

The Past and Future 25 Years of **LON-CAPA**

Gerd Kortemeyer

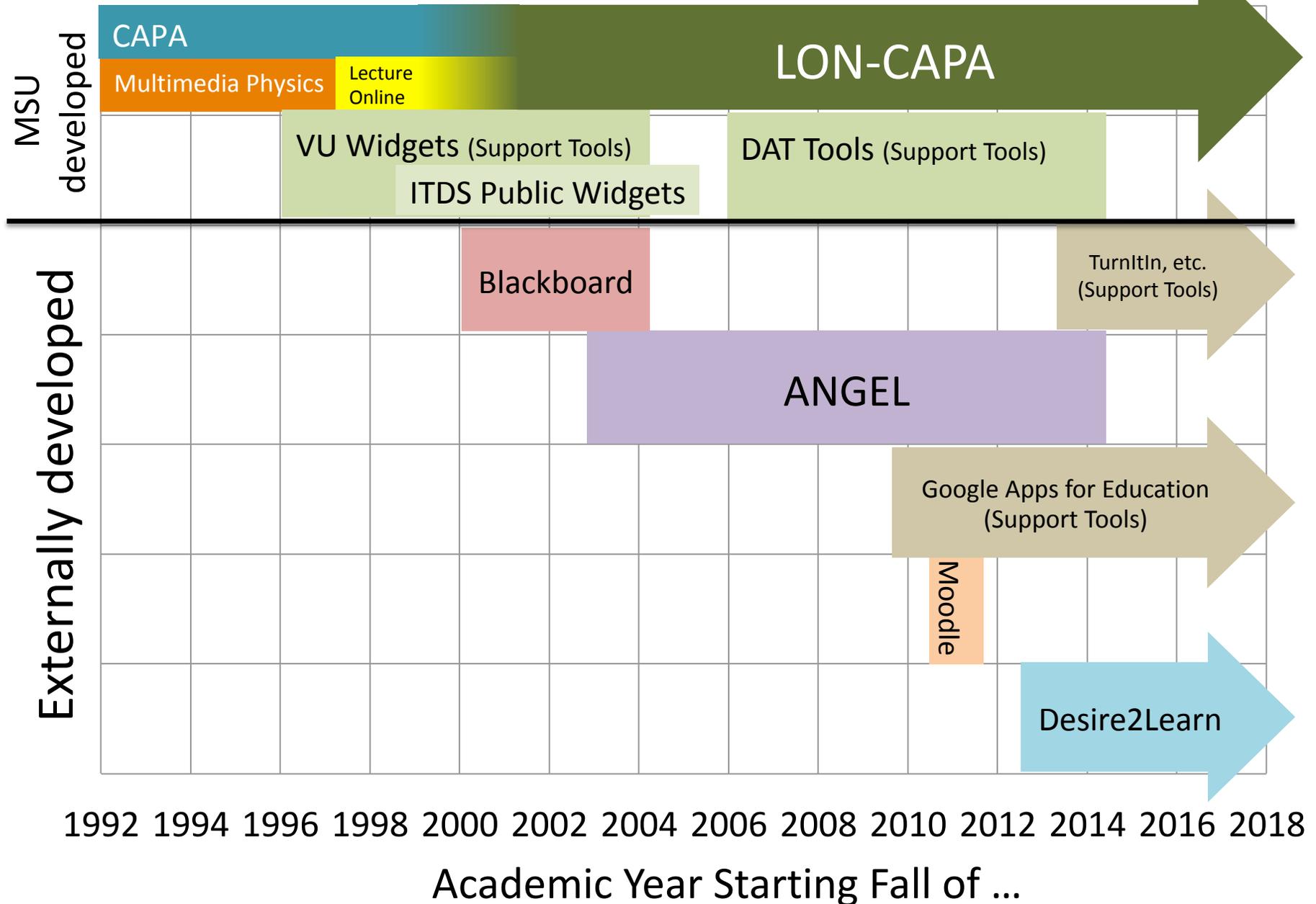
Actually: 26 Years of LON-C

It's beyond our Silver Anniversary!

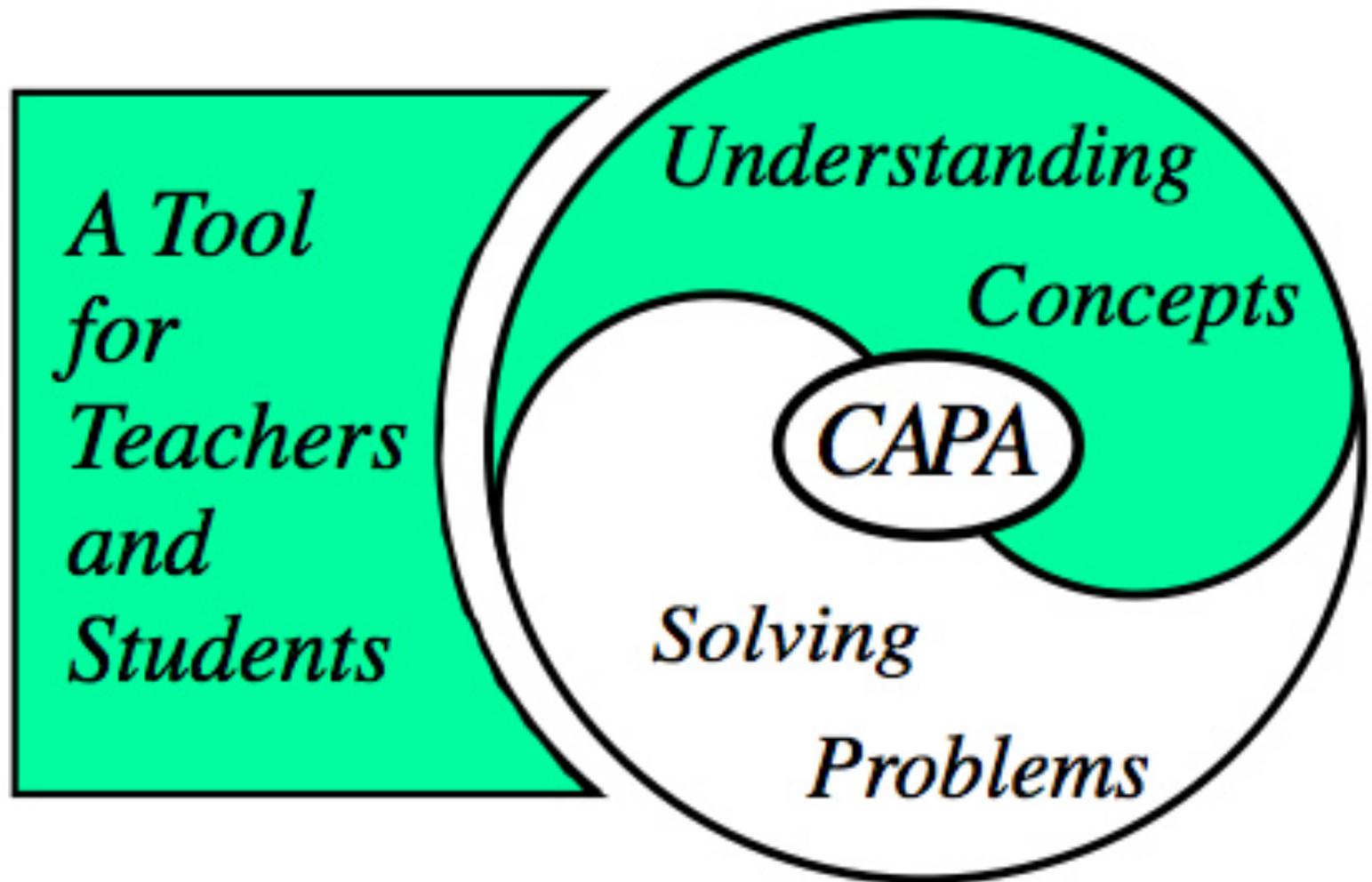
What the first CAPA server looked like



History of Course Management Systems at MSU



1992





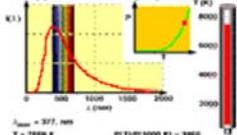
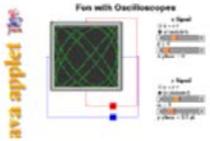
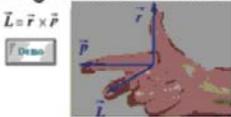
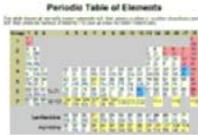
1992

- CAPA (a Computer-Assisted Personalized Approach) is piloted in a physics class of 92 students, using paper printouts and Telnet to serve and grade personalized homework
- Multimedia Physics gets started with an NSF Presidential Faculty Fellow award, using SuperCard for electronic, interactive course materials

1993

- Multimedia Physics receives NSF ILI award

MultiMedia Physics



Projects

- **New in 2000/01:** [lon-capa](#): A web within the web (NSF funding)
- Computerized introductory physics lab (NSF funding)
- [First Year OnLine](#) (HHMI funding)
- [Physics Applet Collection](#)
- [Virtual Physics Lab](#)
 - [Article in the Chronicle of Higher Education](#) on our virtual lab project.
- Virtual University Classes
 - PHY231C, PHY232C, Advanced Placement Physics ([password required for access](#))
 - Over 1000 students around the country and even in Europe have already completed these courses.
 - [Course Information](#)
 - [Syllabus, schedule, current info](#)
- [ConCam](#)
- [Physics Resource Center](#)
- Textbook on cd-rom: cliXX Physik (in German)
- **New in 2000/01:** Partnership between MSU and [Apex Learning](#) to develop [Advanced Placement Physics courses](#) for high school students.

Faculty Members

- [Prof. Wolfgang Bauer](#)
- [Prof. Walter Benenson](#)
- [Prof. Gary Westfall](#)

1997

Distance Learning via the Internet

Wolfgang Bauer, Walter Benenson, Gerd Kortemeyer, Gary Westfall

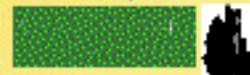
Individualized Interactive Homework and Exams



- Homework can be submitted from anywhere in the USA
- Use of World-Wide Web
- Individualized assignments for each student
- Help on demand
- Immediate feedback

Interactive Simulations, Animations, Derivations

allow students to explore contents at their own pace



Internet site: <http://mmp.nsl.msu.edu/>

Goals:

- Provide better access to universities and colleges
- Virtual university
- Improve general science literacy
- Increase students' interest in science classes

Video Clips of Lecture Demonstrations

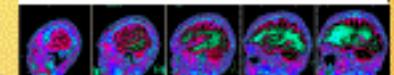


Distribution via:

- World-Wide Web
- CD-rom



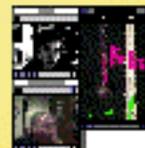
Integration of Research and Teaching



NSF - Funding Provided by:

- Instrumentation and Laboratory Improvement Grant
- Presidential Faculty Fellow Award
- NSCL

Office Hours on the Internet



- Electronic mail
- Chat rooms
- Video conferencing

1998

Netscape:

phy231c: H: cd014

- Edit Content
- Copy Content
- View Content
- Homework
- Drop/Add
- Set Due-Dates
- Set Email
- Set Bonus

Netscape: MSU LectureOnline Browser

Lecture Online

Ch 10 - Optical Instruments
10.3 - Lens Combinations

Res. No. 284 **Optical Instruments**

Chapter: Optical Instruments

http://~mmp/kap26/cd653.htm

----- Insert new resource here -----

Res. No. 285 **Two Lenses**

Page: Two Lenses

http://~mmp/kap26/cd654.htm

----- Insert new resource here -----

Res. No. 286 **Lens Combinations**

Page: Lens Combinations

http://~mmp/kap26/cd655.htm

----- Insert new resource here -----

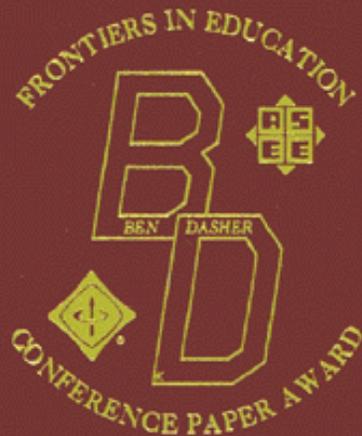
Res. No. 287 **Lens Combination Example**

Page: Lens Combination Example

http://~mmp/kap26/cd656.htm

----- Insert new resource here -----

1998



PRESENTED TO
EDWIN KASHY
MICHAEL THOENNESSEN
YIHJIA TSAI
NANCY E. DAVIS
SHERRY L. WOLFE

FRONTIERS IN
EDUCATION CONFERENCE
EDUCATION SOCIETY, IEEE
ERM DIVISION, ASEE
NOVEMBER 1998



1998 Frontiers In Education Conference

Best Paper Award

awarded to

Gerd Kortemeyer, Wolfgang Bauer

*Multimedia Collaborative Content Creation (mc³) -
the MSU Lecture Online System*

November 5th, 1998

DL Evans, General Chair



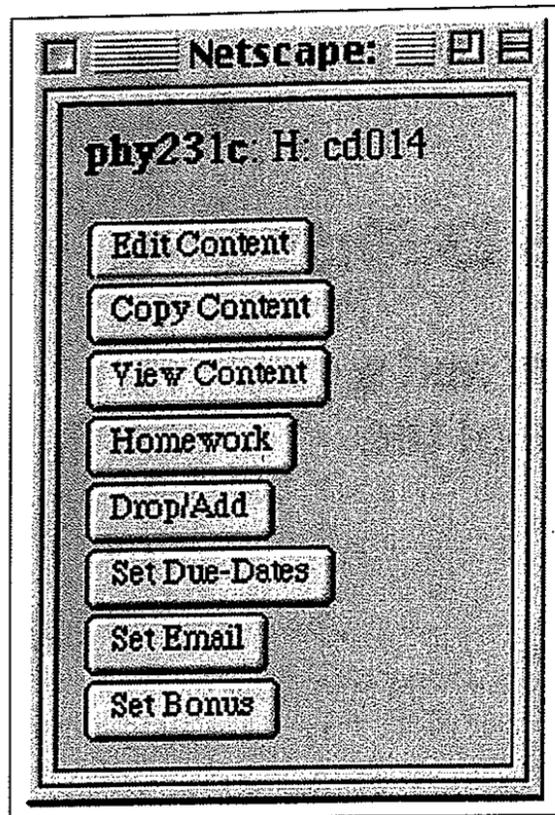
Sponsored by: IEEE Computer Society,
IEEE Education Society and the
American Society for Engineering Education
(Educational Research and Methods Division)
In cooperation with: Arizona State University



2000



2001



2002

- Version 0.5 of LON-CAPA released



2002



2003

	Domain - sc (University of South Carolina)
	Domain - sfu (Simon Fraser University)
	batchelo
	chem281
	exafs
	hanlan
	mxchen
	slavieri
	vjungic
	Domain - sunysb (SUNY Stony Brook)
	Domain - tmcc (Truckee Meadows Community College)
	jensen
	mbauer
	souza
	Greenberg
	<u>default.sequence (metadata)</u>
	samples
	testuser1
	Domain - ucf (University of Central Florida)

2003



2003



2004



2004



2004



2004



2005



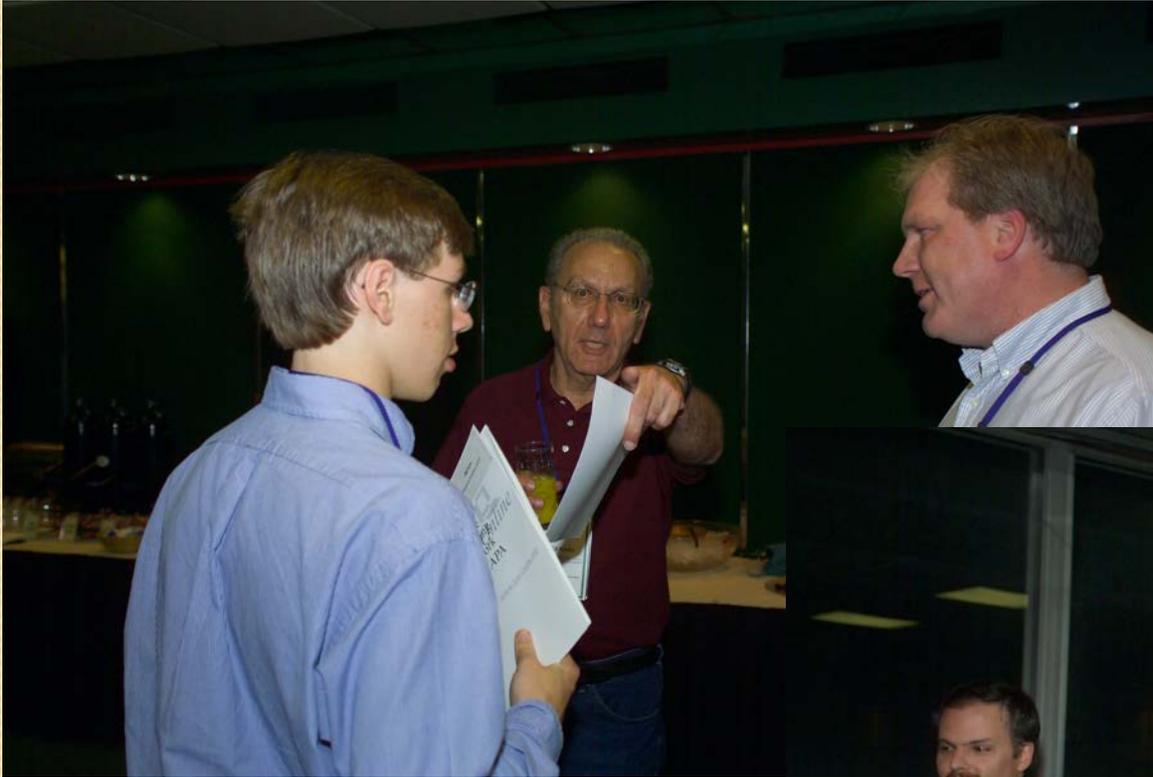
2005



2005



2006



2006

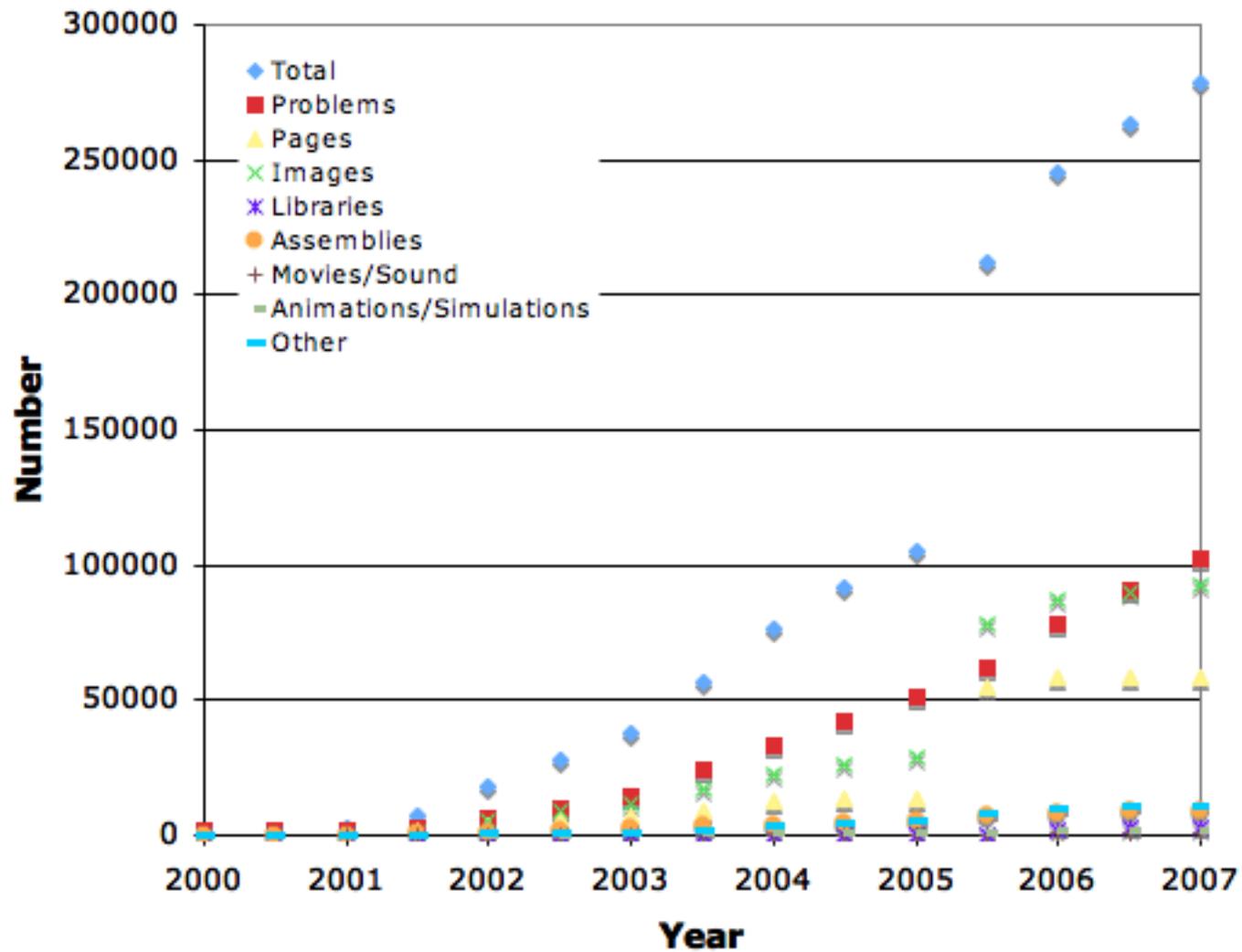


2006



2007

LON-CAPA Shared Resource Pool



2007



2007



2007



2008



2008



2009



2010



2010

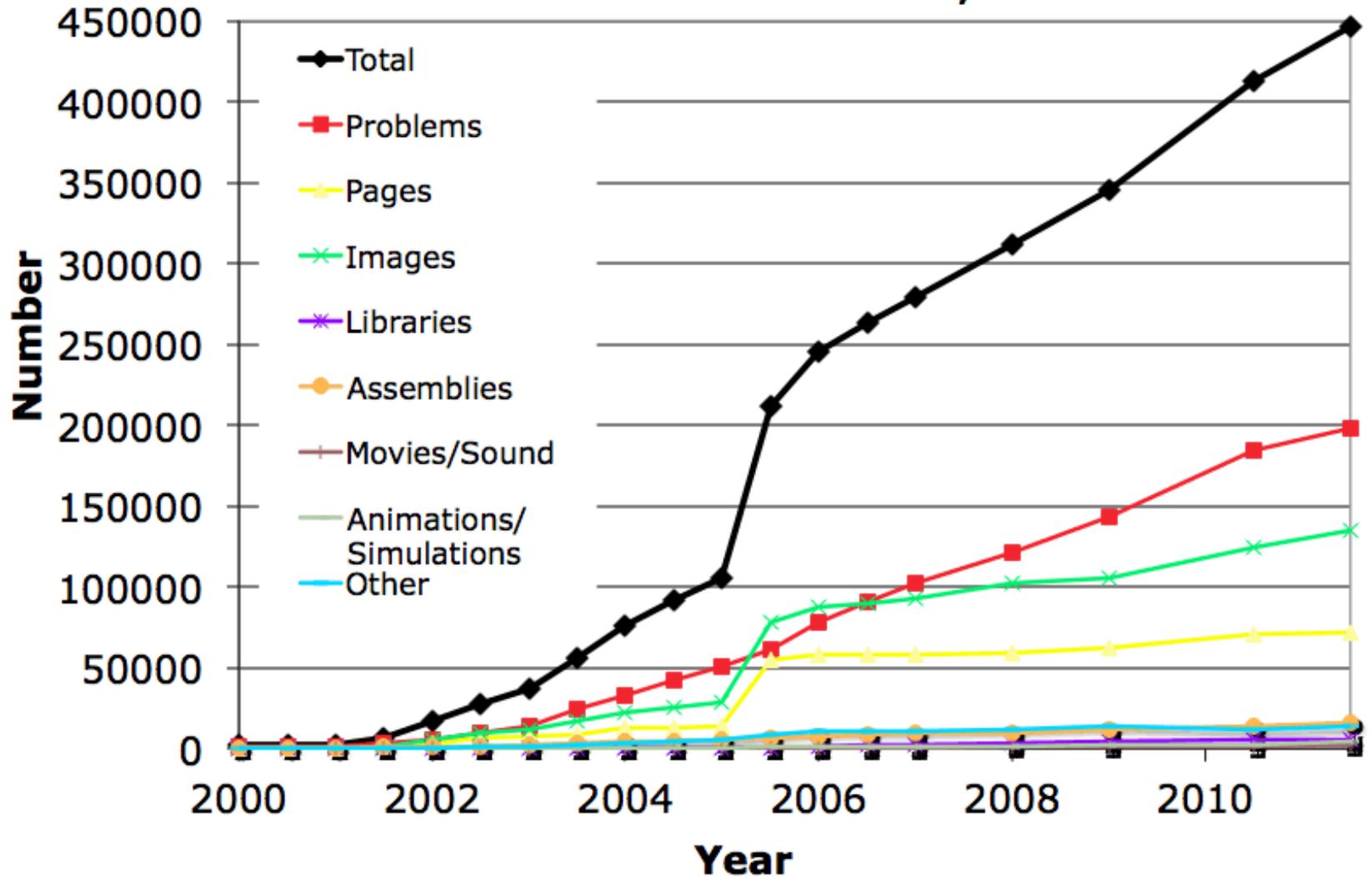


2010



2011

LON-CAPA Shared Resource Pool, Summer 2011



2012

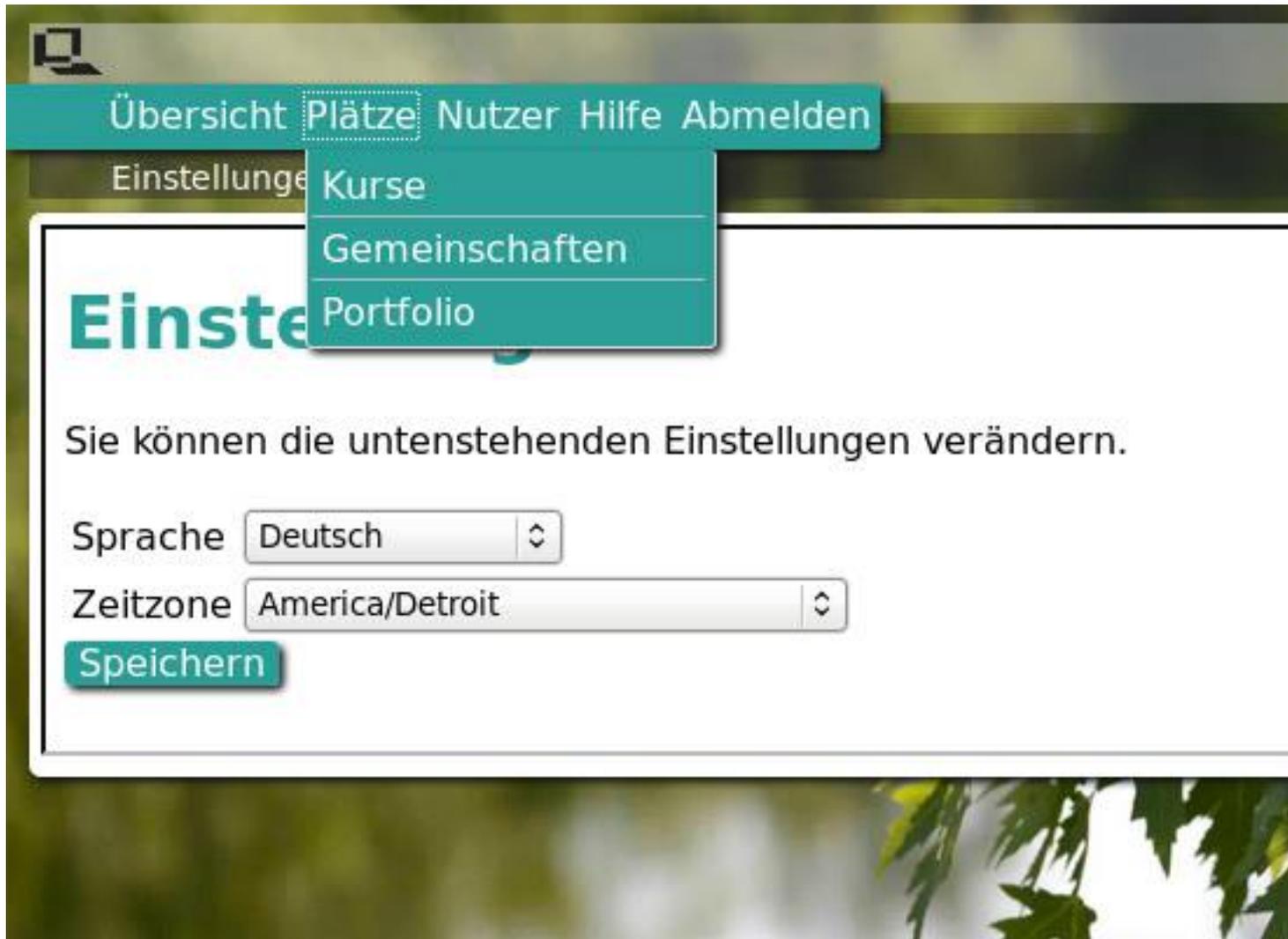




2013-2015



2015: Some Prototyping



2016

Journal & Courier

PART OF THE USA TODAY NETWORK

Search

HOME

NEWS

PURDUE

OPINION

SPORTS

LIFE

DATA

TRAVEL

OBITUARIES

ARCHIVES

insider

USA TODAY

Initiative may save Purdue \$1M on textbooks

Joseph Paul, jpaul@jconline.com

Published 11:46 a.m. ET Feb. 22, 2015 | Updated 11:46 a.m. ET Feb. 22, 2015



169



5



(Photo: Joseph Paul/Journal & Courier)

f 169

CONNECT



TWEET

in 5

LINKEDIN



COMMENT



EMAIL



MORE

In the sharing economy, an unused car or an empty couch has the potential to make money for some and save it for others.

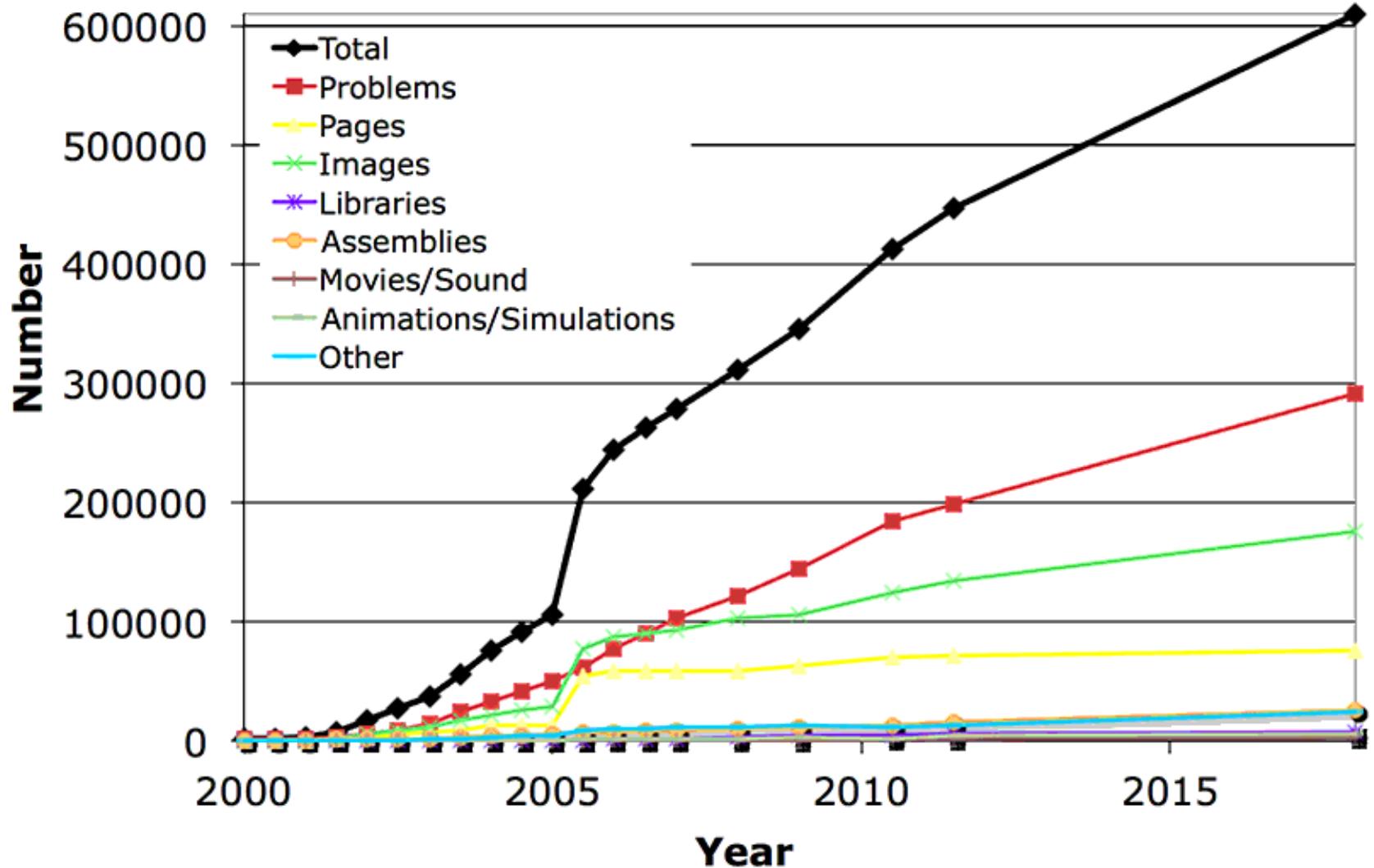
If those items can be shared, some Purdue University students ask, why can't textbooks?

Purdue Student Government passed a resolution last month recommending that the Office of the Provost replace existing online curriculum programs like WebAssign, which offers Web-based lessons and collects and grades assignments based on texts from major publishers. It sometimes costs more than \$100 for each course.



2018 (this morning)

LON-CAPA Shared Resource Pool, Summer 2018





2018 (this morning)

Now what?!



2018-2044

- >25 years is longer than any other comparable system I know of
 - So: no more “will you be there tomorrow?”
- Still:
how do we ensure the next 26 years?
 - preserve value (content!)
 - be nimble (yet preserve legacy)
 - innovate (yet remain “enterprise level”)
 - continue to serve our users



2018-2044

- LON-CAPA is an academic community
- Your Mission (one of two today), should you choose to accept it:
 - Recruitment – talk to your colleagues
 - Projects – grant and sponsored programs
 - Coding – expand open-source coding community
 - Conferences – give talks!
 - Get the news out – try to get your successes into campus news, etc.