ACAD – 302: The Hacker Imagination: From Ancient Greece to Cupertino

Units: 4
Term-Day-Time: TBD, 2 x 1:50 minutes sessions per week
Location: TBD
Instructor: Douglas Thomas

Office: TBD
Office Hours: TBD
Contact Info: TBD
Website: TBD

Teaching Assistant: TBD
Office: TBD
Office Hours: TBD
Contact Info: TBD

IT Help: http://iovine-young.usc.edu/ait/index.html
Hours of Service: M–F, 8:30am–5:30pm
Contact Info: iyhelp@usc.edu, 213.821.6140

Catalogue Description
Exploring issues in innovation, design and invention from the perspective of the hacker imagination

Course Description
Unlike our popular understanding of innovation and invention, which tells stories the birth of new ideas and individual genius, the story of the hacker imagination is something quite different. Hackers create by envisioning new possibilities in the context of old ideas.

For the purposes of this class, the hacker imagination is the transformation of a specific domain that constructs a new way of seeing the world.

Learning Objectives
In order to explore that notion in more depth, we will examine a collection of hacks by asking four questions:

1. What is the role of imagination in creating a new way of seeing, thinking or doing?
2. What is the context in which those transformations took place?
3. What is the subject of the “hack”?
4. What was changed, transformed, or altered as a result?

While it is impossible to even attempt to catalog each and every person, hack or event that has had such an impact there are some exemplars that we can point to that can help us understand the nature of the hacker imagination.

While we will inevitably touch on the content of many great thinkers and their ideas, the focus of the class will be primarily on the context in which their ideas had meaning.

Prerequisite(s): None
Co-Requisite (s): None
Concurrent Enrollment: None
Recommended Preparation: None
Required Readings and Supplementary Materials
Readings will be available through blackboard and will be comprised of selections from original texts when possible.

Description and Assessment of Assignments
Students will complete four “evaluation” papers where they will make a case for a particular figure who qualifies as “embodying the hacker imagination” within each of the four areas of inquiry we set forth. Each paper/presentation will account for 20% of the student’s grade. The final paper will require each student to present an innovation in thought, sound, words, or technology that demonstrates and reflects the hacker imagination of the present day and will be worth 20% of the grade.

Grading Breakdown

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<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>% of Grade</th>
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<tbody>
<tr>
<td>Evaluation Paper 1</td>
<td>100</td>
<td>20</td>
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<td>Evaluation Paper 2</td>
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<td>Evaluation Paper 3</td>
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<td>Final Paper</td>
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<td><strong>TOTAL</strong></td>
<td>500</td>
<td><strong>100</strong></td>
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Assignment Submission Policy
Papers will be submitted via Turn It In on Blackboard by 5 p.m. the day of the assignment. Except in the case of documented emergency, no late papers will be accepted.

Additional Policies
Add any additional policies that students should be aware of: late assignments, missed classes, attendance expectations, use of technology in the classroom, etc.

Course Schedule: A Weekly Breakdown
The course is divided into 4 sections or units. Each week will be composed of a selection of “hackers” on a different theme.

The four areas are: thought, sound, words, and machines

Topics to be covered (tentatively) are:

Thought: Philosophy, Politics, and Science

WEEK ONE: Hacking the Mind
This week will explore the context of philosophical discourse not as a history of ideas, but as a rich space of context and innovation which has challenged and given rise disruption in the broader discourse as well.
Readings:
Robert N. Gaines “Knowledge and Discourse in Gorgias’s "On the Non-Existent or On Nature" Philosophy &
David Hume, Of Miracles from An Enquiry Concerning Human Understanding.
Friedrich Nietzsche, On Truth and Lies in a Nonmoral Sense

WEEK TWO: Hacking Gender
This class will examine the ways in which the concept of gender has been disrupted both as a social and political
category.

Readings:
Judith Butler, Gender Trouble, pp. 1-34
Sandra Harding, The Science Question in Feminism, pp. 30-57, “Gender and Science: Two Problematic Concepts”
Elizabeth Cady Stanton, The Solitude of Self, History of Woman Suffrage, Elizabeth C. Stanton et al., eds., vol. 4,
1902.

WEEK THREE: Hacking Science
How does science change? More often than not it is a gradual process, but occasionally we find ourselves in
moments of revolution. In this class we will explore how those revolutions happen and how context, as much as
content, shapes science.

Readings:
Thomas Kuhn, The Structure of Scientific Revolutions, pp. 1-10; 66-91
Charles Darwin, On The Origins of Species, “Natural Selection”
Brian Greene, The Elegant Universe, pp. 6-14 “Tied Up with String”
Richard Feynman, Surely, You Must Be Joking Mr. Feynman!, Norton: 1985, 352pp.

WEEK FOUR: Hacking Society
This week we examine two moments of historical and revolutionary change in the world: the birth of communism
as a political philosophy and the emergence of civil rights in America in the 1960s. What are the contexts in which
political revolution occur? How do issues of politics, war, social inequality and economics make this kind of large
scale social hacking possible?

Readings:
Karl Marx, The Communist Manifesto
Mao Zedong, Quotations from Chairman Mao Tse-tung, pp. 1-57.

EVALUATION PAPER ONE DUE

Sound: Noise, Music, Genre

WEEK FIVE: Sound and Noise

What makes something music or sound instead of just “noise?” This week we explore the construction of how
music is understood in the context of noise, silence, and meaning as it is attributed to both.

Readings:
John Cage, Silence: Lectures and Writings, pp. 67-76 “History of Experimental Music in the US”
WEEK SIX: Music as Politics

There is almost no moment of social or political significance that hasn’t had a soundtrack or theme song. We will look at the ways in which political issues both create a context for music to have meaning, as well as stifle the possibilities for musical expression.

Readings:
Neil Slaven, Electric Don Quixote: The Definitive Story of Frank Zappa, pp. 3-65.
Lauren Duca, By The Way, Mozart Had An Equally Talented Sister, Huffington Post, 10/30/2015

WEEK SEVEN: Music

Music provides a language all to itself as a means for expression. How is music a medium for communicating what can’t be said any other way? What kinds of breakthroughs in context gave rise, shape, and from the idea of “music” itself?

Readings:
David Byrne, How Music Works, pp. 9-74. “Creation in Reverse” and “My Life in Performance”
Bach, Brandenburg Concertos (album)
Mozart, The Magic Flute (album)
Phil Spector and the Beatles, Sergeant Pepper’s Lonely Hearts Club Band (album)

WEEK EIGHT: Music as Remix

Born out of a particular set of needs and at a particular time in American history, rap and hip hop emerged as a unique form of music. How and why did that happen and what are the aspects that allow rap to hack music as well as hack culture at large?

Readings:
NWA, Straight Outta Compton (film)
Grandmaster Flash, The Message (album)

EVALUATION PAPER TWO DUE

Words: Play, Literature, News

WEEK NINE: The Play is the Thing

Language is an amazing instrument. Everyone seems to know it, but no one seems to be in control of it. How does language shape how we see the world? How does how we see the world shape language? How is play a form of hacking?

Readings:
William Shakespeare, Hamlet, full text

WEEK TEN: Science Fiction: Dreams into Action
We we look at a specific genre of literature, we can begin to ask how it is that science fiction shapes the world we live in? Is it truly as Tom Disch argues the dreams our stuff is made of?

Readings:
Ursula K. LeGuin, *The Left Hand of Darkness*, full novel
Tom Disch, *The Dreams Our Stuff Is Made Of*, pp. 57-77, 115-137. “From the Earth to the Moon in 101 Years” and “Can Girls Play Too?”
HG Wells, *Predictions: Atomic Bombs* (1914)

WEEK ELEVEN: Breaking News
From the classic days of print to the era of Google News, the medium of news reporting has undergone radical changes. How has news been hacked by various forms, institutions and players outside of the news business?

Readings:
Hunter S. Thompson, *Fear and Loathing in Las Vegas*, full novel
Orsen Welles, *Citizen Kane* (viewing)

WEEK TWELVE: Fiction, Imagination, Reflection
Literature remains one of the most powerful forces we have to shape our understanding of the world. One of its most compelling qualities is the power to imagine and reflect on our world. How does that voice from within emerge and what are the contexts that shape and give it meaning?

Readings: (students will select one novel)
David Foster Wallace, *Infinite Jest*
Toni Morrison, *The Bluest Eye*
Sandra Cisneros, *The House on Mango Street*

**EVALUATION PAPER THREE DUE**

**Machines: Invention, Code, Networks**

WEEK THIRTEEN: Invention

We all like to imagine innovation as the work of individual genius. However, when we dig deeper, we can often see that innovation without context rarely produces anything of note. So how did we invent the 21st century? What created the context? What made this all possible?

Readings:

WEEK FOURTEEN: Communication
The 20th and 21st century can be understood as an age of communication. What are the elements of this communication revolution? How many of them are really new? What is the context of innovation that ushered in these radical changes?

Readings:
Tom Standage, *The Victorian Internet*, pp. 105-145.
Vint Cerf, *The Internet is for Everyone* [https://www.ietf.org/rfc/rfc3271.txt](https://www.ietf.org/rfc/rfc3271.txt)

**WEEK FIFTEEN: Hacker Culture**
What are “hackers” in the truest sense? How did computer culture emerge from a world of criminals, hippies, countercultural misfits, and geniuses?

Readings:
Fred Turner, *From Counterculture to Cyberculture* pp. 141-174. “Virtuality and Community on the WELL”

**WEEK SIXTEEN: Cupertino and Beyond**
The two giants: Apple and Google. What were the conditions that allowed them to emerge when they did in the ways they did?

Readings:

**EVALUATION PAPER FOUR DUE**
**FINAL PAPER DUE AT THE TIME AND DATE SET BY UNIVERSITY FOR FINAL EXAM**

**Statement on Academic Conduct and Support Systems**

**Academic Conduct**
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* [https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions](https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions). Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, [http://policy.usc.edu/scientific-misconduct](http://policy.usc.edu/scientific-misconduct).

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* [http://equity.usc.edu](http://equity.usc.edu) or to the *Department of Public Safety* [http://adminopsnet.usc.edu/department/department-public-safety](http://adminopsnet.usc.edu/department/department-public-safety). This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* [http://www.usc.edu/student-affairs/cwm/](http://www.usc.edu/student-affairs/cwm/) provides 24/7 confidential support, and the sexual assault resource center webpage [http://sarc.usc.edu](http://sarc.usc.edu) describes reporting options and other resources.

**Support Systems**
A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* [http://dornsife.usc.edu/ali](http://dornsife.usc.edu/ali), which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* [http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* [http://emergency.usc.edu](http://emergency.usc.edu) will
provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Emergency Preparedness/Course Continuity in a Crisis:
In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies.