



[IS266] Community Innovation: From Accessible Design to Supercomputing Cultures

Location: Room 210A, Informatics Suite, 616 E. Green St.

Lectures: Tuesday 11:00am - 12:50pm

Labs: Thursday 11:00am - 12:50pm

Instructor Team:

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Course Description

What are the social foundations to innovation practices? How do they emerge? Who's behind them? What makes them transformative? Innovation Illinois introduces the histories of the varied, world-changing interdisciplinary innovations from the University of Illinois that bridged students and researchers in engineering, humanities, sciences and the arts. We will explore how local histories of Illinois innovations help us understand today's innovation trends and processes, from contemporary accessibility design and wheelchair sports and kneeling buses, to computer-composed music, online education, public media, and the first massively-used Internet browser.

During the duration of the course, we'll work together in student teams that mix perspectives from different parts of our campus to imagine, research, and develop—via paper, multimedia, and code-based prototypes—future innovation ideas. We'll be introduced and get to experiment with mixed media resources and prototyping methods, spanning on and offline archives, digital editing, low and high-fidelity prototyping, and online data collection. We'll also visit campus sites and speak to key figures related to Illinois' world-changing interdisciplinary innovation histories and collaborations. Our work will culminate in a research project that surveys interdisciplinary

practice on our campus, and explores innovation as a practice that necessarily emerges from creative innovation cultures that cross the arts, humanities, social sciences, and computer science.

Projects will use a variety of primary sources, from interviews and news media to data collected online and materials drawn from the University Archives. Your work over the duration of the course will build oral and written communication skills, skills in interdisciplinary team collaboration, accessibility in user interfaces, critique, and skills in mixed methods for research and design. By the conclusion of the course, students will be able to recognize and narrate various “Illinois firsts” that will inform their design and innovation practice well after they leave the campus. You will further have the chance to explore a means to *extend* an Illinois’ legacy with design exercises that address accessibility and inclusivity.

All readings and media resources for the course are available through the Readings/Schedule page.

Student Project and Paper

Students will develop a research project that explores innovation’s multidisciplinary, and survey creative innovation practices across UIUC’s campus. Students will develop surveys that gather feedback on what inspires, supports and fosters innovation practices in diverse settings across the campus – and will gather resources from archives to develop insights on relevant past innovation practices. Teams will meet with the course instructors to consult on project ideas. All projects will incorporate materials/draw analysis from the University Archives, coverage from The Daily Illini or Illinois news resource, online data, and data from an interview conducted with either a UIUC alum, or key campus contact/leader from UIUC’s past or present. Interviewees can include:

- An alum from organizations we’ve covered in class, such as Disability Resources and Educational Services (DRES) or the Black Student Association (BSA)
- An alum who is a friend or family member
- A representative/contact from any of our site visits: a DRES coach, a University and Student Life Archivist, an Alice Campbell Hall Exhibit Curator, etc.
- A contact from a key report or document found in the archives (who might have been part of a student or campus organization)
- A contact from a key report or document from an organization relevant to your topic area
- A contact from a contemporary campus actor who represents “innovation” practice related to your topic

Students will also design an outreach and communications strategy as part of the project deliverable. This should map a multi-pronged plan that can gather 10 or more individual

responses for the survey. Your outreach plan should be included with your final paper's submission as an appendix.

Students will present their work in class with a visual presentation (8-10 minutes, with additional time for questions) at the end of the semester. You're welcome to use a standard slideshow format, but if you're inclined toward multimedia contexts, you may create something unique with instructor approval (examples include: use of creative visualization techniques, videos, podcasts, archives, apps, etc.). Email your slides or visual presentation to the teaching team by 9:00am on the last day of class (we will not meet during the exam period).

Students will write a research paper (8-10 pages, double-spaced, 12-point Times, 1-inch margins) that summarizes insights from the survey process and results on your Subject Area, drawing on readings from the syllabus and resources from the class and assignments to put your findings in dialogue with past innovation practices, and any other appropriate secondary resources. (i.e. Wikipedia doesn't count, but feel free to ask for help finding good sources).

Final papers should present a bibliography of sources, properly incorporated and cited (APA or MLA, using in-line citations, Purdue OWL is highly recommended). Include three sources from the syllabus and at least five additional sources (3+ of which should be primary).

Requirements

Weekly readings will be posted to our class' shared Scalar site. Students will each create their own individual Scalar workspace to post assignments to in the first week of class. **The registration key you will need to use to set up your Scalar site will be: Rm3pPd0#s7**

Weekly assignments with reactions (min. 1 page) to the readings and lab exercises should be posted to your workspace, and the link sent to the instructor team by 8P on the night before next class. Reactions should either respond to a specific question given to you in advance or identify arguments, common themes, oppositions, and issues worthy of further discussion from the texts. Use of visuals are terrific, but should not be used as filler or in place of analysis. No incompletes/makeups are assigned.

- Participation: 20%
- Weekly Scalar blogs: 30%
- Project proposal: 10%
- Final presentation: 20%
- Final paper: 20%

Please Note: Instructors are available for questions after class and by appointment. Paper drafts, paper content, and grades will not be commented on via email.

Attendance Policy:

Attendance will be recorded for each class, so be on time. Unexcused late arrivals and early departures may count as absences and diminish your grade for class participation. If you must be absent, it is your responsibility to inform me beforehand or submit a valid excuse immediately upon returning to class. Excuses for absences during the course will not be accepted at the end of the semester. Accumulating three unexcused absences will automatically lower your grade by half a letter grade (ie. a B to a C). Accumulating five unexcused absences will result in a full letter grade lowering. More than 8 absences will result in an automatic failure.

Accomodations

Please let the instructors know as soon as possible if you have a letter from DRES or need other accommodations. Should you ever need anything during the semester don't hesitate to ask.

Tech Policy:

Laptops in class are just fine. We'll often make use of laptops in class for activities. BUT: do keep activities relevant to class. This is just basic courtesy to the class and your classmates. Activity otherwise will warrant an invitation to be excused from class as an unexcused absence. Also: When using the class website and online platform, do not edit or alter any content you did not author. Obstructions of such nature could result in automatic failure.

Academic Integrity:

UIUC Student Code of Policies and Regulations specifies that students must refrain from violations of academic integrity (cheating, plagiarism, fabrication and other forms of obstruction); from behavior that may lead to suspicion of such violations; and from behavior that helps others commit such violations. You can read the Code at:
<http://www.admin.uiuc.edu/policy/code/>

Emergency Procedures

Meeting requirements of the Campus Emergency Operations Plan, this course has a two-fold emergency plan.

Plan A for Incident-Specific Emergencies: One cell phone (your instructor's) in our classroom will remain on during lecture so that we are able to receive emergency calls or texts from the Illini-Alert system. All other cell phones should remain turned off. In the event of an incident-specific emergency, instructions will be relayed to us by cell phone and you are asked

to remain calm, stay with your instructor, and be prepared to follow emergency instructions as they are relayed to you.

Plan B for More General Emergencies: You will be asked to move to a safe place either indoors (for instance, remaining in the basement in the case of a tornado) or outdoors (for instance, to the quad in the case of a fire, or gas or chemical leak). Remain with your instructor until a class register has been called, all students are accounted for, and class can either be resumed or dismissed. Students with physical disabilities who require assistance in leaving the room should consult with instructors at the start of the semester so that we can make the necessary advance arrangements to ensure your safety.

Schedule and Readings (guaranteed to evolve)

Course Week: Date – Lecture

Lab: (Independent) or (Group), activity or assignment

Reading: Listed the week they are assigned – Week 1's readings are due for Week 2's class.

Writing: Follows the Reading timeline

01: 1/21 – Introductions to the Class & Instructors

Lab: (Ind.) [Documenting Campus Spots](#) Part 1

Writing: [Reading Response](#)

Reading:

- Introduction and Chapter 7, Roger Geiger, [The History of American Higher Education: Learning and Culture from the Founding to World War II](#) (Princeton: Princeton University Press, 2015)
- "Congressional Record: University of Illinois Centennial," in Report of the Centennial Year of the University of Illinois, February 28, 1967 to March 11, 1968, 73-76.
- Paul Schroeder, "[Why?](#)", The Daily Illini (March 15, 1968)

02: 1/28 – Innovating Landgrant

Lab: (Ind.) [Documenting Campus Spots](#) Part 2

Writing: [Reading Response](#)

Reading:

- Revisit: Leslie J. Reagan, "Timothy Nugent: '[Wheelchair Students](#)' and the Creation of the [Most Accessible Campus in the World](#)," in The University of Illinois: Engine of Innovation, edited by Frederick E. Hoxie, pp. 50-59.
- Steven E. Brown, "[Breaking Barriers: The Pioneering Disability Students Services Program at the University of Illinois: 1948-1960](#)," in The History of Discrimination in US Education, edited by Eileen H. Tamura (New York: Palgrave MacMillan, 2008), 164-92.
- [Expanding Horizons: History of DRES, 1998](#)

03: 2/04 – Innovating Accessibility 1: DRES

Lab: (Group) DRES visit Thursday 2/6

Writing: Reading Response + Documenting DRES

Reading:

- Joy Ann Williamson-Lott, [Black Power on Campus: The University of Illinois, 1965-75](#). Champaign: University of Illinois Press, 2013. Chapter 3.
- Joy Ann Williamson-Lott, "Clarence Shelley: The Campaign to Diversify the University" in [The University of Illinois: Engine of Innovation](#), edited by Frederick E. Hoxie, pp. 77-86.
- Frederick E. Hoxie and Michael Hughes, "[Nevada Street: A Center for the Study of Race and Ethnicity](#)," in [The University of Illinois: Engine of Innovation](#), edited by Frederick E. Hoxie, pp. 218-223.

04: 2/11 – Innovating Accessibility 2: Project 500 & Nevada Street

Lab: (Ind.) Visit a Cultural House

Writing: Reading Response + Cultural House Visit

Reading:

- Michael Metz, [Radicals in the Heartland: The 1960s Student Protest Movement at the University of Illinois](#), U. of Illinois Press, 2019. Read: pages 32-81. (also Skim: pages 19-21, 231-240)

05: 2/18 – EUI Training

Lab: (Group) Archive visit Thursday 2/20 (Student Reform Movements)

Writing: Archive Response and Proposal Drafts

Reading:

- Ned Prutzer, [The Biological Computer Laboratory](#)
- Jamie Hutchinson, 'Nerve center' of the cybernetic world: Heinz von Foerster and the Biological Computer Laboratory." <http://bcl.ece.illinois.edu/hutchinson/index.htm>
- Bethany Anderson, "Heinz von Foerster and The Biological Computer Laboratory: A Cybernetics Odyssey," (<https://archives.library.illinois.edu/blog/heinz-von-foerster-and-thebcl/>) University of Illinois Archives blog
- [1967 Report of the Internal Evaluation Committee to Define the Role of the UIUC Student Senate](#).

06: 2/25 – BCL & Student Reform

Lab: (Group) Project proposal session

Writing: Reading Response

Reading:

- [Brian Dear](#), PLATO History Blog (spend 30 min. skimming)
- Don Bitzer, "Use of CBE for the Handicapped," *American Annals of the Deaf* 124.5 (1979)
- Valerie Lamont, "[New Directions for the Teaching Computer: Citizen Participation in Community Planning](#)," *Technological Forecasting and Social Change* 5 (1973), 149-162
- Larry Weber, "[Blind Student Power](#)," *Technograph* (October 1968), 17-20.

07: 3/03 – PLATO & Networked Education

Lab: (ind.) [Draft Survey Questions](#), Develop Communication Strategy

Writing: Reading Response

Reading:

- "National Research Council. "[U.S. Agriculture Yesterday and Today: The Colleges' Changed Environment.](#)" In *Colleges of Agriculture at the Land Grant Universities: A Profile*, 18–33. Washington, D.C.: National Academies Press, 1995.<https://doi.org/10.17226/4980>
- Rasmussen, Wayne D. "[Cooperative Extension](#)" In *Taking the University to the People: Seventy-Five Years of Cooperative Extension*, 3–15. Ames, IA: Iowa State University Press, 1989.
- U. of Illinois Extension. "Extending Knowledge, Changing Lives." *Extension State Report*. Urbana, IL: University of Illinois at Urbana-Champaign, 2017.<https://my.extension.illinois.edu/documents/3231182004180418/2017-extension-state-report.pdf>

08: 3/10 – ACES & Extension

Lab: (ind.) Survey Revisions

Writing: Reading Response + EUI Training Write-up,

Reading:

- Yang, Andrew. *The War on Normal People: The Truth About America's Disappearing Jobs*. Hachette Books: 2018. Selections. Read Chapters 3 - 7.

09: 3/17 – SPRING BREAK

10: 3/24 – Survey Launch!

Lab: (ind.) Implement communication strategy

Writing: Reading Response

Reading:

- [Allen Hall History](#)
- [Proposal to Encourage Undergraduate Education Development at UIUC \(1972\)](#)

11: 3/31 – LLCs & Alternative Education Programs

Lab: (ind.) Return to Archives

Writing: Reading Response

Reading:

- Marc Andreessen, Why Andreessen Horowitz Is Investing in Rap Genius
- Jimena Canales, "Mosaic: The First Point-and-Click Internet Browser," in *The University of Illinois: Engine of Innovation*, edited by Frederick E. Hoxie, pp. 152-158.
- Greg Newby, "My Prairienet Story"

12: 4/07 – Mosaic

Lab: (ind.) Set up Interviews

Writing: Review CU report

Reading:

- CU Health Report (read for visualizations)

13: 4/14 – Working With Data 1

Lab: (ind.) Conduct Interviews

Writing: Transcribe one page, select quotes

Reading: None

14: 4/21 – Working With Data 2

Lab: (Group) Project Advising

Writing: Make presentations, write papers

Reading: None!

15: 4/28 – Paper and Presentation Reviews

Lab: (Group) Project Advising

Writing: Make presentations, write papers

Reading: None

16: 5/05 – Final Presentations, Lab: n/a, [ALL]

Lesson/Question: Students present

Lab: None

Writing: Write papers

Reading: None

17: 5/12 – Papers Due 5/12