

Be More Creative

- My “Envisioned” PhD Thesis

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Can computers help with creativity?

- I believe that everyone has tremendous latent power to tap new inventions. If there were newer better media, this latent power would be transformed to talent.
- It is a different question from “Can computers be creative?”
- While... the 2 questions are closely related internally. Because ...

Can computers help with creativity?

- Both questions face some similar pre-questions:
 - What is creativity and how it happens?
 - *Can computational ideas help us understand how human creativity is possible?
 - *Can a computer recognize creativity?
 - How to measure creativity
 -

* "The Creative Mind – Myths & Mechanisms", 1992, Margaret A. Boden

"The Creative Mind" – Myths & Mechanisms



AARON (1980).
[Harold Cohen](#) (artificial intelligence artist)
Meeting On Gauguin's Beach. 1988. Oil on canvas,
Collection: Gordon and Gwen Bell.



Paul Gauguin.
Aha oe feii? (Are You Jealous?) 1892. Oil on canvas.
The Pushkin Museum of Fine Art, Moscow, Russia.

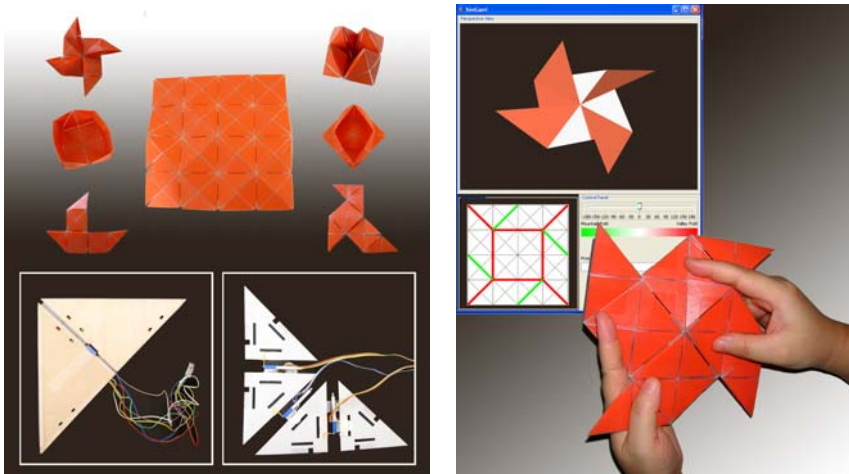
I want users to create with computational power

- P-creativity (A new idea for a person) vs. H-creativity (A new idea historically)
- **Successive stages of discoveries (Math)
 - Preparation
 - Incubation
 - Illumination
 - Verification
- My dream is

** "Science and Method", 1897, Henri Poincare

Easigami

– to illustrate my current ideas



Knowledge Base - State space graph

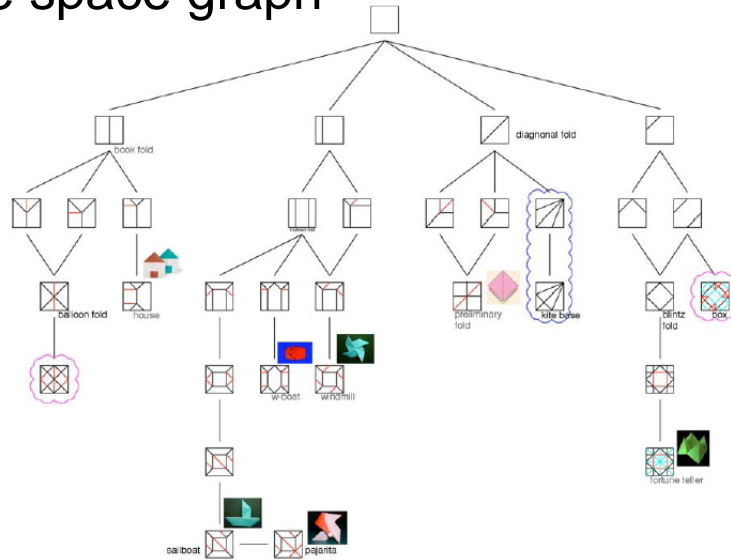


Figure 7: State-space graph for simple origami.

The problem domain

- AI (Artificial Intelligence: symbols, representation, etc.)
- HCI (Human-Computer Interaction)
- Cognitive Science
- Art & Design