CreativeIT:
Synergies Between Creativity and IT

- An emphasis on synergies between creativity and information technology, science, engineering, and design research.
- IT, Creativity, and Design:
  - Information technology, enhancing human creative thinking
  - Design, as a reflective process, develops new products/methods/organizations in the context of a perceived need or problem
  - Creative IT, where the focus on problem finding is as important as problem solving
- The combination of creativity and design thinking in information technology, science, and engineering for transformational research.
IT Changes/Advances

- Future **internet**: security, speed, all devices
- New **applications**: business, research and social use of internet
- Expanding **market**: global competition in IIS
- Crisis in **education**: information explosion
- Pervasive **infrastructure**: mobile, distributed computing
Challenges

- Improve/understand creativity and design
- Maintain US competitiveness
- Move towards research led teaching
- Improve interdisciplinary research
- Balance disciplines and collaboration
- Encourage use of new research in practice
Strategies for Responding to Challenges

- Variety of funding schemes:
  - Basic research, individual investigator
  - Research led by industry ideas
  - Research jointly funded with other agencies
  - Networks of multidiscipline researchers
- Community involvement in creative research directions
- Research led teaching, encouraging creativity
- Establish artists and designers in CISE research
creativity research in CISE

new models of creativity
- computational models
- new ways of understanding
- new models of creativity support tools

new education models
- resident artist
- networks of people
- design studios
- multidisciplinary projects
- reward creativity

research methods
- exploratory
- ethnographic
- design
- experimental
- simulation

Evaluation?/Validation?
CreativeIT exploratory research ideas

- developing new creativity models
  - in ML
  - in Intelligent rooms
  - in robotics
  - in HCI
  - in software and IT design

- mapping the research in creativity and CISE
  - framework for characterising topics
  - data mining publications and web docs

- research with SBIR companies
  - research using creative products
  - impact of new technology
  - research towards next generation

- explore range of research methods
  - evaluating effect of creative IT in public art
  - studying impacts of IT on creative practice
  - problem finding and problem solving
  - design as a research methodology

- wiki for sharing concepts
  - mind mapping interface to wiki
  - visualization and HCI
  - community to build wiki

- social network software
  - online brainstorming event
  - matchmaking for collaborators

- matchmaking event
- design studios
- educational models that encourage creativity
- projects with artists