

Dinosaur takes center stage at Ohio Supercomputer Center

30 November 2005

The Ohio Supercomputer Center (OSC) will take a journey 66 million years back in time on December 1, to showcase Jane, a Tyrannosaurus Rex exhibit at the Burpee Museum of Natural History in Rockford, IL. Dozens of presenters, hundreds of participants, and thousands of viewers in 40 countries on six continents around the world will be along for the ride.

The exhibit, "Jane: Diary of a Dinosaur" will focus on the 2,200-square-foot computer generated, interactive display of the Burpee Museum's remarkable permanent prehistoric inhabitant. Jane is an incredibly well preserved skeleton of a juvenile T. rex that was discovered in 2001 at the Hell Creek Formation of southeastern Montana.

The "Jane" presentation is produced by OSC in conjunction with the Advanced Computing Center for the Arts and Design (ACCAD), and the Burpee Museum, and is one of nearly 30 presentations scheduled during Megaconference VII, the world's largest simultaneous Internet videoconferencing event.

Megaconference VII begins at 7:30 a.m. EST, and continues throughout the day until 11:00 p.m. EST. This year's theme, Increasing Empathy Through Videoconferencing, focuses on improving understanding between individuals and cultures through worldwide videoconferencing. For more information on the Megaconference, including live streaming, program guide, abstracts, participants and more, go to www.megaconference.org.

The "Jane" presentation will discuss the expedition, excavation, and subsequent installation of this one-of-a-kind exhibit that provides a visually impressive simulation of time travel by watching the Montana Badlands transform from the present to the Late Cretaceous period 66 million years ago. It will also demonstrate how Internet videoconferencing was used by Burpee Museum staff and ACCAD students to collaborate on and

develop Jane's exhibit.

The Megaconference is a yearly event sponsored by Internet2, the national high performance network for education and research. Internet2 is a consortium of more than 200 universities, working in partnership with industry and government, to develop and deploy advanced network applications and technologies. For more information about Internet2, go to www.internet2.edu.

The technical hub of the Megaconference, the Internet2 Commons, is located in Columbus, Ohio, and is operated jointly by The Ohio State University (OSU) and OARnet, OSC's networking division. The Internet2 Commons, which operates on a system of Multi-point Control Units, was established in 2001 to promote the adoption of IP-based collaboration technologies for the Internet2 research and education community.

Standards-based, vendor-neutral videoconferencing through this scalable service allows subscribing members to schedule and hold distributed working groups, classes, meetings, and conferences in support of research and education.

Dr. Robert Dixon, Chief Research Engineer at OSC and at the OSU Office of the CIO, is widely considered to be the "Founding Father" of the Megaconference for his continuing efforts in producing the yearly event.

Dixon cites a number of reasons for the increasing popularity of the Megaconference over the past seven years. He said the quality and ease of use of video equipment has improved significantly in recent years. He also cites the many H.323 workshops taught in recent years as having increased the number of experienced videoconferencing personnel.

"More and more people are hearing about it, and they spread the word. It has a good reputation and

is unlike any other worldwide communications event," Dixon said. "Participants get to meet others from around the world--something they could not do without the Megaconference--and this widens their horizons and gives them new projects to work on at other times during the year."

Dixon also said that the availability, speed and quality of the world's data networks have increased dramatically, which has enabled more people from developing countries to participate in the Megaconference.

OARnet Video Engineer Arif Khan said new applications in videoconferencing provide a forum for people from different countries and cultures around the world to share information and ideas.

"This technology allows communication between people instead of governments," Khan said. "Internet videoconferencing is spreading into areas of the world that have previously been inaccessible. We have several countries participating this year for the first time, such as India, Pakistan, Brazil and China."

Khan said dozens of volunteers from institutions around the world work year-round to plan and produce the Megaconference, which made its worldwide debut with less than 100 participants during the Fall 1999 Internet2 Member Meeting in Seattle.

ACCAD Director Maria Palazzi said her center helped create numerous components of Jane's exhibit, including interactive touch-screen stations that invite museum visitors to explore information about dinosaurs and their habitat.

"One station explores theories about dinosaur extinction by allowing them to 'hunt' for meteorites," Palazzi explains. "Another is an in-depth investigation about what Jane's bones can tell us about her age, and how she lived and died."

ACCAD is an inter-disciplinary research center at Ohio State that fosters collaborative technology-related research experiences with visual and performing artists, computer scientists, engineers, designers and architects. The center also enjoys a

global reputation for pioneering computer and visualization technology.

"Students who worked on Jane had to research what types of animals lived 66 million years ago--what they looked like, what their fur and skin was like--and then re-create them using sophisticated computer technology," Palazzi said.

Other Megaconference presentations include a remote controlled telescope, a killer whale, a kangaroo, and a koala from Australia; a Christmas market visit to London; a tour of the old Erie canal system in Ohio; a joint performance with musicians in Sweden and California; a panda exhibit in China; and an ocean adventure with MOTE Marine Laboratory in Florida.

Nearly 40 states in the US are participating in Megaconference VII. Other countries that are participating include Australia, Brazil, Canada, China, Columbia, Costa Rica, Egypt, Estonia, Finland, France, Germany, Great Britain, Fiji, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Mexico, Netherlands, Niger, Nigeria, Norway, Pakistan, Palestine, Panama, Philippines, Poland, Puerto Rico, Russia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, and Uruguay.

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