

Syllabus

LMC 6399 Discovery & Invention

Spring 2024

Units: 3

Course Meetings

Mondays and Wednesdays, 9:30am – 10:45am in Skiles 357

Instructor

Noura Howell, PhD
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Digital Media in LMC
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[she / her / hers](#)

Office hours: By appointment.

The best way to reach the instructor is via a 1:1 chat message on MS Teams.

Graduate Teaching Assistant (GTA)

Kosha Bheda
MS Student
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Office hours: By appointment.

Course Description

In this class, we will explore and practice research methods used to ‘discover’ or learn about, from, and with the world (including other people, environments, etc) and ‘invent’ or create, shape, design, develop ideas, concepts, artifacts, etc.

Goals

The course objective is to lay a foundation for understanding creative research methods as related to digital media. The course learning outcomes are:

- To understand the methodological foundations of creative research
- To use the methods presented in this course to pose research questions, collect evidence, and make claims about digital artifacts.
- To create and analyze digital artifacts with an awareness of history, respect and sensitivity to multiple and diverse audiences.
- To learn to present persuasively about digital media projects.

Schedule

The schedule will be updated as the semester progresses. Readings will be added. Due dates and topics for each class may be adjusted.

Date	Class Activities	Due	Review before class	
8-Jan	Course overview Methods exploration			
10-Jan	Methods clustering, finalizing, method presentation group formation and signup			
15-Jan	MLK day - no class			
17-Jan	Epistemology overview	assignment named "Participation: Method Spotlight Group Signup" due	Chapter 1 "The Selection of a Research Approach" (pdf pages 30- 55) of John W. Creswell. 2014. Research design: qualitative, quantitative, and mixed methods approaches.	
22-Jan	Method Spotlight: Interview		Creswell Chapter 3: "Qualitative Theory Use" (pdf pages 98-111), link above	Chapter 5 "How to Conduct a Good Interview" of Annette Lareau. 2021. Listening to people: a practical guide to interviewing, participant observation, data analysis, and writing it all up.
24-Jan	Project Launch & Team Formation			
29-Jan	Method Spotlight: Survey	assignment named "Participation: Forming a project team" due	Creswell Chapter 3: "Quantitative Theory Use" (pdf pages 82-97), link above	Chapter VII "Survey Research" (pdf pages 201-224, pages show 183-205 in bottom right corner) Rajiv Jhangiani, I- Chant Chiang, Carrie Cuttler, and Dana Leighton. 2023. Research Methods in Psychology (4th edition).
31-Jan	Team:instructor checkins			
5-Feb	Research Ethics & IRB		2020. The History of the Belmont Report. IRB Blog of Teachers College of Columbia University.	Lynn Dombrowski, Ellie Harmon, and Sarah Fox. 2016. Social Justice- Oriented Interaction Design: Outlining Key Design Strategies and Commitments. In Proceedings of the 2016 ACM Conference on Designing Interactive Systems.
7-Feb	Project launch presentations	Project launch documentation		

12-Feb	Method Spotlights: Human Centered Design	
14-Feb	Team:instructor checkins	
19-Feb	Method Spotlight: Qual user studies	
21-Feb	Team:instructor checkins	
26-Feb	Method Spotlight: Quant user studies	
28-Feb	Team:instructor checkins	
4-Mar	field day: team work time	
6-Mar	field day: team work time	
11-Mar	Project midpoint presentations	Project midpoint documentation
13-Mar	Project midpoint presentations	
18-Mar	Spring break - no class	
20-Mar	Spring break - no class	
25-Mar	field day: team work time	
27-Mar	Team:instructor checkins	
1-Apr	Method Spotlight: TBD	
3-Apr	Team:instructor checkins	
8-Apr	Method Spotlight: TBD	
10-Apr	Team:instructor checkins	
15-Apr	Method Spotlight: TBD	
17-Apr	field day: team work time	
22-Apr	Final presentations	Project final documentation

Grading Breakdown

Assignment	Points
Participation: Adding to Methods Exploration	1
Participation: Method Spotlight Group Signup	1
Participation: In-class comment/question #1	2
Participation: In-class comment/question #2	2
Participation: In-class comment/question #3	2
Participation: Attendance	10
Method Spotlight Presentation	20

Participation: Forming a project team	1
Project Launch Documentation	15
Project Midpoint Documentation	16
Project Final Documentation	30
Total:	100

Grading of each assignment is based on points. The number of points for an assignment indicates its weight in determining the final grade. Assignments are due at the beginning of class unless otherwise specified.

Late assignments receive at most 50% credit. Assignment that are turned in on time, but where the student is not present in class to represent their work, also receive at most 50% credit. This is because the pedagogical value of many assignments includes using these assignment for in-class activities such as giving and receiving feedback on the assignment.

If you have to miss class for a valid reason such as illness, family emergency, etc., please proactively coordinate with the instructor in advance to find an alternative make up assignment, which could take a different form than the original assignment.

Grade Ranges

A: 90 – 100%

B: 80 – 89%

C: 70 – 79%

D: 60 – 69%

F: 0 – 59%

Attendance Policy

Attendance is required for all sessions, and contributes to the participation part of the grade in the Grading Breakdown. The class relies on in-class activities to develop the skills of this class. Skipping class is mostly hurting your own learning and that of your teammates.

If you are sick, stay home and rest to protect yourself and others. Give the GTA and Instructor a heads up before class, and coordinate with them to find an alternate make up assignment.

Being late to class will detract from your attendance and participation grade.

Accommodations

Please refer to the [Office of Disability Services](#) for information on how to request [accommodations](#). The instructor and TA are committed to working with you to accommodate your needs. Communicating with us about your needs will assist us in best accommodating your needs.

Technology use

Bring a computer to class every day. No use of cell phones (including texting) in class.

Inclusivity Statement

The Ivan Allen College of Liberal Arts is committed to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those in our community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society.

Workload

Students are expected to work not only in class but also outside of class sessions on assignments and projects.

Mental Health Resources

If you are experiencing anxiety or depression or a medical, personal, or family crisis, or if you just feel overwhelmed, please do not hesitate to reach out for help. Everybody needs help sometimes, and being in school can be a personally challenging time. You are not alone, and many of us are available to be sympathetic listeners and to share our own strategies for coping with stressful situations. In addition, professional counselors and medical practitioners have expertise that can be very helpful. The Dean of Students has a list of services (see <https://studentlife.gatech.edu/content/get-help-now>).

Library Resources

The [GT Library](#) has numerous resources, gadget rental, study space, activities, and more.

Georgia Tech Honor Code

The [Georgia Tech Honor Code](#) will be strictly enforced.

Comm Lab

This is a helpful resource available to you: [Communication Center](#).

ChatGPT and other Generative AI Tools Policy

I want to acknowledge that we are still in a period where there are not clear norms about how to use ChatGPT and other generative AI tools. This policy may get updated over the semester as we all learn about different uses of these tools, or encounter them in new situations.

Assignments are a form of communication. The assignments in this class are meant to be opportunities to demonstrate and evaluate your learning. They enable receiving useful feedback from peers and the instructor, to help you learn and improve on your skills and work. Using automated tools to do most of the assignment for you can break that feedback loop, transforming the assignments from useful to busy work – Ultimately this is just harming your learning, wasting your educational opportunity in this program.

ChatGPT and generative AI tools are based on matching patterns on past materials, and they're not actively thinking/reasoning like a human does. (A metaphor: if you asked me to design a bridge without any engineering training, and I drew up some blueprints based on a bunch of designs of bridges through Google, it might look pretty cool and it might even stand up! But we probably wouldn't build that exact bridge because I didn't follow any of the reasoning and requirements that's been developed in structural and civil engineering).

Assignments in this class may not always feel straightforward (that's the nature of research!). There can be temptation to turn to an automated AI tool as soon as you hit a challenge. It's OK to sit for a while and be unsure, or work on something else for a while and come back, or talk to a person. I'd rather you talk to your peers first for ideas and brainstorming before turning to ChatGPT. (In the same way that you'll get richer research data by talking to real people than talking to a ChatGPT persona; you'll get richer research ideas by talking to real people instead of talking to ChatGPT!).

That being said, I know that tools like ChatGPT and generative AI can be useful for certain types of tasks, or as resources to help in writing. Therefore, for any assignment for which you use ChatGPT or any other generative AI, you must both (1) cite the tools you use, as you would cite a research paper or other resource that you used in your work, and (2) add a section titled "Generative AI Usage" documenting how you used the tool(s). Include transcripts of LLM text or dialogues, and any iterations of generative image, sound, or other media from/with AI, etc, to thoroughly document your process of using generative AI in producing the output of your project.

In general, you will not be penalized for using ChatGPT and other generative AI tools if you disclose how you used it. Of course, low quality assignments will still receive lower grades. However, writing a false statement about your use of ChatGPT or other generative AI tools, or turning in a document that was completely written by ChatGPT or an AI tool are likely violations of the academic honor code (plagiarism, false claims of performance, deliberate falsification), and will result in a 0 grade and a possible referral to the Office of Student Integrity.

Use of ChatGPT and AI tools is a large gray zone – the following are not 100% rules, but some suggestions and guidelines to help you use these tools in a way that will be helpful to you achieving the course goals and objectives.

Likely useful ways of using ChatGPT:

- Helping to re-word or re-structure a sentence or paragraph to help you more clearly convey an idea
- Translating languages (you may need to double check manually for errors)
- Finding a specific resource/paper you already know about but can't remember the name of
- Providing a template for a paragraph
- Asking it to critique your writing
- Cut down words you've written to meet a word count or page limit.
- Brainstorming (while keeping in mind the normative bent of generative AI tools, which are based on training data whose statistical majorities may not match what you want for your work)

Likely non-useful ways of using ChatGPT:

- Writing the assignment for you and turning it in – this is likely a violation of the academic honor code and will be dealt with as such
- Citing factual statements from ChatGPT – ChatGPT can "hallucinate," or create very convincing sounding facts and citations, and passing them off as real
- Finding new sources and papers – the hallucination problem again
- Using ChatGPT as a general search engine – the hallucination problem again