Projects by Topic

Project descriptions are organized below by topic. Individual systems produced by each project are linked from the respective project text. If you’re looking for list of projects by name, you can find that here. An index of all the systems we’ve build can be found here, and a list of all publications on the work described below is available here.

Cloud-based intelligent control of computer games and virtual worlds

Automated camera control in 3D environments
Computational models of narrative and narrative understanding

Interactive narrative

Intelligent control of game-based learning environments
Systems and methods to create game-based cinematics

Natural language generation

Tools for the development of games and game AI
AI + Cloud

Cloud-based services for powerful AI algorithms hold the promise of revolutionizing gameplay in future games. We're working to bridge the gap between commercial game AI development and new ideas for AI analytics, behavior and adaptivity.

Mimesis (ended 2005)

Zocalo (ongoing)

Zuzen (ongoing)

Automated Camera Control

Intelligent control of a camera in 3D spaces can automatically generate cinematics that clearly and effectively convey an underlying story.
Projects By Topic

The Intelligent Cinematography Homepage

- Darshak (ongoing)
- Zuzen (ongoing)
- Longboard (ended 2008)
- Afterthought (ended 2009)

Narrative Structure and Comprehension

At the core of our work lies new computational models of narrative, its structure and how people build mental models of stories during narrative production and comprehension.

The Narrative Structure and Comprehension Homepage

- CIRCUS (ongoing)
- IPOCL (ended 2006)
- Fabulist (ended 2006)
Interaction in Automatically Generated Narratives

The creation of interactive experiences within an unfolding story requires the crafting of stories that afford user action and support the user's dynamic choice.

The Interactive Narrative Homepage

Mimesis (ended 2005)

Narrative Affordance (ongoing)

Narrative Mediation (ongoing)

Games and Learning

Computer games are learning machines, whether targeted at entertainment, education or some other serious application. The design and implementation of a game's task environment allows intelligent tools to manipulate the user's experience to facilitate task learning.

Annie  (ongoing)

FixIt  (ongoing)

Machinima
Machinima, short films or cinematics filmed using a game engine's 3D virtual environment, are often challenging to create.

**Afterthought** (2009)

Longboard (ended 2008)

Zuzen (ongoing)

**Natural Language Generation**

Computational models of natural language discourse provide insight into formal models of human communication and can be applied to create a range of communication tools.

**Longbow** (ongoing)

**Intelligent Game Tools**

Building intelligent systems into games and game engines provides compelling new functionality and capabilities.

Bowman (ongoing)

**Boyer** (ended 2009)
Projects By Topic

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Longboard (ended 2008)

Zocalo (ongoing)