

Dagstuhl Seminar on
Aesthetic Computing

<http://www.dagstuhl.de>

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co-sponsored by Leonardo

<http://mitpress2.mit.edu/e-journals/Leonardo/>

Discussion List:

<http://groups.yahoo.com/group/aestheticcomputing>

Abstract:

This workshop represents an investigation in alternative, cultural and aesthetically-motivated representations for models found in computer science. Example model types include automata networks, flow graphs, software visualization structures, semantic networks, and information graphs. Models serve a variety of purposes from modeling the behavior and dynamics of software, or a physical system, to modeling the static information relations among concepts.

The motivation for the workshop is best seen in light of the wave of rich, personalized sensory modes being made more economic by the perpetual march toward faster and better interfaces. If it were possible to build software models from any material, and with great speed and agility, what new forms of expression would we craft? If the Holodeck from Star Trek were here today, how

would we construct these models, or even the fundamental mathematical representations underlying them? An inherent assumption can be drawn that with the right economy for Holodeck-like 3D,immersive environments, we would be building our models much differently than exemplified by the textual and diagrammatic forms populating our existing media.

Cheaper, faster and more expressive methods of representation will burgeon given recent trends in hardware and software, and this will lead to an emergence of aesthetics and artist-driven approaches to model representation. Flat, and relatively standardized textual, modes of communication are present primarily for economic reasons, and as the economies shift, we need to study new modes of expression in mathematics and computer science. Scientific visualizations tend to present output, and not the model structures that, when simulated or executed, drive the output. Aesthetic Computing heralds a new beginning for model representations where art and science come together, with art in direct support of science.

Aesthetic computing may also be understood to be “Artistic Computing” or perhaps even “art computer” to differentiate it from “computer art”---the infusion of artistically motivated representational schemes into models for computing (i.e., art computer) rather than the employment of computing tools in support of creations of pure art (i.e., computer art). A recent graduate seminar course in “aesthetic computing” was held at the University of Florida. A short course philosophy page can be found at:

<http://www.cise.ufl.edu/~fishwick/cap6836/artcomputer.htm>

and the course, itself, is documented at:

<http://www.cise.ufl.edu/~fishwick/cap6836/>

These links represent a small indication of what is possible.

Key Themes:

- Artistic and innovative representations for model structures (i.e., information networks, automata, flow networks, program and data structures)
- Artistic representations for program behavior (i.e., input/output)
- Artistic representations for mathematical structure and notation (i.e., algebraic representation)
- Exploratory Human-Computer Interface methodologies supporting the above representations

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