



LMC6399 SYLLABUS

Discovery & Invention

Fall 2025 (3 Credits)

What makes research creative?

In this class, we will explore a number of creative research methods commonly used within the Program in Digital Media. Creative research can mean collecting evidence about the creative process through interviews. It can mean evaluating the creative use of artifacts using direct observation. It can also mean using creative practice as a mechanism for learning about your own life experiences or those of others. These methods can be broadly defined by the key terms in the title of the course: *discovery* and *invention*.

Throughout the term, you will read about and try your hand at creative research methods from the four disciplinary pillars of the Program in Digital Media: 1) Design Research, 2) Media Studies, 3) Humanistic HCI, and 4) Science, Technology and Society.

We will begin with a brief introduction to creativity, then explore methods with fundamentally different assumptions: scientific, interpretive, participatory, and critical.

Class Meetings:

Skiles Classroom Building
Mondays and Wednesdays
3:30-4:45 pm, Skiles 317

Microsoft Teams Site:

[General | Fall2025 - LMC6399: Discovery and Invention | Microsoft Teams](#)

Instructor:

Yanni Loukissas, Associate Professor
yanni.loukissas@lmc.gatech.edu
Skiles Classroom Building, Rm 352
Office Hours: [Sign up here](#)

There will be a number of assignments, which will be graded using a contract-system. This means that if you complete the work, you will be awarded full points. Each of you will lead us in the discussion of one reading sometime during the course of the term. Small-scale research exercises will give you an opportunity to apply what you learn from those readings. Finally, the findings from these research exercises will provide the basis for a research report and a proposal for future research.

This course has no prerequisites, but is required for Master's and PhD students in Digital Media.

WORKSHOPS

There will be a series of short in-class workshops addressing practical questions of creative research, such as how to conduct a literature review or find the right venue for publication or exhibition. Here are some online resources based on prior versions of this course:

https://docs.google.com/document/d/1Dkdyk-fLKlvTKZqyFUwwVChN-aHLPcCRrRsx_QlcTp4/edit#

HEALTH RELATED EXPECTATIONS

Although I will strive to create a consistent learning environment, health complications, such as mental health issues and COVID infections, can arise. Dealing with them will require flexibility and mutual trust. Do not hesitate to contact me directly if there is anything you would like to discuss before the beginning of the course or at some later point. More generally, students are expected to be familiar with and abide by the Institute guidelines, information, and updates. The [CARE Center](#) and the [Counseling Center](#), Stamps Health Services, and the Dean of Students Office will offer both in-person and virtual appointments. Student Center services and operations are available on the [Student Center](#) website. For more information on these and other student services, contact the Dean of Students or the [Division of Student Life](#).

COURSE OBJECTIVE

To lay a foundation for understanding creative research methods in the four disciplinary pillars of the Program in Digital Media: Design Research, Media Studies, Humanistic HCI, and STS.

LEARNING OUTCOMES

- To understand the methodological foundations of creative research in digital media.
- 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 write persuasively about digital artifacts for specific audiences.

ASSIGNMENTS

The purpose of assignments is to give you regular, repeated practice exercising the course goals. There are several types of assignments in this course: reading responses, exercises, and a final research report.

Reading Responses: Regular readings will structure the theoretical portion of the course. A full list of readings is listed at the end of this document. Each student should complete readings and prepare a short, written response (300-500 words). Writing a response to what you read helps you to pay attention to what is important. It also creates a record for your own use, should you ever need to revisit these methods.

Your responses should address the following questions:

- What would you say is the main question or claim of the writing?
- What kind of evidence do the authors use to answer this question or support the claim? In your own words, describe an easily graspable example of this evidence.

- In plain language, describe the research method used. In other words, what concrete activities did the authors carry out to gather and analyze their evidence?
- Pose a question that you have about these activities and the evidence they produced.

Presentations: Over the course of the semester, each student will be responsible for presenting one reading in greater depth. I will circulate a signup sheet to determine the schedule of student presentations. Guidelines for presentations will be posted on MSTeams.

All reading selections listed on the syllabus are tentative. Additional readings may be assigned as supporting material.

Research Exercises: In order to give you opportunities to practice the methods you are reading about, there will be five short research exercises throughout the term. Instructions will be provided for each.

Research Report: In this report, you will use evidence from prior creative research exercises throughout the term to address the question: what can we mean by “creative research,” when we are analyzing or making digital media artifacts?

Research Proposal: At the end of the term, you will write a full proposal for a short creative research project, to be carried out in a subsequent term with a professor of your own choosing. The specifics of this proposal will be customized to the goals of each student.

Grading: Reading responses and research exercises will be graded according to a *contract model*. This means if you complete all parts of the assignment, you will get a pass for that assignment. Points will be deducted only if your submission is late or if you are missing components of the assignment. Class participation is required, but not graded. The research report and research proposal will each be given a letter grade, following a rubric distributed with those assignments.

Your final grade for the class will be calculated as follows:

40% Research Exercises
20% Reading Responses/Presentation
20% Research Report
20% Research Proposal

Deadlines: All assignments will include submission instructions and a due date. If a reasonable excuse is provided, a new deadline for the submission can be negotiated with the instructor. Failure to attend class regularly, submit a majority of exercises and reading responses, or the final report and proposal may result in a failing grade.

CLASS REQUIREMENTS AND POLICIES

Attendance: Students are expected to attend all sessions and actively participate in class.

Readings and Materials: Readings will be distributed electronically via MTeams. Check the “files” tab. Additional materials for assignments will be distributed with the instructions on MTeams. You will need your own laptop computer (Windows or Mac) as well as access to a strong network connection to participate in synchronous sessions.

Academic Integrity: Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit this [link](#).

Plagiarism of any form will not be tolerated and will result in a failing grade for the course. This is the uncredited copying of text or ideas from another's work or code from other digital artifacts. Adaptation of code samples (provided or found online) is not necessarily plagiarism, as long as it is appropriately credited. Beyond these examples, students are encouraged to share and critique each other's work outside of class. Collaboration is only permitted when specified. Unless specified otherwise, you are expected to complete and turn in your own work. Students may not submit work on another's behalf. Unauthorized use of any course materials from a previous semester of this course or another course is prohibited. Violating these terms will be considered a direct violation of academic policy and will be dealt with according to the GT Academic Honor Code.

** Note: If you plan to use any technology branded as “artificial intelligence,” such as chatGPT, please get permission from the instructor beforehand. Unauthorized use of these technologies may be considered a violation of academic integrity.*

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

It is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of some basic expectation that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek.

Debate, Diversity, and Respect

In this class, we will present and discuss a diversity of perspectives. Although you may not always agree with others' perspectives, you are expected to be respectful of others' values and beliefs. Repeated inappropriate or abusive comments and/or behavior will be addressed accordingly. If you feel that your perspectives are being ignored or slighted, or you in any way feel uncomfortable in the classroom, please contact me immediately.

The Communication Center

The Communication Center is located in Clough Commons, Suite 447. It is an excellent resource for any student (undergraduate or graduate) who wants help with a communication-related paper. With the pandemic underway, the communication center is continually revising its practices. For information on making an appointment please visit:
<http://communicationcenter.gatech.edu/content/makeappointment>.

If you need assistance with the appointment system, you can call 404-385-3612. All services are free and confidential

EXERCISES

- E1 Exercise 1 - Interview
 (General)
- E2 Exercise 2 - Design Games
 (Design Research)
- E3 Exercise 3 - Close Readings
 (Media Studies)
- E4 Exercise 4 - Cultural Probes
 (Humanistic HCI)
- E5 Exercise 5 - Critical Making
 (Science, Technology, and
 Society)
- R Readings
- RR Research Report
- FP Final Proposal

WORKSHOPS

- Workshop 1: Crafting a Question
- Workshop 2: Human Subjects
- Workshop 3: Literature Reviews
- Workshop 4: Publishing Conventions
- Workshop 5: Research Proposals

SCHEDULE

DATE	DAY	ACTIVITIES	ASSIGNMENTS
Week 1		Introduction	
Aug 19	Monday	Welcome	
Aug 20	Wednesday	Creative Research Discussion, Part 1 + Workshop 1	Readings Due (1) E1 Assigned Interview
Week 2		Creative Research	
Aug 25	Monday	Design Research Discussion, Part 1	Readings Due (2 and 3)
Aug 27	Wednesday	Exercise Review +Exercise Intro	E1 Final Due Interview
		In Class Activity: The Silent Game	E2 Assigned Design Games
Week 3		Design Research	
Sept 1	Monday	Labor Day - No Class	
Sept 3	Wednesday	Working Session (Loukissas at 4S Conference) + Workshop 2	E2 Draft Due
Week 4		Design Research	
Sept 8	Monday	Design Research Discussion, Part 2	Readings Due (4 and 5)
Sept 10	Wednesday	Exercise Review +Exercise Intro	E2 Final Due E3 Assigned

Week 5	Media Studies		
Sept 15	Monday	Media Studies Discussion, Part 1	Readings Due (6 and 7)
Sept 17	Wednesday	Exercise Critique + Workshop 3	E3 Draft Due
Week 6	Media Studies		
Sept 22	Monday	Media Studies Discussion, Part 2	Readings Due (8 and 9)
Sept 24	Wednesday	Exercise Review +Exercise Intro	E3 Final Due E4 Assigned
Week 7	Humanistic HCI		
Sept 29	Monday	Humanistic HCI Discussion, Part 1	Readings Due (10 and 11)
Oct 1	Wednesday	Exercise Critique	E4 Draft Due
Week 8	Humanistic HCI		
Oct 6	Monday	Fall Break	
Oct 8	Wednesday	Exercise Intro Exercise Critique	
Oct 10	Friday	(No Class)	E4 Final Due
Week 9	Science and Technology Studies		
Oct 13	Monday	Humanistic HCI Discussion, Part 2	Readings Due (12 and 13) E5 Assigned
Oct 15	Wednesday	E5 Working Session + IRB Workshop	

Week 10	Science and Technology Studies		
Oct 20	Monday	STS Discussion, Part 1	Readings Due (14 and 15)
Oct 22	Wednesday	Exercise Review +RR Intro	E5 Final Due RR Assigned
	<i>Withdrawal Deadline</i>		
Week 11	Special Topics:		
Oct 27	Monday	STS Discussion, Part 2	Readings Due (16 and 17)
Oct 29	Wednesday	Guest: Charlie Bennett Library Workshop	RR Draft Due
Week 12	Special Topics:		
Nov 3	Monday	RR Critique / Proposal Workshop	
Nov 5	Wednesday	RP Intro	RR Final Due RP Assigned
Week 13	Final Project		
Nov 10	Monday	Individual Meetings	
Nov 12	Wednesday	Individual Meetings	RP Draft 1 Due
Week 14	Final Project		
Nov 17	Monday	Guest: Ryan S.	
Nov 19	Wednesday	Presentations	RP Presentations Due
Week 15	Presentations		

Nov 24 Monday Presentations **RP Presentations Due**

Nov 26 Wednesday Thanksgiving Break

Week 16 Final Project

Dec 1 Monday **Poster Due** **RP Due**

Winter Break

READINGS

Each week a group of students will present the readings. Sign up for your week here:

		Student A	Student B
1.	The Craft of Research. (excerpt)	Loukissas	NA
	Design Research Discussion Part 1		
2.	Schön, Donald. 1983. The Reflective Practitioner (excerpt)	Loukissas	NA
3.	Simon, Herbert. 1969. Sciences of the Artificial (excerpt)	Loukissas	NA
	Design Research Discussion Part 2		
4.	Batya Friedman, Peter H. Kahn, and Alan Borning. 2008. "Value Sensitive Design and Information Systems." In The Handbook of Information and Computer Ethics.		
5.	Sengers, Phoebe, Kirsten Boehner, Shay David, and Joseph Jofish Kaye. 2005. "Reflective Design." In Proceedings of Conference on Critical Computing Between Sense and Sensibility.		
	Media Studies Discussion Part 1		
6.	Klein, Lauren. 2018. "TimeScape and Memory"		

		Student A	Student B
7.	Gillespie, Tarleton. 2014. "The Relevance of Algorithms"		
	Media Studies Discussion Part 2		
8.	Drucker, Johanna. 2011. "Humanities Approaches to Graphical Display"		
9.	Jänicke, Stefan, and Greta Franzini, Cheema and Scheuermann. 2015. "On Close and Distant Reading in Digital Humanities: A Survey and Future Challenges." In Eurographics Conference on Visualization		
	Humanistic HCI Discussion 1		
10.	Hilary Hutchinson, Heiko Hansen, Nicolas Roussel, et al. 2003. "Technology Probes." In Proceedings of The Conference on Human factors in Computing Systems		
11.	Kirsten Boehner, William Gaver, Andy Boucher. 2012. "Probes." In Inventive Methods		
	Humanistic HCI Discussion 2		
12.	Bardzell, Jeffrey and Shaowen Bardzell. 2013. "What is 'Critical' about Critical Design?"		
13.	Carman Neustaedter and Phoebe Sengers. 2012. "Autobiographical Design in HCI Research: Designing and Learning through Use-It-Yourself." In Proceedings of the Designing Interactive Systems Conference.		
	STS Discussion Part 1		
14.	Fortun et. al. 2016. Pushback: Critical data designers and pollution politics. in <i>Big Data and Society</i>		
15.	Ratto, Matt. 2011. "Critical Making: Conceptual and Material Studies in Technology and Social Life."		

		Student A	Student B
	STS Discussion Part 2		

16. Benjamin, Ruha. 2016. "Racial fictions, biological facts: Expanding the sociological imagination through speculative methods." In *Catalyst: Feminism, Theory, Technoscience*.
17. Hamraie, Aimi. 2018. *Mapping Access*. Digital Humanities, Disability Justice and Sociospatial Practice in American Quarterly.