

Communication 359 Syllabus: Algorithmic Cultures

Spring 2020

Mondays 11:00am-12:50pm in CAC 237

Course website: Canvas

Instructor: Alex Ingersoll - alex.ingersoll@uwsp.edu

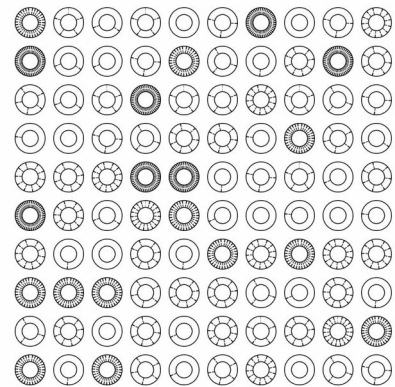
Office Hours: (CAC 309) Tue & Thur 2:00-3:00pm

Course Objectives¹

*"If we want to live with the machine, we must understand the machine,
we must not worship the machine."*

-Norbert Wiener

From TikTok and YouTube, to eHarmony, Google, and Minecraft, we're constantly using algorithms to run our lives. From a series of critical perspectives in media studies, we will interrogate the interplay among culture, history, industry, technology, and often digitally-mediated algorithmic systems. By considering the links between theory and practice, this seminar will enable students to critically examine the increasing influence that algorithms play on our daily lives.



The story of our world is increasingly a story of automation or algorithms. At a fundamental level, algorithms are methods that we have invented to reduce human labor, which are inventions that we have developed over hundreds (even thousands) of years. Algorithms are not just intricate technological objects: algorithms have social histories with material repercussions in the world. As cultural products they are part of a wider apparatus of social change. Analyzing algorithms from a media studies perspective can provide insights into entangled links between technology and culture. Indeed, with the advent of digital technology, algorithms have become a central feature for how we assemble, use, manage, mediate, store, and profit from social and cultural life. Algorithms are now regularly used to write and curate news, personalize recommendations, set prices and organize driving directions, determine credit scores, regulate matches on dating websites, etc. We are all analyzed by algorithms every day, often without realizing it. This course will ask students to question the implications of automated, computational processes that treat culture as data by surveying theories of technology and histories of algorithms, applications of these theories and histories to specific case studies, and linking these studies to everyday themes such as race, class, gender, and power in order to provide openings for students to develop critical interventions into the transformational organization of power and culture.

Evaluation

Your final grade in this course is a composite of the different assignments listed below. Detailed explanations of each assignment will be given in class at the appropriate times.

¹ This syllabus is subject to change as my opinions change and evolve, especially with your help and guidance.

<u>Assignments</u>	<u>Total</u>
Weekly Participation and Discussion Leader	30%
Six Reaction Commentaries	5% per commentary (30% total)
Final Paper/Project	40%

Grade Breakdown

A (100-93.5%) A- (93.4-89.5%) B+ (89.4-86.5%) B (86.4-83.5%) B- (83.4-79.5%) C+ (79.4-76.5%)
 C (76.4-73.5%) C- (73.4-69.5%) D+ (69.4-66.5%) D (66.4-59.5%) F (<59.4%)

Evaluation Cont.

Since the success of this class depends upon your presence in class, it is expected that you will come to every class on time and ready to engage in the day's materials. Students who attend every single meeting will see their diligence reflected both in their overall grade, and most likely, in the quality of their work. For an absence to be considered excused, you must present University-approved documentation. Your second unexcused absence will result in 1 full letter grade deducted from your total quiz grade. Your third will result in 1 full letter grade deducted from your overall grade. Lateness of more than ten minutes will count as 1/2 of an absence. (Repeated lateness of less than ten minutes will also add up to an absence, at my discretion). **If you have four unexcused absences, you will fail the course.** If you do miss a class, please be sure to check with me and/or your classmates for what you missed and make sure you receive any assignments, handouts, etc.

General Requirements

There are a number of expectations that are common to each class at UWSP but I want to emphasize:

1. **If you plagiarize the work of others, you will fail the course.** Please be aware of what plagiarism entails (<http://www.plagiarism.org>). Proper citation is REQUIRED for ALL sources, including information you use from Internet publications and sites. Also, remember that you CANNOT legally use someone else's music or art work UNLESS you get written permission from the copyright holder, or unless you purchase a license allowing you to use specific music or images. The only exception is if the work in question is in the public domain or explicitly states that you may use it free of charge. Any student caught plagiarizing will receive a grade of "F" for the class.
2. All cell phones must be turned off before class, **no excuses (unless it relates to class materials!!!)**. You may use your computer for class but you cannot be using it for leisure purposes. Any time the room is dark, you may not create any light.
3. Creating an environment of mutual respect is *paramount* to successful work. While difference of opinions and vigorous debate are highly encouraged, you will be expected to refrain from using disparaging remarks (e.g., sexist, racist, homophobic language). **The material presented in class may challenge you and I expect you to approach these materials in the spirit of the wider educational environment.** The selection of these materials are intended to spark a healthy discussion and I expect mature and respectful interactions. All reactions will be welcomed in class and respected, and they will be received in the spirit of extending discussion rather than forestalling it.
4. Late assignments are highly discouraged. **I will not accept any assignment, quiz, or other class material past the due date.** Please don't come to class without homework due to technical difficulties (my computer crashed, printer ran out of ink, not enough batteries, etc.). Don't wait until the last minute to do your work. If you do, you will be rushed, your work will suffer and you won't have time to deal with the *inevitable* computer issues.

Communicating with Me

The best way to talk to me is during my office hours. I am available over email but it may take me a day to respond. This means that you will need to ask questions about assignments more than 24 hours before they are due. If you are having problems completing the assignments, you need to communicate the issues with me at least 24 hours before the assignment is due so we may lay out alternative courses of action. Please remember that I do not know everything and am often up to date on assignments. There is a great importance in completing assignments!²

Community Bill of Rights and Responsibilities

UW-Stevens Point values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, we have developed a set of expectations for all students and instructors. This set of expectations is known as the *Rights and Responsibilities* document, and it is intended to help establish a positive living and learning environment at UWSP.

Academic integrity is central to the mission of higher education in general and UWSP in particular. Academic dishonesty (cheating, plagiarism, etc.) is taken very seriously. Don't do it! The minimum penalty for a violation of academic integrity is a failure (zero) for the assignment. For more information, see the UWSP "Student Academic Standards and Disciplinary Procedures" section of the *Rights and Responsibilities* document, Chapter 14, which can be accessed here: <https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx>

Assistive Accommodations

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. For more information about UWSP's policies, check here: <https://www.uwsp.edu/hr/Pages/ADA-Resources.aspx>

If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center and then contact me at the beginning of the course. I am happy to help in any way that I can. For more information, please visit the Disability and Assistive Technology Center, located on the 6th floor of the Learning Resource Center (the Library). You can also find more information here: <https://www.uwsp.edu/datc/Pages/default.aspx>

² Portions of this section may have been completed with the GPT-2 machine learning algorithm. To me the most surprising thing about this algorithm, especially on a university campus, is the ability to pull school data that was collected over twenty years ago (in the 90's). It's almost unbelievable. It takes a well-crafted algorithm and a fair bit of imagination to use it properly, but here's a sneak peak at how to do it. In order to use this algorithm effectively, you must put in a fair amount of imagination when selecting the data to pull. There are a few features you should be looking for. The first thing you should think about is whether you want a list of all of the phone numbers your spouse has ever received a call from. Or if you want all of the phone numbers your spouse has received calls from in the last 6 months. This is a bit like creating a Z-score for each number. It gives you a pretty good idea of who your spouse spends the most time with, and if you want to be removed from that list entirely. The next step would be to find out if any of the people you're worried about are frequent dialers. If you do this, you'd be able to set up some sort of call screening.

Course Schedule

Week 1 - No Class

1/20	<i>No Class - MLK Jr. Day</i>
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Week 2 - What's an Algorithm? Why Should We Care?

1/27	<p>Introduction and course overview</p> <p>-Gillespie "Algorithm"</p> <p>-Tolentino, "How TikTok Holds Our Attention," <i>The New Yorker</i>: (Best viewed online, PDF version on Canvas): https://www.newyorker.com/magazine/2019/09/30/how-tiktok-holds-our-attention</p> <p>-Botella, "TikTok Admits It Suppressed Videos by Disabled, Queer, and Fat Creators," <i>Slate</i>: https://slate.com/technology/2019/12/tiktok-disabled-users-videos-suppressed.html</p>
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Week 3 - **If A = 1, Then: Thinking Algorithmically - Step 01**

2/3	<i>{In class exercises exploring basic algorithmic functions}</i>
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Week 4 - What Algorithms Want: Imagination in the Age of Computing

2/10	-Finn, "Introduction," "What is an Algorithm?," & "The Algorithmic Imagination"
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Week 5 - **If A = 2, Then: Thinking Algorithmically - Step 02**

2/17	<i>{In class exercises exploring basic algorithmic functions}</i>
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Week 6 - The Burden of Choice: Recommendations, Subversion, & Algorithmic Culture

2/24	-Cohn, "Introduction: Data Fields of Dreams" & "A Brief History of Good Choices"
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Week 7 - **If A = 3, Then: Thinking Algorithmically - Step 03**

3/2	<i>{In class exercises exploring basic algorithmic functions}</i>
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Week 8 - Algorithmic Rabbit Holes & Traps

3/9	<p>-Seaver, "Captivating Algorithms: Recommender Systems as Traps"</p> <p>-Roose, "The Making of a YouTube Radical": https://nyti.ms/2XHEbru</p> <p>-Roose, "YouTube's Product Chief on Online Radicalization and Algorithmic Rabbit Holes": https://nyti.ms/2CLcSUT</p> <p>-Beta, "How a Digital Rabbit Hole Gave Midori Takada's 1983 Album a Second Life": https://nyti.ms/2GE90nF</p>
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3/16 *-No Class - Spring Break*

Week 9 - **If A = 4, Then: Thinking Algorithmically - Step 04**

3/23	<i>{In class exercises exploring basic algorithmic functions}</i>
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Week 10 - If... Then: Algorithmic Power & Politics {01: Facebook}

3/30	<p>-Bucher, "Life at the Top: Engineering Participation"</p> <p>-Final Paper/Project Proposal DUE</p>
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Week 11 - If... Then: Algorithmic Power & Politics {02: Personal Algorithm Stories}

4/6	-Bucher, "Affective Landscapes: Everyday Encounters with Algorithms"
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Week 12 - If... Then: Algorithmic Power & Politics {03: Algorithms in the News}

4/13	-Bucher, "Programming the News: When Algorithms Come to Matter"
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Week 13 - Criminal Justice & Algorithmic Control

4/20	-Angwin, Larson, Mattu, & Kirchner, "Machine Bias,": https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing -Diakopoulos, "The Algorithms Beat,": https://datajournalism.com/read/handbook/two/investigating-data-platforms-and-algorithms/the-algorithms-beat-angles-and-methods-for-investigation -Chammah, "Policing the Future,": https://www.themarshallproject.org/2016/02/03/policing-the-future -Explore: https://www.propublica.org/series/machine-bias
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Week 14 - Automating Inequality

4/27	-Eubanks, "The Allegheny Algorithm"
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Week 15 - Ethics of Algorithms

5/4	-Mittelstadt, Allo, Taddeo, Wachter, & Floridi, "The Ethics of Algorithms: Mapping the Debate" -Sandvig, Hamilton, Karahalios, & Langbort, "When the Algorithm Itself is a Racist"
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Final Exam Session

5/11 - 8:00am	Final Paper/Project DUE
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