

Course Syllabus

Course Information

ATEC 6331.001 Aesthetics of Interactive Arts

ATC 2.918

Thursday 4.00-6.45

Professor Contact Information

Prof. Dr. Mihai Nadin

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ATEC Building

Office Hours: Wednesday 3.00-5.00 pm and by appointment

Course Pre-requisites, Co-requisites, and/or Other Restrictions

This is a required graduate class. ATEC approval is required for undergraduate students. Students are supposed to have acquired computation skills corresponding to their pursued majors

Course Description

Aesthetics is the underlying “logic of senses” guiding human beings in all choices they make (eating, dressing, interacting with others, selecting what they like and what they dislike). As such, it is expressed in the ways in which we perceive the world and the way we change the world. Indeed, aesthetic considerations, implicit or explicit, are guiding all our choices. Within culture, aesthetics provides the means for understanding what it means to like or dislike (fashion, architecture, literature, films, games, art works, other persons, etc.). It also guides in the making of new aesthetic entities, in particular those pertaining to interactive arts, the field in which you will be active. You will become professionals in the largest segment of the economy—aesthetic expression (present in everything we do, making art, designing weapons, shaping the universe of our existence, promoting learning, helping in the communication of scientific discoveries or political decision making, etc.).

The outcome of this class is expressed in:

- a) Knowledge of aesthetics as it shaped, and continues to shape, human activity
- b) Aesthetic skills expressed in aesthetic value judgments and aesthetic innovation in the age of interactive media and computational design
- c.) Aesthetic competence corresponding to the fast dynamics of digital expression

The class will engage students in reading and reporting on foundational texts. There is continuity—tradition-- and there is discontinuity—innovation-- in aesthetic perception and in the practice of aesthetic skills. Students will also explore the aesthetics of innovation and aesthetic experiment against the background of culture.

If and when necessary, guest lecturers will cover the “hot” topics of current developments (interactivity, immersion, virtuality, etc.). Aesthetics is of particular interest to our explorations in the emergence of new media. You, the students in the class, are asked to **practice** aesthetics. Students are encouraged, and indeed required, to post class-work on the website for this class. Given the many choices open to students in ATEC, the class will also serve as an open forum for defining the students’ focus in the program.

Student Learning Objectives/Outcomes

The outcome of this graduate class can be compared to the outcome of a class in mathematics for future scientists and engineers. Indeed, they will not become mathematicians, but they must be able to apply the powerful means of mathematics to the problems they will solve as scientists or engineers. Mathematics is foundational for them. Aesthetics is foundational for you, whether you will work in emerging media, games, design, or digital arts.

In our class, aesthetics is seen as the “mathematics” of art and design. More precisely, it provides a foundation for understanding the characteristics of interactive arts, for experimenting, for advancing innovation. Concretely, students will explore:

- a) Knowledge of aesthetics, as it shaped, and continues to shape, human activity in general, and in particular the emerging interactive forms of aesthetic expression
- b) Aesthetic skills, expressed in aesthetic value judgments and aesthetic innovation in the age of interactive media and computational design
- c) Aesthetic judgment as an expression of aesthetic knowledge-based evaluation.

Required Textbooks and Materials

Suggested Course Materials

1. Strategies of Interactivity by Dieter Daniels
<http://www.medienkunstnetz.de/source-text/65/>
2. Construction of Experience, Interface as Content by David Rokeby
<http://www.sfu.ca/~jtoal/papers/Rokeby%20ConstructionofExperience.pdf>
3. Twin-Touch-Test-Redux: Media Archaeological Approach to Art, Interactivity, and Tactility by Erkki Huhtamo published in Oliver Grau: *MediaArtHistories* or earlier version
http://gebseng.com/media_archeology/reading_materials/Erkki_Huhtamo-Tactile_Interactive_Media.pdf

2. 1. Huberman, Bernardo A. "Social Computing and the Attention Economy." *Journal of Statistical Physics* 151.1-2 (2013): 329-339.
<http://link.springer.com/article/10.1007/s10955-012-0596-5> [available via McDermott library]
3. Crane, Riley, and Didier Sornette. "Robust dynamic classes revealed by measuring the response function of a social system." *Proceedings of the National Academy of Sciences* 105.41 (2008): 15649-15653.
<http://www.pnas.org/content/105/41/15649.long> [open-access]
4. Cheng, Justin, Lada A. Adamic, P. Alex Dow, Jon Kleinberg, and Jure Leskovec. "Can cascades be predicted?" (2014).
<http://www-cs.stanford.edu/people/jure/pubs/cascades-www14.pdf> [open-access (WWW submission)]
5. Mihai Nadin, "Play's the Thing: A Wager on Healthy Aging," in *Serious Game Design and Development* (J. Cannon Bowers and C. Bowers, Eds.), 150:28, pp. 150-177. Hershey NY: Information Science Reference, 2010.
6. Mihai Nadin, *Science and Beauty: Aesthetic Structuring of Knowledge*, *Leonardo*, 24/1, 1991. The article will be made available to students through www.nadin.ws
7. Mihai Nadin, *Emergent Aesthetics*. *Aesthetic Issues in Computer Arts*, *Leonardo*, Special Issue: Computer Art in Context, August 1989. The article will be made available to students.
8. Malcolm Gladwell, *The Formula*. What if you built a machine to predict hit movies? In *The New Yorker*, 10/16, 2006. The article will be made available to students. It is also posted on *The New Yorker* website.
9. Gaut, Berys Nigel and Lopes, Dominic, *The Routledge Companion to Aesthetics* [electronic resource], NetLibrary, 2005. Available as eBook at the UTD's McDermott Library.
10. <http://www.youtube.com/watch?v=RSt1KPLPM4Y>, *Aesthetic Inspiration*
11. <http://www.youtube.com/watch?v=HFkNdOwc5es> *Guggenheim Floyd Right inspiration*
12. <http://www.youtube.com/watch?v=-ulAxZuD18Y>, *Alexander Calder The Spider*
13. <https://www.youtube.com/watch?v=UwsEeQpxkFw>, UC Berkeley, Discussion regarding art
14. http://www.gamasutra.com/view/feature/185676/the_aesthetics_of_game_art_and_.php?print=1

Assignments & Academic Calendar

(Topics, Reading Assignments, Due Dates, Exam Dates)

Week 1, Thursday August 25

- a. Aggregate class profile – a short anonymous test.

Aesthetic and moral values.

You probably never heard of the *Island of Flowers* or of Jorge Furtado Curtas. A celebrated film director, using primitive computer graphics (after all, it was made in 1989) and hyperlinks--before hyperlinks became what they are today--addresses the issue of moral responsibility. This is an example of aesthetics emerging from the subject.

Students are invited to define the aesthetic means that give this documentary its originality.

- b. After watching the movie in class, you will write, in class, a paper, on:

Which aesthetic means are used?

What is the relation between the aesthetics of the film and the moral message?

Week 2, Thursday, September 1

Interactive Art

Artists have used the computer to create interactive art since the invention of the computer. Digital interactive art incorporates the intelligence of the viewer with the intelligence of the system, creating a dialog between the viewer and the artwork.

Based on

http://www.gamasutra.com/view/feature/185676/the_aesthetics_of_game_art_and_prepare_a_presentation.php?print=1

What can we learn from the techniques of the Old Masters in order to help us create more varied and emotionally meaningful interactive experiences?

How should we go about adapting art techniques to enhance interactivity?

Each student will present in class. Preference: interactive presentation, animation, video, etc. You decide what suits you best.

To help you in preparing the presentation, read the following:

1. Strategies of Interactivity by Dieter Daniels

<http://www.medienkunstnetz.de/source-text/65/>

2. Construction of Experience, Interface as Content by David Rokeby

<http://www.sfu.ca/~jtoal/papers/Rokeby%20ConstructionofExperience.pdf>

3. Twin-Touch-Test-Redux: Media Archaeological Approach to Art, Interactivity, and Tactility by Erkki Huhtamo, published in Oliver Grau's MediaArtHistories, or earlier version

http://gebseng.com/media_archeology/reading_materials/Erkki_Huhtamo-Tactile_Interactive_Media.pdf

Week 3, Thursday, September 8.

Check out **before** class:

<https://www.youtube.com/watch?v=9dS-h9--KeA>

Aesthetic change

Defining aesthetics from a historic, methodological, communication perspective.

Defining change.

Week 4, Thursday, September 15.

The dynamics of interactive attention

In this session, we will take a look at the dynamics of attention in YouTube, Facebook, and elsewhere. Living in a world where everybody with access to a computer or even a cell-phone has the means to produce and publish interactive content, the number of producers goes up dramatically while consumers' attention remains individually limited. As a consequence, attention is now the scarce essential resource. Now more than ever, understanding the dynamics of attention is mission critical for success. Taking a glimpse

down the rabbit hole, we will discuss the role of novelty and publication location, the existence of fundamental patterns of attention dynamics, and the viability of predicting attention cascades.

Required readings:

1. Huberman, Bernardo A. "Social Computing and the Attention Economy." *Journal of Statistical Physics* 151.1-2 (2013): 329-339.
<http://link.springer.com/article/10.1007/s10955-012-0596-5> [available via McDermott library]
2. Crane, Riley, and Didier Sornette. "Robust dynamic classes revealed by measuring the response function of a social system." *Proceedings of the National Academy of Sciences* 105.41 (2008): 15649-15653.
<http://www.pnas.org/content/105/41/15649.long> [open-access]
3. Cheng, Justin, Lada A. Adamic, P. Alex Dow, Jon Kleinberg, and Jure Leskovec. "Can cascades be predicted?" (2014).
<http://www-cs.stanford.edu/people/jure/pubs/cascades-www14.pdf> [open-access (WWW submission)]

Week 5, Thursday, September 22.

Serious Games

Read: Mihai Nadin, "[Play's the Thing: A Wager on Healthy Aging](#)," in *Serious Game Design and Development* (J. Cannon Bowers and C. Bowers, Eds.), 150:28, pp. 150-177. Hershey NY: Information Science Reference, 2010.
[PDF \(for download\)](#)

Week 6, Thursday, September 29.

In preparation for the class *Aesthetics of Art—the 21st century* (planned for October 7), visit the *Nasher Sculpture Center*—probably the most important sculpture museum in today's world. The majority of the works were created in recent years. The Center documents major changes in aesthetic awareness.

Choose one work, and document your aesthetic criteria (Why you chose it).

Each student will show in class, on October 6th, his or her choice and will explain selection criteria in the class discussion.

Week 7, Thursday, October 6

Aesthetics of Art—the 21st Century

This is our age, this is the cultural context in which you will work. You need to get access to works that define the new aesthetics of YOUR age.

Your presentations: 5 (five) minutes should be conducive to a discussion on how aesthetic criteria inform your own choices in the area of interest to your future.

Week 8, Thursday, October 13.

Anticipation and aesthetics.

To create means to make possible something that did not exist before. This is called *originality*. **The class will discuss the foundations for understanding success as an important aesthetic characteristic of your future activity.**

Read Nadin, *Anticipation – The end is where we start from*.

On the subject of anticipation, watch <http://www.youtube.com/watch?v=3EmJ2N7C06I>

<https://www.youtube.com/watch?v=RSt1KPLPM4Y>
<https://www.youtube.com/watch?v=SmyE534nN7A>
<https://www.youtube.com/watch?v=982K00keLAQ>

Watch the YouTube Assignments used in previous classes. No, you do NOT need to make a video on the subject.

Week 9, Thursday, October 20.

Is aesthetics deterministic?

The class will discuss the following question: Can you imagine a machine that will generate aesthetic artifacts?

Reading: Malcolm Gladwell, "The Formula. What if you built a machine to predict hit movies?" In *The New Yorker*, 10/16, 2006.

Start work for your final project: A video on the subject of **AESTHETIC CHANGE**.

Each student will work on a creative video to document the various aspects of this subject. You can focus on games, sound design, music, architecture, cuisine, cars, furniture, etc. You will focus on change. In this class we shall define the various tasks you will have to undertake in producing your final project:

- Directing
- Producing
- Camera
- Video editing
- Music
- Scriptwriting
- Animation
- Graphic design

The final project should be finished by November 24.

Script and production plan for the final project should be presented in the November 3rd class.

Week 10, Thursday, October 27.

How do we evaluate the aesthetics of interactive arts?

Prepare your criteria for aesthetic evaluation. Prepare examples.

Week 11, Thursday, November 3.

Presentation of script and production plan for the final project.

Wearables—aesthetic considerations

References:

http://myscene.everythinggirl.com/games/fashion_book/fashion_book.aspx
<http://www.gamesgames.com/game/Fashion-Designer-World-Tour.html>
<http://zynqa.com/game/fashiondesignergame>
<http://www.dw.de/soft-wear-computer-simulated-design-is-tailoring-the-future-fashion-industry/a-17567500>

Week 12, Thursday, November 10.

Aesthetics over the network

References:

<http://blog.discoveryeducation.com/kbosch/2009/04/06/eight-great-interactive-sites-that-let-you-paint-like-a-famous-artist/>
<http://www.masternewmedia.org/online-music-collaboration-best-tools-and/>
http://www.researchgate.net/publication/3916271_A_system_for_collaborative_music_composition_over_the_web

Week 13, Thursday, November 17.

Information aesthetics

Read “Science and Beauty” in *Mind at Work*, pp. 177-188. Write a 1-page summary of the ideas. Upload to the class website

http://www.academia.edu/3489174/INFORMATION_AESTHETICS_AND_THE_STUTTGART_SCHOOL

Week 15, Thursday November 24-- University break

Upload the final video to YouTube. Share the address with your colleagues.

Week 15, Thursday, December 1.

Aesthetics in context.

Students are invited to prepare examples characteristic of the aesthetics of your own region or country of origin. How does the aesthetics of our environment shape our perception?

Grading Policy

During the Semester, reading, independent research, acquisition of software skills and class participation – in the form of short presentations and discussions – will be evaluated. The final project, supposed to be the expression of your semester-long research and independent work – will make up 70% of your grade. The following is a breakdown of the variables considered in grading:

Attendance	10%
Class Participation and individual assignments	30%
Exam (includes practical component)	60%

Course & Instructor Policies

Class attendance and individual research at a level of a graduate seminar are **very** important. Make sure you are on time and ready to learn!

Some assignments require that you visit some Dallas locations on your own. Please take such visits seriously since they will serve as a basis for your work.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the professor.