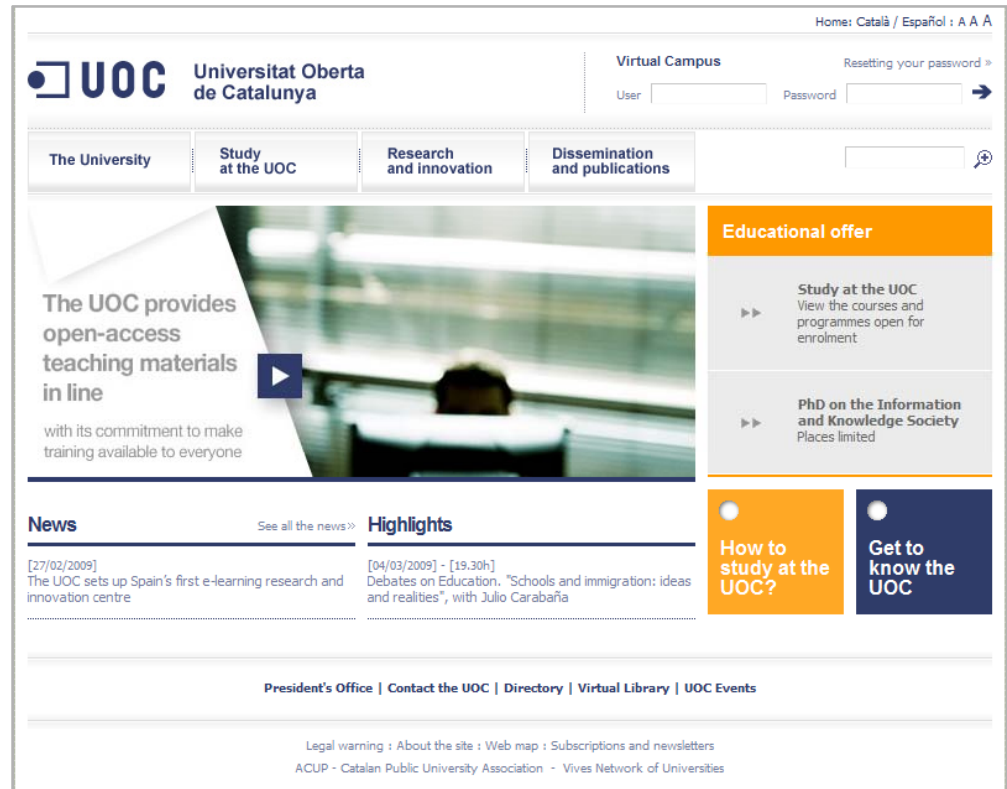


# **Re-thinking Educational Platforms: A vision of an interoperable and user centered online educational experience**

**Llorenç Valverde,  
Vice-rector for Technology  
UOC**

## About UOC:

- Headquarters in Barcelona, Spain
- Fully online university (BAs, MAs, PhD)
- Founded 15 years ago as an online university
- 47.000 students, 500 f-t faculty, 2000 p-t faculty
- **Faculty as Mentors**
- **Students as Teachers**



The screenshot shows the UOC website homepage. At the top right, there are links for 'Home: Català / Español : A A A' and a 'Virtual Campus' login section with 'User' and 'Password' fields and a 'Resetting your password >' link. Below the login section is a navigation menu with 'The University', 'Study at the UOC', 'Research and innovation', and 'Dissemination and publications'. The main content area features a large banner with the text 'The UOC provides open-access teaching materials in line' and a play button icon. To the right of the banner is an 'Educational offer' section with two items: 'Study at the UOC' and 'PhD on the Information and Knowledge Society'. Below the banner is a 'News' section with a 'See all the news >>' link and a 'Highlights' section with a date and time indicator. At the bottom, there are links for 'President's Office', 'Contact the UOC', 'Directory', 'Virtual Library', and 'UOC Events'. The footer contains legal warnings and affiliations with ACUP and the Vives Network of Universities.

## About UOC's Faculty:

- Would prefer using different tools and services depending on the subject taught or previous experience
- The online environment is their only **medium to teach and motivate** students
- Their “teaching” is asynchronous
- The contents they use evolve



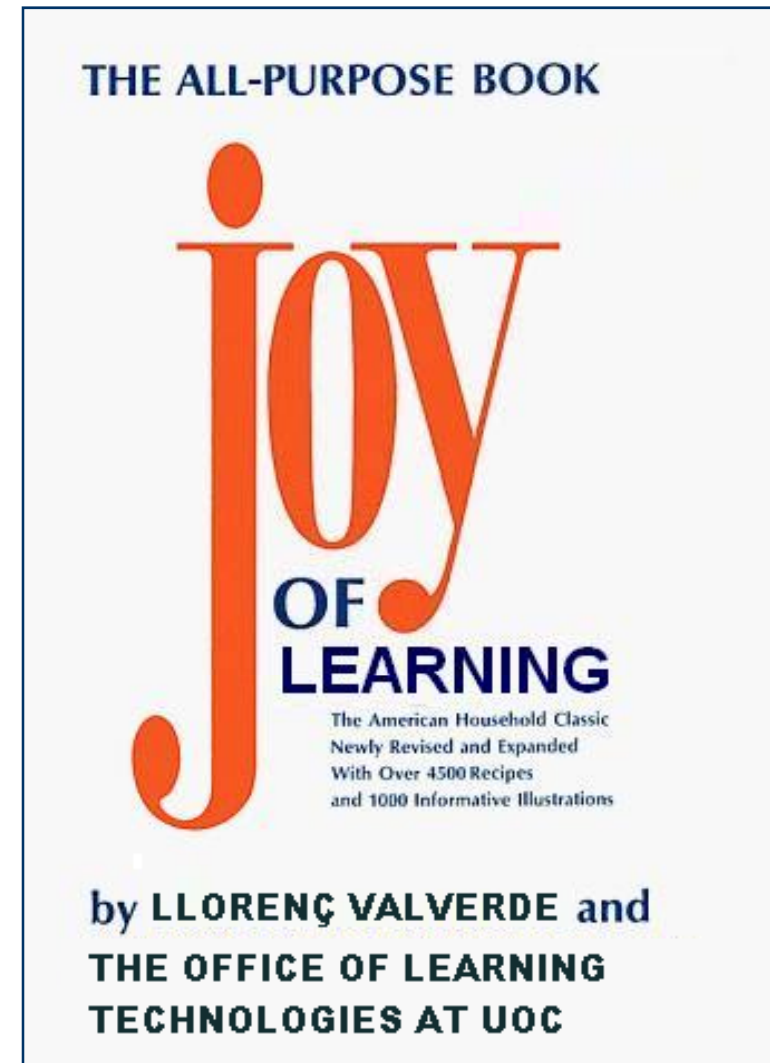
## About UOC's Students:

- There are as many typologies of students as students are in the University
- They have different ages, backgrounds, experiences, needs, desires and expectations
- They are “on” 24/7
- They are active participants in the learning process
- They are overwhelmed with information
- **“We are all disabled”** (considering permanent and temporary disabilities, such as unable to read while driving, for example)



## UOC's Needs:

- An **open source** learning environment
- An environment that **integrates other solutions** desired by faculty to help enhance learning for the different subjects
- A more **engaging-to-all**-students learning environment to help increase overall satisfaction and motivation to learn (*Joy of Learning*)
- **EHEA**



## From functional to emotional:

### From functional...

- We have an online campus that works
- Students are satisfied
- We use UCD methodologies to ensure that the users' abilities and characteristics are taken into account and integrated into the design and development processes

### To emotional...

- We need to add elements that make their online learning experience more **engaging and attractive** at a personal level



## Searching for Solutions:

- About LMS generations
  - homemade (to 1995)
  - homemade or commercial (1995-2000)
  - commercial or open source (2000-2005)
  - **developments inside or outside** (2005-present)
- OKI: **web services**



## Requirement:

- An **open source** and **Lego-like environment** connected with each other



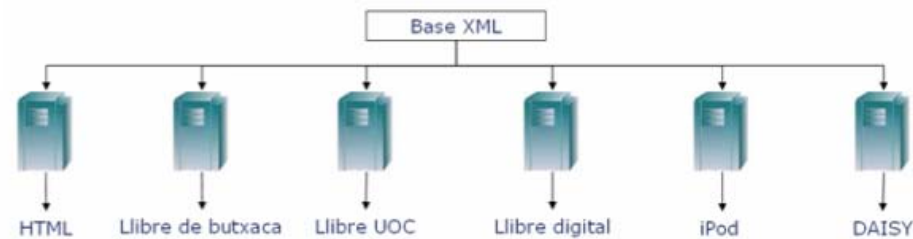
## Requirement:

- An **accessible-to-all** environment, anytime, anyplace



## Requirement:

- A system to automatically generate **all kind of output formats** by integrating accessibility technologies into the design and development process (i.e. mp3, mp4, DAISY, pdf, mobipocket, etc.)



**UOC** Internet Interdisciplinary Institute **IN3**

**MYWAY** SISTEMA DE TRANSFORMACIÓ DE CONTINGUTS A MIDA DE LES PERSONES

Avantatges de: | Col·laboracions | Articles i congressos | Contacte

**Metodologia** MYWAY

- Equip interdisciplinari
- Disseny centrat en l'usuari
- Interacció humana amb els ordinadors
- Accesibilitat

**Tecnologia** MYWAY

- XML
- Sistemes de transformació
- Tecnologies lingüístiques

**Aplicació** MYWAY

- Web
- MP3 i MP4
- Libre
- Àudio
- DVD

**MYWAY** SISTEMA DE TRANSFORMACIÓ DE CONTINGUTS A MIDA DE LES PERSONES

Aquesta eina li permetrà la conversió del seu llibre a l'igual de llibre de contingut.

Web  
Llibres  
Àudio  
DVD...





## The Open Source Campus Project

- <http://www.campusproject.org>
- Promoted by the Government of Catalonia.
- Open Source.
- Most of the Catalan Universities have been involved in the project.
  - Developer partners (7 universities)
  - Observer partners (9 institutions)
- The UOC was in charge of the coordination and technological leadership of the project
- Each partner integrated or developed e-learning tools.
- Partial funding (a 60% of 3 million € - approx.).
- September 2006 - December 2008

## Solution: Interoperability

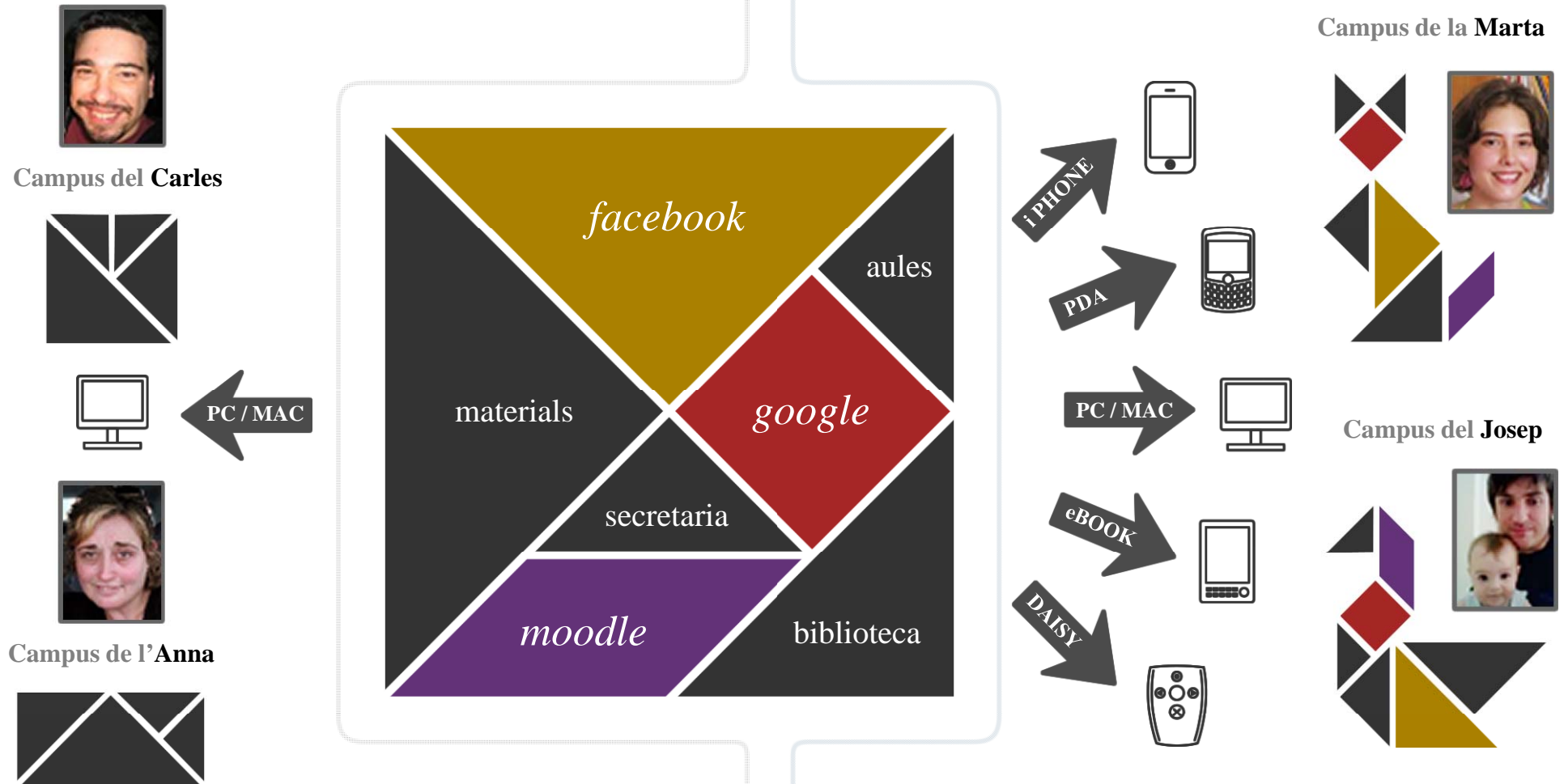


## FROM A CAMPUS ...

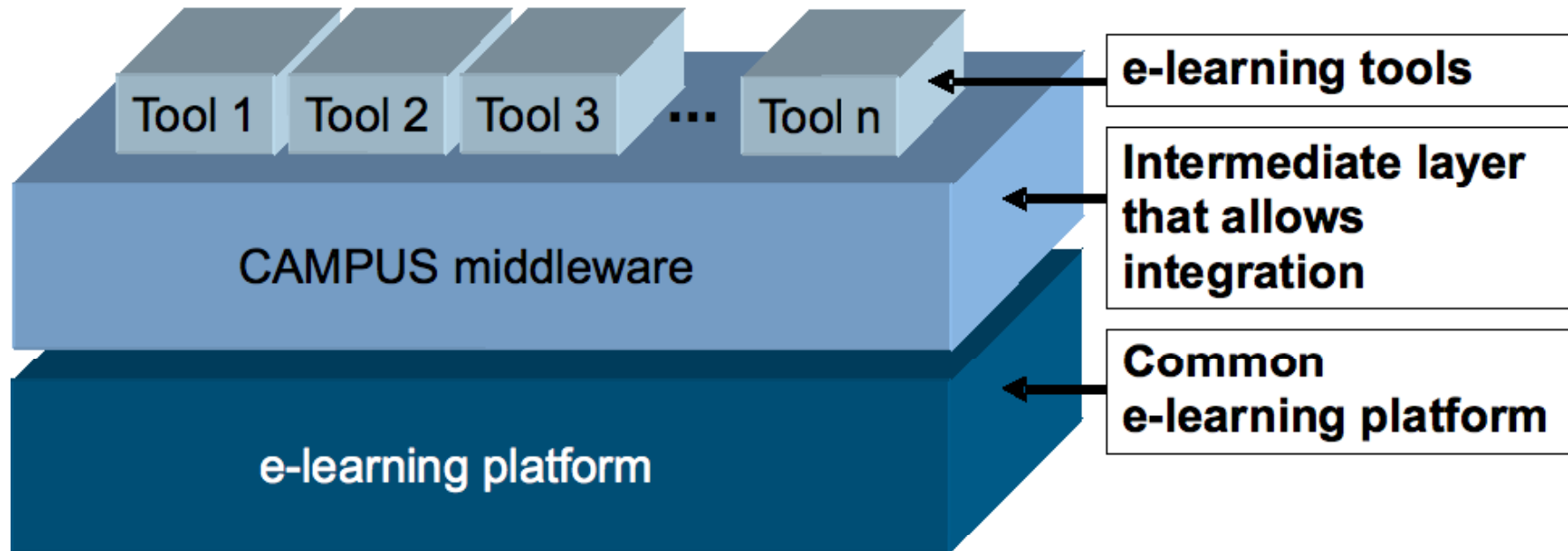
in your computer  
with centralized information  
the same for everyone  
for faculty and students to adapt

## ... TO A PLATAFORM

distributed throughout different channels  
flexible and interoperable  
personalized  
adapts to faculty and students needs



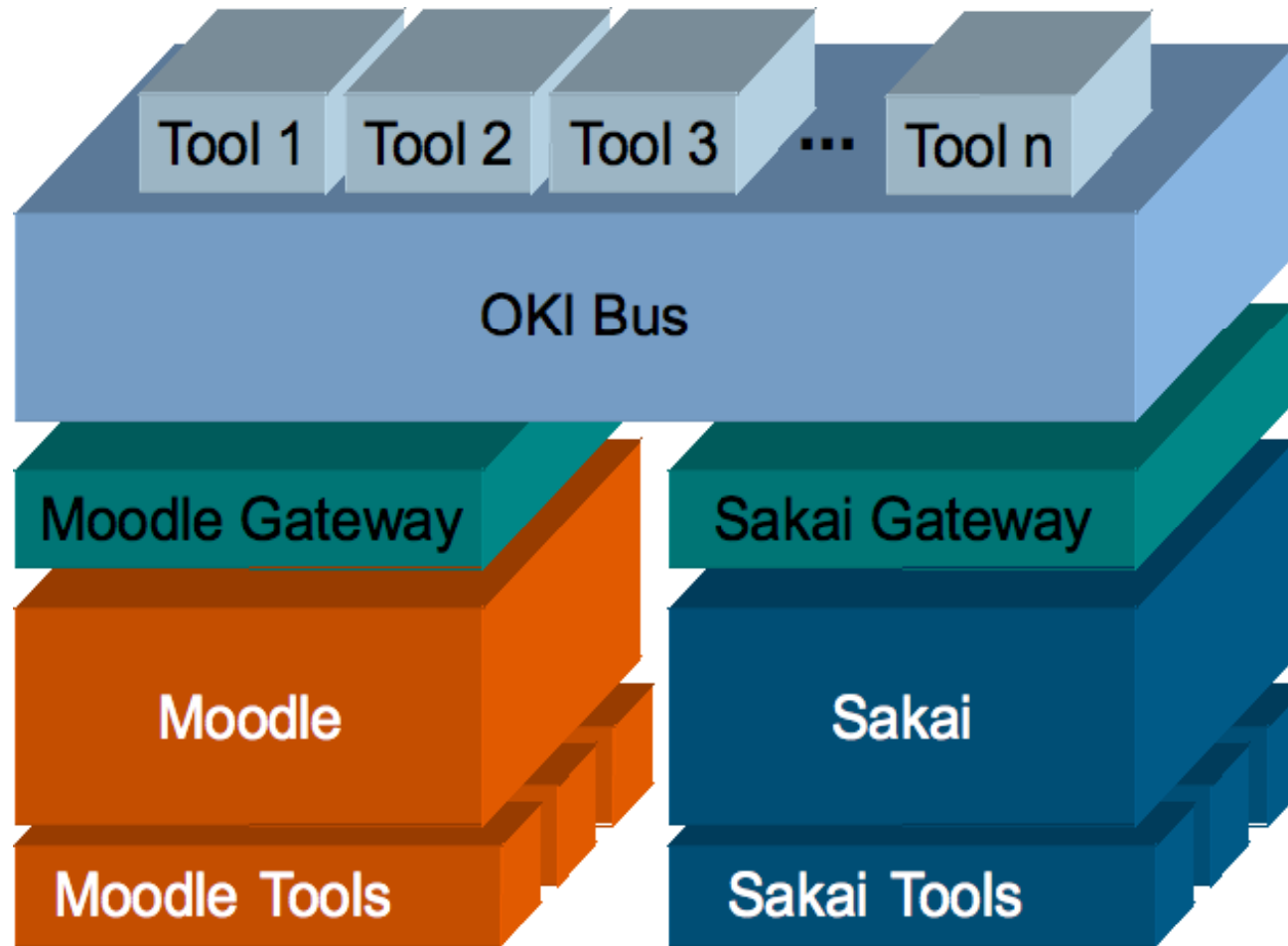
## Campus Project Overview



### Types of tools – Functional modules:

- collaborative (wiki, podcast, blog, file area, etc.)
- Personal (internal messaging, calendar, preferences, webmail, etc.)
- Synchronous (text chat, virtual classroom, etc.)
- Evaluation (portfolio, results reporting, management, etc.)
- Others (RSS mobile/TV, virtual 3D environments, etc.)

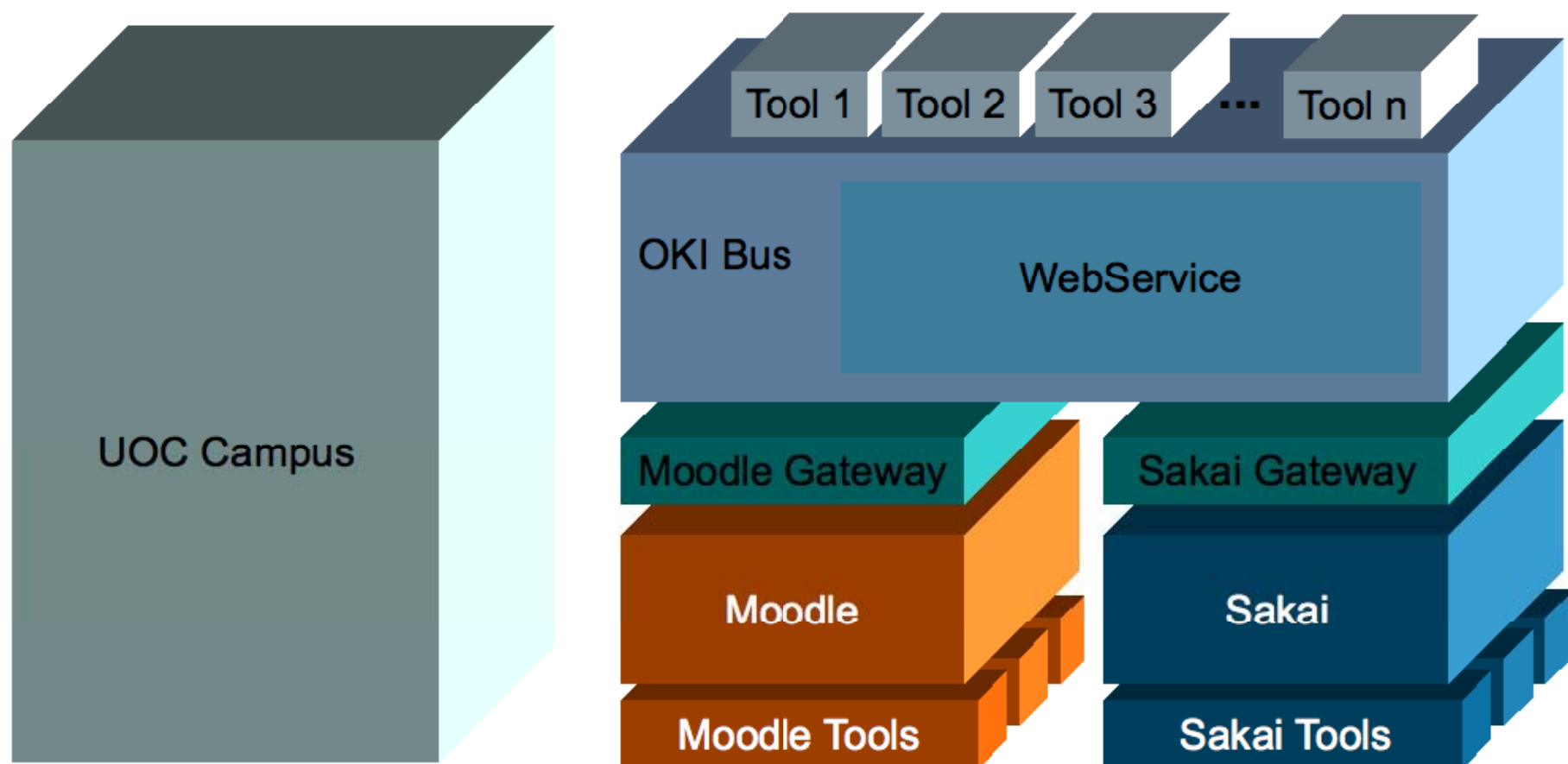
## Campus Project Architecture



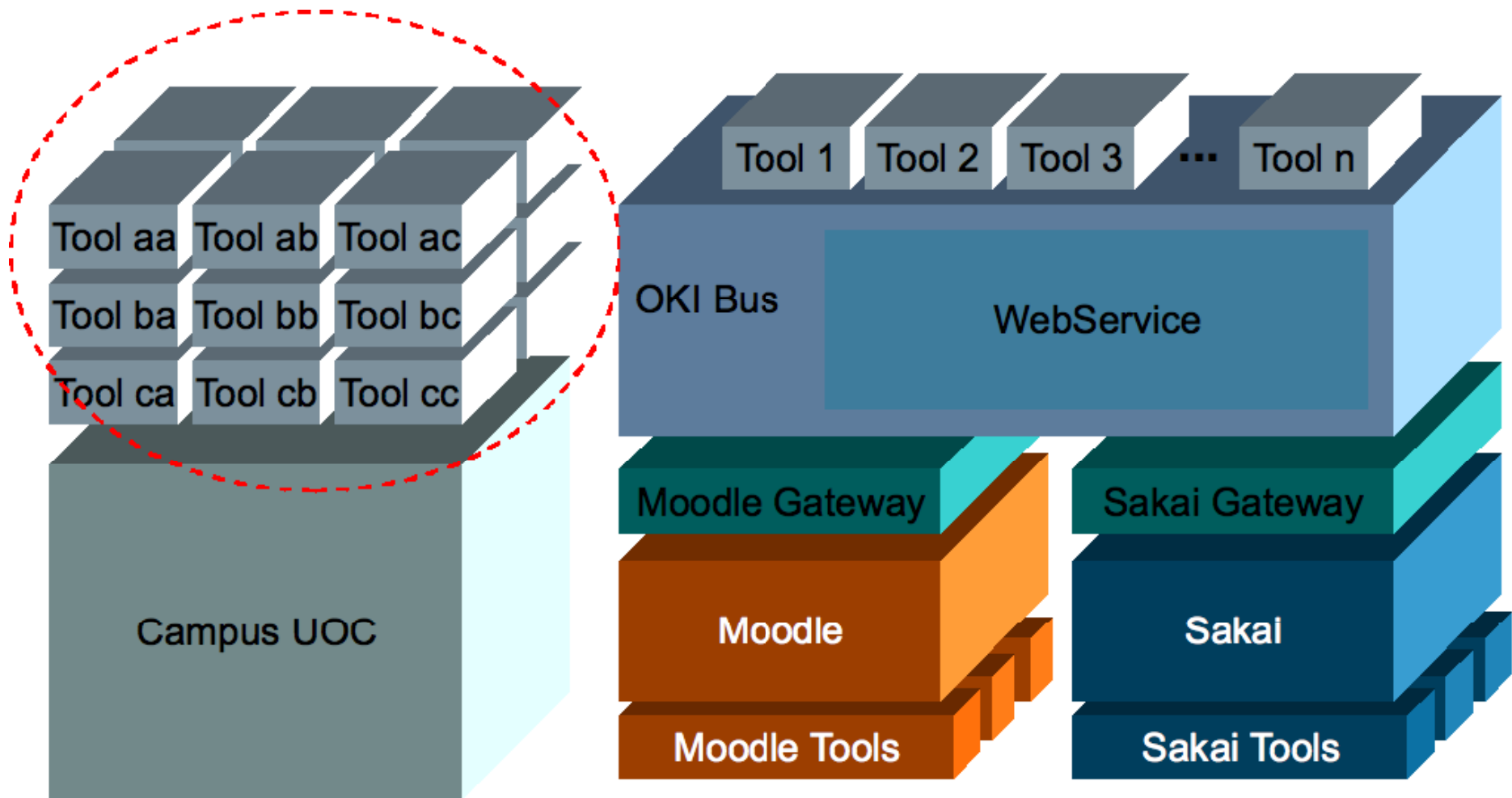
## UOC's Virtual Campus

- From management's approach, there are many dependencies (more than 10 years of developments).
- High Performance:
  - average: 2500 users at the same time.
  - maximums: 6000 users at the same time.
- The users expect:
  - Robustness and high performance.
  - Flexibility and opportunities to innovate and explore new learning approaches.
- For us the future in e-learning will be focused on interoperability.
- We are keen to share e-learning tools and materials with other institutions.

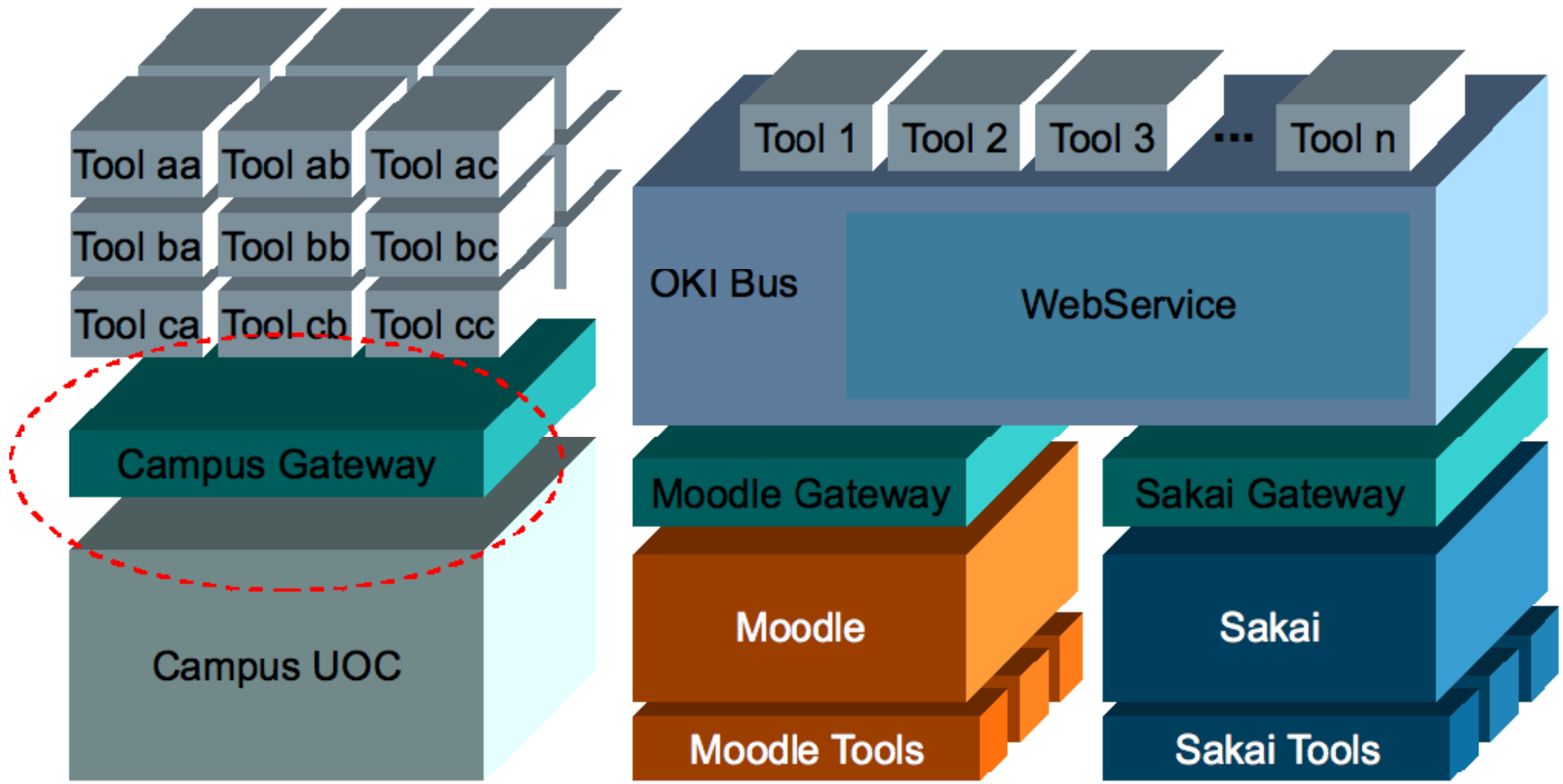
## UOC's Virtual Campus Evolution



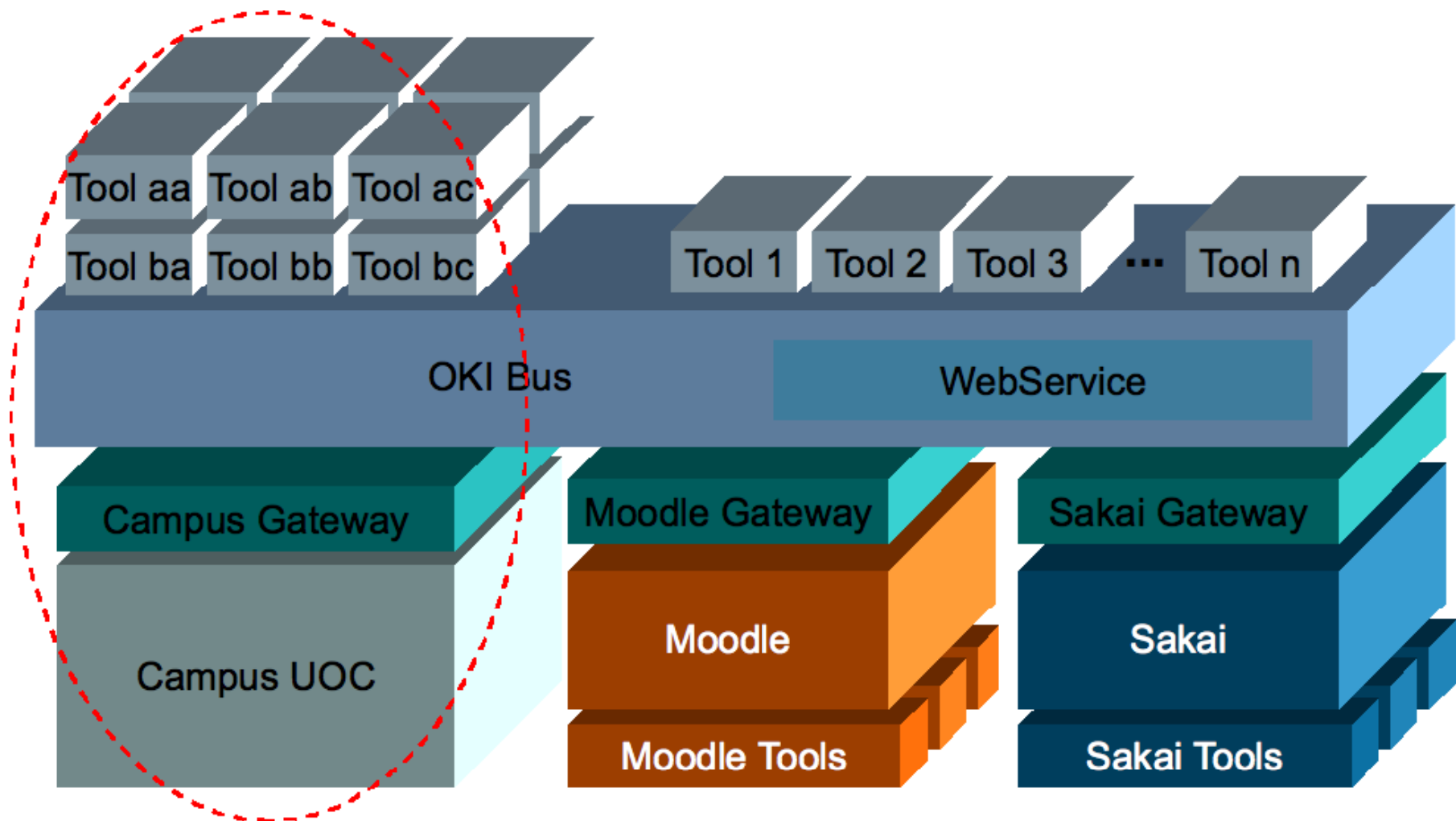
## UOC's Virtual Campus Evolution



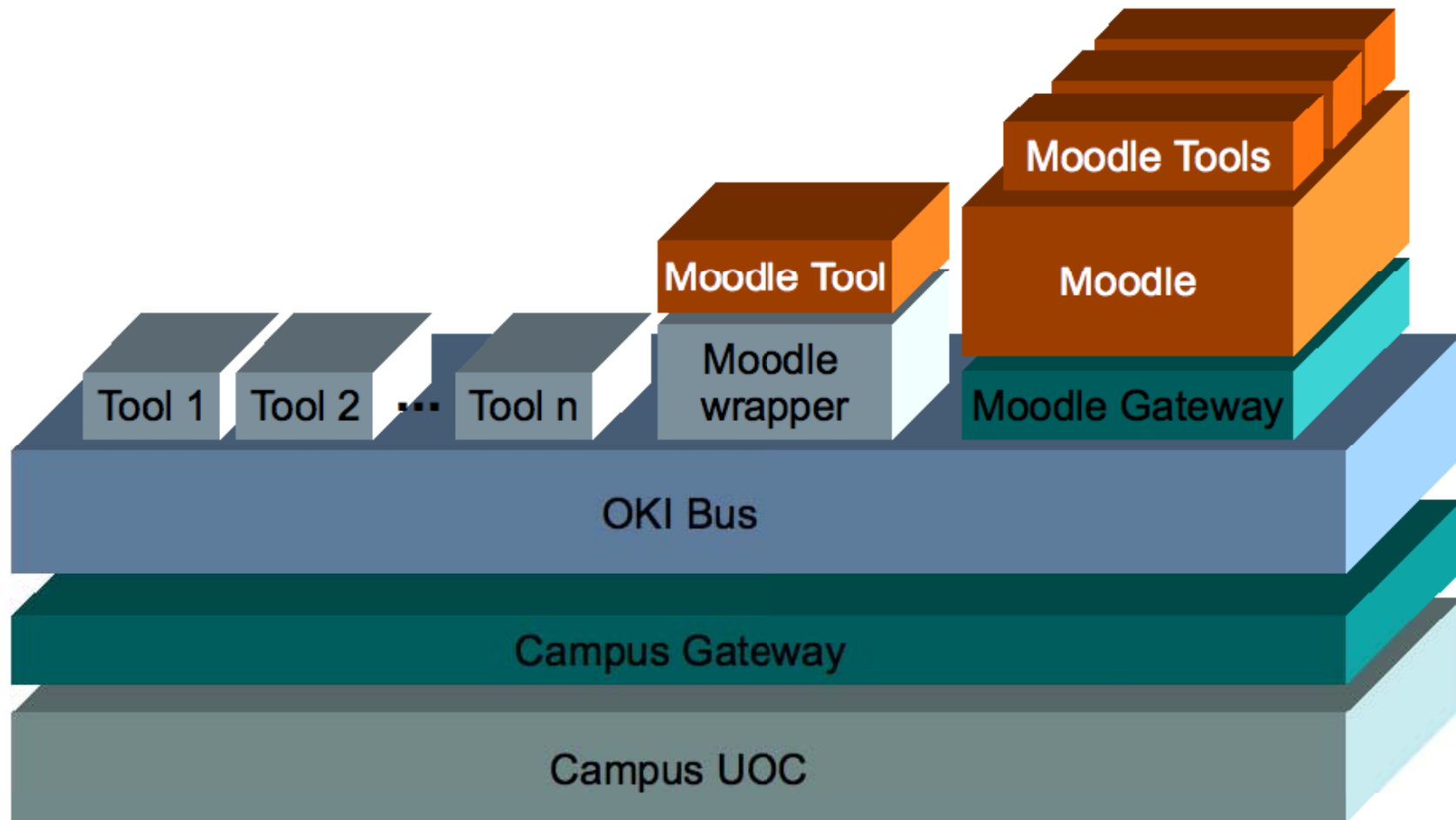
## UOC's Virtual Campus Evolution



## UOC's Virtual Campus Evolution



## UOC's Virtual Campus Evolution



## UOC's Widget Solution:

- Widget container + set of widgets
- iGoogle's standards
- iGoogle's widgets into LMS
- Built in custom widgets (HTML), RSS and Twitter
- (Almost) each UOC's widget rely on **RSS**
- Both container & widgets uses OSIDs

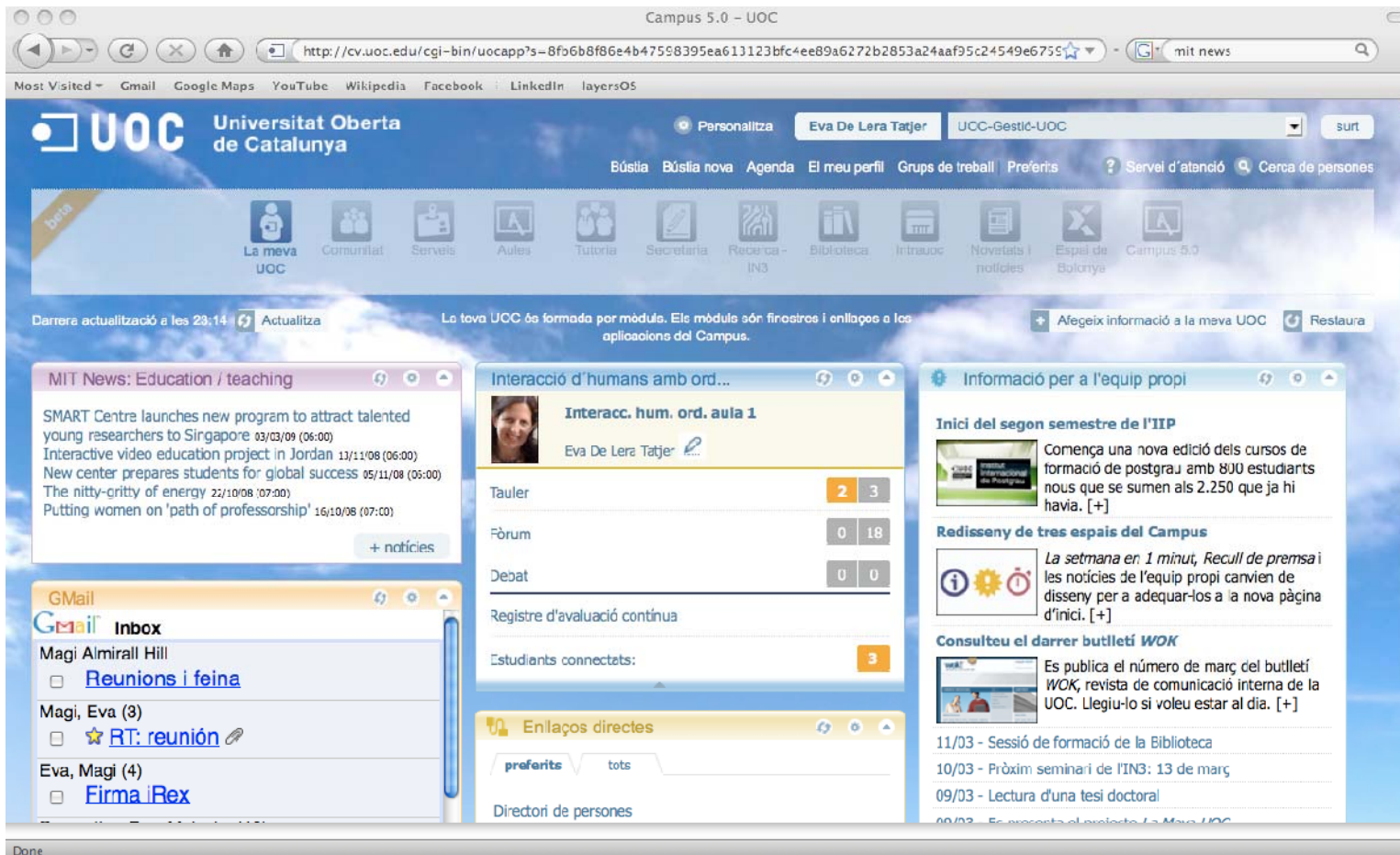


# Dashboard and widgets:

Drag & drop widgets

Select a background

Choose, choose, choose



Change color of widget

Delete what you don't like

Easily create your own widgets

Personalize, customize

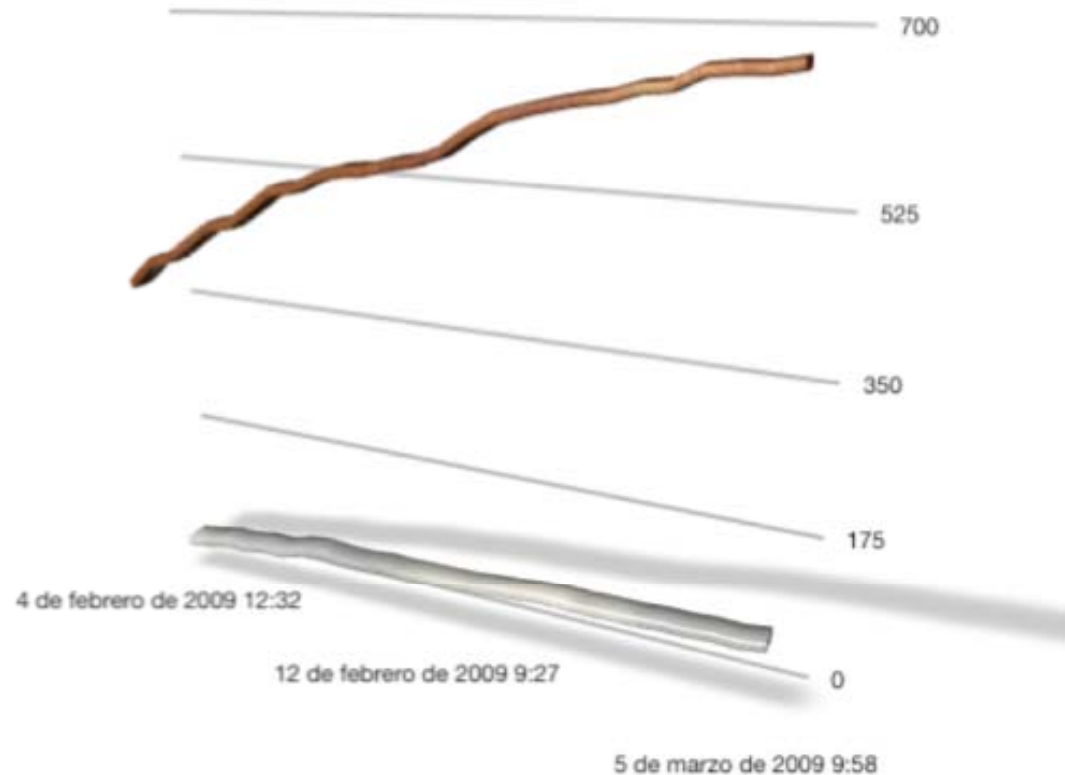
Bring external widgets (i.e. Gmail, RSS...)

Endless opportunities

Select visualization type (# items, etc.)

## Roadmap:

- Maintaining and evolving the container
- UOC's Widgets **outside** our LMS
- Visualization flexibility



## What do we want students to say?

- I'm having so much fun learning in my class
- Did you see the new chat? It's soo cool!
- Yeah, you can actually have all of your books in the eBook, and annotate in them!
- I bought it through one of my best friends at UOC
- You can actually study from anywhere and anytime, it is really convenient and saves me a lot of time!
- **I just love studying at UOC**
- Let me show you, it's *really* nice

expectations

feelings

needs

values

desires

aspirations

thoughts



- ✓ *Most people prefer to buy the brand experience than the efficiency or effectiveness of the product or service (main reason why brands sell)*

## BENEFITS:

- Keeping **control** over the learning model
- Modularity
- Flexibility
- Ability to change as we go
- Personalization for both faculty and students



## CHALLENGES:

- Maintaining and evolving the environment
- Reaching out to the **community** so we can all evolve web services and interoperability together
- Continuing UOC's user-centered tradition



Thank you for your attention

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