

Science, Humanities, and Public Engagement
ENGLIT 2046
Spring 2021, Tuesdays, 6-8:50pm
Location: Online

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Zoom Office Hours: Fridays, 3-5pm, and by appointment

Course Description

The current pandemic seems a good time to consider the relationship between science and democratic decision-making. In this course, we will explore theories, methods, challenges, and challenges of public deliberation, especially with respect to science and technology. The course will be offered in conjunction with an art exhibition called *Art's Work in the Age of Biotechnology*. By presenting works in which artists appropriate tools and techniques that have until recently been the purview of scientists, the exhibit invites viewers to consider what they want from genomic technologies, and why. Similarly, the course invites students to articulate what they want from public engagements—and then draw on the exhibit as an opportunity to experiment with a variety of models of interdisciplinary collaboration and digital scholarship.

Participation and Collaborative Knowledge Production

In this course, you will learn in collaboration with me, with one another, and with a series of nationally and internationally recognized artists affiliated with the *Art's Work* exhibition. Because several of these artists are located in other parts of the world and all of them are juggling many commitments, some of our encounters with them will take place outside of the usual class time. I realize that because of other obligations, you may not always be able to attend, but I encourage you to make your best effort to participate. Some of our Tuesday evening discussions will be shortened to free up time for artist events on other days of the week. Please talk with me early in the semester if you have specific scheduling concerns.

As you engage with these artists, their works, and their respondents along with assigned readings, you will encounter different ways of composing knowledge and meaning. This course aims to cultivate a supportive community that respects and nurtures composition processes of all forms. As you know, academic culture emphasizes critique -- of the subjects we study, and oftentimes of ourselves and our colleagues as well. In this seminar, even in practicing critical thinking, we will cultivate the art of responding constructively. Rather than attempting to dazzle the crowd with our intellect, we will work to strengthen one another's arguments, prioritizing the difficult yet highly rewarding work of listening to one another, asking clarifying questions, and building on points that others have made. Similarly, as we consider readings, artworks, and other opinions, we will ask ourselves, *What are the strongest parts of this perspective?*, *How can this extend our thinking?* and *How might I draw on this in my teaching and/or research?* The assignments below are designed to encourage this type of collaborative knowledge production.

Assignments

Class Notes

To create a shared resource that will be helpful for everyone, one or two students will serve as an official notetaker for our synchronous class discussions as well as artist engagements and related events. Because each of us has our own attitudes, beliefs, and value systems, we are likely to interpret the same reading or conversation in different ways. Similarly, some people will pay more attention to certain parts of a text or discussion than others. Engaging with other people's accounts will deepen our own understanding. Note-takers will share their notes with the entire class via Canvas within 24 hours of class. You may type your notes or write them by hand and upload a photo. Notes can be formatted as bulleted outlines, narrative descriptions, visual notes (see <http://gforsythe.ca/visual-notes/> for examples of this approach), or in other ways.

Discussion Leadership

At each seminar meeting, following my introductory comments, a team of two students will be responsible for leading discussion during the first half of class (about 60-70 minutes). Discussion leaders should plan to meet with me no later than 2pm on the Monday before our Tuesday evening class to discuss their plans. If you would like the class to consider questions or review supplementary material before class, please post this material to Canvas by 6pm on Monday. Discussion leaders should aim to 1) offer a thorough, well-organized summary and analysis of each reading, 2) as appropriate, relate the readings to other course content, and 3) pose some thoughtful questions. It may help to focus our attention on a particular passage or two, or offer a lens through which to consider the readings.

Multimodal Reflections

Over the course of the semester, you will participate in a series of art/science events and consider their purposes, methods, and comparative advantages. You will prepare multimodal reflections on at least two events, which may include programming related to the *Art's Work* exhibition or on another event of your own choosing. Prepare your reflection with a specific audience in mind and draw attention to issues that would be of interest to them. For instance, you might address scholars and teachers affiliated with the [HASTAC](#) site, [Humanities Commons](#), [OER Commons](#), Peitho's [Recoveries and Reconsiderations](#), the Science and Democracy Network's [STS.Next.2.0](#), the Society for Social Studies of Science's [Backchannels](#) blog, [Leonardo Education and Arts Forum](#), or another digital repository that suits your interests and priorities. Spend some time on these sites before you write to get a sense of their readers' priorities. Some are likely to be more interested in how specific artwork(s) contribute to ongoing scholarly conversations; others may be interested in theories and practices of interdisciplinarity; still others are likely to be interested in the types of communication or deliberation that this or similar events might facilitate. You will also share your reflective writing with the class via Canvas, contributing to a collective resource that will inform class discussions, artist engagements, and future work.

Assignment and Lesson Plan

To hone your own approach to facilitating public engagement, you will develop an assignment and lesson plan that invites undergraduates to experiment with science writing or some other form of science communication. You will begin by exploring teaching resources such the [Stem Cells Across the Curriculum](#) site developed by interdisciplinary faculty at the New School and Parsons School for Design, the National Informal STEM Education Network's [Building with Biology](#) curriculum, Iowa State University's [Cases for Teaching Responsible Communication of Science](#), the University of the West of England's [Meet the Gene Machine](#) teaching resource, the [citizen science curated collection](#) in Open Educational Resources (OER) Commons, and [Safecast](#), a platform for citizen collection of environmental data. Identifying the aims of these and other examples should help you clarify your own pedagogical priorities, which you will refine further with feedback from your instructor, your peers, and undergraduate students. As with the reflection, you will share your work on one of the platforms mentioned above or on another site that suits your teaching and research profile.

Final Project

Your final project may take the form of a seminar paper, a digital composition, a full syllabus, an annotated bibliography for your project exams, or a work of art. Students developing seminar papers or digital compositions may work individually or in groups (syllabi and bibliographies should be completed individually), and we will discuss the possibility of preparing a joint submission to [Kairos](#) or another journal that reflects on the course and the exhibition. Whether working individually or in teams, you will prepare your project with a specific academic audience in mind, such as a journal readership or a group of students pursuing a particular major. You will submit an abstract or proposal for your final project by the fourth week of the semester, and you will have multiple opportunities to develop the project in class over time. You will also present your close-to-final project during the final week of class. When you submit the final project during finals week, please attach a one-page reflection that explains the project's origins and goals, reflects on the process of creating it, suggests how you might refine it in the future, and identifies any particular questions or concerns that you would like my response to address.

Grading

We will work together to develop a grading contract during our initial class meetings.

Course Schedule

***Please note, this schedule is subject to change.

Week	Topic	Readings to Complete Before Class
1	Science, Humanities, Public Engagement	<ul style="list-style-type: none"> ● Goodnight, “The Personal, Technical, and Public Spheres of Argument: A Speculative Inquiry into the Art of Public Deliberation” ● Environmental Triage: An Experiment in Democracy and Necropolitics (Critical Art Ensemble installation, 2018)
2	Biology, Technology, Instrumentality	<ul style="list-style-type: none"> ● Excerpts from Sunder Rajan, Biocapital ● Excerpts from Benjamin, Race After Technology ● Beauty in Crisis: Art During and After the Pandemic ● Nelson, “Future Texts”
Artist Engagement		
3	Participation, Engagement, and Deliberation	<ul style="list-style-type: none"> ● Arnstein, “A Ladder of Citizen Participation” ● Davies et al., “Citizen Engagement and Urban Change: Three Case Studies of Material Deliberation” ● Jasanoff, “Technologies of Humility”
4	Intervention and Motivation	<ul style="list-style-type: none"> ● Rabinow & Bennett, “From Bioethics to Human Practices, or Assembling Contemporary Equipment” ● Excerpts from Roy, Molecular Feminisms ● Excerpts from Wynn, Citizen Science in the Digital Age: Rhetoric, Science, and Public Engagement
5	Bioart and Biopolitics	<ul style="list-style-type: none"> ● Excerpts from Mitchell, Bioart and the Vitality of Media ● da Costa, “Reaching the Limit: When Art Becomes Science” ● Bio Art (Studio 360 podcast interview with Oron Catts and Ionat Zurr) ● Excerpts from Critical Art Ensemble, Aesthetics, Necropolitics, and Environmental Struggle
Artist Engagement		
6	No class	Self Care Day

7	Not Humanisms	<ul style="list-style-type: none"> • Excerpts from Cooper, <i>The Animal Who Writes</i> • Excerpts from Jackson, <i>Becoming Human: Matter and Meaning in an Antiracist World</i> • Excerpts from Neimanis, <i>Bodies of Water</i> • Todd, “An Indigenous Feminist’s Take On The Ontological Turn: ‘Ontology’ Is Just Another Word For Colonialism”
8	Making Knowledge	<ul style="list-style-type: none"> • Burgess & Whitson, “Introduction: Critical Making and Executable Kits” • Excerpts from Kimmerer, <i>Braiding Sweetgrass</i> • Excerpts from Ingold, <i>Making</i>
Artist Engagement		
9	Pedagogy	<ul style="list-style-type: none"> • Banks, “Mix: Roles, Relationships and Rhetorical Strategies in Community Engagement” • Haas, “Race, Rhetoric, and Technology: A Case Study of Decolonial Technical Communication Theory, Methodology, and Pedagogy” <p>Please also familiarize yourself with the following:</p> <ul style="list-style-type: none"> • The New School and Parsons School for Design Stem Cells Across the Curriculum site • The National Informal STEM Education Network’s Building with Biology curriculum • Iowa State University’s Cases for Teaching Responsible Communication of Science • The University of the West of England’s Meet the Gene Machine • The citizen science curated collection in OER Commons • Safecast, a platform for citizen collection of environmental data
10	Crip and Queer Techniques	<ul style="list-style-type: none"> • Hamraie and Fritsch, “Crip Technoscience Manifesto” • Ahmed, “Queer Use” • Russell, Elsewhere, After the Flood: Glitch Feminism and the Genesis of Glitch Body Politic
Artist Engagement		

11	Interspecies Relations	<ul style="list-style-type: none"> ● da Costa, Dying for the Other ● Excerpts from Haraway, When Species Meet ● The Multispecies Salon (Exhibition website) ● “Your Place Is My Place,” Rosi Braidotti in conversation with Patricia Piccinini
12	Artist Engagement	
13	Student Presentations	
14	Student Presentations	