

# Sakai Overview

Dr. Charles Severance

[www.dr-chuck.com/talks.php?id=53](http://www.dr-chuck.com/talks.php?id=53)

<http://www.sakaiproject.org/>

# What is Sakai?

- A **project**—an initial grant for two years
- A **community**—an emerging group of people and resources supporting the code and each other, realizing large scale Open Source efficiencies in HigherEd
- An extensible **framework** for building collaborative—provides basic capabilities to support a wide range of tools and services—teaching and research
- A **product** with:
  - A released bundle of the **framework** and
  - A set of **tools**—written and supported by various groups and individuals—which have been tested and released as a unit

# The Sakai Project

## Funding and Initial Institutional Partners

<http://www.sakaiproject.org/>

# The Sakai Project

The University of Michigan, Indiana University, MIT, Stanford, the uPortal Consortium, and the Open Knowledge Initiative (OKI) are joining forces to integrate and synchronize their considerable educational software into a *pre-integrated collection of open source tools*.



**Sakai Project receives \$2.4 million grant from Mellon**

# Sakai Funding

- Each of the 4 Core Universities Commits
  - 5+ developers/architects, etc. under Sakai Board project direction for 2 years
  - Public commitment to implement Sakai
  - Open/Open licensing—“Community Source”
- So, overall project levels
  - \$4.4M in institutional staff (27 FTE)
  - \$2.4M Mellon, \$300K Hewlett
  - Additional investment through partners

Thursday, January 22, 2004

## 4 Colleges Collaborate on Open-Source Courseware

By [ANDREA L. FOSTER](#)

In what may be a big threat to commercial providers of course-management systems, four universities have announced a \$6.8-million collaborative venture to create open-source courseware tools and related software for higher-education institutions.

The universities developing the system, called the Sakai Project, are the Indiana University system, the Massachusetts Institute of Technology, Stanford University, and the University of Michigan at Ann Arbor, which will lead the effort.

### HEADLINES

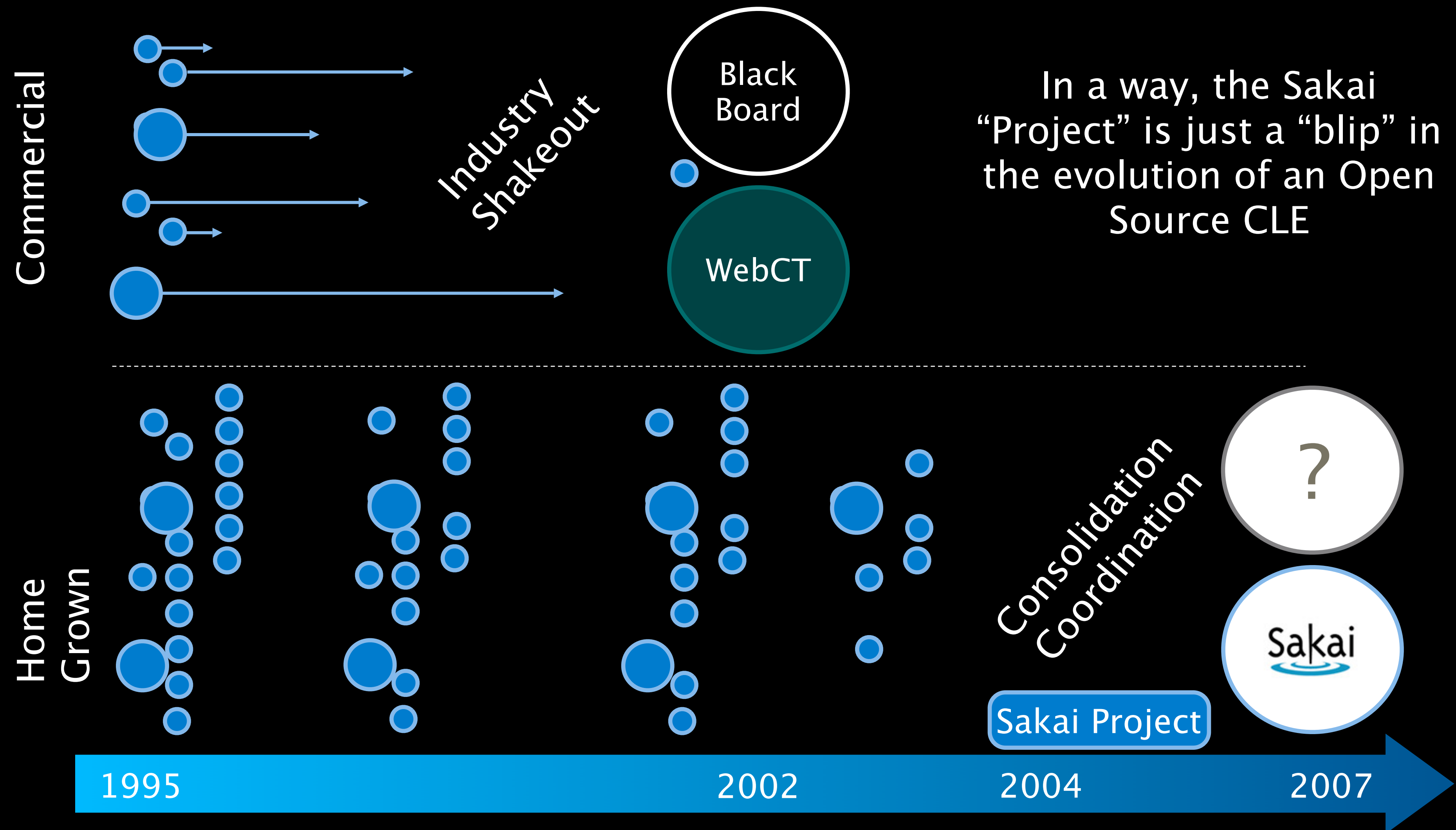
[Bush proposes](#) \$250-million job-training program in visits to community colleges

[U. of Pennsylvania](#) to name Amy Gutmann of Princeton as its new president

[Record companies](#) sue 532 computer users, accusing them of illegally sharing songs

[4 colleges](#) collaborate on open-source courseware

# Consolidation



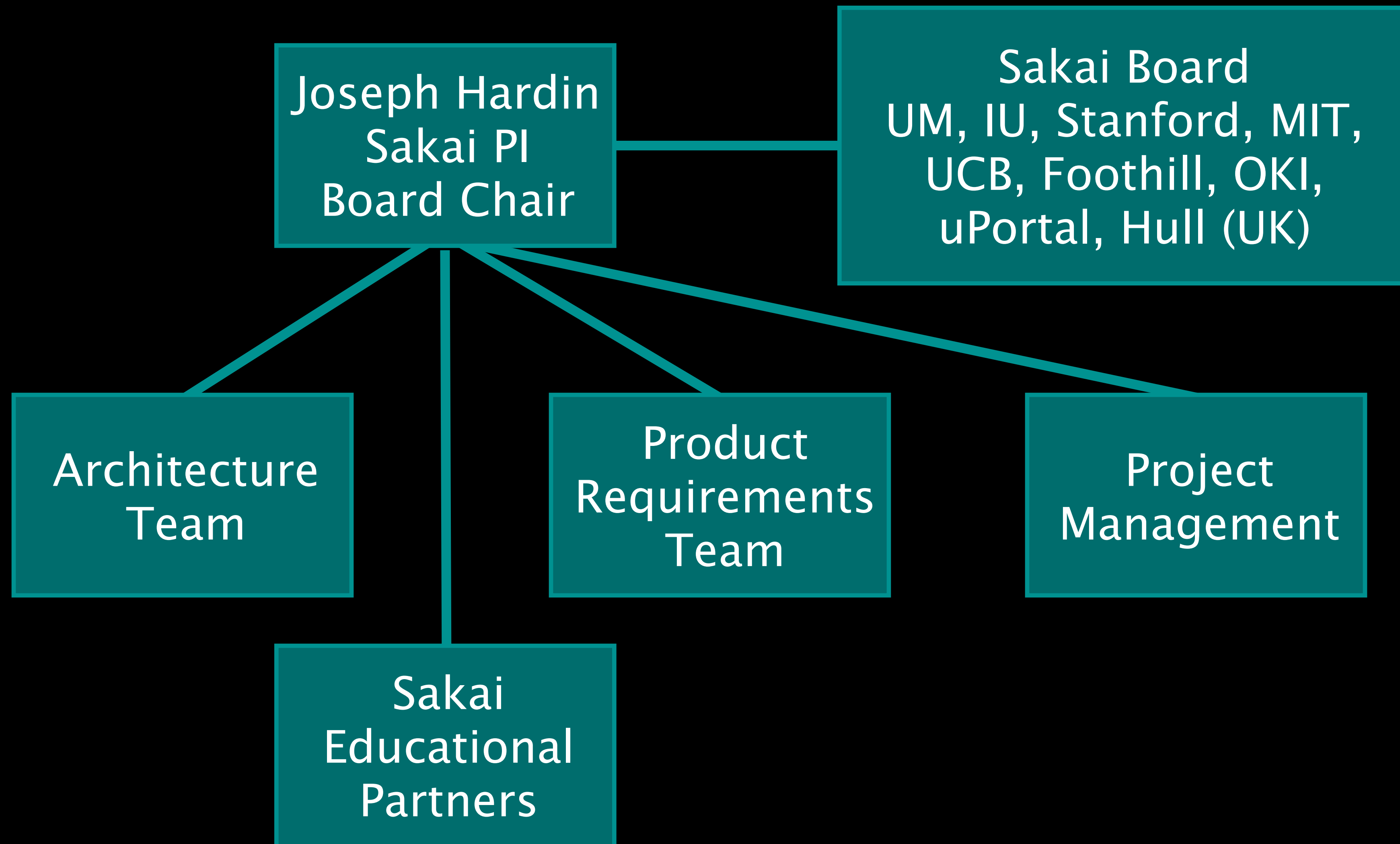
# The Sakai Community

Close coordination for two years to quickly  
build the critical mass for open source  
enterprise Collaborative Learning Environment

<http://www.sakaiproject.org/>



# Sakai Project Organization

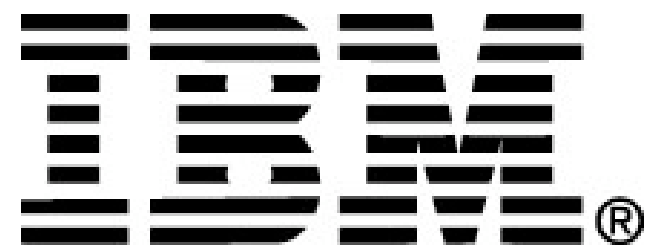


# Sakai Educational Partners—Feb 1, 2005

Arizona State University  
Boston University School of Management  
Brown University  
Carleton College  
Carnegie Foundation for Advancement of Teaching  
Carnegie Mellon University  
Coastline Community College  
Columbia University  
Community College of Southern Nevada  
Cornell University  
Dartmouth College  
Florida Community College/Jacksonville  
Foothill-De Anza Community College  
Franklin University  
Georgetown University  
Harvard University  
Johns Hopkins University  
Lubeck University of Applied Sciences  
Maricopa County Community College  
Monash University  
Nagoya University  
New York University  
Northeastern University  
North-West University (SA)  
Northwestern University  
Ohio State University  
Portland State University  
Princeton University  
Roskilde University (Denmark)  
Rutgers University  
Simon Fraser University  
State University of New York

Stockholm University  
SURF/University of Amsterdam  
Tufts University  
Universidad Politecnica de Valencia (Spain)  
Universitat de Lleida (Spain)  
University of Arizona  
University of California Berkeley  
University of California, Davis  
University of California, Los Angeles  
University of California, Merced  
University of California, Santa Barbara  
University of Cambridge, CARET  
University of Cape Town, SA  
University of Colorado at Boulder  
University of Delaware  
University of Hawaii  
University of Hull  
University of Illinois at Urbana-Champaign  
University of Melbourne, Australia  
University of Minnesota  
University of Missouri  
University of Nebraska  
University of Oklahoma  
University of Texas at Austin  
University of Toronto, Knowledge Media Design Institute  
University of Virginia  
University of Washington  
University of Wisconsin, Madison  
Virginia Polytechnic Institute/University  
Whitman College  
Yale University

# Sakai Commercial Affiliates



The Sakai Educational Community License is BSD-like and allows complete flexibility in terms of the creation of and licensing of derivative works.

This allows different commercial companies to interact in different ways without any limitations imposed by license.

# Sakai Meetings

- Provide a forum for the core and the SEPP to interact and for the SEPP members to interact with one another
  - June 2004—Denver Colorado (180) (Members only)
  - December 2004—New Orleans (200+) (Members only)
  - June 8–14—Baltimore (450) (Public)
    - Community Source Week
    - uPortal, Sakai, OSPI
  - December TBD—Austin, TX (Public)

# Sakai's Future

- Initial grant ends December 2005
- Transition to Community Source
  - The SEPP is renamed “Sakai” (1–2 Million/year)
  - Governance is merit-based (like Apache)
  - Core elements of Sakai software are pretty stable
  - Small Community funded team (~10) to keep the core maintained and slowly evolving
  - Most new development will be done outside of the core
  - Significant continued in-kind resources Michigan, Indiana, Yale, Foothill, Stanford, and Berkeley

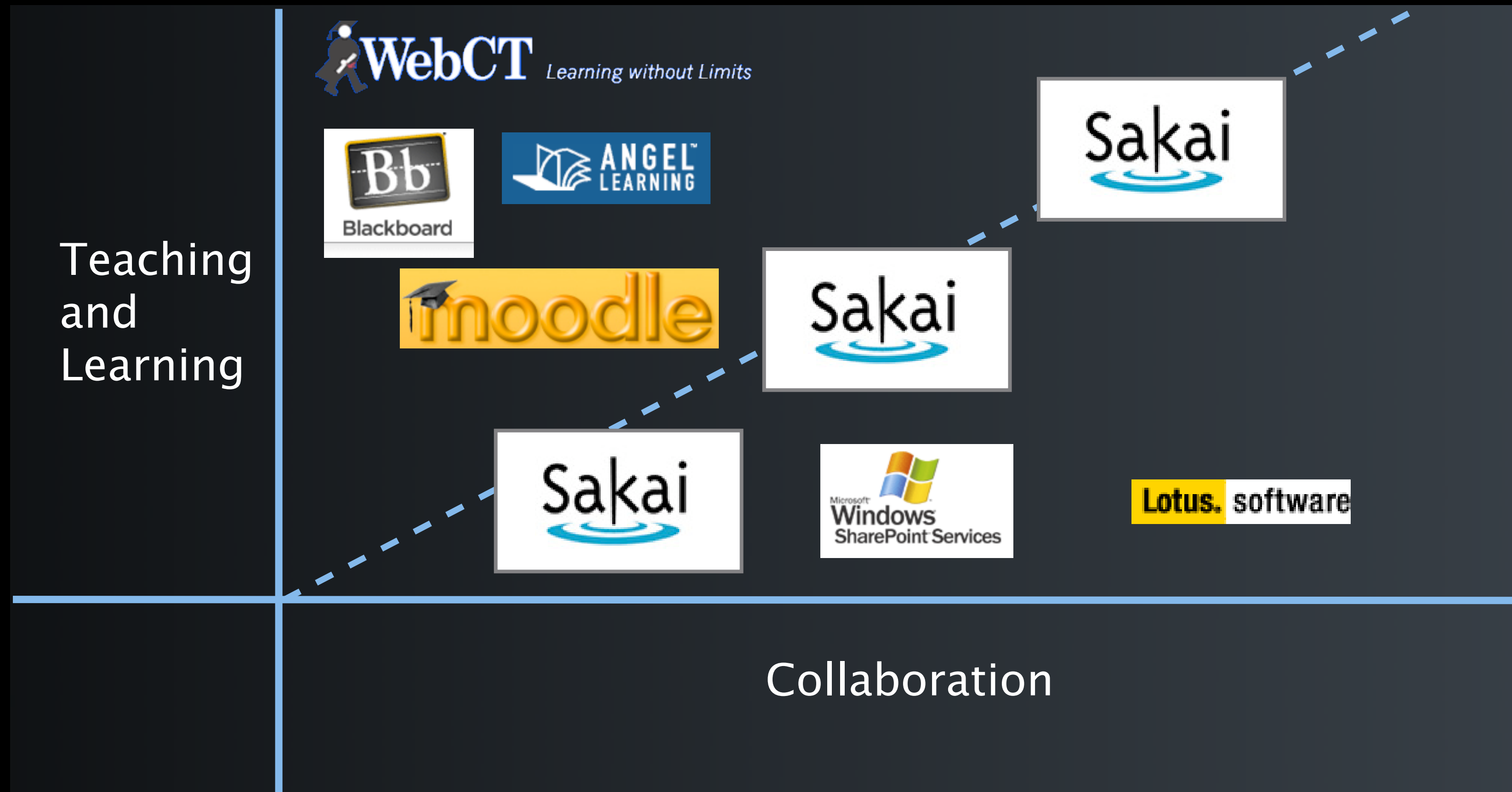
# The Sakai Product

A Collaborative Learning Environment—  
Suitable for use in teaching and learning,  
research collaboration, and ad Hoc group  
communication

<http://www.sakaiproject.org/>

# Placing the Sakai Product

## A Collaboration and Learning Environment





# Sakai Releases

Enterprise Quality Teaching and Learning and  
Collaboration



Jan 2004

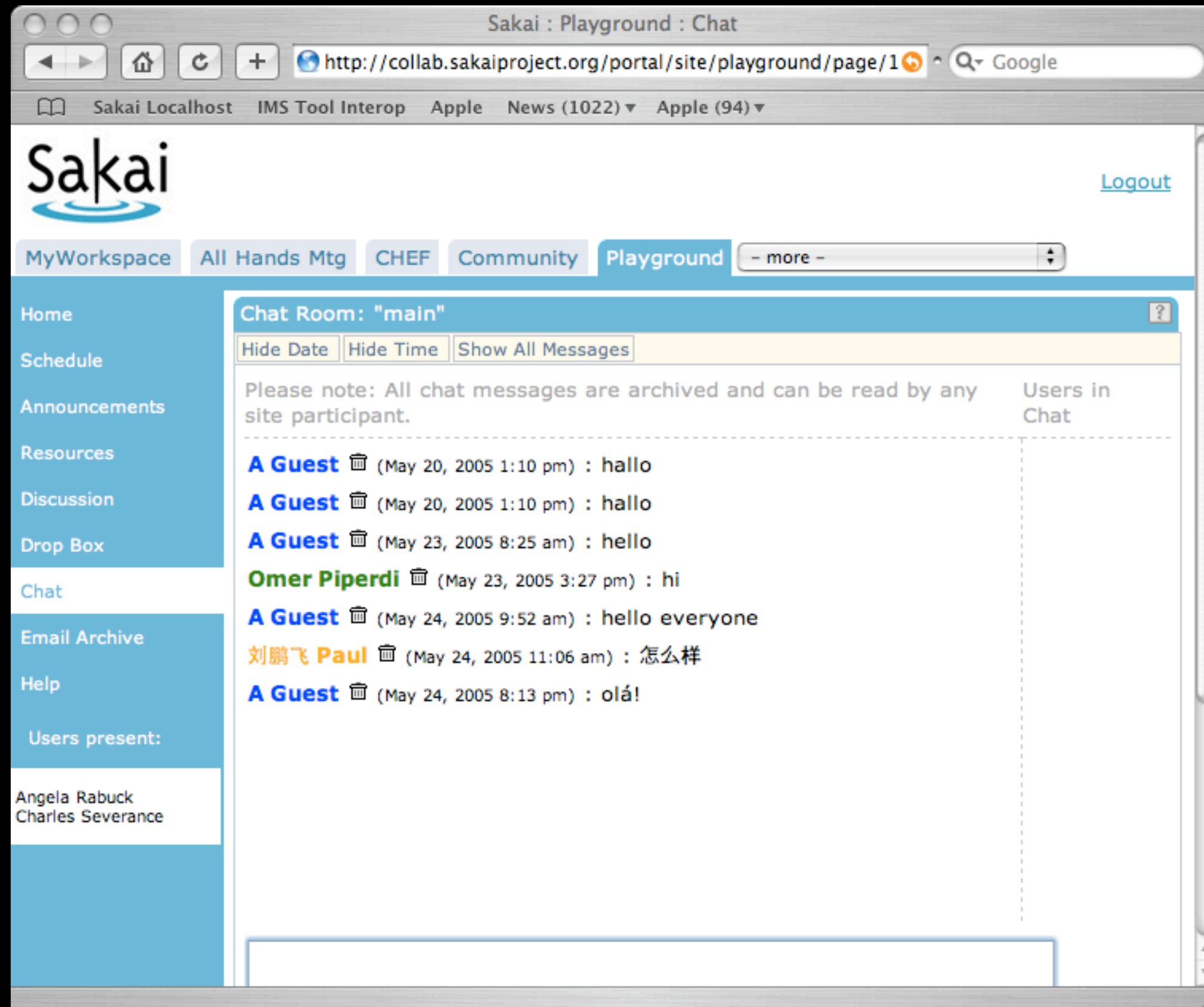
Jan 2005

Jan 2006

■ Collaboration ■ Teaching and Learning ■ Enterprise “suitability”

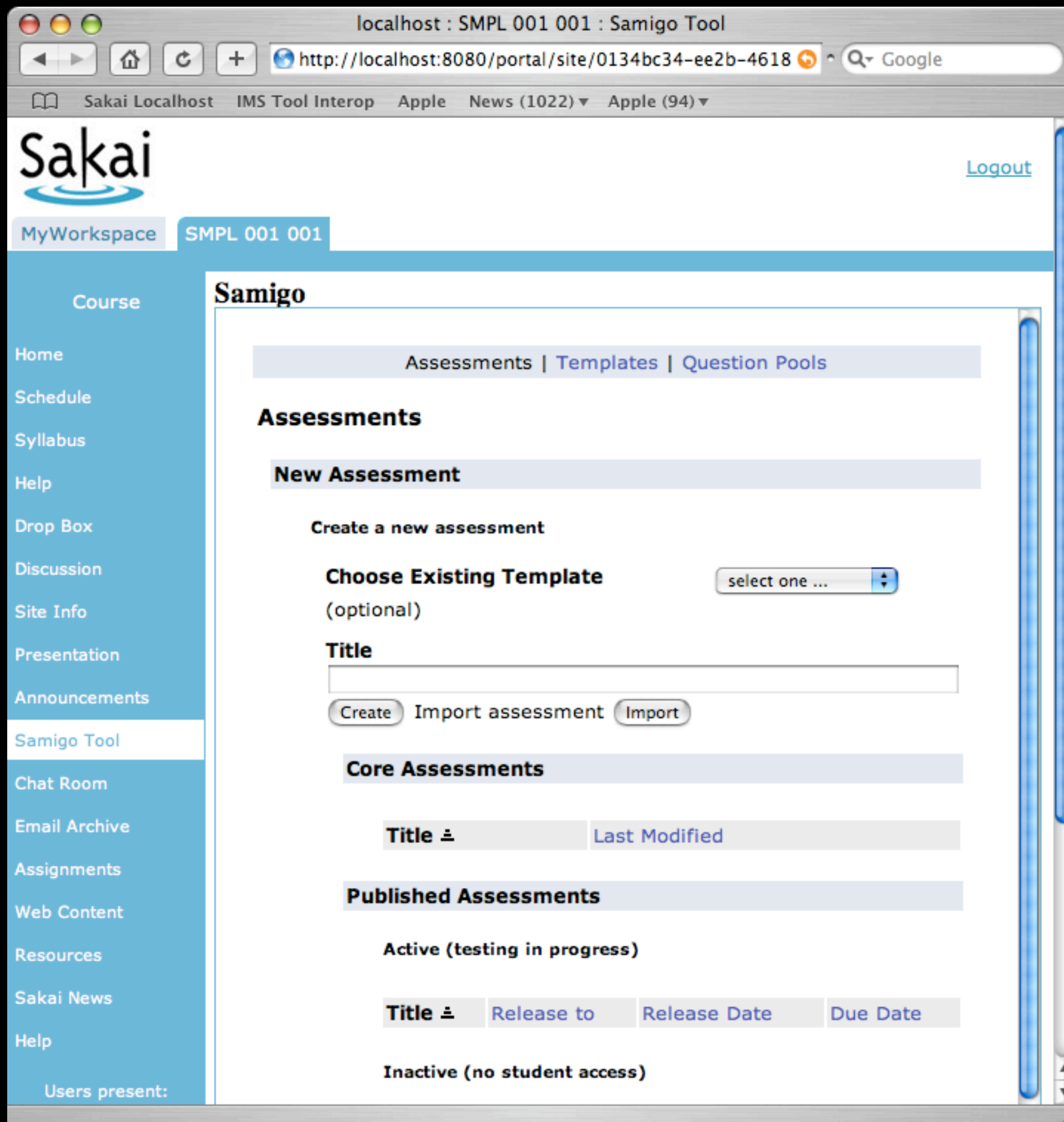


# Sakai 1.0 Tools



- Announcements
- Assignments
- Chat Room
- Threaded Discussion
- Drop Box
- Email Archive
- Message Of The Day
- News/RSS
- Preferences
- Resources
- Schedule
- Web Content
- Worksite Setup
- WebDAV

# Sakai 1.5 Tools



- Samigo—QTI compliant assessment engine (Stanford)
- Syllabus Tool (Indiana)
- Context Sensitive Help (Indiana)
- Presentation Tool (SEPP)
- Portfolio Tool—OSPI (R-Smart) (separate release)

# Sakai 2.0 Tools

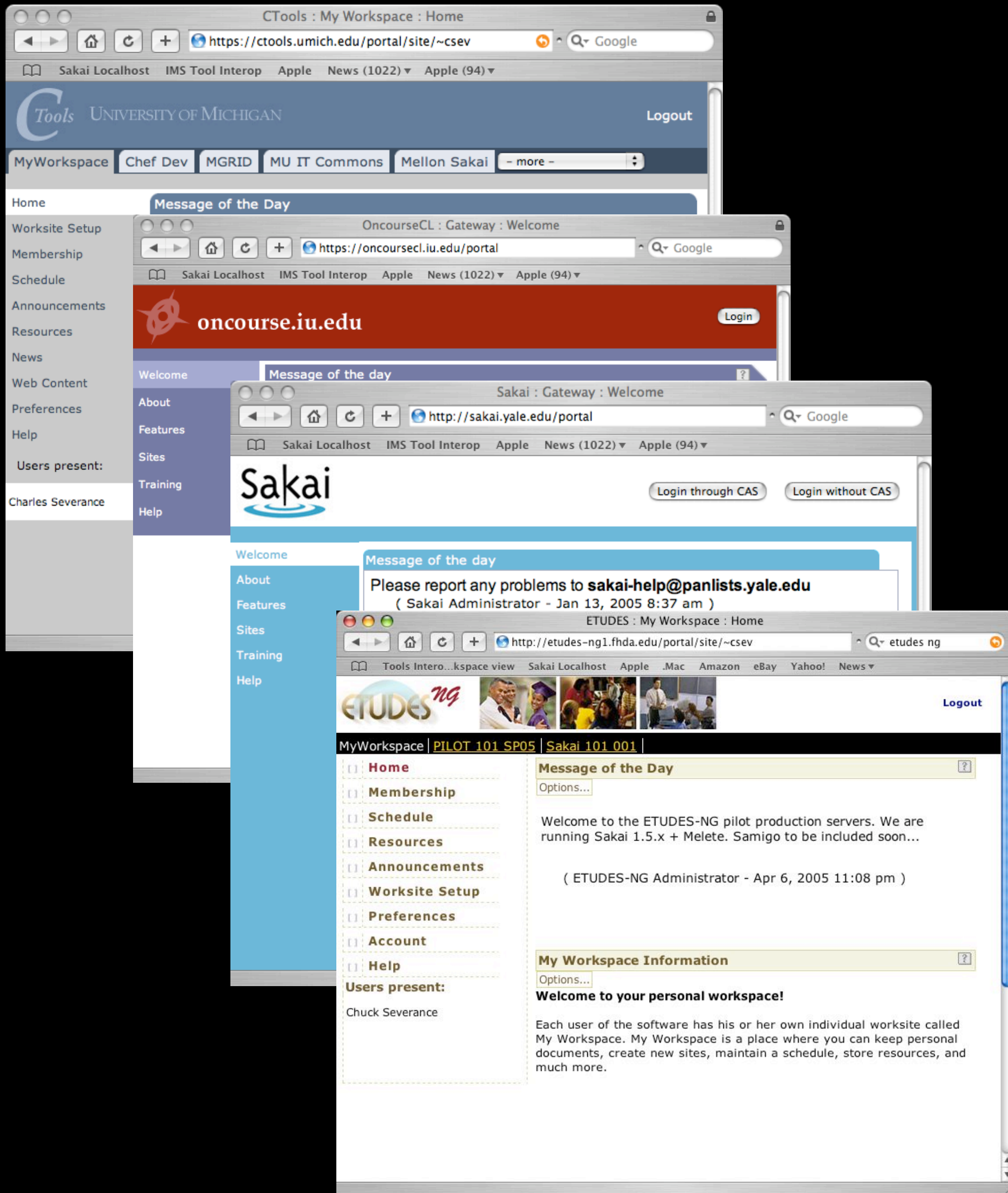
- Completely re-written Kernel (UM / MIT)
- Melete—Online classroom—lesson editor (Foothill)
- Profile Tool (Indiana)
- Grade Book (UC Berkeley/ MIT )

The screenshot shows the Sakai 2.0 web interface. At the top, the browser address bar displays the URL: `http://192.168.123.6:8090/portal/site/e4738ef7-184f-4030-0044-f761`. The Sakai logo is in the top left, and a "Logout" link is in the top right. Below the logo, a navigation bar includes "MyWorkspace", "Administration Workspace", and "SMPL 001 001 | mercury site". A left-hand menu lists various tools: Home, Assignments, Chat Room, Discussion, Drop Box, Email Archive, Gradebook (selected), Help, Sakai News, Presentation, Resources, Schedule, Site Info, Syllabus, Tests & Quizzes, and Help. The main content area is titled "GRADEBOOK" and contains tabs for "Overview", "Roster", "Add assignment", and "Grade options". The "Grade Options" section includes a note: "Student privacy is built in — students can not see each other's grades." Under "Grade Display", there are two checkboxes: "Display assignment grades to students" (checked) and "Display course grades to students now. Note: The calculated grade is not accurate until you enter grades for all assignments." (unchecked). Under "Grade Conversion", there is a "Grade Type" dropdown set to "Letter Grades with +/-" and a "Change grade type" button. A "Reset to default values" link is also present. At the bottom, a table shows the minimum percentage for each grade:

Grade	Minimum %
A+	100.0
A	95.0
A-	90.0
B+	87.0

At the bottom left, a "users present:" section lists "Sakai Administrator".





# Sakai in Production

- University of Michigan
  - September 2004
- Indiana University
  - January 2005
- Yale University
  - January 2005
- Etudes/Foothill
  - April 2005

# Sakai Adoption Plans



- Boston University School of Management
- Carleton
- Columbia University
- Johns Hopkins University
- Lueck University of Applied Sciences, Germany
- Massachusetts Institute of Technology
- Northwestern University
- Stanford University
- University of California, Berkeley
- University of California, Los Angeles
- University of California, Merced
- University of Cape Town, SA
- University Fernando Pessoa, Portugal
- University of Lleida, Spain
- University of Missouri
- University of Virginia
- Whitman College



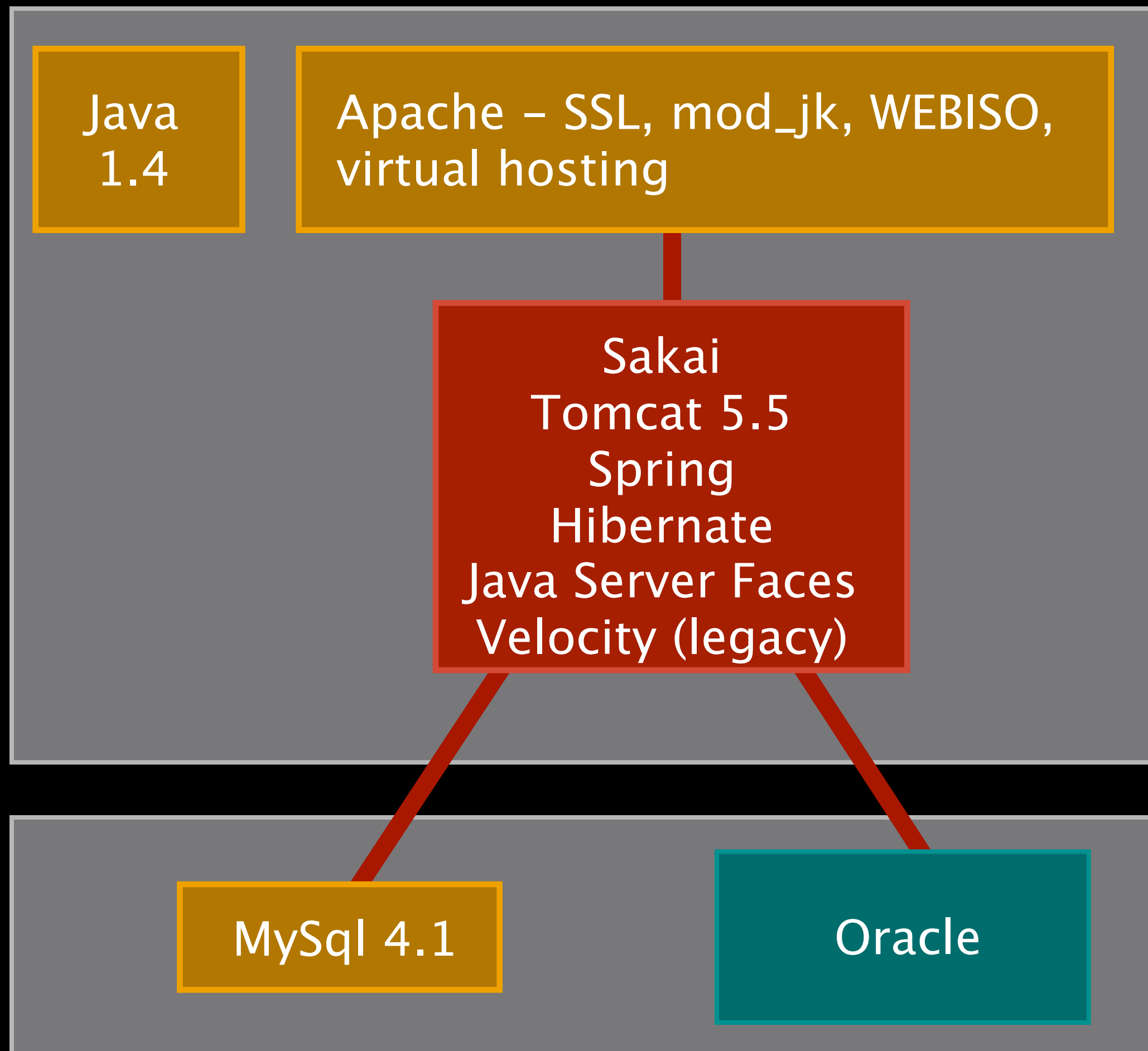
Type "Sakai Adoption Plans" into Google

# The Sakai Framework

The need to satisfy the often conflicting goals of ease of use, ease of expansion, configuration flexibility, environmental portability and rock-solid production reliability suitable for enterprise deployment.

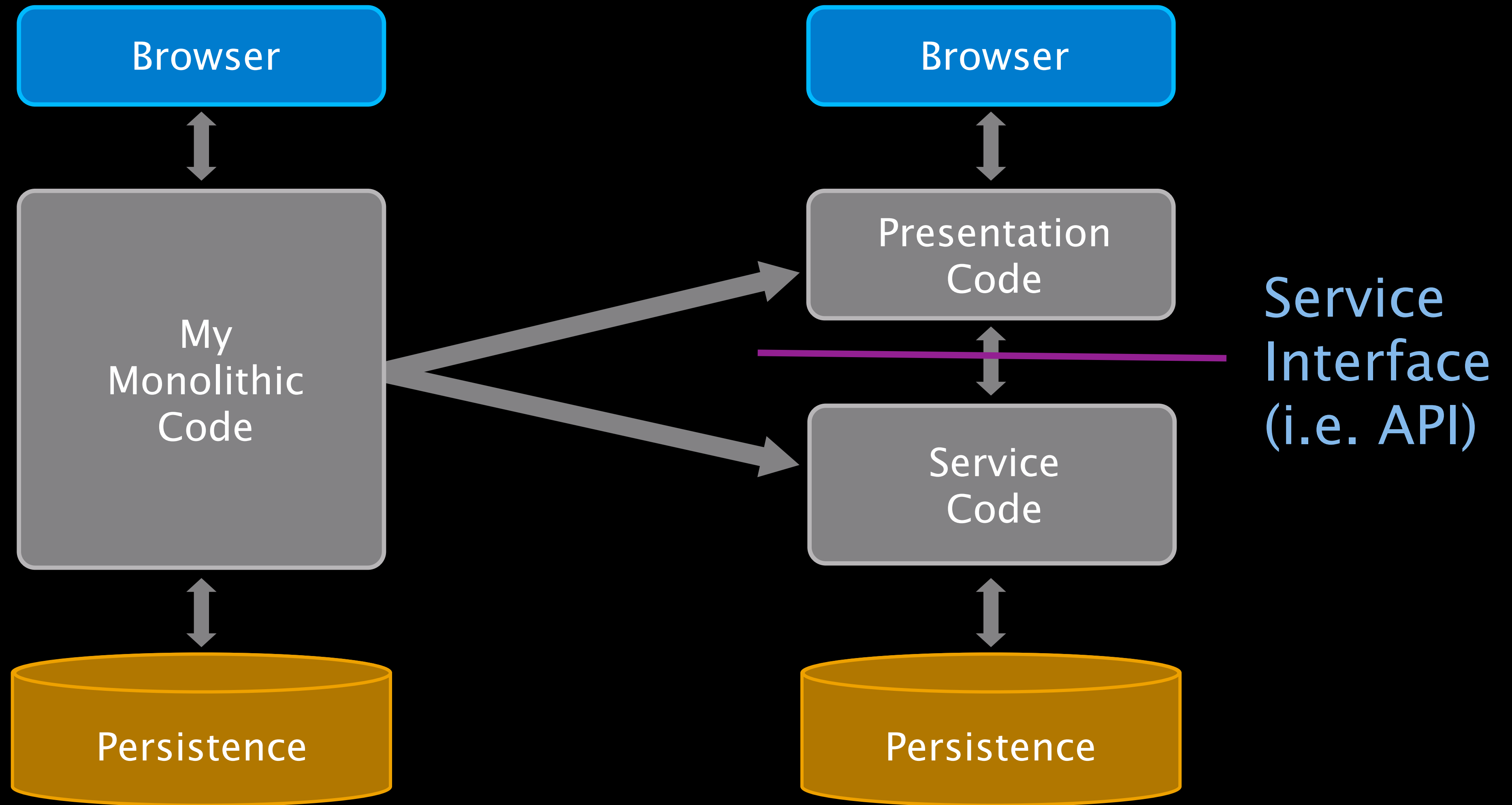
<http://www.sakaiproject.org/>

# Sakai Foundational Technologies



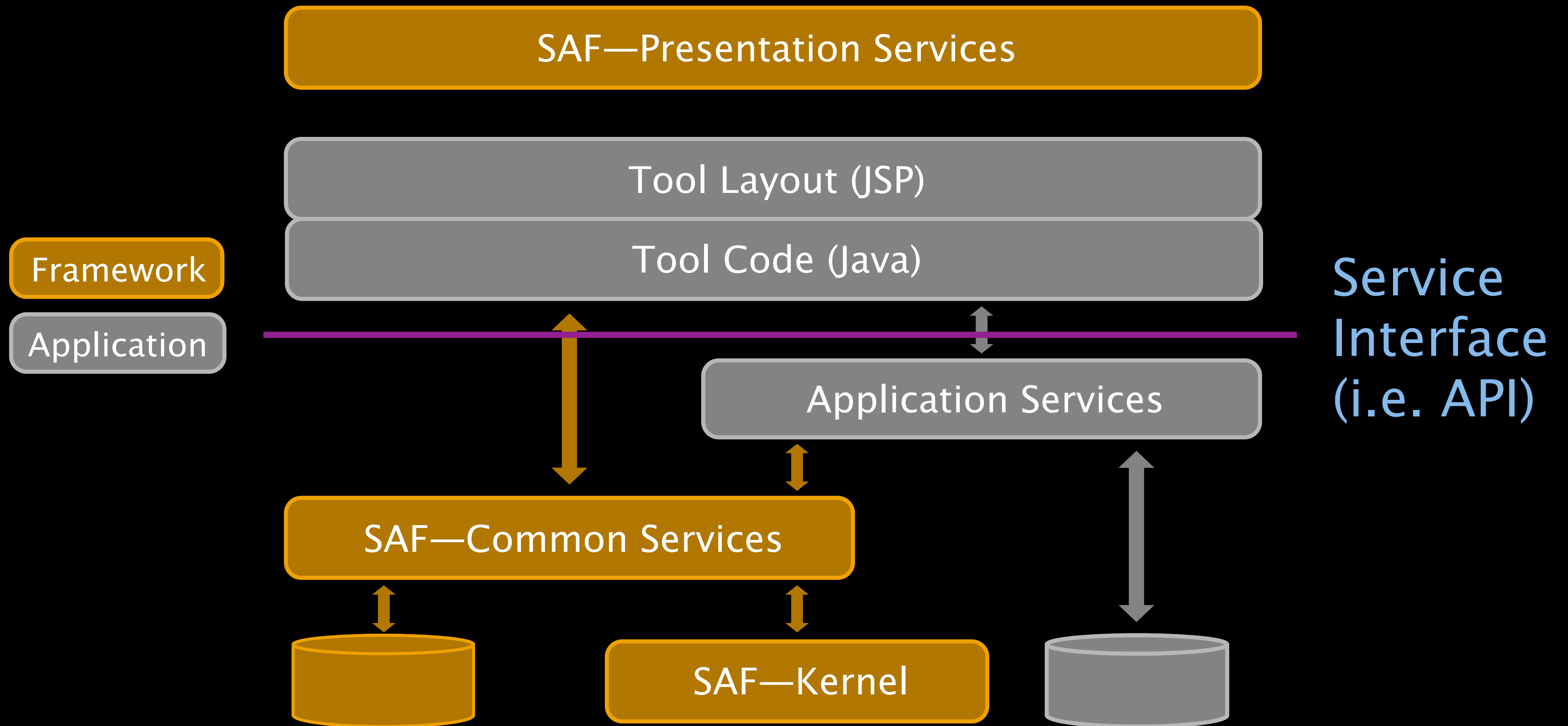
Sakai consists of technologies chosen to be common in Java Enterprise Environments.

# Service Oriented Architecture

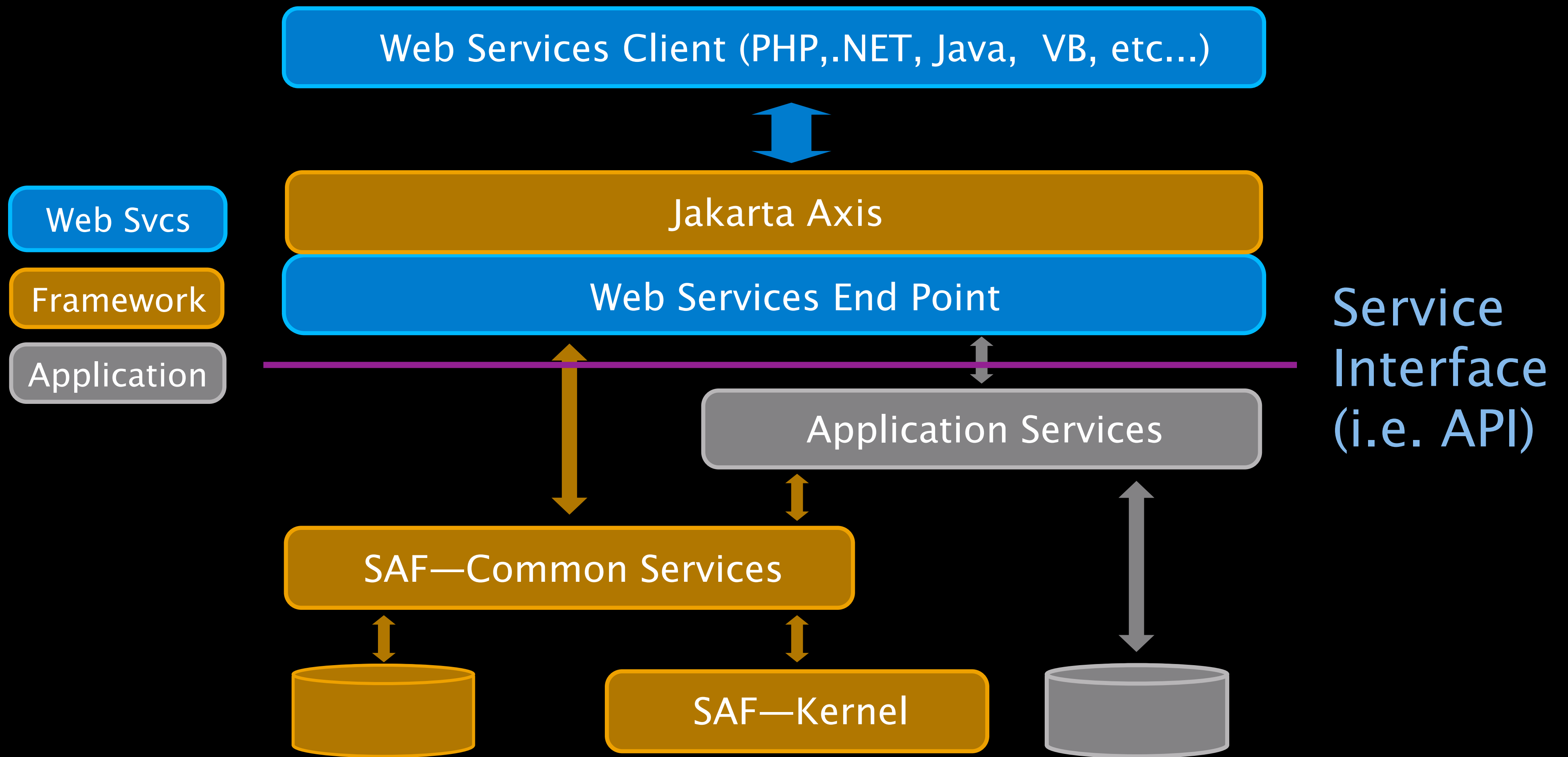




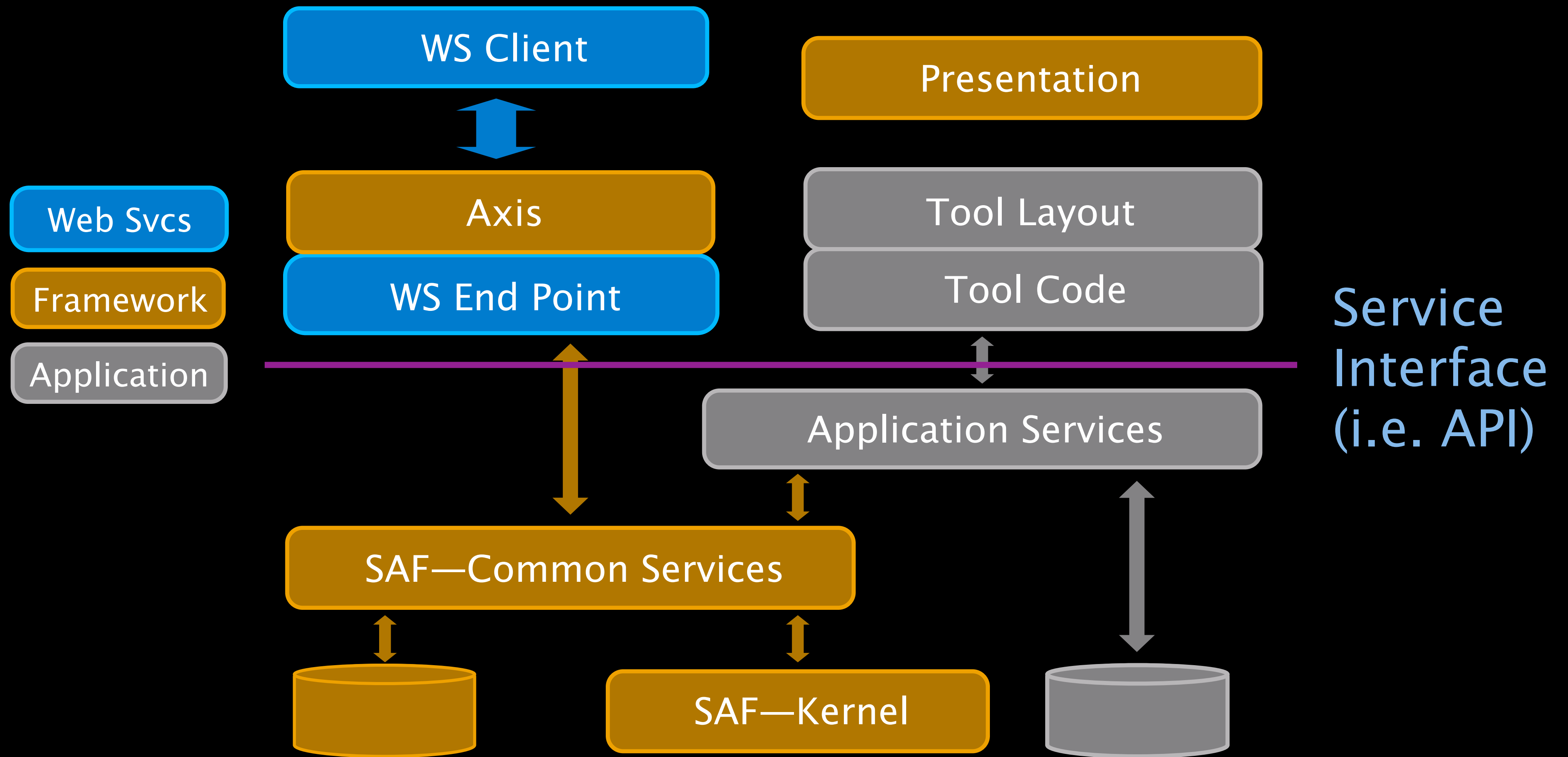
# Sakai Applications and Framework



# Sakai Web Services



# Web Services and Web Applications



# Sakai Presentation Services

```
<sakai:view_container title="{msgs.sample_title}">
```

```
<sakai:tool_bar> <sakai:tool_bar_item/> </sakai:tool_bar>
```

Sample

Continue

Please enter some information

Information

Name:

date JUN 22 2004

Continue

```
<sakai:instruction_message  
value="{msgs.sample_one_instructions}" />
```

```
<sakai:group_box  
title="{msgs.sample_one_groupbox}">
```

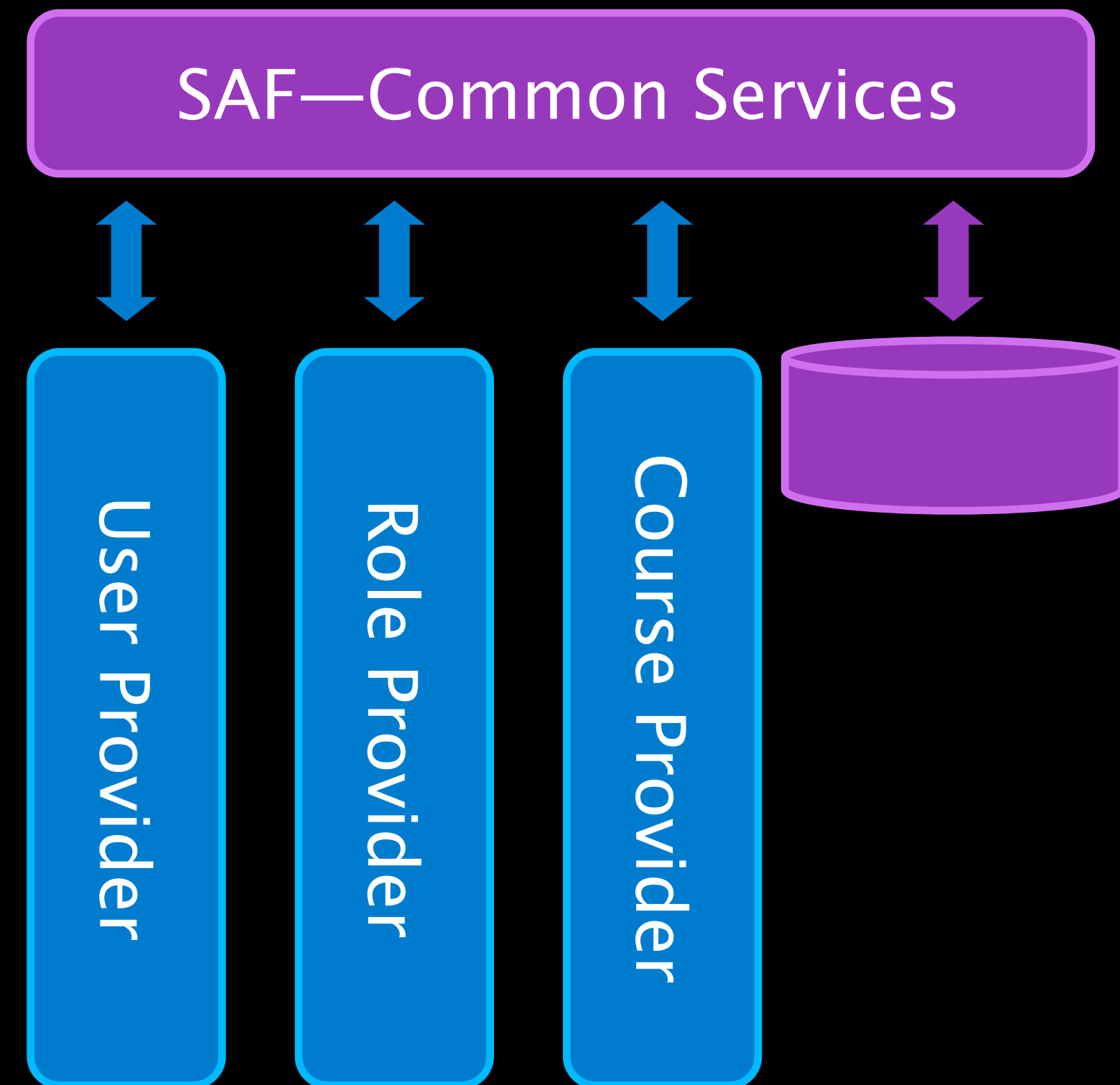
```
<h:inputText  
value="{MyTool.userName}" />
```

```
<sakai:date_input  
value="{MyTool.date}" />
```

```
<sakai:button_bar>  
  <sakai:button_bar_item action="#  
{MyTool.processActionDoIt} value="#  
{msgs.sample_one_cmd_go}" />  
</sakai:button_bar>
```

# Sakai Service Providers

- Common Services are localized using Plug-Ins
  - UserDirectoryProvider
  - RealmProvider
  - CourseManagementProvider
- These will be expanded
  - OKI OSID Based Providers
- Plug-Ins do not replace the persistence, they are consulted in order to populate Sakai structures



# Sakai: More Information

- Main site: [www.sakaiproject.org](http://www.sakaiproject.org)
  - Bugs: [bugs.sakaiproject.org](http://bugs.sakaiproject.org)
- Sakai-wide collaboration area
  - [collab.sakaiproject.org](http://collab.sakaiproject.org)
  - [sakai-dev@sakaiproject.org](mailto:sakai-dev@sakaiproject.org)
  - [sakai-user@sakaiproject.org](mailto:sakai-user@sakaiproject.org)
- My talks
  - <http://www.dr-chuck.com/talks.php>