Computational Creativity
and Creative Computing

Dr Rob Saunders
(Resident Geek)
The Design Lab
Faculty of Architecture, Design and Planning
University of Sydney
Computation
Where's the Creativity?

Human

Simple Tools  Complex Machines

Creative System

Computer Simulation

Machine

Artificial Intelligence
Computational Creativity
My Computational Models...

- Curious agents
  - Computational model of curiosity based on cognitive and psychological studies

- Social creativity
  - Computational model of social creativity based on a framework for understanding creative systems

- Stem cells!?!?
  - Computational model of stem cells developed in conjunction with a formal mathematical model
Reflect-a-Sketch

1. An area of interest is selected.
2. Previous experiences are recalled.
3. Representations are compared.
4. Interesting new shapes are learned.

"Reflection-in-Action"
Emergent Crowd Behaviour
The Digital Clockwork Muse

The Law of Novelty

Clique Formation

Inter-clique Communication
Creative Computing
revolution