Course: CURE4040
Post-Digital Animation: Theory and Production 後數碼動畫：理論與製作

This course aims to explore how digital animation is pervasively integrated into our daily lives and increasingly influences how we see and experience the world visually. It will balance a historical and theoretical overview of the concepts and principles of 3D digital animation alongside teaching students the skills for working with the free, open-source 3D creation software Blender to produce animations and 3D models. The course will be based in the computer lab with workshops held every week covering the fundamentals of 3D modeling; sculpting meshes, texturing, lighting, rigging and rendering animations as well as creative design principles of 3D animation. The course takes the definition of the 'postdigital' as a description of our contemporary relation to the internet and technology from the post-2000's when it is no longer perceived as 'new' but integrated into the fabric of our daily lives. It will examine how postdigital animation has been integrated into multiple interfaces (smartphones, laptops, pads), media (film, video, digital) and platforms (theatres, exhibitions) and focus specifically on the Asian context, looking at the works of various artists working with animation and how they have moved beyond translating traditional media into new media through 'remediation' (Manovich: 2014), to create entirely new aesthetic vocabularies in virtual spaces. Students will be expected to create a short 3D animated film as the final assessment which demonstrates a thorough understanding of 3D modeling techniques and the digital animation production process taught over the course of the semester. Additionally, the students will be expected to critically evaluate and understand how contemporary Asian artists are using 3D animation as a part of their practice to creatively express their responses to Asian society, culture and history. Students will critically engage with readings each week which will ultimately give them a through understanding of key issues relevant to contemporary animation in academia and in pop culture. The ultimate outcome for the course is that students are able to use the tools and skills involved in 3D animation to become artists themselves or integrate it into their professional roles as filmmakers, designers, curators or art administration professionals.

Grade Descriptor:
A Outstanding performance on all learning outcomes.
A- Generally outstanding performance on all (or almost all) learning outcomes.
B Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance.
C Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses.
D Barely satisfactory performance on a number of learning outcomes.
F Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.
Learning Outcomes:
Upon successful completion of this course, students should be able to:

● Trace back a critical history and theory on the use of digital animation in contemporary Asian art.
● Understand the significance of animation culture in contemporary Asian society.
● Discuss the idea of ‘pervasive animation’ and the ‘postdigital’ condition in reference web 2.0, the internet and digital animation software.
● Have a thorough understanding of the 3D digital animation production process and be able to reproduce it in their own work.
● Gain an intermediate skill level in the use of the open-source 3D creation software Blender and the video editing software Adobe Premiere Pro.
● Be able to use their own creative and critical skills to produce an animated film which engages with issues in contemporary Asian society and the students' own lives.

Course Syllabus:

Week 1

Lecture 1: What is postdigital animation?
This session will introduce the themes of the course, the role of 'pervasive animation' in a 'postdigital' culture and describe the history and theory of 3D animation, focusing on the Asian context and how 3D animation is used by different artists and designers as a technological medium to express their ideas. This session will also gauge students pre-existing knowledge of the digital applications Blender and Adobe Premiere Pro.

Workshop: Introduction to Blender basics; how to download and install the program, navigating the interface, using keyboard shortcuts, using a three button mouse and setting up a scene.
Assignment: Practice using Blender by playing with downloaded 3D models from Blendswap. Readings:

Week 2

Lecture 2: History of Animation in East Asia
This session will look at the history of the animation industry in East Asia, drawing on art history precedents for animation culture such as Japanese ukiyo-e woodblock prints and the pioneering work of the Wan Brothers in Republican era China. The lecture will look at the development of the Japanese animation industry in the post-war era into the 90’s and how Chinese and South Korean animation studios began to gain prominence in the post-2000’s and the integration of digital animation into the industry in production as well as consumption via online platforms.

Workshop: Understanding the concepts of vertices, edges and faces and how they can be manipulated in 3D space to model objects in Blender. Also an explanation of object mode and edit mode in Blender and how to toggle between the two. Finally, students will be shown how to export images
and animations from blender in .PNG and .H.264 formats.

Individual Assignment 1: 3D Avatar Self-Portrait. Students must model a 3D avatar of themselves using Blender. The avatar does not need to be a realistic representation of their appearance, but rather a self-portrait of how they see themselves manifested through their ‘fantasy’ avatar. The avatar will be presented to the class as a model uploaded on their personal social media platform which the students will share to the class WeChat and Second life groups. 10%

Readings:

Week 3
Lecture 3: Postdigital Animation in Contemporary Asian Art: Ho Tzu Nyen, Lu Yang, Wong Ping and Ian Cheng

This lecture will look at the work of three contemporary Asian artists who use post-digital, three-dimensional animation in their work in critical ways. Singaporean artist Ho Tzu Nyen uses digital animation to create avatars for various mythological figures in modern Asian history. Chinese artist Lu Yang uses a suite of 3D animation programs like Maya, ZBrush and Cinema4D to create videos which appropriate the visual language of Japanese anime and pop culture to explore contemporary notions of gender and the body in Asia. Hong Kong animator Wong Ping uses digital image programs like Illustrator and Photoshop to create satirical and erotic stories of Hong Kong urban life. The lecture will contextualize their work within the trend for using digital animation by younger artists in the contemporary art world and how it is used to critically interrogate ideas of technology, politics and art history.

Workshop: Students will learn how to texture models with seamless textures downloaded from the internet and how to light scenes using various lamps and ambient occlusion in Blender.
Assignment: Continue working on 3D avatar self-portrait incorporating the texturing and lighting skills presented in the workshop. Readings:

Week 4
Lecture 4: Technology and Identity in Japanese Anime

This lecture will look at how Japanese anime and manga became the dominant genre in Asia and internationally. From the 1990's, a new generation of anime produced by 'auteur' animators, who incorporate a mix of traditional cell animation with digital animation like Satoshi Kon and Mamoru Oshii, deal with complex philosophical ideas of identity, consciousness and technology in films like Ghost in the Shell (1995) and Paprika (2006). The session will also look at anime and manga subgenres like yaoi which explore non-heterosexual relationships and how they've come to influence the current anime landscape.

Presentation: Students self-portrait avatars will be presented to the class uploaded on their personal social media profiles which the students will share
to the class Wechat and SecondLife groups.

Workshop: This workshop will go over how to create 3D environments and architecture in Blender using the same modeling techniques previously learnt and how to position the virtual camera for rendering images as high resolution PNG files.

Individual Assignment 2: 3D Modeling an Environment. Students must choose a physical space or environment which they inhabit on a regular basis and is important to them and produce a 3D model of this space. This will be presented to the class as a 3D model and as a 3D rendered image with textures and lighting in .PNG format. 10%

Readings:

Week 5

Lecture 5: Animism/Animation; Eastern and Western Philosophical Debates on Animation and Modernity in Contemporary Art and Theory
This lecture will look at the Western idea of animation, relative to the pejorative anthropological concept of 'animism', in which inanimate objects and images come alive, deriving from colonial discourses on 'magical thinking' in pre-modern or non-Western cultures. This will be illustrated using a close reading of the seminal exhibition 'Animism' curated by Anselm Franke in 2012. This is contrasted with the Eastern philosophical traditions related to cosmology and different definitions and understandings of 'technology' which relate to the position of animation/animism in Asian culture, with reference to the work of Hong Kong theorist Yuk Hui and his book, 'The Question of Technology in China: An Essay in Cosmotechnics.'

Presentation: Students will present their 3D environment/space to the class as a 3D model and as a 3D rendered image with textures in .PNG format and explain the significance of that space in their lives. 10%

Workshop: Animation with keyframes in the Blender timeline alongside rigging bones and armatures to characters and using shape keys to animate objects.

Individual Assignment 3 Animating your Avatar or an Object. Using keyframes and the blender timeline students must animate a rigged version of their avatar or alternatively they can animate objects in their environment. 10%

Readings:

Week 6

Lecture 6: History of Animation Production and Character Animation Design
This lecture will cover the design principles of perspective, composition, colour theory and movement drawn from art history and the history of animation and film and how these principles were used by the industrial scale animation studios of Disney and Warner Brothers in the 1940's and their contemporaneous counterpart Chinese Northeast Studios and later Studio Ghibli and Toei in Asia. The lecture will then cover the influence of avant-garde and experimental art and cinema that introduced radical new styles and techniques to the animation industry and allowed for 'independent' studios and avant animators to make their mark and how the innovations of counter-culture figures like Ralph Bakshi and Eiichi Yamamoto might be seen in contemporary animation and incorporated into the students own work.

Workshop: This workshop will demonstrate how to create movement in Blender, how to create walk cycles manually as well as by using consumer level motion capture software and technology like Iclone Kinect. The session will also look at downloading and rigging pre-existing motion capture .BVH files to your characters from the Carnegie Mellon collection.

Readings:

Week 7
Lecture 7: Ghosts of History/Monsters of Technology
This lecture will explain the topic which the students will need to respond to for their final assignment which will form the basis of their short film. The theme 'Ghost of History/Monsters of Technology' is adapted from the book 'Arts of Survival in a Damaged Planet: Ghosts and Monsters of the Anthropocene,' edited by the anthropologists Anna Lowenhaupt Tsing, Heather Anne Swanson, Elaine Gan and Nils Bubandt. That book is a compilation of essays that look at various 'ghosts' or legacies which haunt the present as a result means ecological destruction of the environment and 'monsters', or unintended horrific consequences of his manipulation of nature. For the context of this assignment, students are asked to think about various 'ghosts' and 'monsters' which have arisen as a result of the rapid modernization and industrialization of Asia in the past century. On a more personal level, students are encouraged to think of how about things that happened in the past continue to affect their daily lives or what strange or unexpected outcomes have they noticed as a result of our dependence on technology in every facet of daily life.

Discussion: With the class and then in groups, students will brainstorm their ideas in response to the topic and discuss how to turn them into narrative scripts which will form the basis of their short films.

Presentation: Students will present their fully animated avatar or object to the class as a short animation exported as a H.264 file from Blender. Week 8
Final project group discussion for students to decide on a story and assign the roles of writer, 3D modeler, texture artist, animator, compositor and sound designer in consultation with the instructor.

Workshop: This workshop will introduce the basics of compositing your animations using Adobe Premiere Pro and editing shots and adding a soundtrack.

Assignment: Students will continue to work in groups on their final assignment under supervision and consultation with the instructor.

Week 9
Lecture 9. Guest Lecture TBA
Guest lecture by local artist who works with 3D digital animation.

Assignment: Students will continue to work in groups on their final assignment under supervision and consultation with the instructor. Readings:


Week 10

Lecture 10: Pervasive Animation in the Art World
This will be a practical lecture on how artists, curators and performers use digital animation software in their work, from prototyping and designing works to modeling gallery and museum spaces in order to set up installations. Curator build virtual models to figure out their exhibition design while performers will model theatres in order to accurately design and build their sets. The lecture will also give a broader overview of how animation is integrated into multiple interfaces (smartphones, laptops, pads), media (film, video, digital) and platforms (theatres, exhibitions) in the art world ecology.

Workshop: Students will learn how to combine the models and environments they used in their previous assignments into a single Blender scene which will create the 'world' in which the story of their short film will take place.

Assignment: Students will continue to work in groups on their final assignment under supervision and consultation with the instructor.

Week 11
Final group project workshop so students have in-class time to work on final project under observation of instructor.

Week 12
Final group project workshop so students have in-class time to work on final project under observation of instructor.

Week 13
Groups In-Class Presentations and critique

Assessment Type:

- Participation or attendance: 20%
- Homework or assignment: 30%
- Project: 50%

Feedback for Evaluation:

1. End-of-term university course evaluation will be conducted in class.
2. Students' comments and feedback through emails or personal meeting with the instructor will be encouraged.

Required Readings:

Week 1

Week 2

Week 3
Recommended Readings:

BIBLIOGRAPHY


MacDonald, Sean., (2016), Animation in China: History, Aesthetics, Media, Routledge, USA

McHugh, Gene. (2011) "Post Internet: Notes on the Internet and Art" 12.29.09-09.05.10. Brescia: Link Editions


(Eds.) Yokota, Masao and Hu, Tze-yue G., (2013), "Japanese Animation: East Asian Perspectives", University Press of Mississippi, USA