

COMM 379 Digital Sustainability

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Dr. Meghan Dougherty

School of Communication

Loyola University Chicago

Course Description

Digital Sustainability explores the environmental impact of digital media. We'll question the ways in which digital media use sustainable practices, and the ways in which less-sustainable practices of digital media are invisible behind our everyday uses of it. Our digital devices and virtual spaces have an impact on the natural and built environment – from mining precious metals from global conflict zones to manufacture devices, to burning fossil fuels that provide energy to run data centers, to the global black market trade of electronic waste. Students will explore the points at which the digital world meets the physical world, learn to identify and define environmental sustainability problems, and work toward creative solutions to mitigate those problems. Students will learn that ethical consumers/producers of digital media have a responsibility to understand what makes their virtual worlds possible.

This class is designed to draw together students from both the School of Environmental Studies and the School of Communication, both graduate and undergraduate students, and other students from around the university. Students are encouraged to bring with them their own disciplinary perspectives and theoretical frameworks, and be open to listening to those of others to gain a broader understanding.

Learning Objectives

- Gain basic knowledge and factual information about digital media infrastructure, and the impact of digital media technology on the environment.
- Develop ethical reasoning and ethical decision making regarding environmental impact resulting from personal and professional use of digital media.
- Learn to critically evaluate ideas, arguments, and points of view regarding environmental hazards, health hazards, and economic potential of international e-waste trade.
- Learn to apply knowledge and skills to benefit others or serve the global public good.

This class is online and asynchronous. There will be no real-time required meetings.

Important Dates:

Spring Break Week 8 | 7-11 March

Easter Break Week 11 | 14 - 18 April

Reading Days/Catch-Up Week Week 15 | 25-29 April | The week of second chances - catch-up or redo anything. No questions asked. No permission needed.

Final Exam Week 2-7 May | Take-Home Final Exams due 7 May.

No assignments will be due during breaks; no new material will be posted; no discussion forums will be read. You are expected to Take A Break during break weeks. Use this time to rest and reflect. Writing, thinking and learning all benefit from resting your brain with intention.

You may use break weeks to time-shift if you want/need. If it makes your schedule easier, you may use break weeks to catch up on work. Please email me with requests to shift deadlines to after break weeks. No Questions Asked.

This course will be broken into Four Lessons: Digital Culture, Devices, Infrastructure, and Energy.

Each Lesson includes a set of readings, videos, podcasts, and more. Each Lesson includes readings that offer a basic orientation to the big idea, a theory or two that describe the phenomenon, an example of application of theory, and a few assignments including a short writing exercise, a quiz, and a Lesson Checklist.

Lesson 1 Digital Culture: In this first Lesson you'll learn about digital culture. Those students who do not come to class with a Communication background may be unfamiliar with Communication As Culture, and may need to spend extra time thinking through the theories and concepts that describe how digital media shape us, and how we are shaped by digital media. We begin class with the concept of digital culture so we may uncover assumptions about the role of digital media in our everyday lives, and the centrality of digital media in modern life. In order to understand what really goes into making our digitally lived lives possible, we must first have an understanding of what makes up our digital lives.

Lesson 2 Devices: In this second Lesson we'll discuss the first layer of THINGS that make our digitally lived lives possible: digital devices and other electronics. We'll talk about the lifecycle of digital devices, consumerism, e-waste, the Internet of Things and it's consequences, and more.

Lesson 3 Infrastructure: In this Lesson you'll be introduced to all the tangible material stuff that makes the automagical interwebs possible. There is much more to the internet than packet switching. The amount of STUFF that is required to connect you to the World Wide Web is staggering, but also quite invisible. We will use infrastructural inversion to try to uncover the layers upon layers of materiality that make up the internet. We'll question the relationship between those layers and different environments they interface with. We'll look at multiple ways to understand Communication IN the Environment, and less about Communication ABOUT the Environment. We'll look at layers from underground mushroom communication networks, to undersea cables, to constellations of communication satellites

and radio astronomy to find metaphors for understanding the how human communication, the materiality of communication networks, and the environment all interrelate.

Lesson 4 Energy: In this last lesson we'll look at energy use. While we often talk of a carbon footprint for transportation and markers of individual impact on the environment, we talk less about an information footprint. We leave traces of ourselves in all manner of places, requiring storage and 24/7 access to information. IT Companies are doing a lot to use sustainable energy sources to support the massive information needs of contemporary society, but there is a bigger story to tell about the cycle of information use, information needs, storage, access, and the role people and companies play.

There is a Hard Stop deadline at the end of each Lesson in class. All assignments for each Lesson are due on the last day of the Lesson. All Lesson materials will be available to you through the whole term so you may back-track or skip ahead as you like.

The rough schedule below provides an overview of how our Lessons play out over 15-weeks.

Lesson 1 Digital Culture

Weeks 1-4 | 18 January - 11 February

11 February | Hard Stop deadline for all Lesson 1 Assignments (QTC essay, Quiz, Discussion Board Posts, and Lesson Checklist)

Lesson 2 Digital Devices

Weeks 5-7 | 14 February - 4 March

4 March | Hard Stop deadline for all Lesson 2 Assignments (QTC essay, Quiz, Discussion Board Posts, and Lesson Checklist)

Week 8 | 7-11 March | Spring Break | Plan a break after Lesson 2. Learning online is really tiring and you'll be doing a lot of it. Give yourself time to step away from class to let your ideas settle in and make connections.

Lesson 3 Digital Infrastructure

Weeks 9-11 | 14 March - 1 April

1 April | Hard Stop deadline for all Lesson 3 Assignments (QTC essay, Quiz, Discussion Board Posts, and Lesson Checklist)

Lesson 4 Energy

Weeks 12-14 | 4 April - 22 April

Week 13/14 | 14 - 19 Apr | Easter | Plan a break during Lesson 4. Reading some of the off-the-wall ideas in this lesson will be rewarding and eye-opening, but also really tiring, and you'll be doing a lot of it. Give yourself time to step away to let your mind settle in and make creative and critical connections.

22 April | Hard Stop deadline for all Lesson 4 Assignments (QTC essay, Quiz, Discussion Board Posts, and Lesson Checklist)

Catch-Up/Reading Week

Week 15 | 25-29 April Use this week to read for your final exam. OR Use this week to catch up on anything and everything. Redo any assignments you missed or earned a low grade on. No Late Penalties. No Questions Asked.

Finals Week

2-7 May | Complete your Take Home Final Exam due 8 May.

Expectations

Students should expect...

- ...to read broadly. This is a relatively specific take on environmental studies and media studies. We'll draw on readings from multiple disciplines to approach the topic from multiple angles.
- ...to read some readings, but to skim and even skip others. There are a lot of readings available to you in this class. You do not have to attend to them all equally. Follow your interests. Be thoughtful about what you choose to skim and skip. Circle back to a skipped reading if an interesting discussion turns up in the discussion boards.
- ...to sneak in reading and writing for this class in-between the work you do for other classes. Students should NOT expect to spend long chunks of time focusing solely on this class. Read one thing at a time. Let it sink in. Sprinkle readings from this class in among all your work for other classes.
- ...to look for examples about class concepts in their own digitally lived lives, and to consider seriously the lived experience of classmates.
- ...to read the prof's responses to their classmates' posts in the forums. Even if I didn't reply to *you* my reply to someone else will likely be helpful to you in some way.
- ...quality feedback from the Prof on writing of all kinds. Students should not expect that I will respond to everything they write, but should expect that the feedback I do offer will be high quality and will include suggestions for future improvement.
- ...to ask the Prof if they really want specific feedback on a specific piece of writing.
- ...to learn how to ask for that kind of feedback clearly and concisely.
- ...flexibility from the Prof. If at any time you need an extension, or help, or suggestions on how to manage your online learning workload, Please Do Not Hesitate to ask, and you shall

receive individualized suggestions on how to move forward in a way that will help you get the most out of the class without breaking you.

Graduate Students should also expect...

- ...to participate more in discussion forums. Grad students will have double the forum post requirements as undergrads.
- ...use those extra discussion forum posts to really dig into theories, and explore ideas.
- ...less forgiveness from the Prof on their application of theory. Grad students should be engaging with theory on a grad-student level of critical thinking. Lots of guidance will be provided, but grad students will not be permitted to play fast and loose with theory. Undergrads will be cut a little more slack.

As the prof, I will expect:

- ... students to improve with each successive bit of writing. Your overall course grade will be strongly influenced by the improvement you demonstrate over time, and over a variety of different assignment types..
- ...that this class is not your priority. ...that you have other classes and other assignments and other profs to deal with. ...that those other things may not be as flexible as I am able to be.
- ...online learning is probably pretty new to you, and that your standing as “digital native” does not mean you automatically know how to navigate confusing learning management systems, multiple differently designed classes, or have expertise in digital ecology. I can help you learn How To Learn Online as much as I will help you learn the content of the course.
- ...that your interest in this elective class is driven by curiosity. I will assume that many of the concepts will be new to you in some way or another, and so I will expect students to play with ideas and experiment with concepts in a way that is creative.
- ...that should you find you need help (a deadline extension, or help with concepts, or help of any kind) that you will reach out to me before you get in too deep, or even after you’ve gotten in too deep. It is never too late in this class to find a way to finish well.

Assignments & Grading

Deadlines listed are all Hard Stop Deadlines. You are strongly encouraged to set up interim deadlines for yourself to move through the assignments efficiently - using content you write for one to begin building the next.

Assignments will be graded Pass/Fail OR on a 4-point scale: 0 is an F, up to 4 which is an A. (Sakai does not allow me to enter letter grades into the gradebook, so here we are....).

Here’s a list of all the assignments:

(Find detailed requirements for each assignment in each Lesson on Sakai.)

Discussion Board Posts (3 posts per lesson / 6 per lesson for grad students). These posts are meant to help you practice writing and thinking. For each Lesson Discussion post one original post and reply to two classmates (double that if you are a grad student). Spread them out through the weeks for each Lesson. Discussion Board posts will be graded by quota: post the required number to earn an A. The fewer you post total, the lower your letter grade. There is no such thing as a poor quality post. If you are actively and authentically starting or engaging in a conversation, your post counts. Discussion Board posts will be graded as a batch on a 4-point scale.

QTC essays (4 essays). One essay per Lesson. All essays due on the last day of each Lesson. These short structured essays are meant to help you think through concepts introduced in the Lesson. These essays will be graded on a 4-point scale.

Quizzes (4 quizzes). One quiz per lesson. All quizzes are available on the Main Lesson Pages. Quizzes ask you to reflect on one particularly important aspect of each Lesson before moving on to the next.

Lesson Checklists Find a checklist for each Lesson on each Main Lesson page. Earn credit for the work you do in each Lesson (think of this as a kind of participation grade). Complete a portion of the Lesson Checklist to earn a percentage grade for each Lesson. Those grades will be averaged together to pull up or pull down your overall course grade.

Final Exam Complete a final exam for the course during finals week. You will choose one exam from three different format options.

Policies

LAND ACKNOWLEDGEMENT

Loyola University Chicago is situated on the ancestral and unceded territories of the Kiikaapoi, Peoria, Bodéwadmiakiwen, Myaamia, and Očhéthi Šakówiŋ peoples.

STUDENT ACCESSIBILITY

The Student Accessibility Office can help students identify obstacles to learning, and develop accommodations that are confidentially shared with instructors. While it may be a student's responsibility to document their own accessibility needs through the university, I believe it is the instructor's responsibility to design and facilitate a course in a way that is accessible to all students, and makes easily available multiple options for additional accommodations. I strive to make my courses accessible in design, navigation, content, communication, process, and procedure. If at any time during the course, you have concerns about accessibility, navigation, design, or anything else that creates an obstacle for your learning, please talk to me about it. Anonymous feedback in the class Forums is always an option.

DIVERSITY & INCLUSION STATEMENT

Communication and social science are subjective and is historically built on a small subset of privileged voices. College classrooms are often enacted as a white space where faculty assume they are teaching white students through a white-centered curriculum. Racial trauma can be triggered when we focus in on the intersections between the topics in the course and structural racism and inequity.

In this class, we will make an effort to read papers from a diverse group of authors, and we will read about issues of diversity and inclusion in Communication, but limits still exist on this diversity and inclusion. I acknowledge that it is likely that there are both overt and covert biases in the material due to the lens with which it was written, even though the material is primarily of a scientific or journalistic nature. Including a diverse set of experiences is important for a more comprehensive understanding of Communication - we will strive to discuss these concerns of authorship, power, and control in scientific research along with the content of the material we read. We will strive to be patient and careful with the language we use to respectfully discuss diversity and inclusion concerns in Communication. We will not rely on BIPOC students to act as representatives, but will acknowledge and respect that we all must choose the ways in which we want to show up in class discussions without forcing those choices on others. Please contact me or submit anonymous feedback in the class Forums if you have any suggestions to improve the course materials or discussions to make them more diverse, representative, and inclusive.

Let me know if you have a name and/or set of pronouns that differ from those that appear in your official university records.

I (like many people) am still in the process of learning about diverse perspectives and identities. As a participant in course discussions, I expect you to strive to honor your classmates' lived experiences, and include their perspectives that are supported by literature and are grounded in truth - and I expect you to do so with kindness and care. If something was said in class (by anyone) that made you feel uncomfortable, please talk to me about it. (Again, anonymous feedback is always an option.)

CLASSROOM CITIZENSHIP

Students are expected to respect each other. When you enter a classroom, you are a member of a cohort - a community of learning. Your success depends on your neighbors' success. Learning is a collaborative effort - in discussion, group work, and even lecture, understanding is co-produced. Your questions and perspectives matter, and so do your classmates'. Treat each other with tolerance and understanding. The people you'll interact with in class are your peers and future colleagues. Strive to do better on your own, but also strive to help your classmates to elevate the level of conversation in the classroom. You are responsible for your own work, but you are also responsible to your teacher and your peers - your positive substantive participation in discussion and group work is a valuable aspect of the class.

CENTER FOR STUDENT ASSISTANCE AND ADVOCACY

Should you encounter any unexpected crisis during the semester (e.g., securing food or housing, addressing mental health concerns, managing a concerns, managing a financial crisis, and/or dealing with a family emergency, etc.), please contact the Office of the Dean of Students by submitting a CARE referral (LUC.edu/csaa) for yourself or a peer in need of support. If you are uncomfortable doing so on your own, please know that I can submit a referral on your behalf – just email me or schedule a meeting with me during office hours. To learn more about the Office of the Dean of Students, please find their websites here: LUC.edu/dos or LUC.edu/csaa.

LATE WORK/ LOST WORK

Learning to learn online is really hard. It is going to take time to adjust. If you are struggling with deadlines or managing your own work, please contact me at **any** time during the semester. It is **never** too late to find some way to complete the class well, or to earn credit.