

P R E S S E I N F O R M A T I O N

Pathways through the Tangled Thicket of Modern Reality

The world is becoming more complex and less predictable. It keeps getting harder to see the big picture. Scientists and researchers are now using computer-based simulation in an effort to achieve an overview. This is also raising the prospect of new approaches to apprentice training and continuing professional education. "The Age of Simulation" explores the potential of these new techniques.

The Age of Simulation

Conference - January 12-14, 2006

Exhibition - January 12 to August 13, 2006

Produced jointly **by Ars Electronica** and **FAS.research**

Sponsored by **innovatives-österreich.at**

How do epidemics spread in a world in which passenger transport is a mass-scale, global phenomenon? Would the pharmaceutical industry be able to produce vaccines fast enough and could the people of the world be vaccinated in time? Would a rapid rise in demand overwhelm global markets and countermeasures ultimately lead to a state of chaos? And could it be that precise knowledge of the diverse flight paths of migratory birds brings forth a possibility of prevention? The drastic example of Bird Flu clearly reveals the virtually infinite complexity of our world. Answers to such questions lie in the professional processing of data by scientists and researchers. But simulation and network analysis can also deliver

valuable information in managing tasks of an apparently less spectacular nature—for example, the prevention of daily traffic jams, the administration of businesses faced with highly segmented markets and consumer target groups, as well as the analysis of labor market conditions.

Learning and Research in the 21st Century

“The Age of Simulation” will provide a transdisciplinary picture of the basic principles of simulation and explain its applications ranging from computer games and special effects in the field of filmmaking all the way to simulations of the behavior of working groups, flocks of birds, markets and panicky investors, traffic jams, and even the propagation of opinions and styles. Internationally prominent experts including Ken Perlin, Ian Bogost and Bill Buxton will join specialists from the staffs of FAS.research and the Ars Electronica Futurelab to discuss the possibilities of applying simulation in various areas of business, research, education/training and the entertainment industry. The aim of FAS.research and Ars Electronica in staging this conference is to establish a solid basis for new perspectives on learning and research in what can well be termed the Age of Simulation.

“It’s no longer possible to acquire and disseminate knowledge using hand-me-down ways of going about this. The various spheres of private life and the world of work’s manifold domains are rapidly blending together into globalization’s interdisciplinary organizational forms,” stated Ars Electronica Artistic Director Gerfried Stocker in his analysis of the new challenges posed by mediating the encounter with ever-more-complex content.

“Information and communications technologies have been among the driving forces behind this acceleration and fusion. In light of these developments, the question that confronts us now is how to optimally use this enormous wealth of information,” Stocker went on to say.

In this situation, simulation opens up new possibilities, according to Christopher Lindinger, head of R&D at Linz’s Ars Electronica Futurelab and, together with Ruth Pfosser from FAS.research, co-curator of the conference. *“Simulations help to make highly complex*

interrelationships comparatively simple to grasp. Thanks to their ordering structures, simulations offer everybody—and not just a small circle of experts—the ability to quickly absorb difficult content. The upshot of this is enormous new potential for our ongoing development in the direction of a knowledge-based society,” Lindinger concluded.

Program for Beginners and Specialists

This symposium offers an ideal setting to present and discuss new methods of learning and research that utilize simulation to facilitate access to complex bodies of information. A wide-ranging line-up of lectures and workshops will run down analytical tools and examples of applications in a broad spectrum of contexts. A round table discussion rounds out the program.

The Ars Electronica Center Hosts an Exhibit Focusing on Simulation

Interactive installations in the exhibition at the Ars Electronica Center – Museum of the Future showcase playful and creative approaches that various simulation models are capable of opening up in a variety of different areas. The featured attractions are designed to acquaint the general public with potential applications of simulation techniques and to let visitors get hands-on experience trying them out.

What qualities are displayed by simulation models that whet users' appetite for experimentation and thereby foster the learning process? The simulation pathway that conducts visitors through the Museum of the Future constitutes a sort of test track that lets users take all the different models out for a spin. It juxtaposes computer-based simulations in a wide range of exhibit formats—from interactive installations and 3D visualizations, educational computer games, artistic animated works and videos all the way to network visualizations. The exhibition will run until August 13.

Quick Overview, Interesting Discussions: Program Highlights

1. Workshop: Simulation for Communicators

Every day, journalists, PR people, educators and trainers face the job of getting across complex knowledge to their audiences. This workshop will present new ways in which dynamic network analysis and simulations can help make a scientific field easier to understand.

Friday, January 13, 2006, 11 AM – 12 Noon, Ars Electronica Center / SKY Media Loft Café & Bar

2. Round Table Topic: "Learning and Research in the 21st Century"

An Introduction to the Future of Learning with the Help of Simulation

Friday, January 13, 2006, 1:30 PM – 3 PM, Ars Electronica Center / SKY Media Loft Café & Bar

3. "The Age of Simulation" exhibition will run from January 12 to August 13, 2006 in the Ars Electronica Center Linz.

Additional information is available online at www.aec.at/simulation and www.fas.at.

With queries, please contact:

Wolfgang Bednarzek, Ars Electronica, Mobil 0043.664.81 26 156, e-mail

wolfgang.bednarzek@aec.at