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and Laboratory Diagnostics
1st.Faculty of Medicine, Charles University, Prague
General Faculty Hospital, Prague**

Kocna Petr

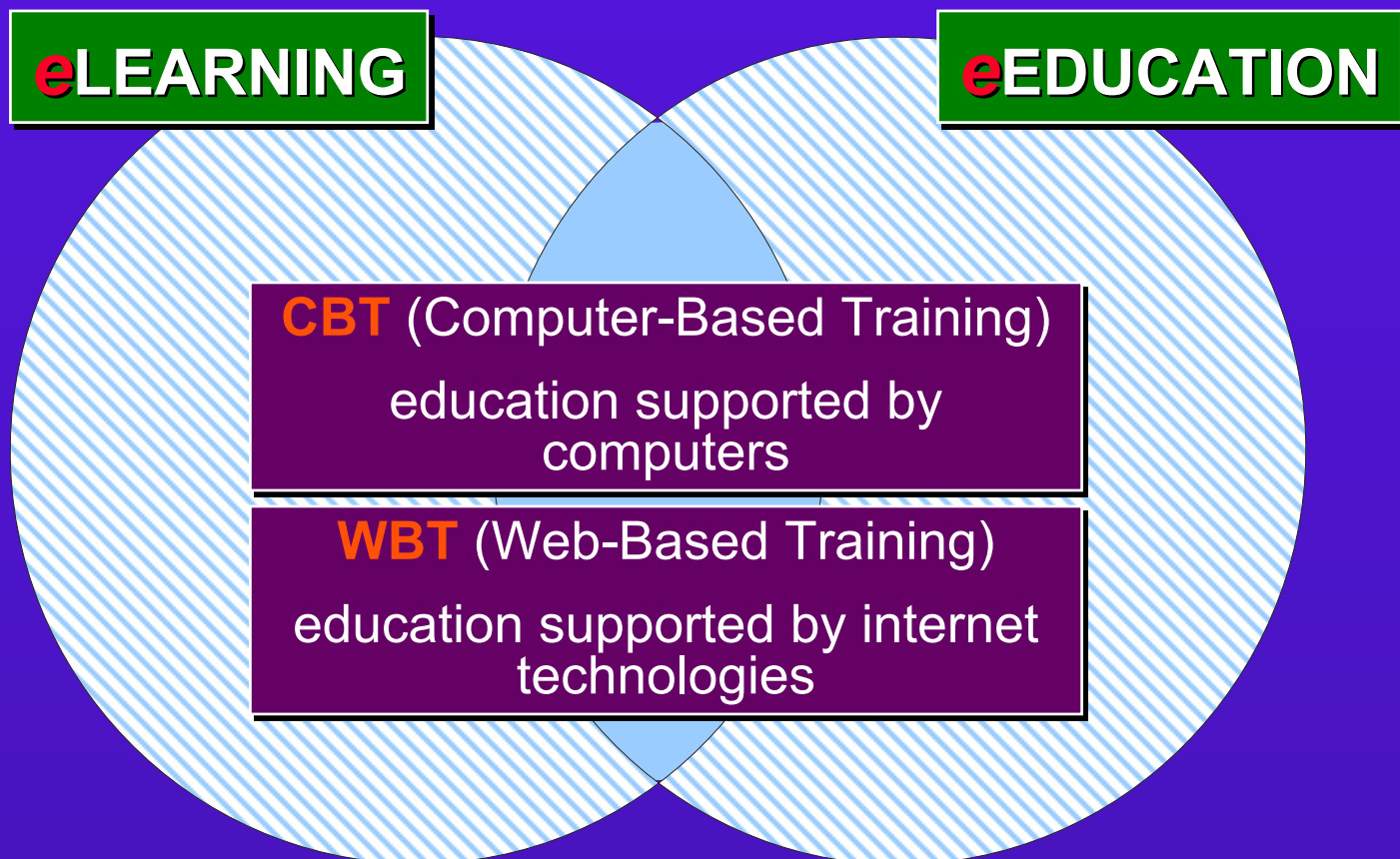
<http://www1.lf1.cuni.cz/~kocna/pkweb1.htm>



**DISTANT EDUCATION
THEORY AND PRINCIPLES
"Who - What - Why"**



MEDSOFT 2005, Beroun - May 4. 2005



elearning could be understand as multimedial support of educational processes utilising modern information and communication technologies to enhance and optimize education.

DISTANT EDUCATION

- It is the **FLEXIBILITY** to learn on your own schedule.
- It is being **RESPONSIBLE** for creating and maintaining your own schedule for reading, studying, completing assignments, and participating in group discussions.
- It is the **OPPORTUNITY** to develop knowledge **COLLABORATING** with other students.
- It is an **ENVIRONMENT** where the instructor will function as a **GUIDE**, mentor and/or facilitator.
- It is an environment where notes and/or lectures will be document **SUMMARIES** used to guide you through the text, assignments, and discussion threads.

Online Distance Education Orientation

http://intranet.msbcollge.edu/distance_ed/1st_Power%20Point%20Document%20Online_Distance_Education_Student_Orientation.ppt

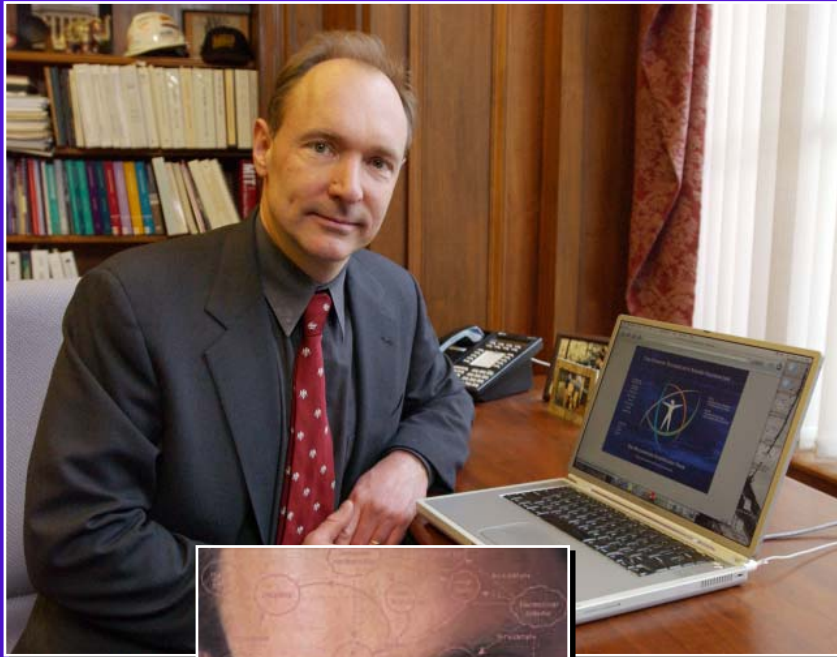
DISTANT EDUCATION - PERSONS

- 1837 starting time of distant education
Isaac Pitman, theory of stenography,
post-mailed corresponding courses
- 1895 **Barchese Guglielmo Marconi**, cordless telegraph,
distribution of audio-info
- 1923 **Vladimír Zworykin**, vacuum-tube, TV founding father,
distribution of audio/video-info
- 1971 Intel, microprocessor, PC, starting time of e-Mails
- 1991 **Tim Berners-Lee**, World Wide Web (www),
Internet progress, web electronic education (WBT)
- 1999 e-Learning, starting time of educational web sites

III. National conference of Distant education in Czech republic
„Present and Future - E-Learning in DiV”

Mgr. David Nocar - Center of Distant Education, University, Olomouc

Tim Berners-Lee, WWW INVENTOR



TIM BERNERS - LEE

1955 BORN IN LONDON (8.6.)

1973-1976 OXFORD UNIVERSITY

1984 CERN - GENEVE

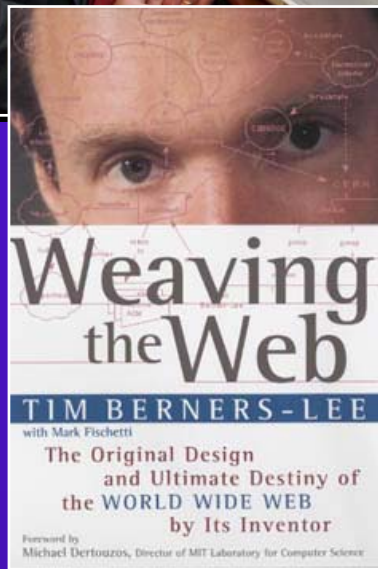
1990 CREATE **WORLD-WIDE-WEB**

1994 FOUNDED **W3C** CONSORTIUM

1999 LAB.COMP.SCI.ARTEF.INTELL.

MASSACHUSETTS INST.TECHN.

2004 **MILLENIUM TECHNOLOGY PRIZE**



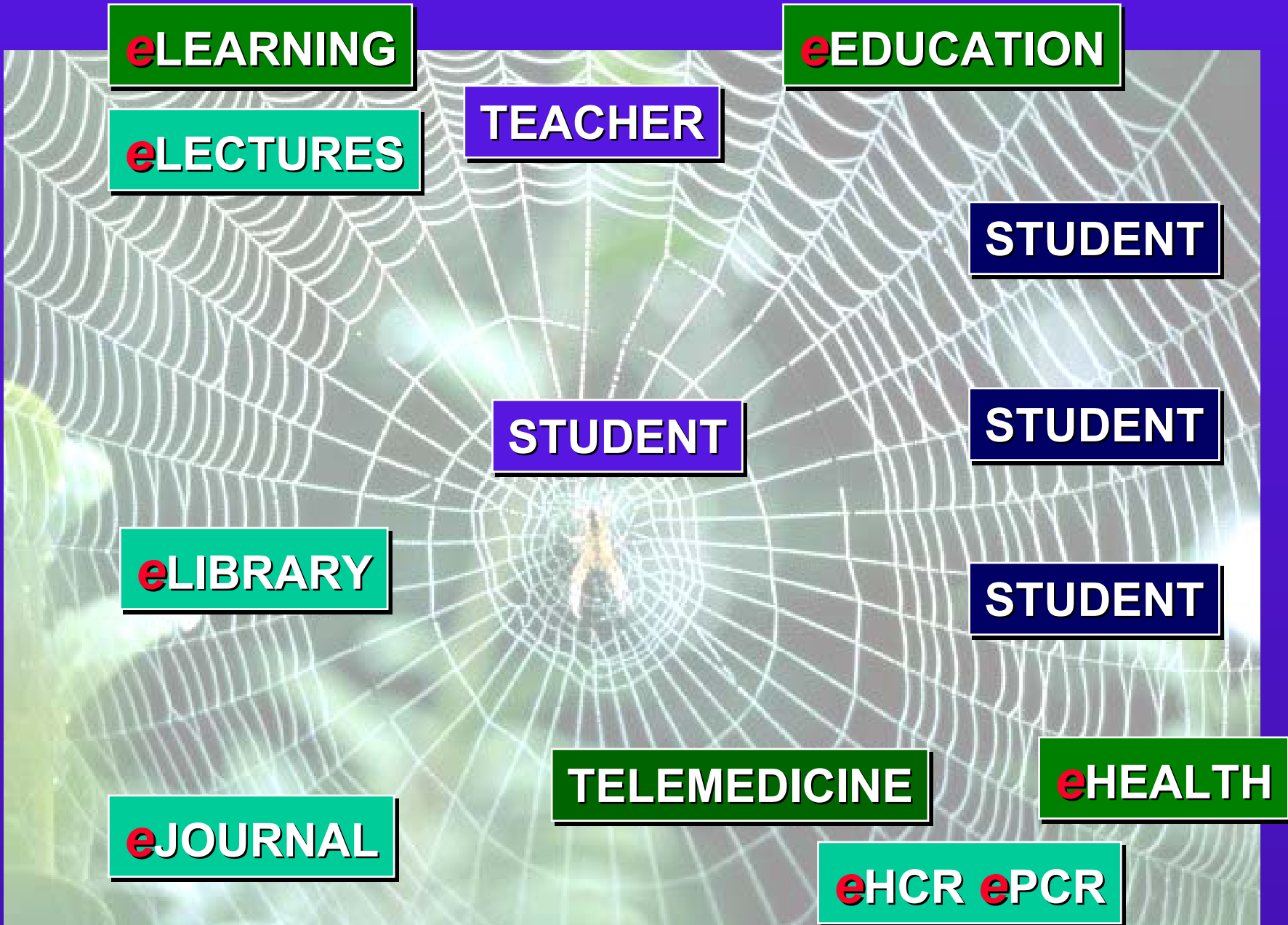
DISTANT EDUCATION - TECHNOLOGY

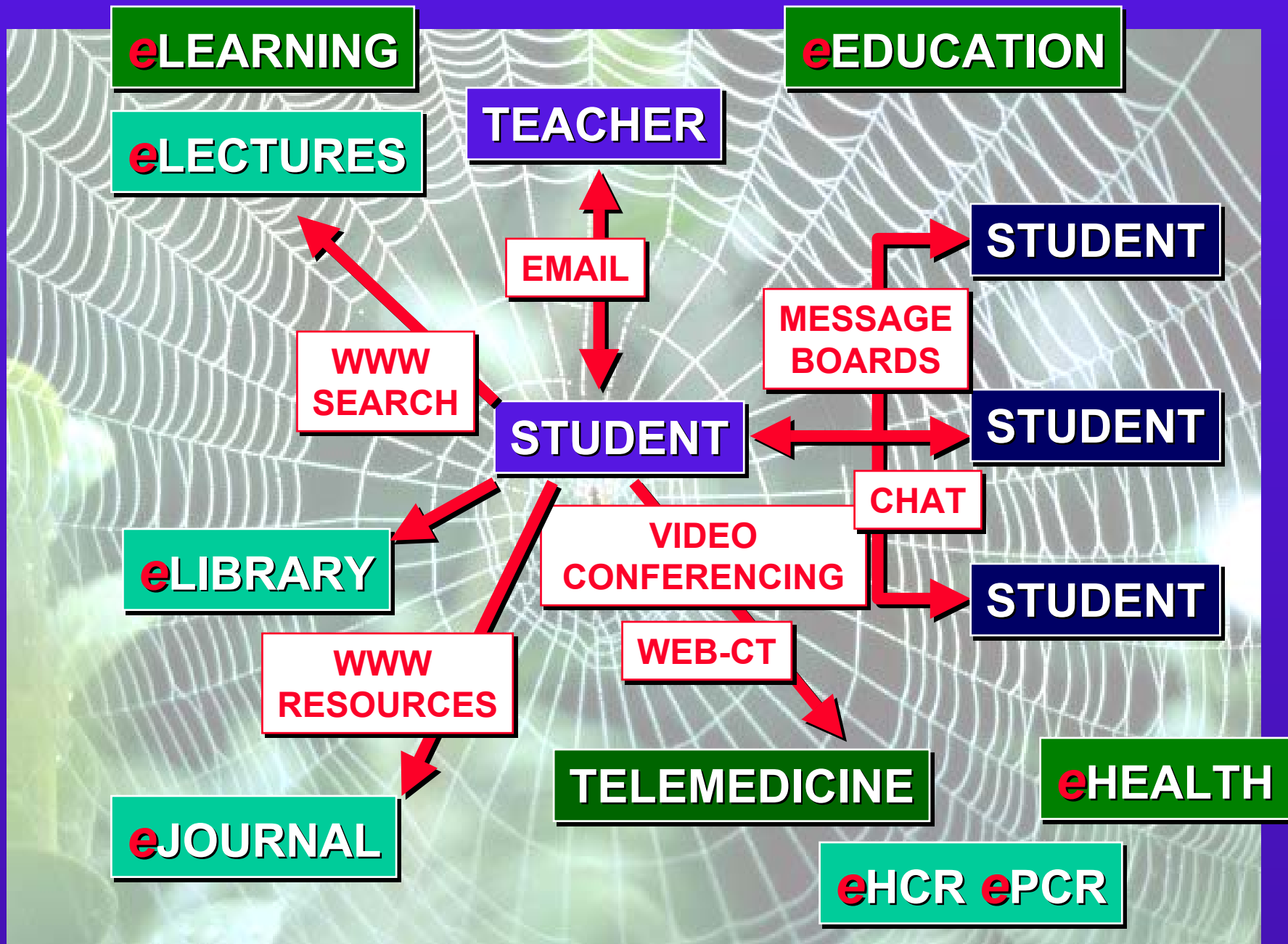
- 1890's Correspondence Courses emerged
- 1922 WHA Radio School of the Air
- 1950's Educational Television
- 1960's Educational Telephone Networks
- 1970's Videotape
- 1980's Teleconferences
- 1990's Videoconferencing, WWW, Email, Integrated courseware
- 2000's Streaming multi-media and black cable
- 2000 > ... Electronically networked learning communities

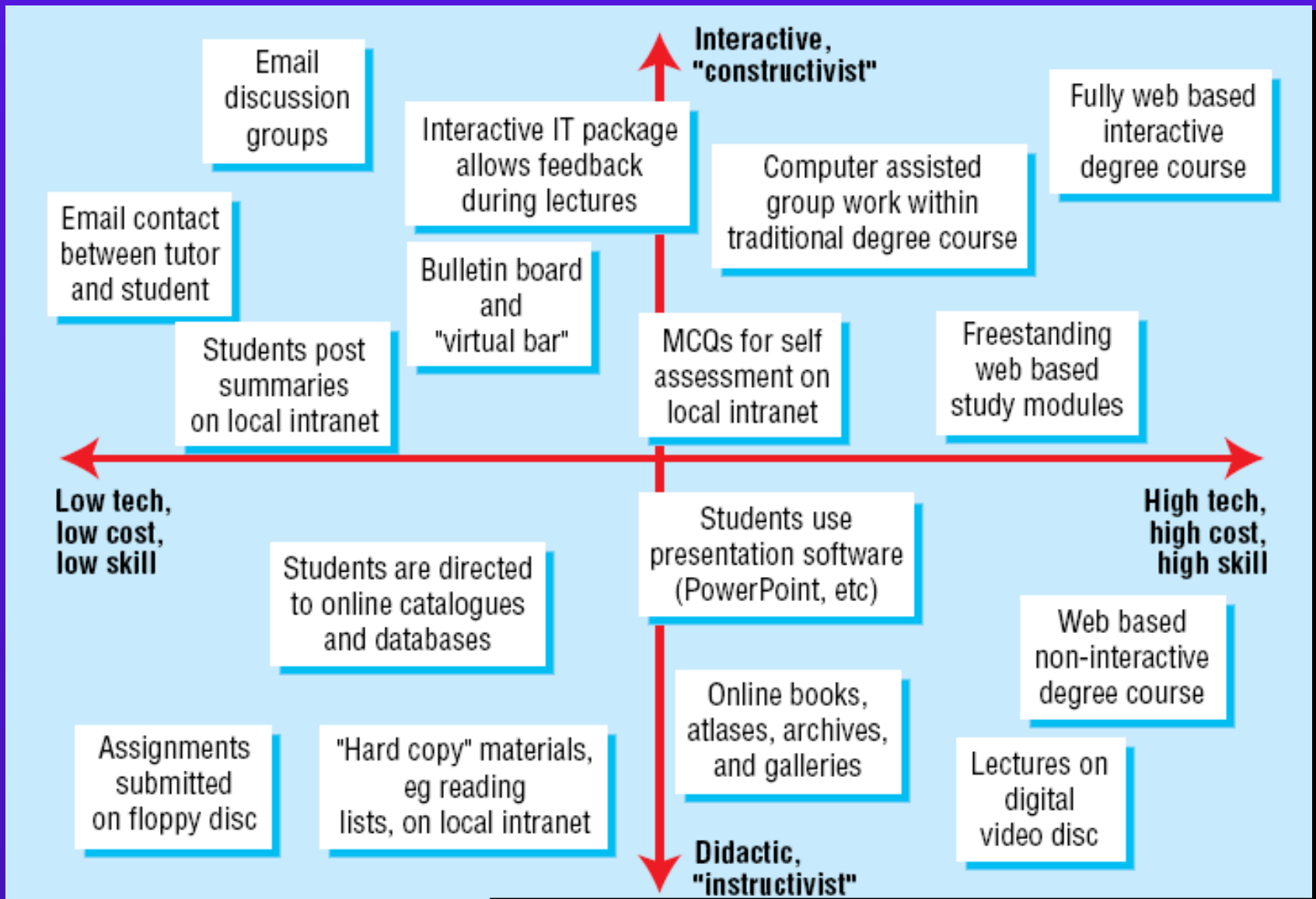
Distant learning, knowledge translation and new technology: “Wrap around” models for development in continuing health professional education

David Patrick Ryan, Ph.D., University of Toronto, May 27, 2002

<http://david.openflows.org/edutech/wraparound2.ppt>







Greenhalgh T.; Br. Med. J. 2001; 322
<http://david.openflows.org/edutech/wraparound2.ppt>

LMS - Learning Management System

Teacher's aspects

e-Learning

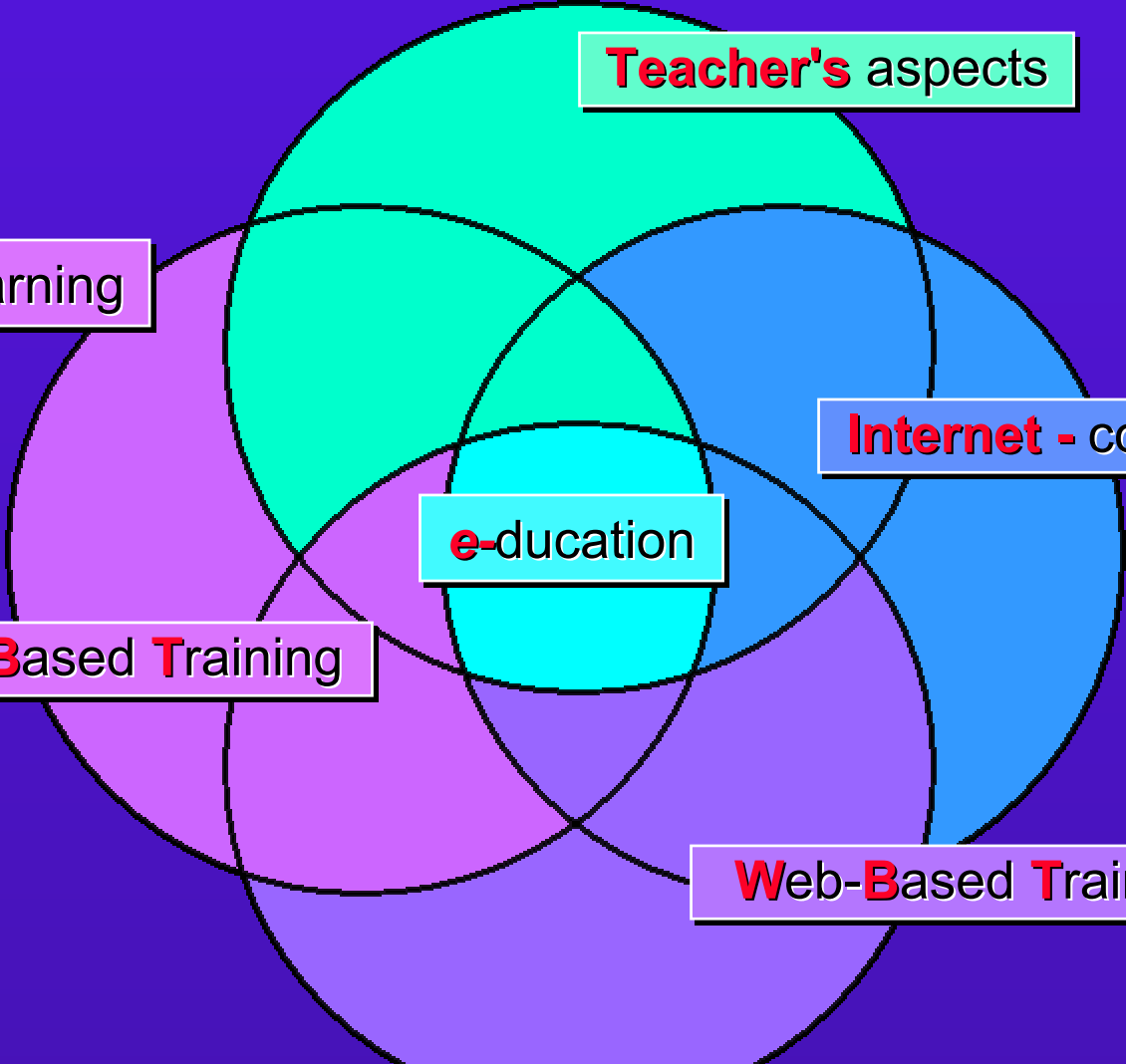
Internet - communication

e-ducation

Computer-Based Training

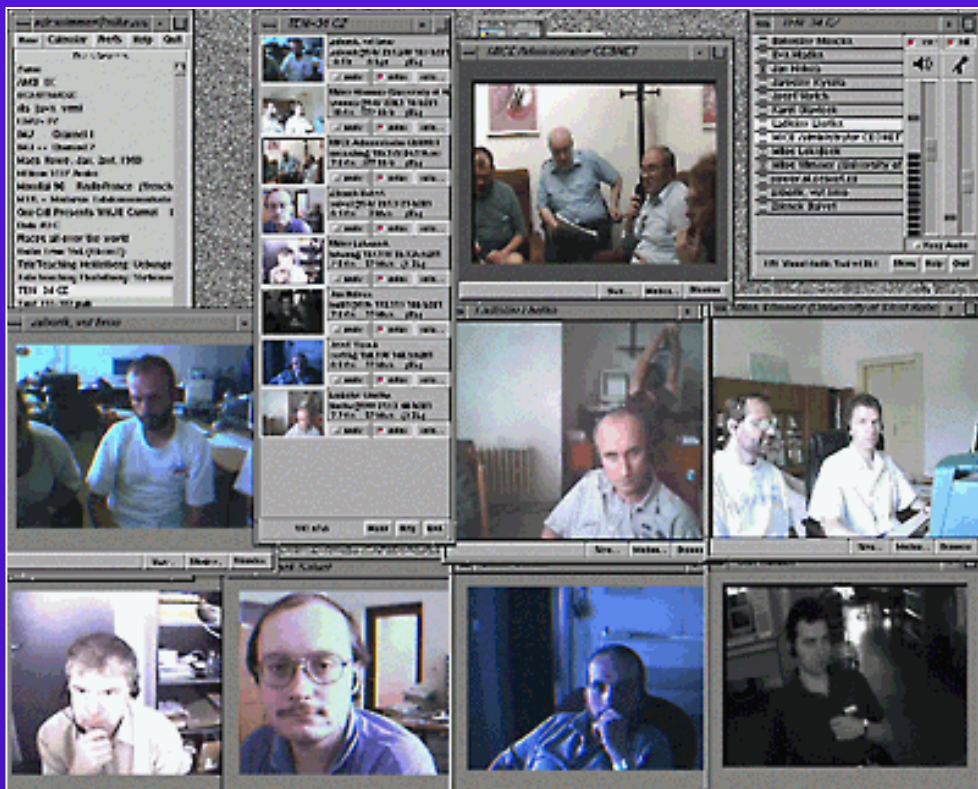
Web-Based Training

WWW resources



TECHNOLOGY - INTERNET - EDUCATION

**CZECH PROJECT
BASED ON THE
INTERNET
COMMUNICATION,
DESIGNED FOR
EDUCATION, STUDIES,
VIDEOCONFERENCING,
AND e-LEARNING**



Video Conferencing

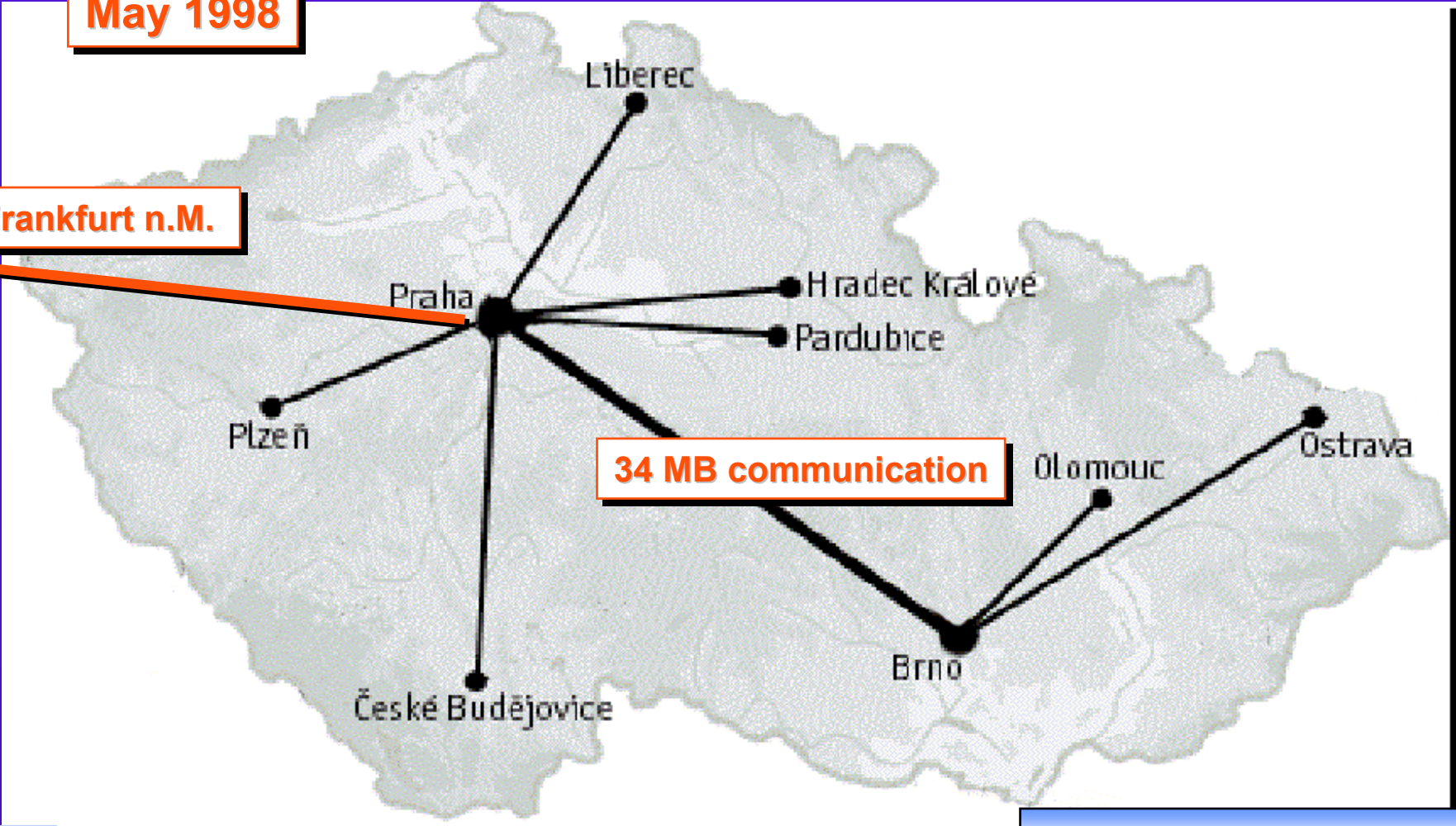
TEN-34 CZ project investigators

Gruntorád J. 1998, Computer Networks and ISDN Systems, 30, 1663

TEN - 34 projects
capacity connected CR: Frankfurt n.M. - 34 Mb

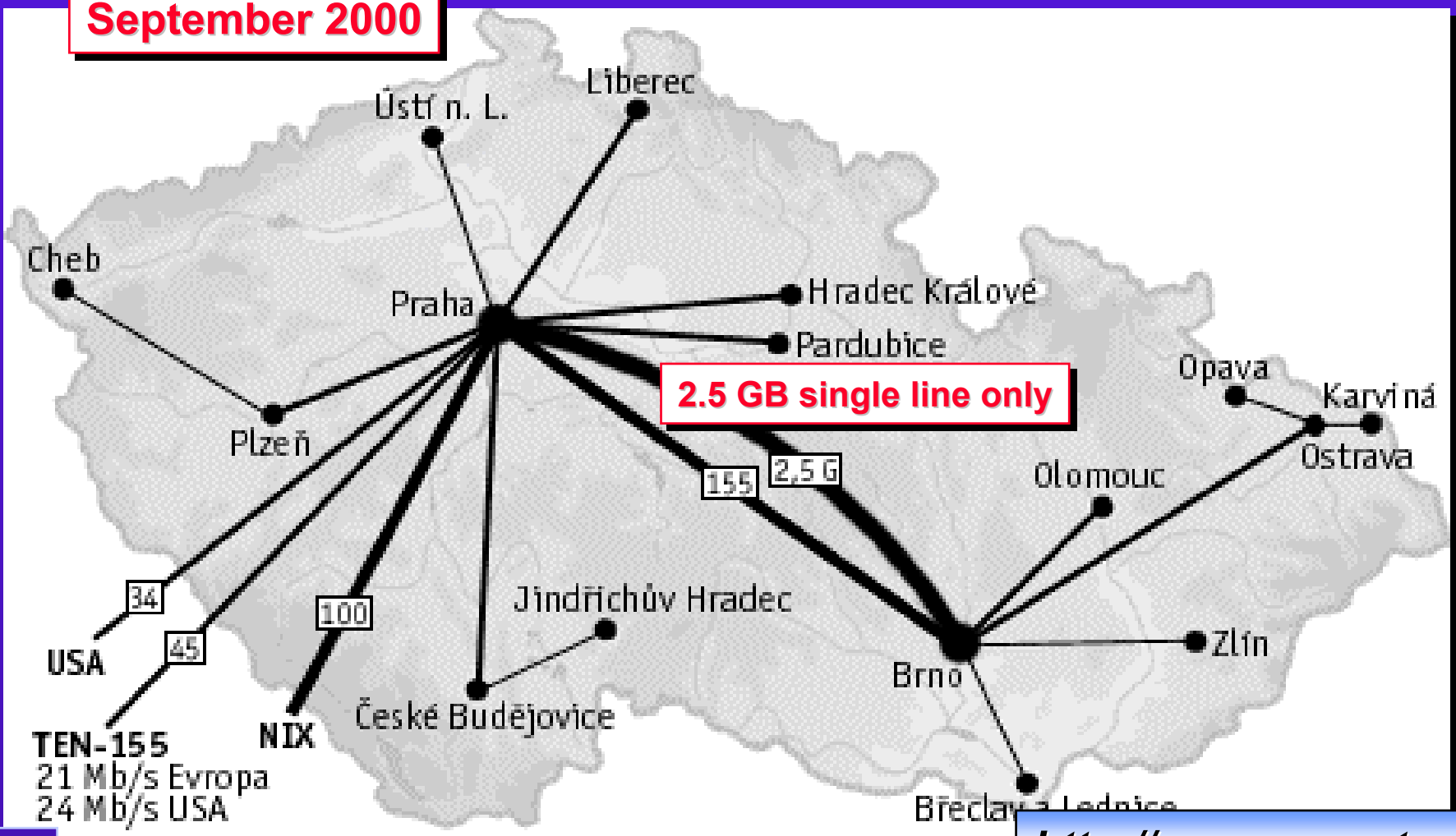
May 1998

Frankfurt n.M.



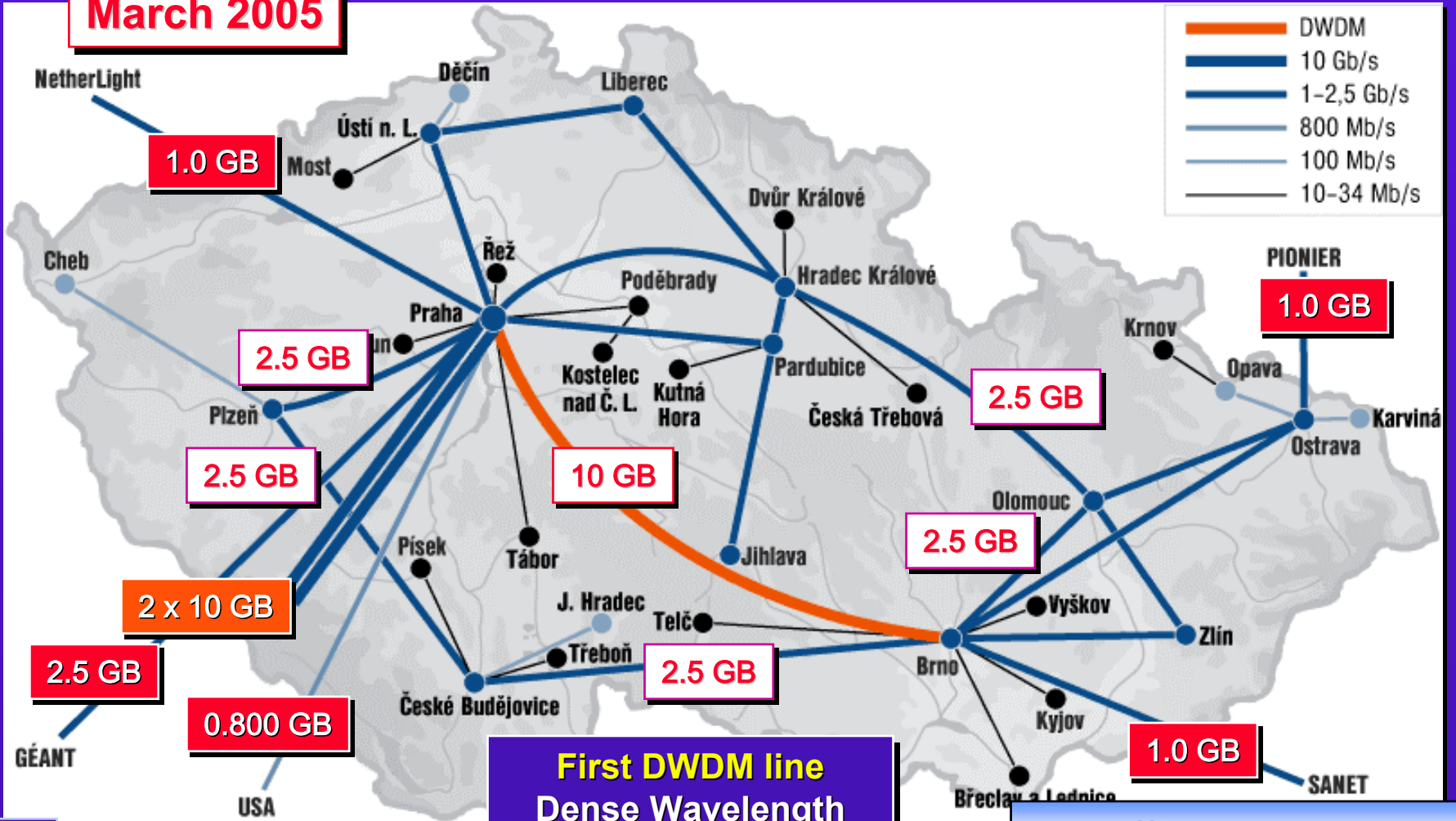
TEN-155 projects
capacity connected CR: **TEN, NIX, EBONE - 175 Mb**

September 2000



GEANT-CESNET 2 projects
capacity connected CR: - **2 x 10 GB NIX,**
GEANT, TeleGlobe ,NetherLight, SANET, Pionier

March 2005



First DWDM line
Dense Wavelength
Division Multiplexing

<http://www.cesnet.cz>

PEDAGOGICAL ASPECTS

ACTIVITY OF:

CLASS EDUCATION

TEACHER

LECTURE

DISCUSSION

STUDENT

DISTANT EDUCATION

- 1 undergraduate study program
 - 7 postgraduate study program
 - 5 program of specialisation
 - 2 clinical cases
 - 1 multiple-choice questions
 - 1 E-mail teaching
 - 1 electronic books
 - 6 EQA national program
 - 10 lectures
-
- 34 societies of Clinical Biochemistry (countries)
 - 24 societies with Website on the Internet
 - 14 societies with part of website devoted to "Education"

IFCC Committee on Education and Curriculum Development and
Working Group on Distance Education
Meeting Minutes May 14 – 17, 2004 Sousse Tunisia

WWW - DATA RESOURCES

WWW means - **World Wide Web**
WWW could be - **Who, What, Why ?**

- For many teens, the Internet has replaced the library as the primary tool for doing research
“The Internet and Education”. Findings of the Pew Internet & American Life Project, September 1, 2001, <http://www.pewinternet.org>
- Less than half (48%) feel confident in their ability to find information - essentially, in the skills needed to research a topic
A Report to Stakeholders on the Conditions and Effectiveness of Postsecondary Education.” Change 33:3 (May/June 2001), p. 29.
- More than 31% of all respondents use Internet search engines to find answers to their questions. However, people who use Internet search engines express frustration because they estimate that half of their searches are unsuccessful
“OCLC White Paper on the Information Habits of College Students.” June 2002, p. 2. <http://www2.oclc.org/oclc/pdf/printondemand/informationhabits.pdf>



pancreas cancer tumor marker
 pancreas cancer tumor marker
 pancreas cancer tumor marker
 pancreas cancer tumor marker

Google	92 700
Yahoo	29 000
PubMed	104
Scirus	161

colorectal cancer screening
 colorectal cancer screening
 colorectal cancer screening
 colorectal cancer screening

Google	620 000
Yahoo	225 000
PubMed	2 228
Scirus	39 037

"colorectal cancer screening"
 "colorectal cancer screening"
 "colorectal cancer screening"
 "colorectal cancer screening"

Google	150 000
Yahoo	57 200
PubMed	42
Scirus	8 633

CBT - COMPUTER EDUCATION

Previous Laboratory Results

Here are the patients previous laboratory results

Total T4 176 nmol/L NR(60-150)
Total T4 13.7 ug/dl (4-12)

Total T3 3.5 nmol/L NR(1-3)
Total T3 228 ng/dl (75-195)

TSH < 0.25 miu/L NR(0.25-2.5)

**ELECTRONIC BOOK
CASES, TEXTS,
FIGURES, VIDEOS, TESTS**

**“Textbook”
Thyroid Disorders
na CD-ROM**

3

Biochemical
Assessment

4

Diagnosis &
Treatment

5

Resolution &
Summary

**“Textbook”
Thyroid Disorders
on the CD-ROM**



Possible Further

Which of the these tests will assist in making a definitive diagnosis ?

Click on the check boxes to select tests. Then click on the OK button to show the test results.

OK

- FT4
- FT3
- Total T4
- Total T3
- TSH
- Thyroid Peroxidase Antibodies
- Antithyroglobulin antibodies
- RAI test - Uptake of radioactive iodine
- TRH test

**ELECTRONIC
ON-LINE
INTERACTIVE
TEST**

Imodium®



Pražský pracovní podzimní den

na téma **Chronický průjem**

PRESENTATIONS
Prague working day
2002

Vyšetření - M. Kopáčová

Whippleova choroba



Audio sequences
for each individuele
PPT slides

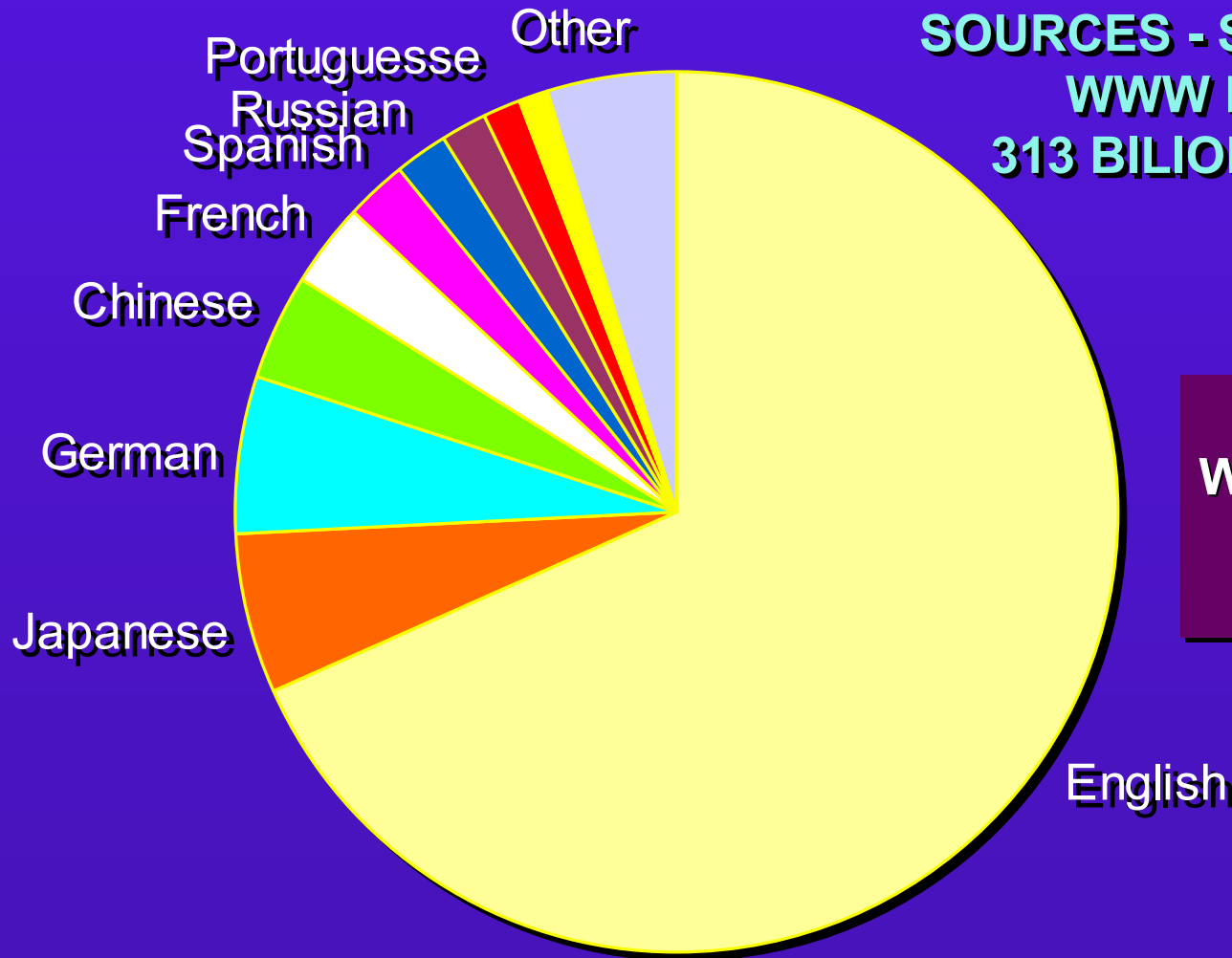
[Přehled přednášek](#)[Jak CD používat](#)[Zpět na úvod](#)

LANGUAGE of WWW DOCUMENTS

SOURCES - SEPTEMBER 2002

WWW LANGUAGE

313 BILIONS WEB SITES



**68,4 %
WEB DOCUMENTS
PUBLISHED
IN ENGLISH**

WBT - WEB BASED TRAINING

EUIHC EUROPEAN INSTITUTE OF HEALTHCARE - Microsoft Internet Explorer

Address <http://www.euihc.com/home.asp>

Google

EUROPEAN INSTITUTE OF HEALTHCARE
Providing Continuing Medical Education in Europe


[home page](#) | [register](#) | [contact us](#) | [bookmark this site](#) | [Edit Profile](#) Last Updated: February 7, 2005

What is the EIH ?
Introduction
Steering Committee
Search

Therapeutic Areas
Cardiology
CNS
Gastroenterology
Oncology
Respiratory

Symposia
PROGRAMMES

Webcast

 **Webcast Coeliac Disease**


WEBCAST CONCEPTS AND PRINCIPLES OF CHEMOTHERAPY

WEBCAST GENETIC AND CARDIOLOGY

WEBCAST THORACIC MALIGNANCIES

WEBCAST NEW INSIGHTS ON ATRIAL FIBRILLATION

From the Symposia



The risk of mortality, myocardial infarction and refractory ischaemia is elevated in patients with acute coronary syndromes. The 29 January symposium "New Options in Acute Coronary Syndromes" will examine the latest in the pathophysiology, clinical presentation and management of these syndromes. The

<http://www.euihc.com/home.asp>

POWER-POINT PRESENTATION - DECIDED FOR EDUCATION
PANCREATIC DISEASES
PROF. WHITCOMB - PITTSBURGH

Pancreatic Diseases:
Insights from Hereditary
Pancreatitis

Written by

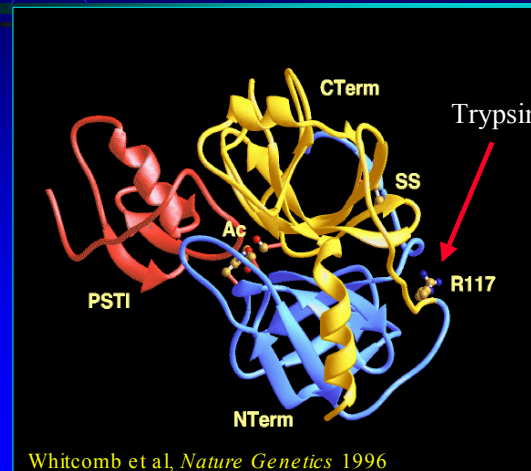
David C Whitcomb MD PhD

Department of Medicine, University of Pittsburgh

Whitcomb 2000

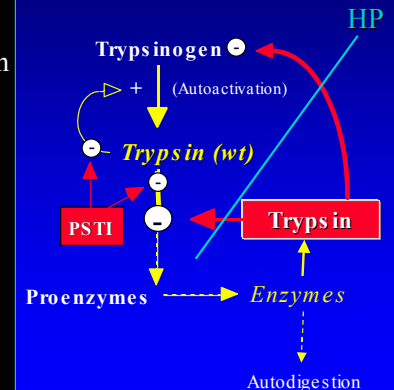
Educational Use ONLY

Fail-safe Trypsin Inactivation



Whitcomb et al, *Nature Genetics* 1996

Whitcomb 2000



CONCLUSIONS

Many people have touted the ability of e-Learning to provide information "anyone, anytime, anywhere". We believe that true power of e-Learning will be in its ability to bring 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. (1.1MB)
<http://www.masie.com/masie/researchreports/elearning0700nate2.pdf>*

**THANK
YOU**

