



# CEREM

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Nuno Fernandes, Luis Gouveia e Feliz  
Gouveia

UFP-UV: UFP in the Sakai project

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**Universidade Fernando Pessoa**  
Pr 9 de Abril, 343  
4249-004 Porto, Portugal

# UFP-UV: UFP in the Sakai project

Nuno Fernandes, Luis Gouveia, Feliz Gouveia

{ nuno, lmbg, fribeiro } @ ufp.edu.pt

**Abstract:** This paper briefly introduces the University Fernando Pessoa (UFP) experience with Sakai. UFP is a 20 year old university with 5000 students and around 600 teaching staff. It is organized under three faculties (Health, Human Studies, and Science and Technology) and since 1994 it has an excellent record of introducing innovative uses of technology for supporting its learning (as the 1995 project of requiring a laptop computer for each first year student). As a result, in early 2004, the University board decided to support e-learning group efforts to select, develop and implement an e-learning platform as the institutional response for both face-to-face and distance learning offers. From October 2004 until August 2008, the use of UFP-UV (the local Sakai flavor) sees a growing demand from its users and the UFP-UV was able to contribute to both the UFP and to the Sakai community with a number of tools locally designed and developed: the Site Stats tool is the best example.

**Keywords:** Sakai, e-learning, higher education, technology adoption, Site Stats

## Introduction

University Fernando Pessoa (UFP) decided in 2004 to start building an infrastructure for distance education. After an initial survey of the available Learning Environments, UFP decided to adopt Sakai, a then new project resulting of the merger of the software of several US universities. Sakai was open-source, was starting, and there was an opportunity to work and influence a product which had, under different flavors, been used in large scale by large US institutions.

The e-learning project at UFP was defined by the following characteristics:

- A large majority of courses taught at UFP are in the Social Sciences and Health Sciences areas, and only four courses in the Science and Technology areas; this means the vast majority of users (learners and instructors) are not technology-oriented, and so we should expect a wide range of adoption questions;
- The platform should support regular university courses, graduation courses, and several formats of training courses; the platform should not constrain instructors to follow a rigid pedagogical model; it should on the contrary be also a tool for research, by allowing several configurations and functions to be tested and included as needed;
- The platform should be open in the sense of being able to integrate with the existing student and course rosters. New features and requirements, not known beforehand, should also be easily included in the system; this was a major requirement, as UFP didn't want to rely solely on commercial vendors to integrate the system with legacy software and to add functions;
- Features such as localization and internationalization were secondary in a first stage, although the system should allow in the future supporting a multi-language interface.

The e-learning project had a time frame of 2004-05 for requirements identification, tests, and candidate selection, 2005-06 for a medium scale production, and 2006-07 for a full implementation. The first stage consisted of literature review, technical literature review and gathering of experiences from commercial e-learning systems – including visits and interviews at Portuguese and Spanish institutions that had deployed in production such systems.

UFP started a pilot with Sakai 1.0 in October 2004 (this places UFP among the initial group of Universities worldwide to deploy Sakai into production! – the first use was with an Information Management class from Master’s level, with 18 students enrolled). The initial pilot was opening to all instructors and students, totaling 5000 users, seeking for early adopters for taking them, later, as e-learning evangelists. One year later, at the end of the pilot, around 782 users had logged in at least 5 times, and 150 sites were active, having visits, resources to download, and chat or other communication tool being used. With such activity we were able to get first reports from teaching staff that “spread the word” about system benefits.

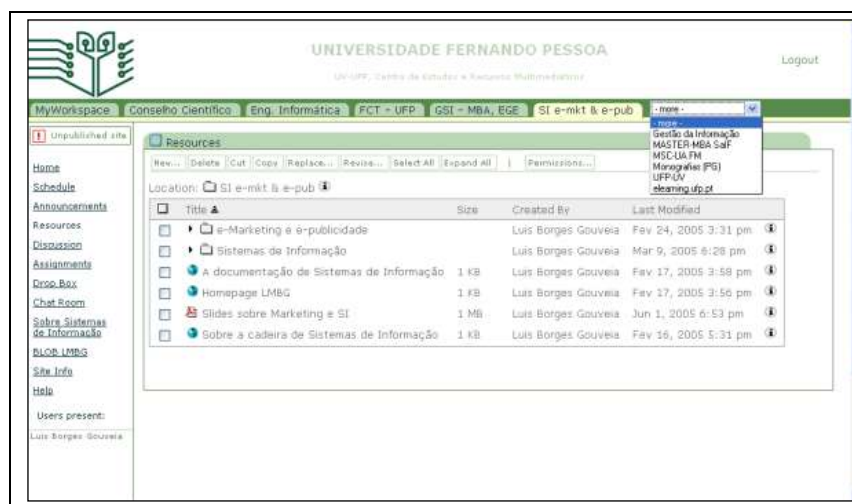


Figure 1: Sakai 1.0 running at UFP

Tools for delivering Assignments and Resources were driving the adoption of the platform. Project (non-course) sites were also a major argument for adoption of Sakai, as instructors realized how easy it was to set up and use. UFP users were using consistently the platform, even on weekends. Sakai has an email notification system whereby an instructor can inform students when new resources are available, so that users don’t have to login just to see if there is something new. Thus, early adoption pays for the teaching staff as the platform allows managing time and helping to organize their student relationships, mainly in receiving student work and keeping control of deadlines. On the other hand, students get one stop shop for the class materials and for “keeping in touch” with the class, easing their information management burden.

### Sakai usage, full adoption

UFP deployed Sakai 2.1 in February 2006, fully integrated with the Student Information System and the Course Roster, granting access to 5457 users (instructors, students and staff), and to 2088 sites. Sites were created automatically, but the roster had to be manually updated. Instructors had to decide if they wanted to keep information about students that were no longer in their classes.

We dropped full integration in favor of periodic synchronization, to control what information was to be deleted. We moved also to a clustered Sakai 2.3. Thus putting into the teaching staff the decision to create their own areas.

UFP developed a tool that allows instructors to select the courses and sections they want to create in a site. Upon creation, sections are updated on a regular basis. This tool has fully automated the process of site creation (and naming) allowing to decrease the support burden and was one the reasons to maintain the UFP-UV supporting staff with the same team numbers even with a strong demand rise.



Figure 2: current Sakai skin at UFP

Ninety percent of Sakai is used as a complement to the classroom, ten percent is blended and distance learning. Acceptance has been great, by students and instructors alike. Some of the top requirements of instructors include having ways to deliver content and follow student progress. Another is to be able to "see" the site as student. Versions 2.4 and later bring some improvements in these areas. In an internal University Quality survey, UFP-UV is ranked among the top services used, and 67% of the teaching staff reported to use it on a regularly basis. In the same survey, 87% of students reported its use.

### The UFP tools

In the meantime, we addressed two top requirements of the Sakai community by developing a Site Statistics (Site Stats) and a User Membership tool. The former was listed in most of the requests we got for new functions. The latter was essential to help desk and support activities. Site Stats is built on top of the Sakai events in the database. We also developed a summary calendar, to be placed in the user workspace, showing events from all sites the users belong to. We added also a Portuguese translation of the interface as it was considered as one of the top requirements by UFP-UV users.

Site Stats aggregates events generated by other Sakai tools to present site statistics regarding user visits, tool activity and resource activity. A summary of this information is presented on the tool start page and further detailed data can be obtained using the tool report ability. The tool clearly addressed one of the top requirements of our instructors and site maintainers.

Meanwhile, with the last developments, Site Stats goes even further with several performance improvements introduced since the initial release, and with a new redesigned user interface, offering a wide range of data aggregation and presentation options, as illustrated on the pictures below. An official 2.0 version is expected to be released by the time Sakai 2.6.0 is released. The following figures show several screen of Site Stats.

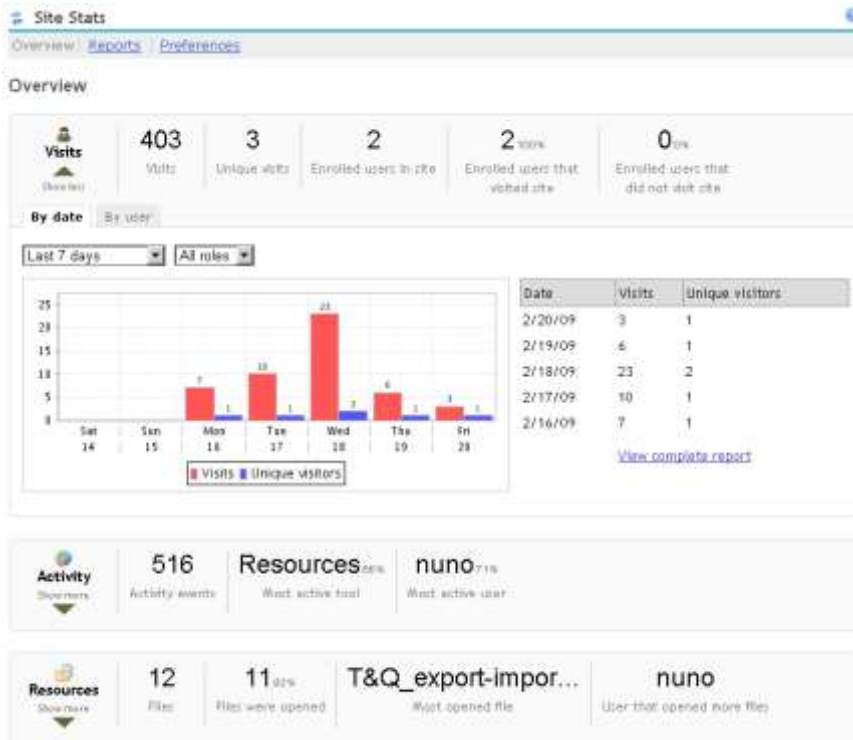


Figure 3: Site Stats main page

The main page of Site Stats gives general indicators, such as the number of visitors to the site, and the number of distinct visitors. The instructor can choose between weekly, monthly and yearly views. Also shown are “activity” indicators showing which tools have most activity.



Figure 4: Site Stats Reports page



Figure 5: Main page of a production site running SiteStats 1.x

The tool has been used by instructors, and support staff to identify actions performed by site participants. In some situations, Site Stats can be used to comply with regulations about computer mediated learning, and there is reported use in UFP-UV as it provides information for informing student evaluation.

### Some figures

Usage of Sakai at UFP is, in our experience, consistent with other institutions deploying Sakai for face-to-face learning. The following figure shows the number of concurrent users during the year 2006. Note that summer holidays take place during August, with classes starting during the first half of September.

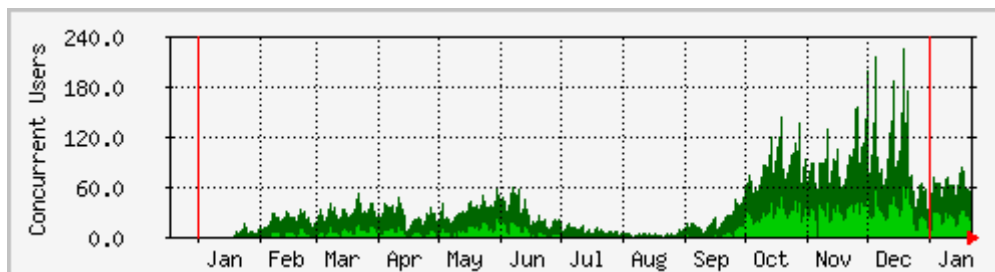


Figure 6: Concurrent users during January 2006 – January 2007

We reached a top of 226 concurrent users in December 2006, during on-line tests. The monthly concurrent users' average was 26, which was 1% of our "active" population (2600 users). This result is consistent with the experience of our partners using Sakai. The following figure shows the period September 2006 to September 2007:

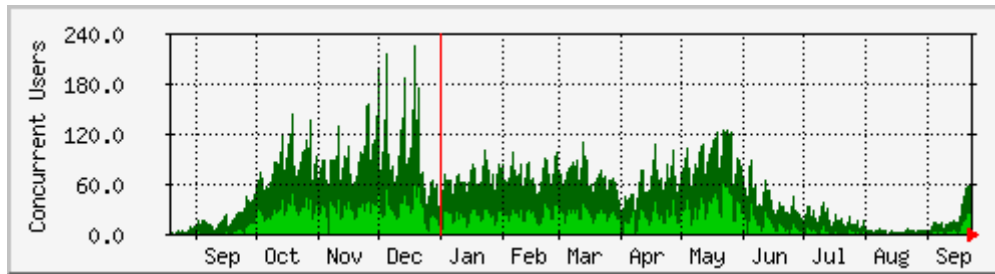


Figure 7: Concurrent users during September 2006 – September 2007

As of March 2007, 4623 users had logged in at least once. There were 6500 registered users, staff and students. There were 1860 distinct users logging in per week, and 2600 logging in per month. We believe this figure, 2600 users, represents roughly the active Sakai population, meaning instructors that use the platform to deliver content, grade, deliver assignments, and communicate with their students.

Up to September 2007 there were roughly 27000 logins per month, which means a user logged in on average 10 times a month. There were 19500 stored digital resources. 200 online tests were published and taken, and we registered 3800 student online assignment submissions.

There are 2838 distinct user logins/week. Considering that 5500 distinct users were active (having at least 5 logins since August 2008), this means that more than half of the users visited at least once a week the platform.

Our help desk registers frequent requests for help with functionality, namely online testing. We have had to date no complaints about service quality, availability, or lack of support. Monitoring shows 99% of service availability.

Since September 2008, 900 course sites were created and are registering activity. Some are blended, meaning students are required to perform some of their work on the platform. Additionally technical information about hardware and software infrastructure can be seen on the UFP-UV Wiki pages. Other relevant URLs are listed in references.

## References

UFP-UV: <http://elearning.ufp.pt>  
 UFP-UV Blog: <http://ufpuv.blogspot.com>  
 UFP-UV wiki: <http://elearning.ufp.pt/wiki>  
 UFP: <http://www.ufp.pt>  
 Sakai project: <http://sakaiproject.org/>