

# THE ARTIFICIAL OTHER



**Course Description:** Can we say that there's an "ideal" automated society for human beings? How can we live in a world with so many hi- and low-tech options, especially when these technologies increasingly intrude upon our organic selves? Our machines are to a great extent mirrors of human ambition.

Does technology open us up to another way in which the world might be imagined, and perhaps even sensitize us to the richness and complexity of the human search for meaning?

In this course we will examine how people envisage and interact with digital technology. My hope is that by observing the otherness of past technoscapes, as well as emerging ideas about machines and information systems, we will achieve a certain critical distance from our current (and private) concerns. This distance will help us make informed and creative social choices, now and for the future.

We will appreciate the relative uniqueness of human intelligence and the reinvention of ourselves in a computational universe. We'll examine sources of human and machine anomie and equilibration in contemporary times, and exhume the machine metaphors dominating and circumscribing our lives and our civilization. We'll re-imagine humanity in a world of artificial intelligences, confront various calls for a post-biological universe, and explore opportunities for computer-aided creativity.

## Instructor:

Dr. Philip Frana  
([franapl@jmu.edu](mailto:franapl@jmu.edu))  
Associate Professor of IdLS +  
Associate Director, Honors  
Program

(540) 568-4364  
[franapl@jmu.edu](mailto:franapl@jmu.edu)



**Meets:** MWF 10:10-11 AM

**Office Hours:** MWF 11- 12 and by appt.

*Texts are provided from The Artificial Other Reader (comp. by Philip Frana)*

Students will be expected to purchase a Logitech USB desktop microphone (PN 980186-0403) or similar for about \$30 and download a copy of the free audio editor and recorder Audacity.



### Learning Objectives:

- Evaluate the originality/creativity of scholarship by expressing and evaluating the context (historical, literary, cultural, and/or philosophical significance) of various authors' approaches or strategies.
- Independently transfer skills, abilities, theories, and methodologies acquired in an interdisciplinary instructional situation to new situations to solve complex research and creative problems in a project of one's own design. Express insight and originality in projects by synthesizing primary resources accurately with secondary sources.
- Formulate and develops insightful claims with compelling reasoning, evidence, and persuasive appeals, using professional standards of attribution.
- Articulate your own worldview, life rules, and practices in order to appraise the views of – and constructively engage those – who hold radically different worldviews.
- Independently create whole arguments or strategies out of multiple parts or draw conclusions by combining examples, facts, or theories from more than one field of study or disciplinary perspective.

**Office Hours:** Drop-ins and appointments by phone or email are always welcome. Find me at Hillcrest House on the second floor. Email me at [franapl@jmu.edu](mailto:franapl@jmu.edu). Or leave me a message at (540) 568-4364.

Dr. Frana curates content on the subjects covered in this class on Twitter @ArtificialOther (<https://twitter.com/ArtificialOther>).



### Assignments:

❑ **Present/Discuss/Share (30% of grade):** Help your classmates spelunk the depths of an Artificial Other topic by giving an assignment and presentation leading to a class discussion. You *must* provide a one-page handout to the group in advance. Projection tech is available for short introductory presentations. Consider this activity as preparatory to the writing of your own speculative research essay.

**Format for Presentations>** On the day before your presentation, announce the specific reading assignment(s) and then pass along to each class member a one- to two-page, single-spaced handout divided into following sections: (a) the “gist”, (b) key terms and definitions, (c) discussion questions, (d) additional reflections, comments, or insights. Examples will be

provided in class. All students will submit to Canvas no less than a three paragraph answer to one of the discussion questions.

Presenters will give a brief (10 minute) oral or A/V presentation on the topic and how it relates to or might transform their own major or discipline. Presenters will then lead a discussion, ending early enough for reflection and announcement of assignment by the next presenter.

❑ **Write a Speculative Research Essay/Position Paper (30% of grade):** A speculative essay is a potentially deep, playful, or nostalgic exploration of a significant issue or question (for example, “What would happen if . . . ?”) Your Artificial Other class essay should include an abstract, historical precedents, and critical overview of all relevant positions, but also take a clearly defined stand on the issue selected. Essays are approximately twelve double-spaced pages in length, excluding notes. A separate handout on the speculative research essay assignment will be provided in class. We have been invited to submit our essays to the online journal Digital America (<http://www.digitalamerica.org/>) at the end of the semester.

❑ **Pecha Kucha (20% of grade):** This is how we’ll do our final exam. Your Pecha Kucha will involve sharing results of your final speculative research essay. PechaKucha 20x20 is a simple presentation format where you show 20 images, each for 20 seconds. The images advance automatically and you talk along to the images. A separate handout on Pecha Kucha presentations will be handed out separately.

❑ **Librivox (20% of grade):** Each class member will select, audio record, and submit a public domain short story or book chapter related to the subject of this class to Librivox. The selection may be a work of fiction or nonfiction. LibriVox is a volunteer-run, free content, public domain project that offers an online library of audiobooks read by volunteers. LibriVox partners with Project Gutenberg and the Internet Archive under a grant from the Andrew W. Mellon Foundation. Instructions on how to do this will be provided in class.

### **Grading, Attendance:**

**Three or more** unexcused absences will automatically result in a lowered grade. Missing a class in which you are the assigned leader will also automatically result in a lowered grade.

#### Potential realized

A – Superior contributions befitting the caliber of an Honors scholar.

#### Potential not yet realized

B – Contributions acceptable, but lacking clarity, consistency, or continuity.

Contributions brief; class attendance less than stellar.

C – Fails in commitment to make acceptable contributions in one or more areas.

D – Fails in commitment to make contributions in many or nearly all areas.

F – Systematically fails to attend, share ideas, read, or write.



**Student Conduct, Registration, Disability, Inclement Weather, Religious Observation Policies:** (see also general JMU syllabus info at <http://www.jmu.edu/syllabus/>)

*Student Conduct:* James Madison University affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy. The JMU Honor Code is available from the Honor Council Web site: <http://www.jmu.edu/honor/code.shtml>.

*Registration:* Students are responsible for registering for classes and for verifying their class schedules on e-campus. The deadline for adding/dropping a fall semester class through e-campus without instructor and academic unit head signatures is September 8, 2015. Between September 8, 2015 and September 17, 2015, instructor and academic unit head signatures are required to add/drop a class for fall semester 2015. No exceptions will be made to these deadlines.

*Disability:* If you need an accommodation based on the impact of a disability, you should contact the Office of Disability Services (Student Success Center 1202, [www.jmu.edu/ods](http://www.jmu.edu/ods), 540-568-6705) if you have not previously done so. Disability Services will provide you with an Access Plan Letter that will verify your need for services and make recommendations for accommodations to be used in the classroom. Once you have presented me with this letter, you and I will sit down and review the course requirements, your disability characteristics, and your requested accommodations to develop an individualized plan, appropriate for (class number).

JMU abides by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, which mandate reasonable accommodations be provided for students with documented disabilities. If you have a disability and may require some type of instructional and/or examination accommodations, please contact me early in the semester so that I can provide or facilitate provision of accommodations you may need. If you have not already done so, you will need to register with the Office of Disability Services, the designated office on campus to provide services for students with disabilities. The office is located in Student Success Center 1202 and you may call 540-568-6705 for more information.

*Inclement Weather:* See JMU's policy at <http://www.jmu.edu/JMUpolicy/1309.shtml>.

*Religious Observation Accommodations:* All faculty are required to give reasonable and appropriate accommodations to students requesting them on grounds of religious observation. The faculty member determines what accommodations are appropriate for his/her course. Students should notify the faculty by no later than the end of the Drop-Add period the first week of the semester of potential scheduled absences and determine with the instructor if mutually acceptable alternative methods exist for completing the missed classroom time, lab or activity.

## Possible topics for your presentation + paper

- Artificial Intelligence + Machine Learning
- Automation, Future of Work + Unemployment
- National Security
- Privacy + Surveillance
- Sousveillance
- Generative Art, Music + Theater
- Neuromarketing
- Consciousness, Collective Intelligence + the Noosphere
- Gamification
- Memory + Forgetting
- Lifelogging + the Quantified Self
- Lifehacking
- Fembots + Gynoids
- Gender + Gaming
- Drones + Autonomous Systems
- Cybersex, Lovotics + Objectum Sexuality
- Augmented Reality
- Technology, Empathy + Narcissism
- The Simulation Hypothesis + Digital Physics
- Personhood for Animals + Machines
- Technology + Religion
- Embodiment + Digital Souls
- Posthumanism
- Mind Uploading + Digital Immortality
- Simulation Hypothesis + Holographic Universe
- Complexity, Emergence + Swarm Intelligence
- Nootropics + Re-Programming the Self
- Robot Rights + Law
- Synthetic Biology
- Video Game Addiction
- AI + Popular Culture
- Neurocrime + Neurolaw
- Artificial or In Vitro Meat
- Nanotechnology, Nanoscience + Nanomedicine
- Cyberwar
- Driverless Cars + Intelligent Transportation
- Robotics + Ethics
- Biohacking + Nootropics
- Transhumanism + Singularitarianism
- Cryptocurrency + Digital Capitalism
- Postscarcity
- Cybernetics
- Digital Ethnography
- Data Science + Big Data
- Automatism + Law
- Digital Communications, Journalism + Social Media
- Crowdsourcing + Crowdfunding
- Computing + Religion
- Robotics + Space
- Software Studies + Computer History + Museums
- Smart Cities + Ubiquitous Technology
- Geoengineering
- 3D Printing + Manufacturing
- Virtuality, Virtual Reality + Virtual Worlds
- Cyborgs, Cyberpunk, Cyberculture + Biopunk
- Computational Creativity
- Ed Tech + eLearning
- Philosophy + Consciousness + Cognition
- Biomimetics, Biorobotics + Bionics
- Wearable Computing
- Augmented Reality
- Internet of Things

- Mechanical Philosophy
- eSports + Gaming
- Automation + Agriculture Robotics + Therapy
- 3D Printing + Artificial Organs
- Biotechnology + Neurotech
- Leisure + Automation
- Science Fiction + Digital Futurism
- Artificial Life ("ALife")
- Medical/Nursing Informatics + Health Informatics
- Genetic Algorithms + Evolutionary Programming
- Recursion + Paradox
- Synesthesia + Lucid Dreams
- Synthetic Biology ("Synbio")
- Dematerialism
- Affective Computing
- Nanocosmetics
- Nanobots + Smart Dust
- Art, Tech + Aesthetics
- Computers, Dating + Lovotics
- ("Objectum Sexuality")
- Nowcasting
- Quantum Computing + Qubits
- eGovernment ("eGov")
- Inanimates and Sentience
- Stack overflow, Infinite Loops + Error
- Videogames + Ludology
- Simulation + Simulacra
- Biomechatronics

**Fall 2015 Schedule:**

| <b>Monday</b>   | <b>Wednesday</b>  | <b>Friday</b>   |
|---|---|---|
| <b>Aug 31</b><br><i>Introduction</i>  | <b>Sept 2</b><br><i>Where is my self? Why am I me?</i><br><br><b>Reading:</b> Dennett, "Where Am I?"<br><b>Suggested Film:</b> <i>My Dinner with Andre</i>  | <b>Sept 4</b><br><i>What is life?</i><br><br><b>Reading:</b> Turkle, "Are Smart Machines Alive?"<br><b>Suggested Film:</b> <i>Blade Runner</i>  |
| <b>Sept 7</b><br><i>What is intelligence?</i><br><br><b>Reading:</b> LaChat, "Artificial Intelligence and Ethics: An Exercise in the Moral Imagination"<br><br><b>Suggested Film:</b> <i>Dark Star</i>  | <b>Sept 9</b><br><i>In class activity: Turing Test</i><br><br><b>Suggested Film:</b> <i>Ex Machina</i>  | <b>Sept 11</b><br><i>Is instinct like programming?</i><br><br><b>Reading:</b> Searle, "Is the Brain a Digital Computer?"<br><br><b>Suggested Films:</b> <i>Demon Seed, Altered States</i>   |
| <b>Sept 14</b><br><i>Do we live in a computational universe?</i><br><br><b>Readings:</b> Bostrom, "Are You Living in a Computer Simulation?" & Hanson, "How to Live in a Simulation"<br><br><b>Suggested Films:</b> <i>Matrix</i> trilogy, <i>Source Code</i> | <b>Sept 16</b><br><i>What does quantification and memory say about who we are?</i><br><br><b>Reading:</b> Mod, "Paris and the Data Mind"<br><br><b>Suggested Film:</b> <i>The Final Cut, Memento, Eternal Sunshine of the Spotless Mind</i> | <b>Sept 18</b><br><i>What does popular culture teach us about our relationships with machines?</i><br><br><b>Reading:</b> Britton, "Otacool Nation: Trends of Japanese Otaku Youth"<br><b>Suggested Film:</b> <i>Great Happiness Space: Tale of an Osaka Love Thief</i><br><b>Suggested Manga:</b> <i>Absolute Boyfriend, Chobits</i> |
| <b>Sept 21</b><br><i>Gadget freakery: Is there a technological solution to every problem?</i><br><br><b>Reading:</b> Madrigal, "Are We Addicted to Gadgets or Indentured to Work?"<br><br><b>Suggested Film:</b> <i>Her</i>                                   | <b>Sept 23</b><br><b>Zachary Gordon</b><br><i>Personhood for Animals and Machines</i><br><br><b>Suggested Documentary:</b> <i>Inside the Animal Mind</i><br><b>Suggested Website:</b> <i>The Status Project</i>                             | <b>Sept 25</b><br><b>Sarah Miller</b><br><i>Personhood for Animals and Machines</i><br><br><b>Suggested Documentary:</b> <i>A Murder of Crows</i><br><b>Suggested Film:</b> <i>Robot + Frank</i>  |

|   |   |   |
|---|---|---|
| <p><b>Sept 28</b><br/><b>Cassidy Jackson</b><br/><i>Nature, Technology + Psychology</i></p> <p><b>Suggested Films:</b> <i>No Impact Man, Ghana: Digital, Silent Running, Dumping Ground, Manufactured Landscapes</i></p>                                | <p><b>Sept 30</b><br/><b>Hannah Pellegrino</b><br/><i>Technology + Child Development</i></p> <p><b>Suggested Documentaries:</b> <i>Web Junkie, Generation Like, No Time to Think, Love Child</i></p>                        | <p><b>Oct 2</b><br/><b>Edel Rimando</b><br/><i>Embodiment + Digital Souls</i></p> <p><b>Suggested Film:</b> <i>Being John Malkovich, Surrogates, Frankenstein</i></p>   |
| <p><b>Oct 5</b><br/><b>Emily Seward</b><br/><i>Genetic Algorithms + Evolutionary Programming</i></p> <p><b>Suggested Simulation Software:</b> <i>StarLogo, Conway's Game of Life, Traveling Salesman Problem, NP-complete, Art of Jon McCormack</i></p> | <p><b>Oct 7</b><br/><b>Kimberly Hearn</b><br/><i>Virtuality, Virtual Reality + Virtual Worlds</i></p> <p><b>Suggested Films:</b> <i>The Matrix; The Thirteenth Floor</i></p>  | <p><b>Oct 9</b><br/><b>Matthew Petty</b><br/><i>Virtual and Augmented Reality</i></p> <p><b>Suggested Films:</b> <i>Sight, Avatar, Minority Report</i><br/><b>Suggested Games and Apps:</b> <i>Ingress, Wikitude</i></p>  |
| <p><b>Oct 12</b><br/><b>Shayla Holloway</b><br/><i>Synesthesia + Lucid Dreams</i></p> <p><b>Suggested Films:</b> <i>Inception, Paprika</i></p>  | <p><b>Oct 14</b><br/><b>Sara McMillan</b><br/><i>Neurocrime + Neurolaw</i></p> <p><b>Suggested Film:</b> <i>Minority Report</i></p>   | <p><b>Oct 16</b><br/><b>Drew Barrar</b><br/><i>Neurocrime + Neurolaw</i></p> <p><b>Suggested Films:</b> <i>I, Robot; Colossus: The Forbin Project</i></p>   |
| <p><b>Oct 19</b><br/><b>Nicole Bauernfeind</b><br/><i>Nursing Informatics</i></p> <p><b>Suggested Films:</b> <i>Big Hero 6, Coma, The Psychophonic Nurse</i></p>  | <p><b>Oct 21</b><br/><b>Kristen Frank</b><br/><i>Health + Wearable Computing</i></p> <p><b>Suggested Documentary:</b> <i>Make It Wearable: Human Health</i><br/><b>Suggested Short Film:</b> <i>The Quantified Self</i></p> | <p><b>Oct 23</b><br/><b>Allison Pinello</b><br/><i>eSports + Cyberathletics</i></p> <p><b>Suggested Documentaries:</b> <i>Free to Play, King of Kong, State of Play, Frag, Second Skin</i><br/><b>Suggested Film:</b> <i>Tron, Tron Legacy, The Running Man</i></p> |
| <p><b>Oct 26</b><br/><b>James Moresco</b><br/><i>Digital Communications, Journalism + Social Media</i></p> <p><b>Suggested Films:</b> <i>The Social Network, Catfish, Me and You and Everyone We Know</i></p>   | <p><b>Oct 28</b><br/><b>Timothy Strykiewicz</b><br/><i>Driverless Cars + Intelligent Transportation</i></p> <p><b>Suggested Films:</b> <i>Christine, Total Recall (1990), Minority Report</i></p>                           | <p><b>Oct 30</b><br/><b>Steven Young</b><br/><i>Quantum Computing</i></p> <p><b>Suggested Documentary:</b> <i>Absolute Zero</i><br/><b>Suggested Film:</b> <i>Sneakers</i></p>  |



|  |   |  |
|--|---|--|
| <p><b>Nov 2</b><br/> <b>Zackary Zayakosky</b><br/> <i>Transhumanism</i></p> <p><b>Suggested Films:</b><br/> <i>Transcendence, Ghost in the Shell, X-Men: First Class, Edward Scissorhands</i></p> <p><b>Suggested Documentaries:</b><br/> <i>Transcendent Man, The Singularity</i></p>                         | <p><b>Nov 4</b><br/> <b>Automation and Work</b></p> <p><b>Readings:</b> Markoff, “Skilled Work, Without the Worker” &amp; Regalado, “When Machines Do Your Job”</p> <p><b>Suggested Film:</b></p> | <p><b>Nov 6</b><br/> <b>Gamification</b></p> <p><b>Readings:</b> Beza, “How Games Can Level Up Our Everyday Life” &amp; Jiang, “The Dangers of Gamification”</p> <p><b>Suggested Video:</b> World of WifeCraft<br/> <b>Suggested Game:</b> ChoreWars</p> |
| <p><b>Nov 9</b><br/> <b>Post-Scarcity and Programming</b></p> <p><b>Reading:</b> Schofield, “The Economics of Abundance” &amp; Post-Scarcity Princeton</p> <p><b>Suggested Franchises:</b> <i>Star Trek, The Venus Project, Disney World</i></p> <p><b>Suggested Films:</b> <i>Zardoz, Elysium, Wall-E</i></p> | <p><b>Nov 11</b><br/> <b>Dematerialization</b></p> <p><b>Reading:</b> Herman, et al., “Dematerialization”</p> <p><b>Dematerialized Objects:</b> Music, Films, Books, Games</p>                    | <p><b>Nov 13</b><br/> <b>Librivox tutorial</b></p>   |
| <p><b>Nov 16</b><br/> <b>Librivox work day</b></p>   | <p><b>Nov 18</b><br/> <b>The History of Mechanical Philosophies: Cyborgs, Cyberpunk, and Biopunk</b></p>  | <p><b>Nov 20</b><br/> <b>First draft of speculative research essay due</b></p>   |
| <p><b>Nov 23-27</b><br/> <b>THANKSGIVING BREAK</b></p>   | <p><b>Nov 25</b><br/> <b>THANKSGIVING BREAK</b></p>   | <p><b>Nov 27</b><br/> <b>THANKSGIVING BREAK</b></p>  |
| <p><b>Nov 30</b><br/> <b>Persuasive Technologies and Smart Cities</b></p> <p><b>Reading:</b> Verbeek, “Ambient Intelligence and Persuasive Technology: The Blurring Boundaries Between Human and Technology”</p> <p><b>Suggested Cities:</b> Songdo IBD (Korea), Masdar City (Abu Dhabi)</p>                   | <p><b>Dec 2</b><br/> <b>Digital Maoism and the Hive Mind</b></p> <p><b>Reading:</b> Lanier, “Digital Maoism” &amp; Kelly “Hive Mind”</p> <p><b>Suggested Film:</b> <i>The Technium</i></p>        | <p><b>Dec 4</b><br/> <i>Wrapping Up/Concluding Thoughts</i></p>  |
| <p><b>Dec 7</b><br/> <i>Wrapping Up/Concluding Thoughts</i></p>  | <p><b>Dec 9</b><br/> <b>Pecha Kucha Final</b><br/> <b>Final version of speculative research essay due</b></p>   | <p><b>Dec 11</b><br/> <b>Pecha Kucha final</b><br/> <b>Pecha Kutch final during exam week (12/16 @ 8-10 AM)</b></p>  |

