

Jean-Marc Gauthier [jean-marc.gauthier@nyu.edu] web site www.tinkering.net

Research and involvement in animation, game design and virtual worlds

My research activities cover large areas of the gaming roadmap which helps me to transmit a valuable experience to my students as they develop their own production and creative process.

Beside teaching interactive 3D animation and virtual spaces which address some basic elements found in gaming production, I also teach scientific visualization with a class project focused on an animated atlas of the universe – addressing artificial intelligence and physics simulations that are inherent to the gaming world. I have written and published two books which address interactive animations and game design.

By exploring and implementing virtual cameras, virtual actors and the development of a coherent language that ties together motion, gestures, body expressions and behaviors, I concentrate on renewing a viewer's experience inside animations, 3D games and virtual spaces. I am researching new types of interactive storytelling where the viewer can explore elements of a story regulated like an ecosystem. I have also created interactive experiences in a city where people were able to use their cellular phones to control the direction of a story exhibited on the side of a building. In a different vein I have worked on the production of a virtual patient interface for doctors in training to learn and visualize medical information.

I am also an active proponent of finding new places and new circuit for the diffusion of interactive art for example Le Cube's festival of the interactive city. I am researching large scale screen displays using daylight screens and architectural glass that can turn a building into an interactive installation. I try to explore the potential of creating new alliances with the viewers by setting up interactive art at home or by using high tech architectural elements called "urban skins" in order to create and define new public spaces for the city.

I also enjoy collaborations with (see below) archeologists, doctors, a brain surgeon, scientists, game theory mathematicians, architects, movie maker, glass makers, cinema, theory historians... These people have the desire to add a playful dimension to their own work in order to reach larger audiences with their ideas. They sometimes see my ideas and concepts as possible virtual extensions to their physical worlds. These opportunities of collaboration, now referred to as '**serious games**', have provided great challenges to remain focused in an ever-changing field.