

WRITINGS ON THE WALL

libraries supporting institutions intelligence through credible bibliometric information

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HERMES - Higher Education Research METrics System is a project of HEAL-Link (Hellenic Academic Libraries Link), the consortium of Greek Academic Libraries.

The project aims at the development of a common set of tools and methods in order to gather, analyze and visualize the research publications of the Greek Universities.

It is both a data visualization system and a lightweight methodology that produces transparent quantitative indicators.

The relative advantage of the system is the 3D visualizations that are projected on common plain walls, which are turned interactive by the use of advanced sensing techniques.

Users employ gestures to intuitively manipulate data on a very large scale. Thus, the application remains user-friendly, not requiring any special skills, ensuring high quality user experience (UX).

Interactive graphic representations serve to make bibliometric data accessible, tractable, and digestible.

The system produces fifteen primary key indicators that refer both to individuals and to collective bodies, such as Departments and Institutions. The main dimensions of measuring are productivity, sliced in time (one & three years) and in subject, response (citations) and collaborations.



INGEST

Input is an open, structured and syntactically coherent text file, in the form of CSV (comma separated values file).

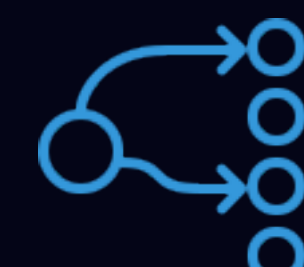
The open nature of a CSV file allows any other source. The current source of data Web of Science, used in accordance to terms and conditions.



ANALYZE

Configurations are performed through a custom data management tool developed in C#, .Net 3.5 and WinForms.

The user can provide association of terms (aliases) and other institutional data and modify an XML file that the engine can process.



PRESENT

Advanced animations are implemented in Unity 3D for graph construction, such as pies, bar & bubble charts and ego-centric networks.

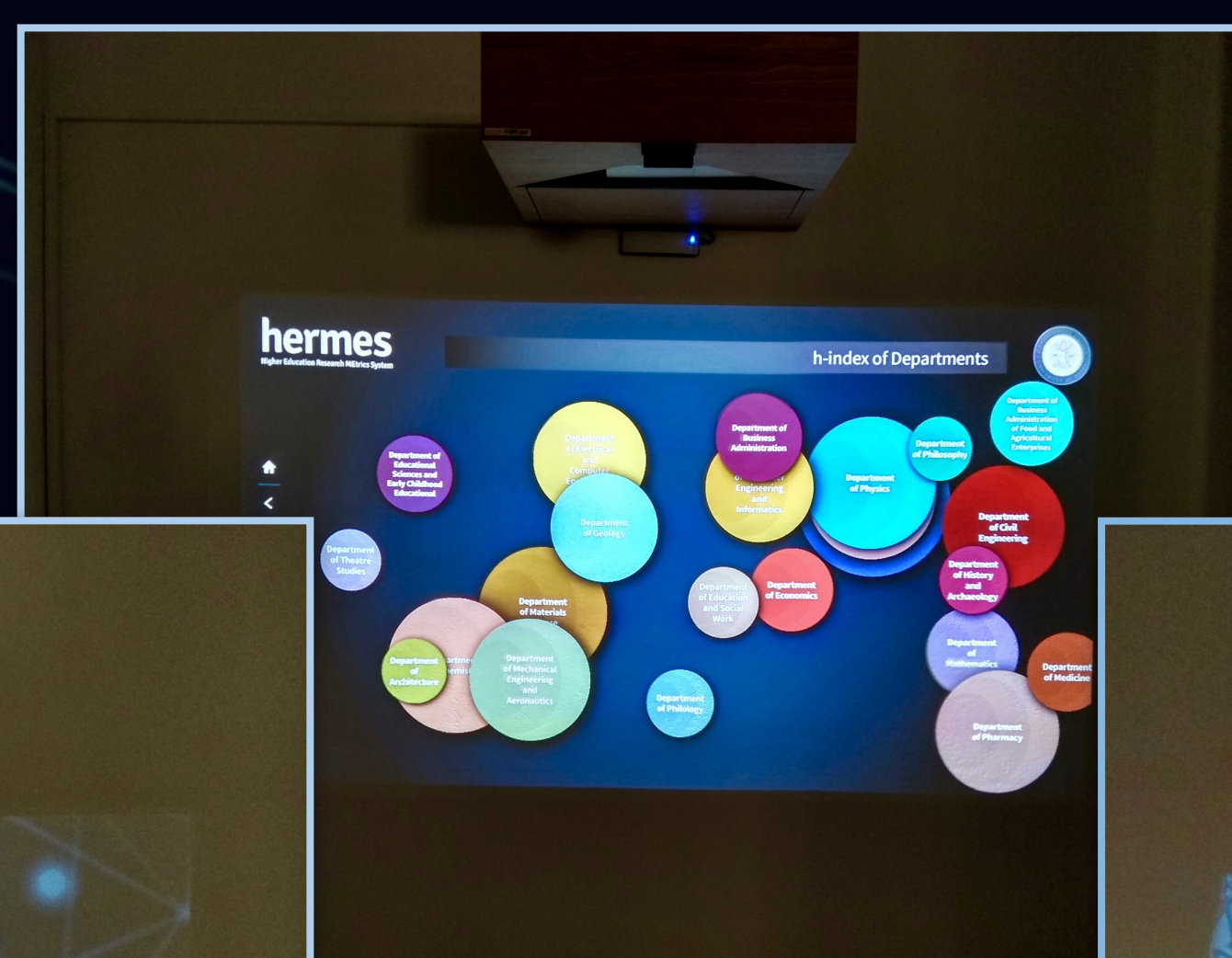
Utilizing infrared light emission, HERMES transforms plain walls to interactive and allows for manipulation of the bibliometric data with the simple use of fingers.



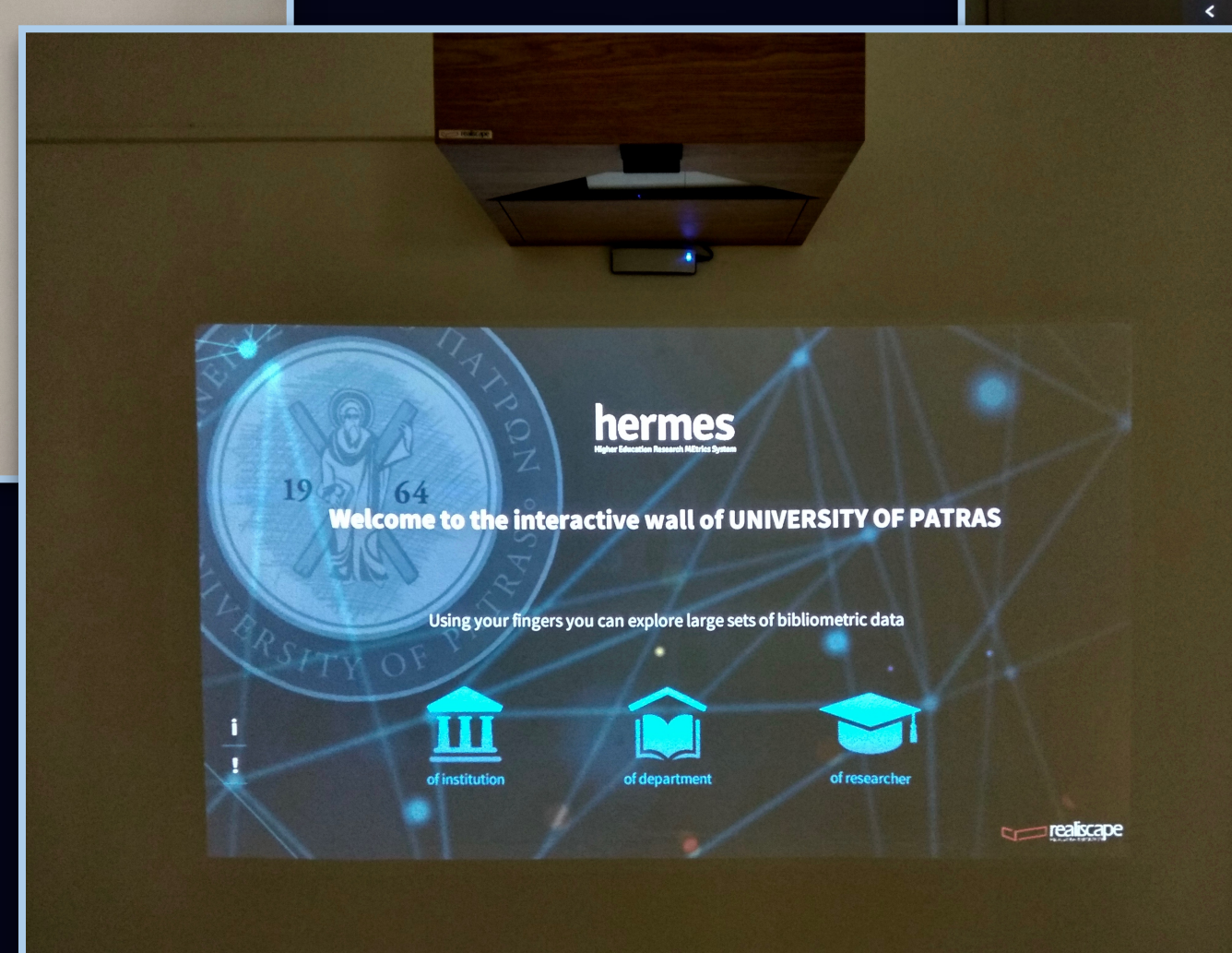
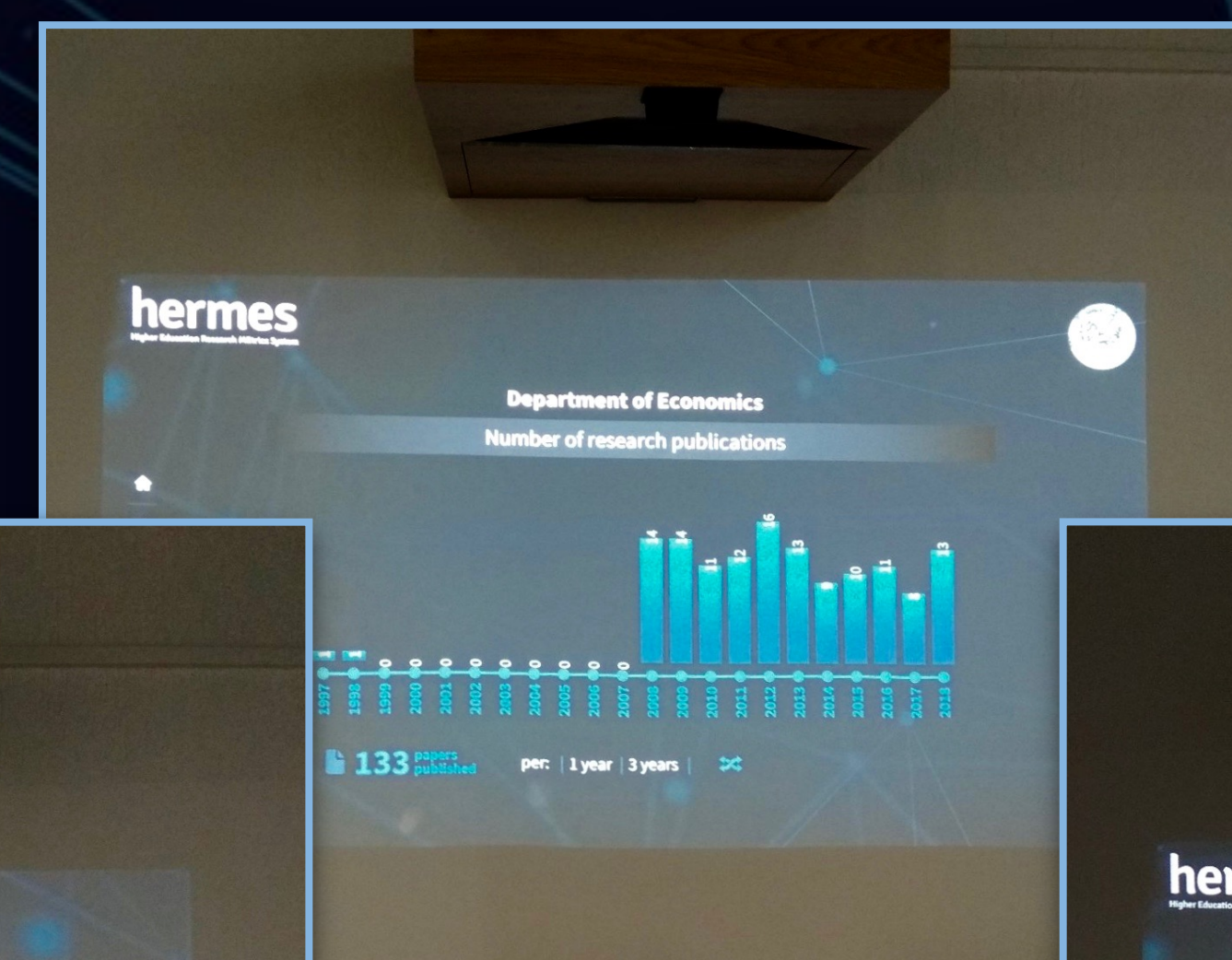
Empty wall in University of Patras



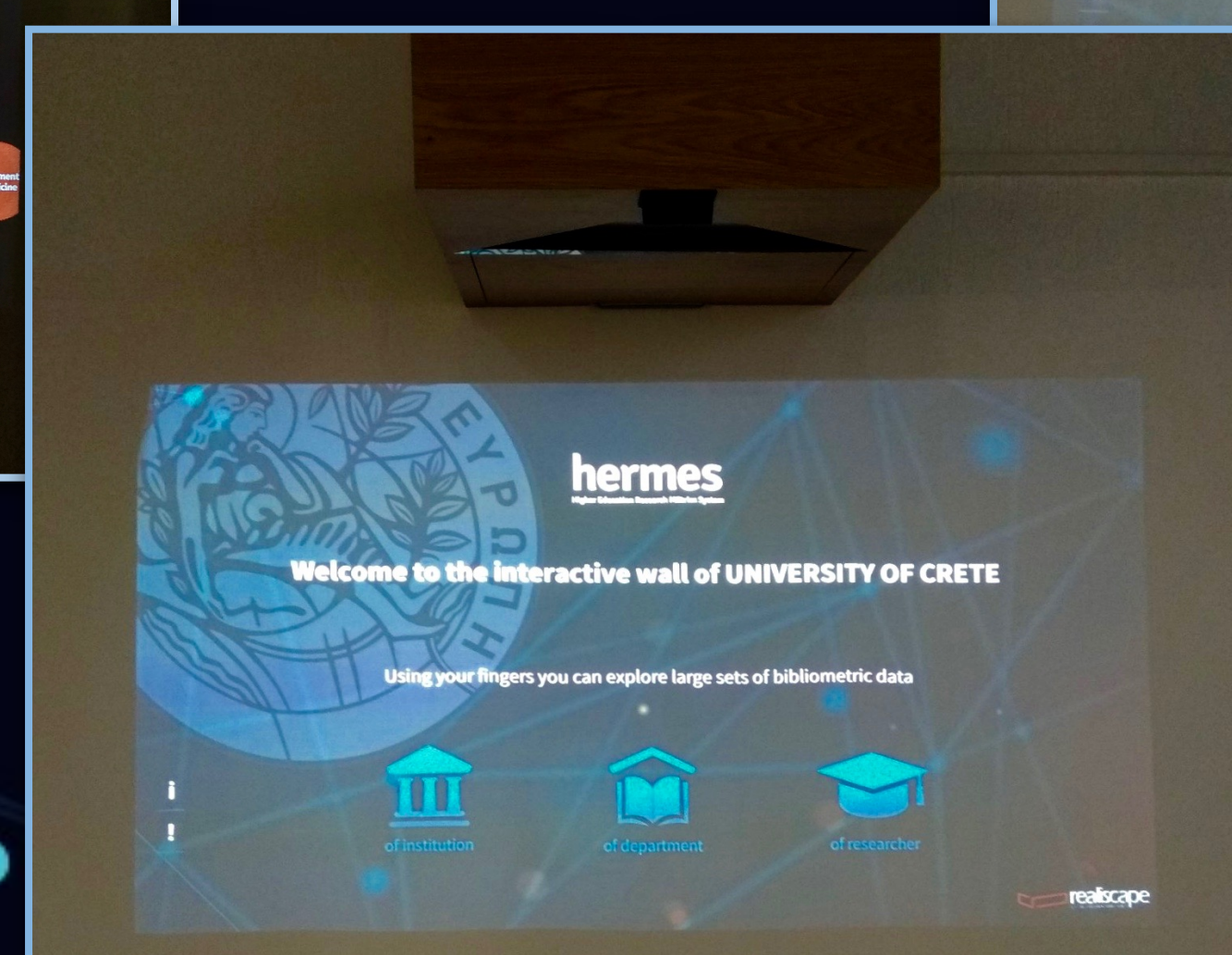
h-index for Departments



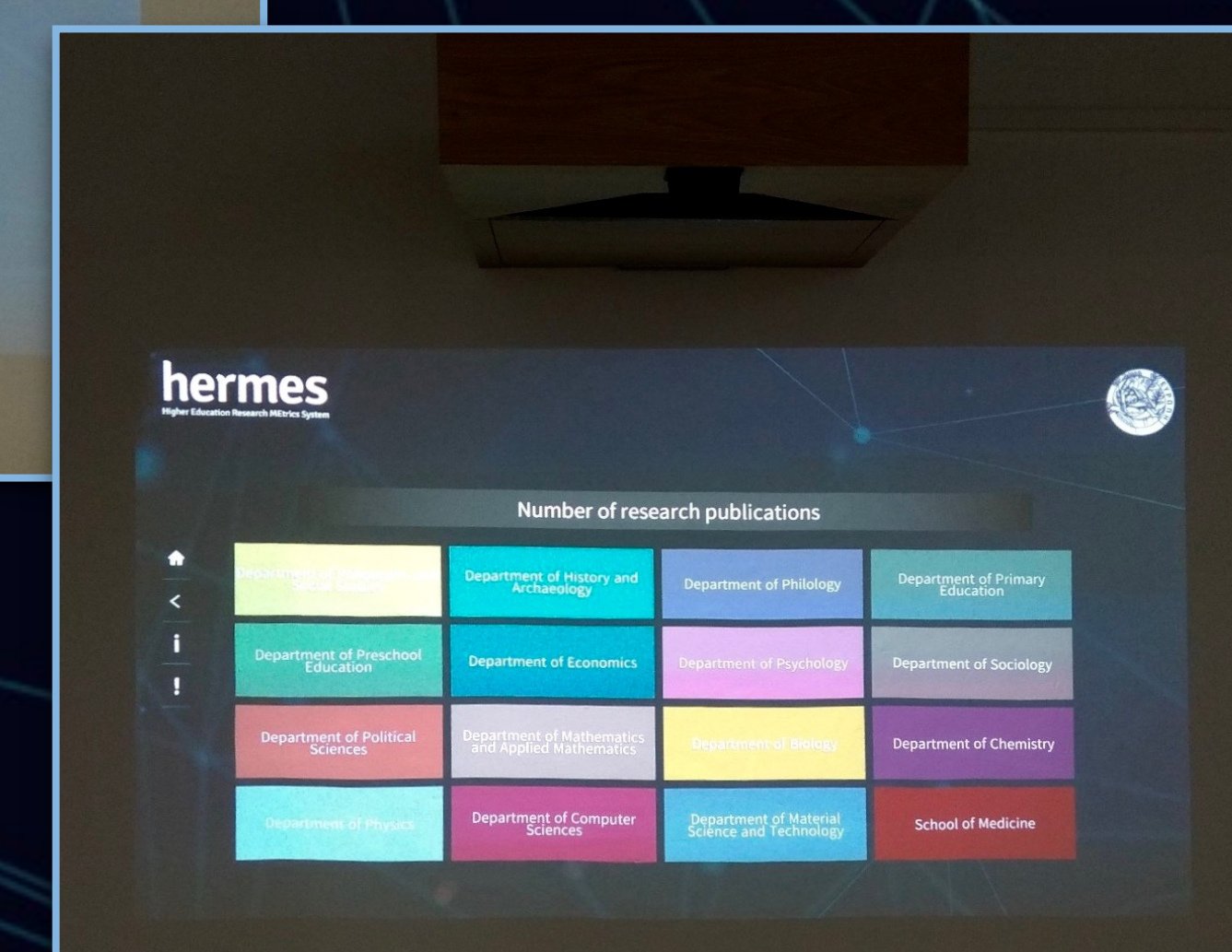
Bar chart of yearly publications



Interactive wall in University of Patras



Interactive wall in University of Crete



Browsing by Departments

HERMES is in the first stage of implementation and has been installed in five big Greek University Libraries. The second phase intends to explore automation of data ingestion through APIs, new indicators that will also take advantage of existing data points, such as Access Type of publications, and enhanced unique identification of entities.

The project is funded by the Ministry of Education & Religious Affairs of the Hellenic Republic.

