SIGMA-ECO: THE VOLUNTEER GEO-ALTERNATIVE TO INTEGRATE KNOWLEDGE ON ENGINEERING

EDUCATION SUMMIT ESRI UC - THIRTY – NINTH ANNUAL ESRI USER CONFERENCE
THE ENGINEERING VOLUNTEER’S GROUP THAT INTEGRATES KNOWLEDGE

MAYERLING SANABRIA B
¿How to learn new ways of learning under the use of technologies?

Geoespacial Data

THINK SPACIALLY TO SOLVE REAL PROBLEMS....
NEW LEARNING ENVIRONMENTS

Classic Learning

- Teacher
- Book
- Student

Teacher's lessons with information to be reproduced

THOUGHT CRITICAL

- Identify exchange relationships
- Associate data
- Relate the topics
- Connect ideas
- Integrate information

set up opinion
The use of geospatial technologies is generating a new way of thinking and acquiring knowledge, this is contributing to the academic evolution, because today live at world, is needed figures, maps, statistics that are shared all the time by web.

Today, internet should be an usual element in academic processes.
¿How to develop critical thinking between students?
...

The recognition of physical space through digital media is very important because geography is transverse axis to understand the complex habitat system.

Promote Students Group like spaces for the creation and transformation of knowledge through technology.

Alternative learning spaces that allow for the student and teachers to improve their computer skills.

Encourage the systemic analysis of a real situation, because it is possible to review many data in one unique visor.
Technological subjects are always striking and close to young people precisely because of their alternative didactic handling…

The university has supported teaching strategies in geospatial subjects

- Virtual Courses
  - E learning unlimited (218 certified courses)

- Unlimited Licensing
  - Production and relevant spatial

- Access to Open Data Platforms
  - Esri On Line for all subjects
PARTICIPATION IN EVENTS

THESIS PROJECTS

APPLICATION OF KNOWLEDGE TRANSVERSALLY

CONTRIBUTION OF GEO DATA TO EDUCATIONAL PROCESS
Encourage the use of advanced applications for the management and analysis of geo-spatial information that facilitates the valuation and conservation of natural resources,
Comparative study with model builder tools in ArcGIS and the SWMM5 program in Urban Systems of Sustainable Drainage

Spectral-value identification of changes in turbidity levels in lakes

Correlation of PM10 measured values with the distribution and magnitude of green coverage in Bogota City
EXTENSION PROJECTS

Producto implementado

Process to management of geographic information at the municipality
AUTOMATIZACIÓN DEL PRE-PROCESAMIENTO REQUERIDO PARA EL CÁLCULO DE EMISIONES DE MATERIAL RESUSPENDIDO DEBIDO A FUENTES MÓVILES EN LA CIUDAD DE BOGOTÁ

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PROYECTO CARTOGRAFÍCO PARA EL SEGUIMIENTO GEO-ESPACIAL DEL POTENCIAL APORTE CONTAMINANTE DE LOS SISTEMAS PRODUCTIVOS DE PAPA, FRESA Y GANADERÍA EN LA CUENCA ALTA DEL RÍO BOGOTÁ

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Initiative of students group to socialize and know what La Salle does in GIS subjects.

The event used two participation forms:

[1] oral presentation

[2] poster
GENERAL STATISTICS

ETIQUETAS DE FILA
Cuenta de PROGRAMA

- Arquitectura 1
- Biología 2
- Ingeniería Ambiental y Sanitaria 172
- Ingeniería Civil 16
- Ingeniería Industrial 1
- Ingeniería Química 1
- Medicina Veterinaria 1
- Museo de La Salle 2

TOTAL GENERAL 196
ACHIEVEMENTS

- Building collective learning: Both teachers and students are involved in continuous learning.
- Promoting at the students ability to continue learning in different ways
- Developing superior skills in data management and geo analysis
- Understanding and explaining through geography, real situations under systemic thinking
Better presentation in education topics 2017

Annual Conference of Users
ESRI - Colombia
...It is a beginning in La Salle and the use of geo-spatial technologies has consolidated as an important support in a whole learning because it allows to collect, visualize and analyze many layers of any situation in a computer visor and this is to integrate the knowlages...
...if “a picture worth a thousand words”…. So, let’s use maps!