Jean-Marc Gauthier - Teaching Philosophy

1. Teaching for undergraduate and post graduate students - including online delivery

I taught for a decade at one of the top innovative programs in the US for digital media, the Interactive Telecommunications Program (ITP) at Tisch School of the Arts. This pioneering graduate program is known for offering a curriculum that anticipates changes in production and research in digital media.

During my time there, I was promoted to Associate Professor and Founding Chair of a new graduate program for the same institution in Singapore. (Click here to watch a slideshow presentation of the program.)

I have created and taught several courses centred on animation, digital art and the interdisciplinary qualities of digital media - both at the undergraduate and post-graduate levels. These include:

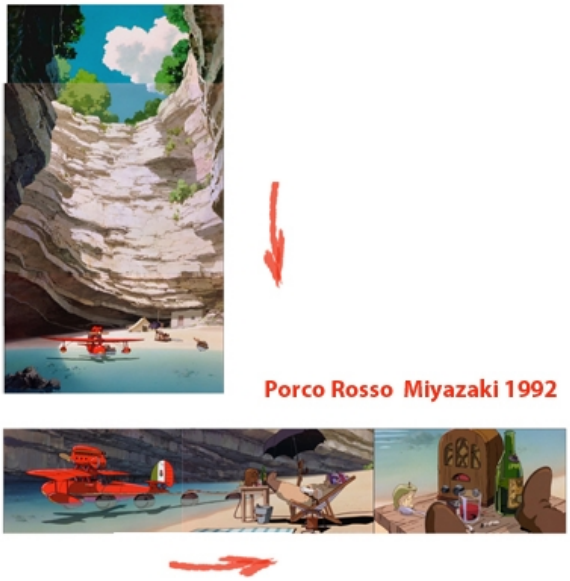
- Digital Tools for Communication
- Spatial Design
- Core Design
- Aesthetic of Apps for small screens and mobile devices
- Transmedia
- Introduction to Interactive Animation
- Introduction to Interactive 3D
- Intro to 3D Game Design
- Motion Capture
- Recapturing Life (co-taught with C. Bregler)
- P2V: from Physical to Virtual Spaces and Back
- Sciviz: from 3D Games to Scientific Visualisation
- A City in Motion: Experimental Video & 3D Animation (Link to the syllabus)
- The Marriage of the Virtual and the Real
- Poetics of Virtual Space

The practice of animation and digital design both require a rigorous learning of the foundations of visual arts which takes place at school. This is different than the learning of creative thinking that will continue to grow with them throughout their lives. I've established a curriculum for students with exercises that help them to develop their own creative process. These include:

- learning how to learn and listening
- observing and asking questions
- developing a conversation on a topic
- developing the capacity to see creativity as an intrinsic feature of all human activity
- understanding the role of design in human activities
- research and practice for the production of very high quality projects

I taught **foundation classes** based on learning the traditional arts of animation (drawing, sculpting, painting, shapes and colours), storytelling and communication. One of the foundation courses that I taught is "**Digital Tools for Communication**" which focuses on design, storytelling and the interdisciplinary qualities and possibilities of digital media.

Following is an example of film analysis I presented in class for "Creating a panorama" as part of the "Digital Tools for Communication" course. I created the images by stitching frames of the film together, to illustrate the reconstitution of the camera movements for the opening scene of "Porco Rosso", an animation by Miyazaki. The panoramas showing the camera movements are presented in relationship to the exploration of Porco Rosso's universe.



The tutorial presented in class shows how to make a panorama after taking original digital photographs of opposition and contrast of mineral and organic objects. The video tutorial is captured in class as I create a panorama in Photoshop in front of the students. After the class, I edit, comment and post the video tutorial for the students. (Click on the link to watch the video tutorial.)

The student's assignment is to create a panorama 6000 by 1000 pixels.

Some students can springboard into their own creative direction after discovering existing styles (for example the style of Miyazaki) ; for others the process of self exploration is more important and can be facilitated by a sensory approach of the world around us. This is a way to create designs that are fresh, free and light. The objective of this exercise is for the creation of a panorama within which they will create or develop their own story.

The following links are related to online videos created for my Motion Capture class. Some of the videos have been captured in class during the creation of a live demo for the students. Videos are posted after class on a password protected blog.

- Real time video of a character inside a virtual space
- Video of character moving inside virtual space

The following are online tutorials that were created before class. The students can use the videos to assist them with their assignments.

- Video tutorial Animating a 2D puppet with Kinect
- Video tutorial: a voice activated virtual flower
- Video tutorial: Animating a talking head with a soundtrack in After Effects
- Motion capture with Kinect in Maya

Michael Olson, a former student, start-up creator, software engineer writes:
"He constantly creates new classes to explore this rich field, and is extremely diligent in updating course content to reflect the state of the art in this highly dynamic area of inquiry. That said, his academic interests range broadly across the visual arts, and I believe he'd make a wonderful teacher or administrator in a wide variety of fields. He frequently forges links with other NYU departments and the professional community at large so that his classes benefit from an optimal level of interesting external perspectives and critical insight. In practice, his instruction is a model of productive flexibility both with respect to according students untrammelled creative freedom while maintaining quality output, and in the manner he is able to tailor the curriculum to his students' interests, talents, and needs. Indeed, Jean-Marc spends a frankly unbelievable amount of time with each student in his classes, typically in individual sessions, to ensure that they derive an optimal experience from their studies."

2. Working with students and effective learning.

"That imagination, not calculation, is the "difference" that makes the difference." Red Burns

Yang Liu, former student, animator at Earth Observatory of Singapore, PhD candidate writes:
"I remember that he told me: "Yang, no matter how old you are in the future, there will always be a little girl living and speaking in your heart, she makes you say and do a lot of interesting things, she is the inspiration of your artworks, please never silence her." I think a lot about what he said after that, even now when I am writing novels, it gives me a lot of inspirations and freedom to express myself. I feel very lucky and grateful to have him as our teacher and Chair during my two years' study in Tisch Asia."

"Jean-Marc has an amazing ability to explain very complex animation software to us in the most easy and understandable way. During his class we managed to get familiar with After-Effects, Maya and Motion Capture in a very short time. He also helped us to produce some good quality artworks with those software."

"Jean-Marc is always supportive about our project ideas, as well as giving amazing advice to us. He has given me a lot of help and inspiration for my projects and thesis, I always trust him for his suggestions. He has an sharp eye for both the things that stand out and the things to be improved. He is a very inspiring teacher as well as a friendly and responsible Chair."

3. Recognition for expertise in creative and professional practice, publications/exhibition record, awards, grants and professional accomplishments as a designer

My interactive media art works have been presented at venues internationally including the American Museum of the Moving Image (NYC), the Institute of Fine Arts (NYC), Chelsea Art Museum (NYC), File Festival (Brazil), Ars Electronica Festival (Austria), Villette-Biennale Numérique (Paris), Le Cube, MAMAC (France), Siggraph Asia, ArtScience Museum (Singapore) and DaeGu (South Korea).

I have collaborated on numerous scientific visualisation projects, including the "Dynamic Virtual Patient', a 3D interactive animation of the human body, the "Brain Project", a 3D interactive animation of the brain and an interactive animation for exploring the genetic diversity of the world's 10,000 bird species. I designed an immersive display for the visualisation of pedestrian crossings and street intersections funded by the National Health Institute (USA) and the University of Alabama (USA). My interactive designs include digital storytelling projects, "Be City" was selected by the "Festival Anthropologie Numerique 2014", France, an interactive set design for the theatre play "Cold Stone Dead Serious" and "NightHawks", a 3D animation interacting with a large audience inside a public park.

I have written several books on creating animations and the production of real-time 3D games, including Creating Interactive 3D Actors and their Worlds (Morgan Kaufman Publisher), Virtual Sets and Pre-Visualization for Games, Movies and the Web (Focal Press, Elsevier Science). I also contributed to Game Art Complete (Focal Press, Elsevier).

Zach Rosen, ***former student, iOS Wireless Software Engineer (Prototypes) at Apple, writes:***
"Mr. Gauthier has a passion for the artistic side of technology. Where others see equipment and code he sees canvas and brushes. Mr. Gauthier is able to paint the detailed aesthetic of reality and at the same time loves to uncover the possibilities of unimagined worlds. When drawing from a background of analog art and media, Mr. Gauthier does not try to force old styles and techniques into the digital realm but rather extracts and enhances to form new and exciting hybrids. His work and ideas consistently push the creative envelope while surpassing technical limitations."

"As a resident researcher at ITP, I began writing software that allows Bluetooth-enabled cell phones to be controlled from a computer, simplifying and enhancing calls and text messages... In the year since I left ITP, I have worked full time on this software and it has become a thriving business."

"I feel very fortunate to have had Mr. Gauthier take me under his wing at NYU. He was always extremely generous with his time and thoughts and has encourages my explorations with shared excitement."

Michael Olson, a former student, also writes:
"Jean-Marc was also my immediate supervisor, and in that capacity, was phenomenally helpful with regard to my work at ITP. While certainly a fount of enthusiasm and sage advice, more importantly he has also been a tireless advocate for my professional development. I owe him great thanks for specifically encouraging me to try teaching his Introduction to Interactive 3D class as an adjunct professor, an experience I found immensely rewarding. He was also very supportive of my efforts to design new classes, offering inspiration, apt ideas, and trenchant criticism. His contributions to my research were equally salubrious, given that he often suggested fecund new directions and was instrumental in solving several difficult problems I encountered. "

"But beyond his professional roles, I also regard Jean-Marc as a good friend. His innate kindness combined with an indefatigable friendliness and affability make him a pleasure to be around both at work and outside. Given his quick wit, easy laugh, and incisive perspective, I often find myself immersed in stimulating conversations ranging far outside the bounds of our strictly professional interests. I think Jean-Marc's good-natured optimism radiates out into the community, making it a more pleasant place to work and learn."

Link to a video documentary with interviews of students presenting their projects.

My other source of professional learning has come from a constant production of real-world projects that I have created for clients outside of the teaching setting. These projects also have informed my way to teach and problem solve with the students.

To create a wake outside of the school...
A curriculum covering interactive media design and production; communication design and production; web design and production; digital media production; app design and production needs some form of validation from the outside world. This starts with student works being selected and presented at festivals and conferences; reinforcing the perception of a well-rounded and relevant curriculum. The placement of students into important and exciting jobs should exhibit what they learned at school.

My list of grants and awards includes:

- 2014. Spring Singapore grant for development of innovative web video app with Tracy Wong (SKWO) and Ken Lim >70K SGD

- 2010. National Institute of Health, National Eye Institute, USA, research project studying the Efficacy of Enhancing Low Vision Mobility through Visual Training in the Virtual World, USA with L. Liu, PhD. >350K USD.

- 2007. Microsoft Research and a Consortium of Universities, Games for Learning Institute, G4LI, faculty partner of the

proposal funded. >1M USD.

- 2004. CDCF grant, Dynamic Virtual Patient Simulator, Principal Investigator, joint project with M. Nachbar, AES School of Medicine, NYC. >20K USD including software donated.
- 2002. CDCF grant, Virtual Archeology at Aphrodisias, Principal Investigator, joint project with C. Ratte, Institute of Fine Arts, Classics Department, NYC. >20 USD including software donated.
- 1996. Direction de l'Amenagement du Territoire et de l'Action Regionale (DATAR), Principal Investigator, 3D interactive maps, research grant, design and development, Paris, France. >70K USD including in-kind donations from IBM France.
- 1990. Villa Medicis Hors-les-Murs, Paris, France. >20K USD.
- 1986. American Institute of Architects, Delano-Aldrich Fellowship, Washington. >20K USD.

I have also encouraged collaborations with professionals from around the world as a preparation for the student's future professional life. This began with the Friday Talks that I organised almost every week. Students, faculty and often groups of students from other schools and universities in Singapore met face-to-face with a professional from the industry, an artist or a teacher, during one hour at the end of the week. The topics ranged from 'financing projects using crowd sourcing' to 'the art of the story by Blue Sky studios'.These talks offered an opportunity for students to increase their awareness and to develop their curiosity about “transmedia” topics.