

Writing and Rhetoric in an Age of Algorithms

John Gallagher
johnhg@illinois.edu

Office Hours: Wednesday 12:30-1:30, by appointment
Office: EB 243

Course Description:

This course examines the role of algorithms in digital writing and rhetoric. It asks students to critique procedures and instructions as they relate to writing processes and production. The course covers rhetorical theory in economic, mathematical, and digital contexts. Students are asked to critique an algorithm of their choice, design a writing interface to facilitate algorithms, and write two papers drawing on course texts and outside research.

Course Questions:

- How do procedures and instructions relate to writing?
- What is the role of writing with respect to online content and digital delivery mechanisms?
- How are digital rhetoric, algorithms, and the internet, related?
- What groups and communities are at risk in an age of algorithms? How might we protect these (and other) groups from algorithmic procedures while taking advantage of procedural rhetoric?
- How might we design interfaces and templates to minimize the risk of algorithms and increase oversight over algorithms?

Texts:

- *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* by Cathy O'Neil
- A variety of articles are assigned and available through our course management system as PDF or by direct hyperlink

Assignments:

- 1) **In-class participation (20%).**
- 2) **Interface design poster (20%).** You are to reimagine a current interface so that it could collect data (a) more efficiently and (b) provide users with wider means of expression. We will have a poster session in October.
- 3) **Unboxing an Algorithm (30%).** For your mid-term, you are to research the values and ideology of a chosen algorithm.
- 4) **For undergraduates: Taxonomy Project (30%).** For your final project, you must create a taxonomy of our readings from the semester as well as five academic articles and five online articles you have researched on your own. You must create categories that separate our readings from one another while providing an extensive rationale for these categories.

For graduates: Annotated bibliography and literature review (30%). We'll work on these one-to-one and develop them in concert with your research interests. You must use a citation management software.

Classroom Community Policy:

- 1) You are expected to submit all assignments, readings, and writings by the announced due date. Late assignments and lack of preparation will be marked down. This includes bringing any texts to class if we are using them. You are responsible for printing them out.

Writing and Rhetoric in an Age of Algorithms

John Gallagher
johnhg@illinois.edu

Office Hours: Wednesday 12:30-1:30, by appointment
Office: EB 243

- 2) Cell-phone use is not allowed in class. If you need to text, hide it well.
- 3) If you are called on, I expect you to answer to the best of your ability. It is perfectly acceptable to be unsure of your answer—that is the goal of higher education: to take risks. I reward risk-taking. I encourage you to think and venture an answer.
- 4) Everyone in class has different levels of comfort. I expect all members of our community to respect one another. For those individuals who are more comfortable talking, I expect you to ask your fellow classmates questions to encourage them to add to our discussion. For those less comfortable, I expect you to make an attempt to add your thoughts to the discussion, even if it is a brief statement. Further, for those less comfortable talking in class, there will be other types of participation, which includes emailing me ideas to bring up in class, peer review, group work, and so forth. I expect everyone to listen actively to another. In this way, participation includes more than talking; it also includes listening, posing questions, and completing all in-class assignments to the best of your ability. Respect means listening, taking notes, and joining/enhancing conversations that challenge each other and your instructor using civil language and tone.
- 5) We all come from different lives and have different journeys, so we should expect and embrace vibrant disagreement and productive dissent. A democratic society cannot thrive otherwise. Therefore, I expect us to continually strive for a spirit of grace, compassion, and respect in our learning journeys (both in agreements and disagreements) for the short time we are together in this course. If at any time you feel that these expectations are not being met, please let me know as soon as possible.

Plagiarism/Academic Integrity

(http://admin.illinois.edu/policy/code/article1_part4_1-401.html):

The University of Illinois has high standards of academic integrity set out in Article 1, Part 4 of the University Student Code (copied below), which I uphold.

- (1) Policy Statement. The University has the responsibility for maintaining academic integrity so as to protect the quality of education and research on our campus and to protect those who depend upon our integrity.
- (2) Expectations of Students. It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Students have been given notice of this Part by virtue of its publication. Regardless of whether a student has actually read this Part, a student is charged with knowledge of it. Ignorance is not a defense.
- (3) Expectations of Instructors. It is the responsibility of each Instructor to establish and maintain an environment that supports academic integrity. An essential part of each Instructor's responsibility is the enforcement of existing standards of academic integrity. If Instructors do not discourage and act upon violations of which they become aware, respect for those standards is undermined. Instructors should provide their students with a clear statement of their expectations concerning academic integrity. Students Requiring Accommodations: If you have a disability that requires accommodation in order for you to be successful in this class, please let me know immediately. If you haven't already, you should contact the Division of Disability Resources and Educational Services (DRES) for accommodation support. Their website is <http://www.disability.illinois.edu/>

Writing and Rhetoric in an Age of Algorithms

John Gallagher
johnhg@illinois.edu

Office Hours: Wednesday 12:30-1:30, by appointment
Office: EB 243

Emergency Response Recommendations:

In an emergency in this building, we'll have three choices: **RUN** (get out), **HIDE** (find a safe place to stay inside), or **FIGHT** (with anything available to increase our odds for survival). Take time to familiarize yourself with the University's emergency response recommendations at <http://police.illinois.edu/emergencyplanning/general/>

Tentative Schedule

- M (8/27) Introduction to course and algorithms
W (8/29) Laquintano and Vee's "[How Automated Writing Systems Affect the Circulation of Political Information Online](#)" (2017)

Part I: Defining Algorithms

- M (9/3) Beck's "[A Theory of Persuasive Computer Algorithms for Rhetorical Code Studies](#)"
W (9/5) Robo-grading readings (on Moodle) and tricking machine readers
M (9/10) Carnegie's "Interface as Exordium: The Rhetoric of Interactivity"
W (9/12) Gallagher's "[Challenging the Monetized Template](#)" and rethinking interfaces as well as downloading user data
M (9/17) Gillespie's "The Relevance of Algorithms"
W (9/19) Assign Poster assignment. In-class synthesis and discussion of course's readings.
M (9/24) One-to-one conferences with John about posters.
W (9/26) **POSTER SESSION** with Q&A

Part II: Algorithms in Context

- M (10/1) Please pick one of these articles to discuss
(<http://journals.sagepub.com/page/bds/collections/algorithms-in-culture>)
W (10/3) Burrell's "[How the machine 'thinks': Understanding opacity in machine learning algorithms](#)"
M (10/8) Kitchin's "[Thinking critically about and researching algorithms](#)". **Assign "Unboxing an Algorithm" assignment; due November 5th.**
W (10/10) Powers' "[First! Cultural circulation in the age of recursivity](#)"
M (10/15) Thomas, Nafus, and Sherman's "Algorithms as fetish: Faith and possibility in algorithmic work"
W (10/17) **Graduate students assign 1-2 readings and lead class discussion**
M (10/22) Magalhães' "Do Algorithms Shape Character? Considering Algorithmic Ethical Subjectivation"

Writing and Rhetoric in an Age of Algorithms

John Gallagher
johng@illinois.edu

Office Hours: Wednesday 12:30-1:30, by appointment
Office: EB 243

- W (10/24) Peer review and sharing research progress (workshop)
- M (10/29) One-to-one conferences with John to discuss “unboxing” assignments
W (10/31) Carlson’s “The Robot Reporter”
- M (11/5) **Unboxing an algorithm DUE; assign and review final**
W (11/7) Massanari’s “Rethinking Research Ethics, Power, and the Risk of Visibility in the Era of the ‘Alt-Right’ Gaze”
- M (11/12) Hallinan and Striplas’ “Recommended for you: The Netflix Prize and the production of algorithmic culture”
W (11/14) Catch-up day; bring in various online articles about algorithms (perhaps in response to the elections)
- M (11/19) THANKSGIVING
W (11/21) THANKSGIVING

Part III: The Ethics of Algorithms

- M (11/26) Weapons of Math Destruction (chapters 1-3)
W (11/28) Weapons of Math Destruction (4-5)
- M (12/3) Weapons of Math Destruction (5-6)
W (12/5) Weapons of Math Destruction (7-8)
- M (12/10) Weapons of Math Destruction (9-10, conclusion)
W (12/12) Evaluations & final discussions

Final project during week of finals