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Asynchronous Multimedia Annotations for Web-Base Collaboration in Biology Education

DATE: March 21, 2005

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Refreshments served at 3:45pm with talk to follow.

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Faculty Sponsor: Professor Ramesh Jain



SPEAKER

Dr. Dragutin Petkovic, professor and chair of the
Department of Computer Science at San
Francisco State University

Asynchronous Multimedia Annotations for Web-Base Collaboration in Biology Education

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The focus of this work is on the design, implementation, and validation of asynchronous multimedia annotations designed for Web-based collaboration in educational and research settings. The two key questions we explore are: How useful are such annotations and what purpose do annotations serve? What is the ease of use of our specific implementation of annotations? The context of our project has been in the area of multimedia information usage and collaboration in the biological sciences. We have developed asynchronous annotations for HTML and image data. Our annotations allow any WWW user to add, search and view annotations that relate to HTML text and images or image regions from an annotation-enabled WWW server. These annotations are stored in a central database thus allowing search and asynchronous access by all registered users. We performed a usability study that showed that our implementation of text annotations offers adequate ease of use for students. We believe that asynchronous multimedia annotations are a promising new way of improving quality and timeliness of WWW-based collaboration in many areas including education, information management, emergency management etc.

Bio:

Dr. Dragutin Petkovic obtained his Ph.D. at UC Irvine, in the area of biomedical image processing. He spent over 15 years at IBM Almaden Research Center as a scientist and in various management roles. His contributions ranged from use of computer vision for inspection, to multimedia databases and digital libraries. He is the founder of IBM's well-known QBIC (query by image content) project, which significantly influenced the content-based retrieval field. Dr. Petkovic received numerous IBM awards for his work and became an IEEE Fellow for leadership in the content-based retrieval area. Dr. Petkovic also managed and participated in several other projects while in IBM, among them User Ergonomics Research (involved in IBM's TrackPoint pointing device), and Foundations of Massively Parallel Computing. In the last few years, Dr. Petkovic had various technical management roles in Silicon Valley startups, the latest (VMware) involving virtual computing on Intel Platform. Some of the products Dr. Petkovic helped build won numerous awards and are widely used. He has also taught at Santa Clara University. Currently, Dr. Petkovic is the chair of the Department of Computer Science at San Francisco State University.