

Discover the COSMOS Deliverable

PROJECT'S PORTAL

Project INFRA-2011-283487

Reference:

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1.0, 31/08/2012 Process Owner: IASA

Date:

Version &

Short Description:

This deliverable describes the third version of the portal which provides the project's support environment. Its development process, structure and basic technical information. It also informs about how the portal will be maintained during the project's life time.

List of Recipients:

All the partners, EC

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1. Executive Summary

The project's portal is the main platform for collecting the learning resources and the e-science applications, the so called demonstrators. Thus teachers will be able to access their colleagues' resources/tools, share their own, exchange best teaching practices, communicate with the stakeholders as well as with general public.

The development of the *Discover the COSMOS* portal in conjunction with the website, allows for constant online presentation and dissemination of the project progress and results. The portal is a rich source of high quality teacher generated course material, lesson plans and applications about High Energy Physics and Astronomy. The second version of the portal has been already released in the production infrastructure and is acting as a unique repository of the material previously included at "COSMOS" as well as "Atlas@CERN" portals/databases.

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2. Scope

The scope of this deliverable is to describe the structure and the content of the portal, the information that it contains and the ways in which it is maintained and updated. Also, we shortly describe the technologies that were used in its development.

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3. Domain name and hosting

The project's portal can be reached at : http://www.portal.discoverthecosmos.eu/ This is a subdomain of the official domain name that was booked by the dissemination Co-Leader, Science View.

The 'Discover the Cosmos' portal is hosted on a single Virtual Machine (VM), following XEN¹ technology for virtualization and it is physically located at the IT/Grid Data Center at IASA². Furthermore, both the 'Learning with Atlas@CERN'³ and the 'COSMOS'⁴ portals, have also been migrated on the same physical location and following the same virtualization techniques.

The Cordinator's data center offers a highly reliable environment with advanced levels of redundancy, 24×7 support and monitoring facilities, daily back-ups and it is being operated by a team of professionals with more than 10 years of experience on delivering high quality, great value of IT solutions to numerous projects and activities.

Below we present the first page (home page) of the portal.

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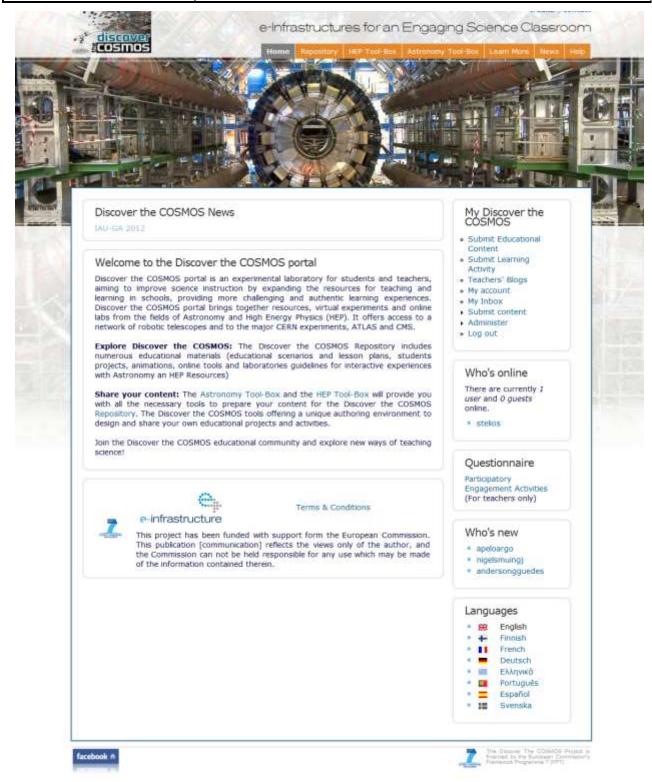
http://www.xen.org/

² http://it.iasa.gr/

³ http://www.learningwithatlas-portal.eu/

⁴ http://www.cosmosportal.eu/





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4. Structure of the Portal

The Discover the COSMOS portal is acting as a common repository for teacher generated course material, lesson plans and applications about High Energy Physics and Astronomy. It is the outcome of a migration process took place during previous reported project period and contains all the material included at "COSMOS" as well as "Atlas@CERN" portals/databases.

The migration phase consisted of three main steps:

- 1. Merging all the people profiles from the two source repositories "COSMOS" and "Atlas@CERN", hence, creating a unique/common pool of users.
- 2. Migrating all the content related items such as educational content and learning activities.
- 3. Make all the necessary adjustments to the ATLAS LOM wizard tool (http://portal.discoverthecosmos.eu/online-atlas-lom/) in order to address all the project specific needs.

This phase consumed a big amount of effort, required deep knowledge of Drupal's database structure and internals as well as special migration software to be designed and developed.

One more task that took place during the reporting period, was the development of a custom software capable of aggregating news posts from external sources, such as the Discover the COSMOS web site and populate them into the portal's 'News' page.

Finally, many improvements have been made in the portal's interface regarding the layout of the offered material, translations (still on-going process) and the layout of the portal user's interface as a whole.

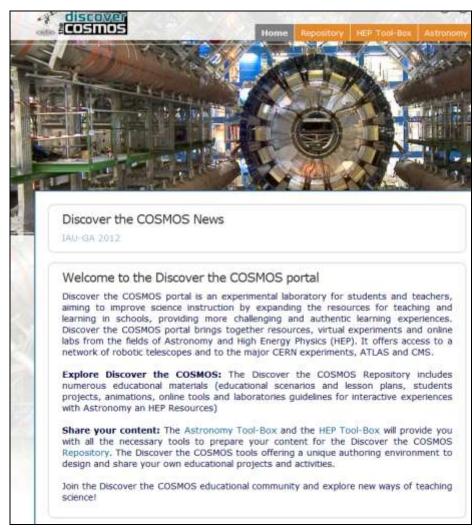
The web portal's structure/map consists of seven main areas, accessible from the main tabular navigation pane:

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4.1 Home

Provides a high-level description of the project's main aims

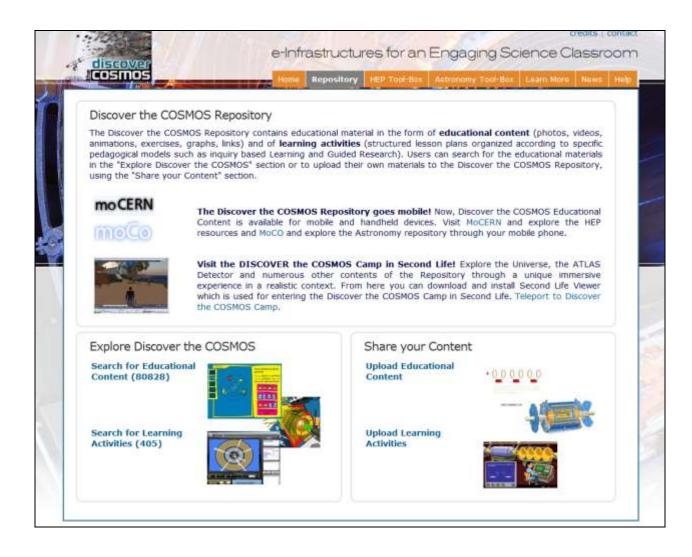


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4.2 Repository

Here the user can upload Educational Content or Learning Activities. He can also search for Educational Content or Learning Activities based on criteria reflecting his needs (material language, knowledge level, duration, popularity etc.).



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4.3 HEP Repository

The HEP Repository offers access to three High Energy Physics tools (AMELIA, HYPATIA and MINERVA) which have been developed for educational and scientific use and can be freely downloaded and used.



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4.4 Astronomy Repository

Offers access to the COSMOS Authoring Tools, a collection of utilities that provides the user with all the necessary tools to prepare his content for the Discover the COSMOS repository.

Also to the Online Labs and Educational Software which provides a series of tools that will help the user realize the Discover the COSMOS Learning Activities by offering access to remote and virtual labs, to view the FITS images that are provided from the network of telescopes, to analyze the data, to create your own video sequences of astronomical events, to calculate the light intensity of the stars, to create his own plots and diagrams.



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4.5 Learn more

Redirects to the Discover the Cosmos web site.



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4.6 News

A dashboard with the latest news and project activities and events.

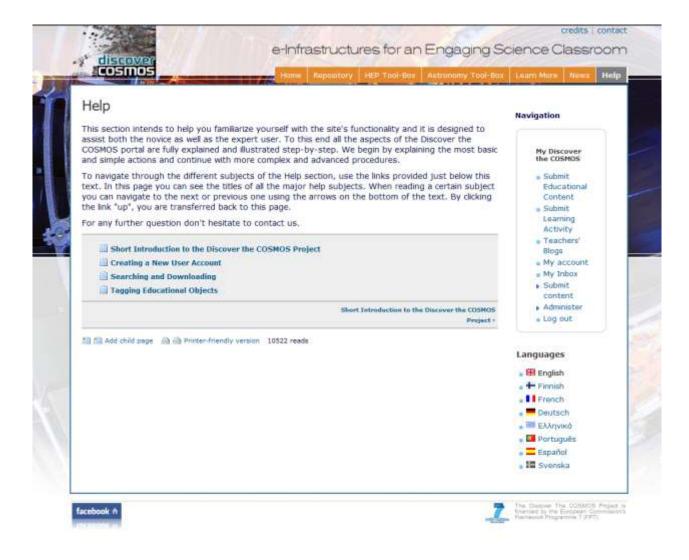


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4.7 Help

Detailed assistance on the portal's functionality.



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5. Portal Maintenance and technical information

The implementation of the 'Discover the Cosmos' portal⁵ is based on Drupal⁶ technology combined with MySQL RDMS back-end. In general, Drupal is a framework for building dynamic web sites offering a broad range of features and services including user administration, publishing workflow, discussion capabilities, news aggregation, metadata functionalities using controlled vocabularies and XML publishing for content sharing purposes. Moreover, the Drupal technology is comprised of a mix of core and contributed modules.

⁵ http://portal.discoverthecosmos.eu

⁶ http://drupal.org/