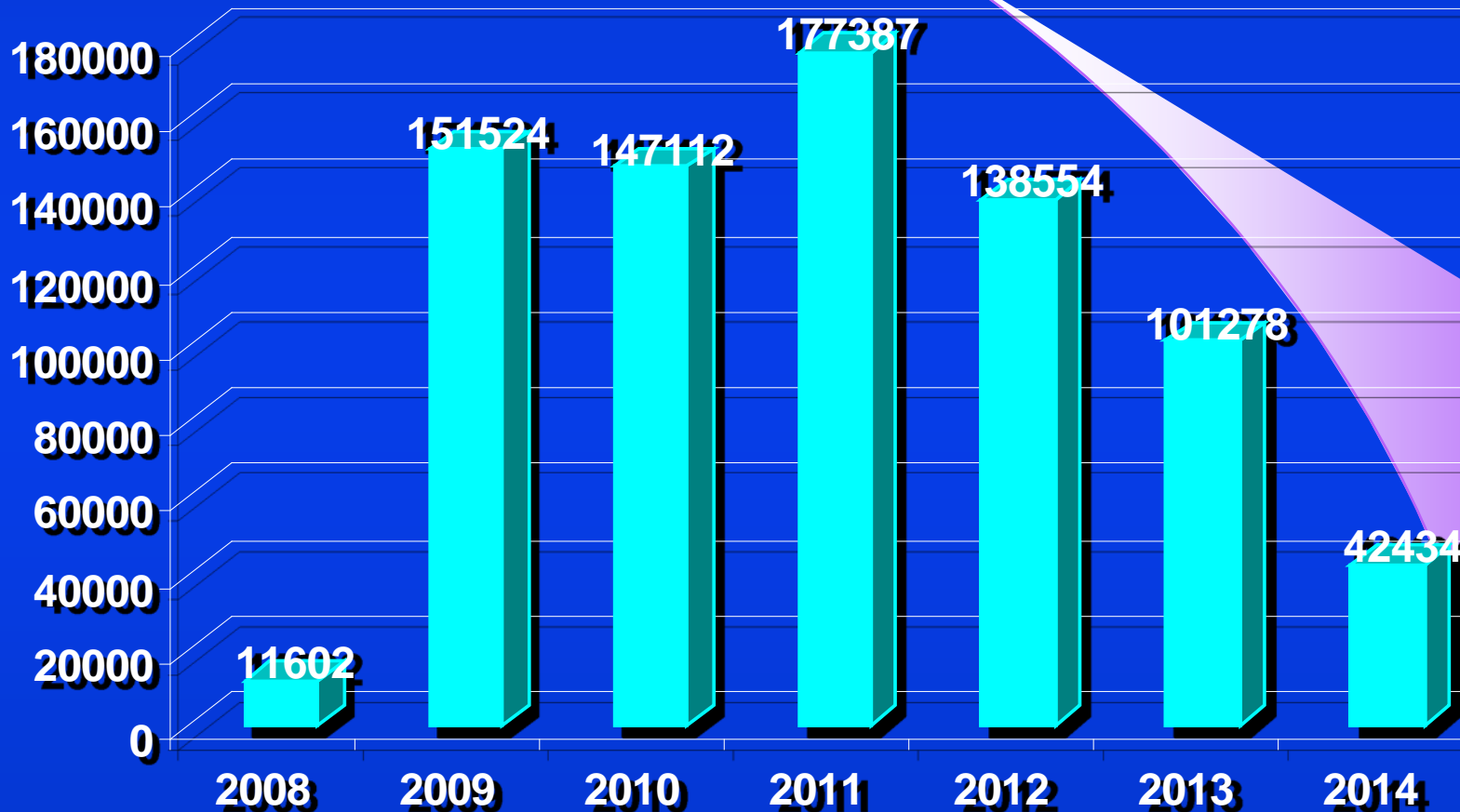
Text, pictures, textbooks, manuals
Lectures, presentations - PDF, PPT
Video - MP4, FLV
Courses - MOODLE

Traditional web-based education portals

<http://portal.mefanet.cz/>



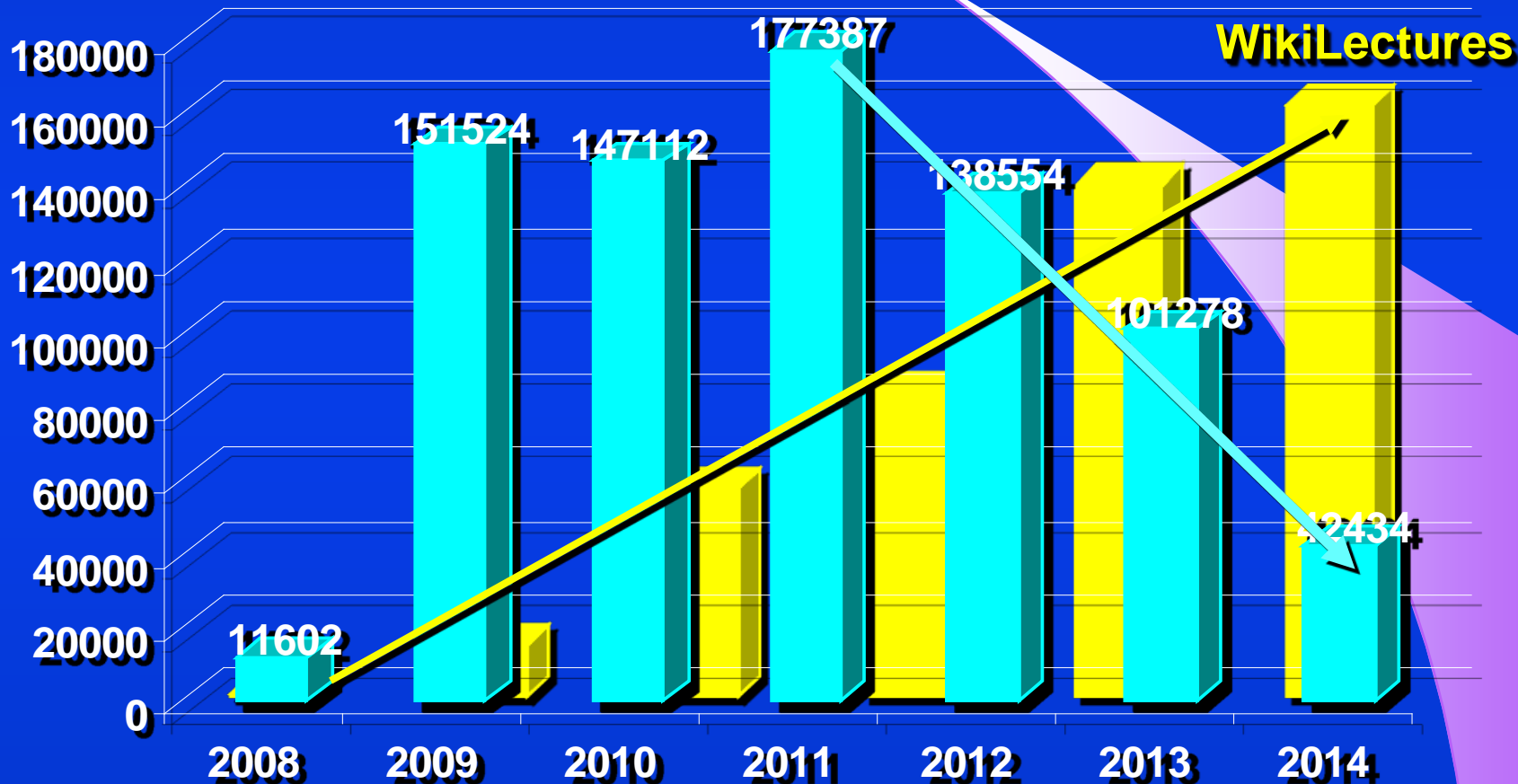
Educational Portal od 1st. Medical Faculty



Visitors of education portal of 1st. Medical Faculty



Educational Portal od 1st. Medical Faculty



Visitors of education portal of 1st. Medical Faculty



MEFANET - Network of educational portals

- ◆ e-publishing Central Gate
- ◆ international communication
- ◆ authentication system - Shibboleth

1. Medical Faculty UK in Prague

2. Medical Faculty UK in Prague

3. Medical Faculty UK in Prague

Medical Faculty UK
in Hradec Králové

Medical Faculty Palacky's
University in Olomouc

Medical Faculty UK
in Plzen

Medical Faculty
Universitas Ostravensis

Medical Faculty Masaryk's
University in Brno

Jessenius's Medical Faculty UK
in Martin

Medical Faculty Comenius
University in Bratislava

Medical Faculty Pavel Jozef Šafárik's
University in Košice



MEFANET

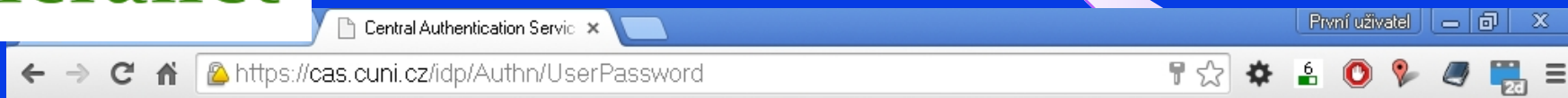
MEDICAL FACULTIES – EDUCATIONAL NETWORK

1LFUK	2LFUK	3LFUK	LFP	LFHK	LFUP	LMUO	LFMU	LFUKB	JLFM	LFPJS
4388	1501	1933	1411	1824	2236	1349	4419	4479	1673	1524

Total: 23 000 students at 11 faculties



MEFANET - Network of educational portals



CAS - Central Authentication Service of Charles University

Service Provider at `shibboleth.lf1.cuni.cz` requires authentication using Central Authentication Service



Central Authentication Service of
Charles University

Username:

koonap

Password:

.....

Login

Enter your personal number printed under the photo at ID card as your username. You can also use your faculty login complete with domain (ie. login@faculty.cuni.cz).

Enter your password, check for keyboard settings (language version, CapsLock).

For security reasons, please Log Out and Exit your web browser when you are done accessing services that require authentication!



MEFANET - e-Learning educational resources

GASTROENTEROLOGY LABORATORY DIAGNOSTICS & CASES Part 4 – Colorectal cancer

MUDr.Petr Kocna CSc.

<http://www.lf1.cuni.cz/~kocna/pkweb1.htm>



evropský
sociální
fond v ČR



EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY



OP Vzdělávání
pro konkurenceschopnost

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

ÚLBLD – 1.LFUK Prague, August 2013

Laboratorní dg.v
gastroenterologii – 4.
Kolorektální karcinom



MUDr.Petr Kocna CSc.
Contact

Outline Thumb Notes Search

Slide Title	Duration
▶ Slide 1	00:06
Slide 2	00:07
Slide 3	01:18
Slide 4	00:19
Slide 5	00:20
Slide 6	00:35
Slide 7	01:19

8 Minutes 18 Seconds Remaining



Slide 1 / 14 | Stopped

00:00 / 00:06





MEFANET - e-Learning educational resources



Visitors of e-Learning resources of 1st. Medical Faculty



WikiLectures (English) - WikiSkrпта (Czech)

lač Přeloženo do jazyka: [angličtina](#) Zobrazit původní

Možnosti

WikiSkrпта

Your space for creation and storage
of medical study materials

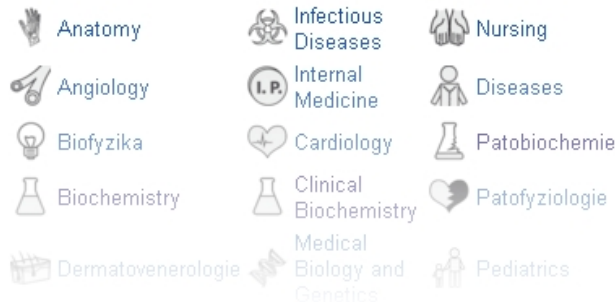
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[FAQ](#)
[How to Start](#)

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Forum
Create article
Contacts
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► **Instruments**

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Meet WikiSkrпта



Imagine learning without books hundredweight. Imagine a world in which students and professionals collaborate in the development of timely, credible and dynamic educational texts. [These are WikiSkrпта](#) :-).

Get Involved

- Want to get involved in the creation WikiLectures? Load one of the desired articles :
[na](#) • [Wavelength](#) • [Metronidazole](#) • [Analgesedation](#) • [Catalase](#) • [History of](#)
- Some articles are too short and need only extend - to help us improve unfinished articles !
- To insert a new post is missing here your industry? Do you have a text suitable for WikiSkrпта, but you do not want to convert it into wiki code?
Write to the editor! - redakce@wikiskrpta.eu 📧

People

News

Professor Štípek, WikiLectures initiator, received the prestigious award



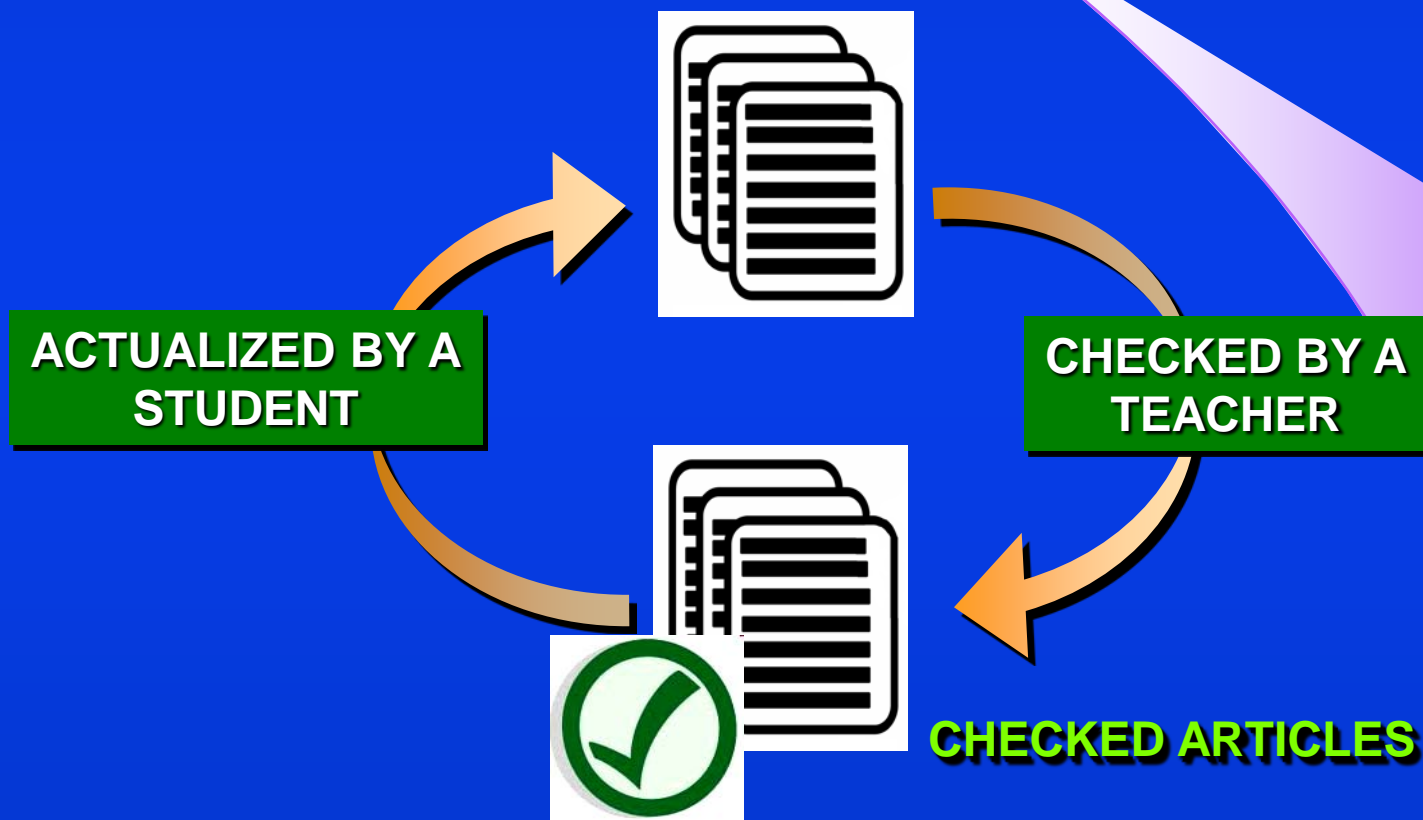
Congratulations to Professor Štípek to obtain prices by Werner von Siemens for the best teaching staff !! Award-winning contribution was not only his life teaching activities, but also to create a climate conducive to the development of innovative solutions. Your friends and co-workers presented unsolvable tasks which then

<http://www.wikilectures.eu>



WikiLectures (English) - WikiSkripta (Czech)

ARTICLES PREPARED BY TEACHERS & STUDENTS





WikiLectures (English) - WikiSkripta (Czech)



www.wikiskripta.eu/index.php/Pankreatitida_chronicka_(laboratorni_diagnostika)

dač Přeloženo do jazyka: [angličtina](#)

Hledat

Chronic pancreatitis

Chronic pancreatitis (CHP) is defined as the ongoing inflammatory disease of the pancreas with a characteristic, irreversible, morphological changes characteristic causing pain and permanent loss of function of the pancreas . Laboratory diagnosis is therefore focused on the direct and indirect tests Thermo exocrine pancreas, the determination of the rate of secretion of pancreatic enzymes evaluation activities - chymotrypsin or elastase-1 in stools . Recently, there are more new function tests - breath tests when orally substrate is labeled with carbon isotope ¹³ C (earlier tests isotope ¹⁴ C). The measure of activity of pancreatic enzymes, the concentration of ¹³ C (or ¹⁴ C) in the exhaled air. The gold standard of diagnosis is functional secretin-pankreozyminový (secretin-CCK) test as a reference test is used as a quantitative determination of fat in a 72-hour stool collection.

References

[edit | edit source]

Related Articles

[edit | edit source]

- Acute pancreatitis
- Acute pancreatitis (laboratory diagnostics)
- Chronic pancreatitis

Source

[edit | edit source]

• Taken with permission from KOCN Petr *Gastrol ab: MiniEncyklopedie laboratorv methods in gastroenterology* [online] ©

www.wikiskripta.eu/index.php/Pankreatitida_chronicka_(laboratorni_diagnostika)

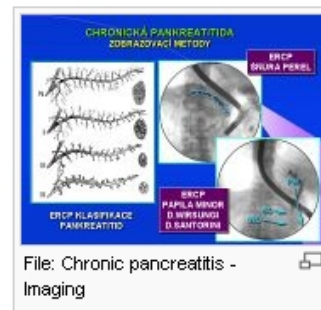
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This article has been checked by the teacher.

Signature: MD. Petr Kocna, PhD.

This template may insert a teacher .



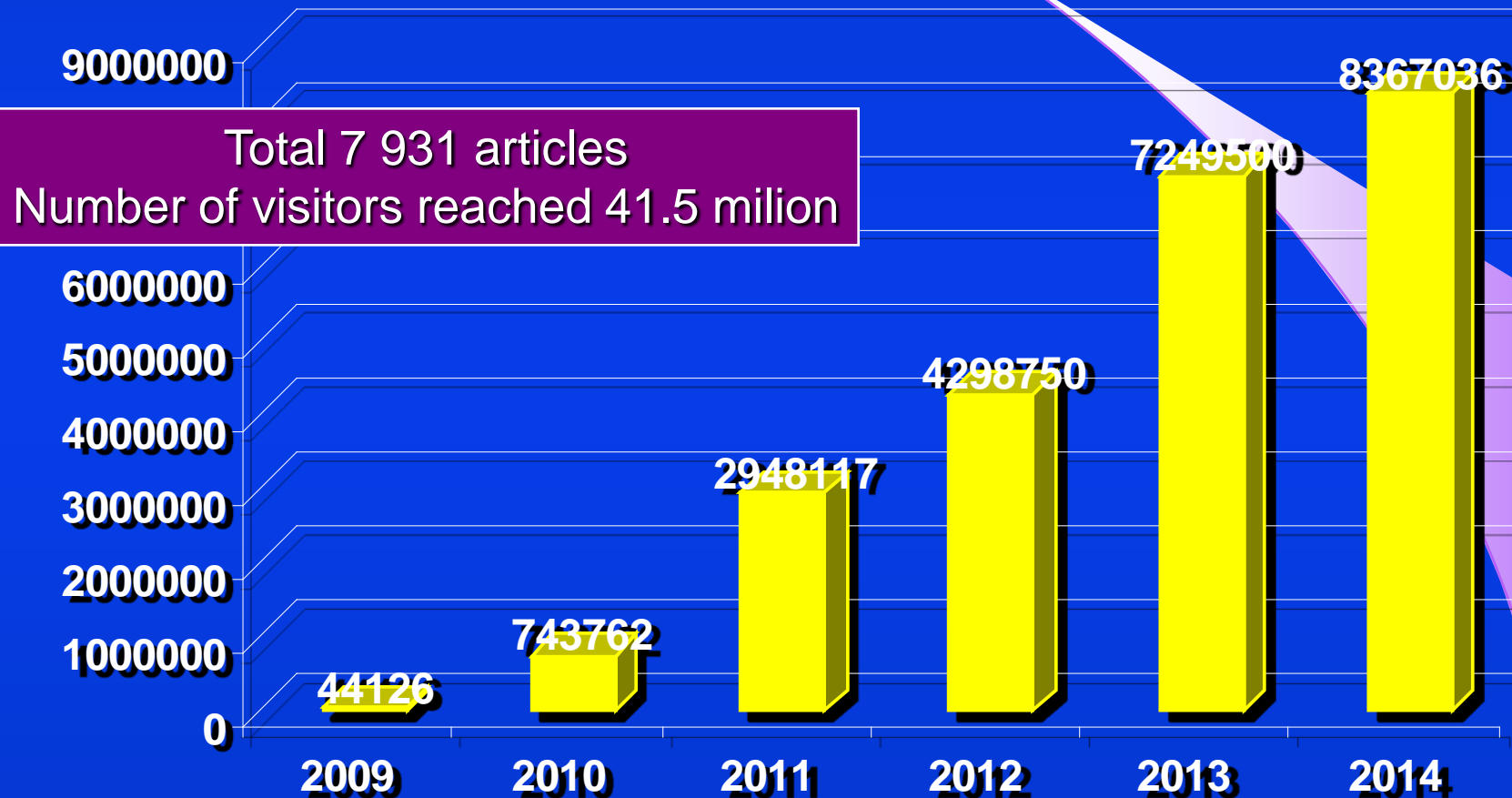
Content

1 Links

- 1.1 Related Articles
- 1.2 Source
- 1.3 References



WikiLectures (English) - WikiSkripta (Czech)



Visitors of WiKi-Lectures-Skripta of 1st.Medical Faculty



Medical Media - Educational Video Projects

Videa | Me

www.medicalmedia.eu/en/

Medical Media Search CZ Sign in

Found 239 videos

Průkaz žlučových barviv a krev...

views 0x | 2/26/2015 00:04:27

Transfer Technologí

views 0x | 2/24/2015 00:00:00

Viskozita kapalin

views 7x | 2/24/2015 00:07:10

Ošetření vysokovýkonným oévníím...

views 0x | 2/24/2015 00:08:38

Excize drobného junkčního mela...

views 0x | 2/24/2015 00:03:04

Ošetření bazaliomu na oéle kry...

views 0x | 2/24/2015 00:02:04

Odstranění fibroma molle elekt...

views 0x | 2/24/2015 00:02:13

Totální excize bazaliomu na zá...

views 0x | 2/24/2015 00:10:52

...

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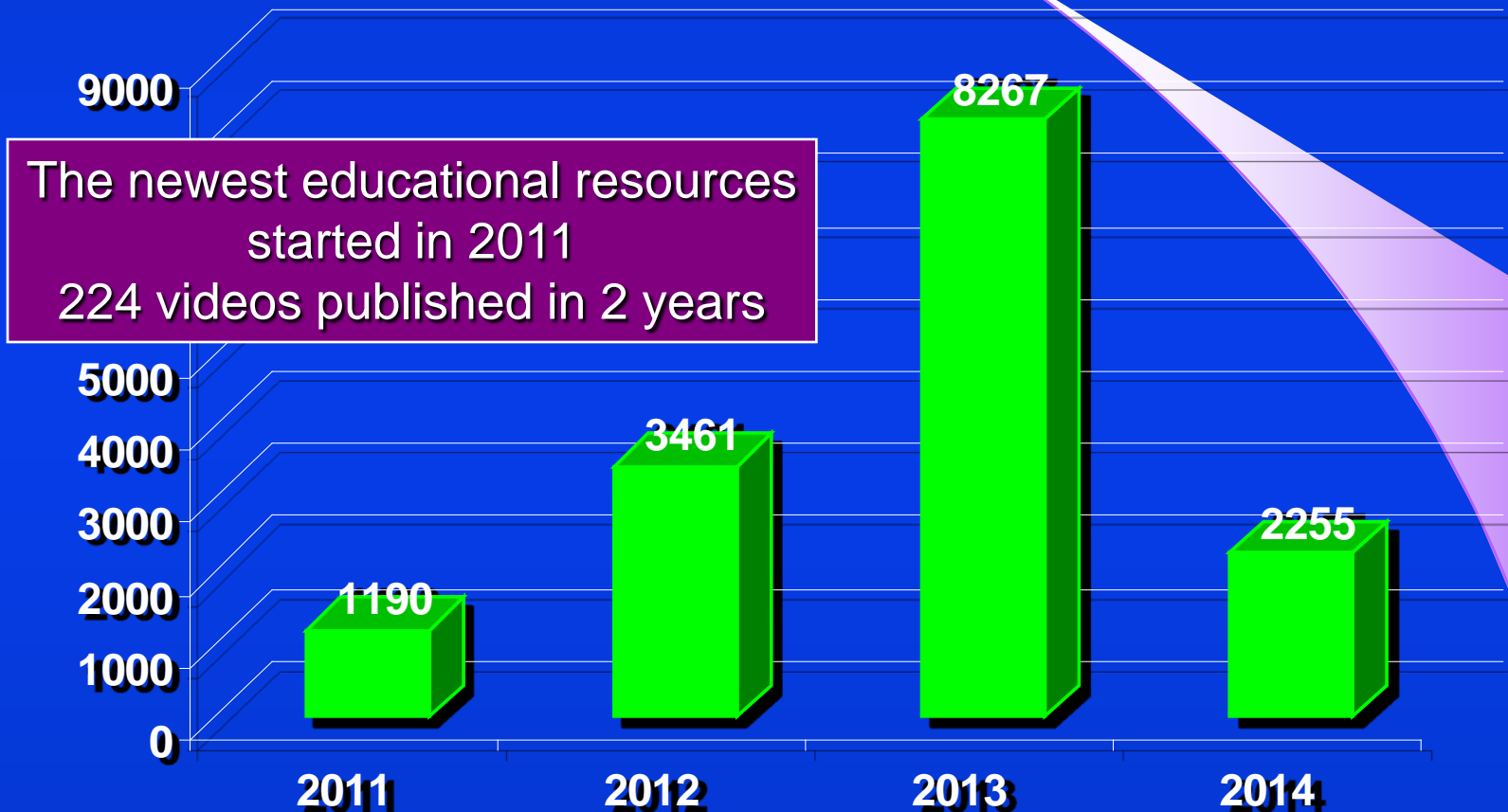
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www.medicalmedia.eu/en/



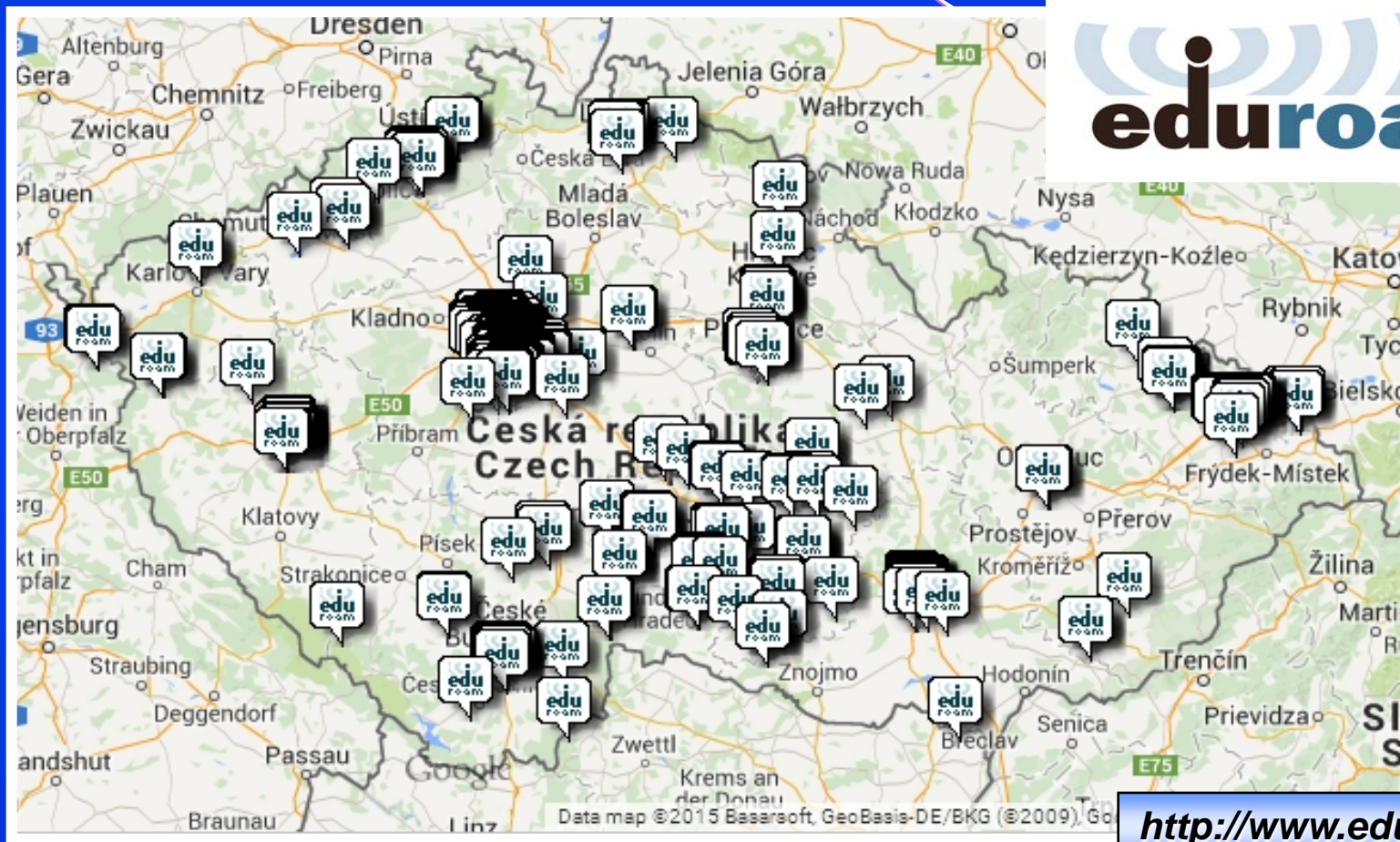
Medical Media - Educational Video Projects



Visitors of Medical Media Server of 1st.Medical Faculty



EDUROAM - WiFi - Connectivity in CR



<http://www.eduroam.cz>



**EXPERIENCES
OF 1st MEDICAL FACULTY
CHARLES UNIVERSITY**

**RECOMMENDATIONS
OF IFCC
COMMITTEES**

2004 - 2007

Member of IFCC - Working Group on Distance Education (WG-DE)

2008 - 2010

Chair of IFCC Committee on Education and Curriculum Development (C-ECD)

2009 - 2011

**Member of IFCC - Working Group on Internet & Distance Learning (WG-IDL)
since 2012**

**Member of IFCC - Committee on Internet and eLearning (CPD C-IeL)
since 2015**

Corresponding Member of IFCC - Committee on Distance Learning (C-DL)



**e-Learning solutions facilitate
the delivery of the
right information and skills
to the right people
at the right time.
B. W. Ruttenbur**

***Ruttenbur, B., Spickler, G., Lurie, S. (2000). eLearning:
The Engine of the Knowledge Economy.***

Published by Morgan Keegan & Co., July 6. 2000, 109pp.

<http://www.masie.com/masie/researchreports/elearning0700nate2.pdf>



FIRST FACULTY OF MEDICINE
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A close-up photograph of a plant stem with several dew drops. The dew drops are clear and spherical, reflecting light. The plant stem is green and has small, reddish-brown buds. The background is a blurred green field.

THANK YOU