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Enhanced Online Learning via Structured Wiki

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Preparing people to lead extraordinary lives

Enhanced Online Learning Using Structured Wiki

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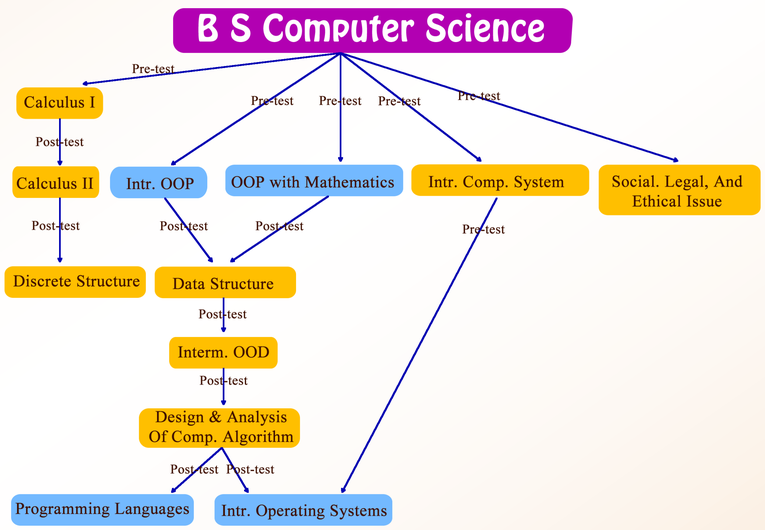
ABSTRACT

Summary - Objectives

This work describes ongoing research on using structured wikis to enhance learning. It is well known that learning is altogether different from teaching from a conceptual standpoint. Current models from universities and organizations convey a framework of teaching not different from what has been practiced in classrooms. The work in progress proposes a novel, tools-based approach for structuring online content via graphical wikis by placing students at the core of its purpose.

ARCHITECTURAL COMPONENTS OF THE SYSTEM

- Collaborative style wiki for adding graphical nodes for representing knowledge units and evaluation modules.
- Collaborative style wiki for adding linkages between knowledge and evaluation units to represent flow of learning.
- A NoSQL database that delivers and stores the collaborative style structured wikis to and from a browser.

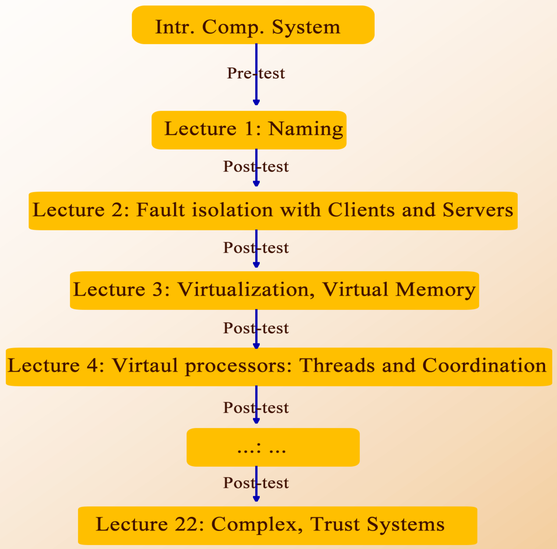


RESULTS

Loyola BS Computer Science map is built. Furthermore, each course contains links and metadata information (prerequisites, post-tests, etc. The tree URL is available to anyone interested in pursuing knowledge in the area of their choice. The links are appropriately connected to the relevant nodes and the nodes are hyper-linked to the appropriate resources (files, URL, or publicly available videos).

CONCEPT DEMONSTRATION

The demonstration involves structuring the degree program in computer science at Loyola University Chicago and its courses that model the proposed research. For this, the relevant data and videos were collected and displayed via graphical tools. In particular, the data was integrated into a Visual Understanding Environment (V.U.E.) for structuring and presentation. The structure representation in the form of a tree displays the connections in a natural manner that is conducive to learning. It allows students who have competencies in a certain areas to skip knowledge units thereby facilitating learning.



CONCLUSION & FUTURE WORK

To develop a platform for voluntary expert curators in various disciplines to structure online content for enhanced learning using the software architecture described earlier.

TOOLS, SOFTWARE

Vue Content Mapping Application, HTML5, CSS3, and web videos

REFERENCES

http://twiki.org/cgi-bin/view/Codev/StructuredWiki#Power_of_Structured_Wikis

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