LMC 6314

DESIGN OF NETWORKED MEDIA

Course Instructor: Carl DiSalvo
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Office Hours: tbd

Course Times: Mondays and Wednesdays 3:00-4:15pm
Course Location: TSRB 317B

Course Description
Networks and their affordances shape much of our experience with digital media. But how can we shape our networks? And how does media change when it becomes networked? Can we consider networks themselves as a medium for design? In this course students will explore the design, hacking, repair, and care of networks and networked media. Drawing together theory and practice students will develop individual and group projects that use methods of design inquiry to research and prototype experimental systems and services. The course will emphasize participatory design and civic media and the role of networks in smart cities and data publics.

Required Books
None, all readings will be made available online.

Attendance & Participation
Class attendance and participation is mandatory. Participation in class discussion is imperative because it allows you to explore the readings, projects, and themes collaboratively, and in the process, discover meanings and issues that you probably would not discover on your own. Participation in class also challenges you to continuously question, refine, and articulate your own ideas and interpretations.

Grading
If you complete all of the requirements for the assignment reasonably well, you should expect to earn a B. In order to earn an A, you must complete and go "above and beyond" all of the requirements and your work must be exceptional across multiple grading factors.
Absence from more than three classes will result in the loss of 1-letter grade for the course.
Tardiness for more than four classes will result in the loss of 1-letter grade for the course.

Assignments and Their Value
MS Students

Design Explorations	25%
Project Research & Proposal	25%
Mid-Project Presentation	25%
Final Project	25%

PhD Students

Design Explorations	20%
Project Research & Proposal	20%
Mid-Project Presentation	20%
Final Project	20%
Essay	20%

Information for Students with Disabilities
Please notify the instructor if you have any disabilities with which you need special assistance or consideration. The campus disability assistance program can be contacted through ADAPTS: http://www.adapts.gatech.edu

Honor Code Statement
Students are expected to adhere to the Georgia Tech Honor Code: honor.gatech.edu

MS Learning Objectives

Demonstrate the ability to devise, design, create, and assess prototypical digital media artifacts, services, or environments and to contextualize them within recognized traditions of practice.

Explain, give examples of, and defend one's use of formal digital media design terminology

Compare, critique, and appraise digital media artifacts, services, and environments using formal terminology

Summarize their work orally and in written form using formal terminology

Justify the design choices in your works
Formulate and test design hypotheses

PhD Learning Objectives

Develop the knowledge, comprehension and ability to apply historical, cultural, and theoretical concepts to the study of digital media

Demonstrate the ability to identify the major theoretical traditions contributing to scholarly discourse about digital media

Discuss and distinguish among historical, cultural, and theoretical contexts for digital media

Apply theoretical concepts to specific digital media works

Identify and analyze a domain within the field digital media and identify areas for original contribution as well as methods to pursue these contributions.

Identify and define a suitable research problem in digital media design and apply appropriate disciplinary or interdisciplinary research methods to address it.

Demonstrate ability to conduct original research in support of designing new genres and forms of digital media

COURSE OUTLINE

Aug 21   **Introduction to the Course**

Aug 23   **No Class**

Aug 28   **Design Critique:** Comparative Network Representations (Assignment 1)

Aug 30   **Discussion: Hybrid Networks**

"The Resilient Social Network: @Occupy Sandy #Superstorm Sandy," Homeland Security Studies & Analysis Institute, for the Department of Homeland Security

Occupy Sandy
http://occupysandy.net

Not An Alternative, Occupy Sandy Projects
http://notanalternative.org/projects/ (Occupy / Occupy Sandy)

"DIY Infrastructure," Lukens (*required for PhD students only*)

"What's New with Kate Rich and *Feral Trade*?," Sterling
https://www.wired.com/2013/07/whats-new-with-kate-rich-and-feral-trade/

"*Feral Trade*, London Café"
https://vimeo.com/5772715

Kate Rich, *Feral Trade*
http://www.feraltrade.org/

Sep 04   **Labor Day – No Class**

Sep 06   **Discussion:** Theories of Networks

"Networks NOW: Belatedly Too Early," Chun

"Part 1, Nodes," from *The Exploit*, Galloway and Thacker

Jonah-Brucker Cohen, *Wi-Fi Hog*
http://www.coin-operated.com/2010/05/10/wifi-hog-2003/

Jonah-Brucker Cohen, *Wi-Fi Liberator*
http://www.coin-operated.com/2010/05/03/wifi-liberator-toolkit-2007/

Jonah-Brucker Cohen, *WWSID*
http://www.coin-operated.com/2015/02/01/wssid-2015

!Mediengruppe Bitnik, *Random Darknet Shopper*
https://wwwwwwwwwwwwwwwwwwwwww.bitnik.org/r/

Trevor Paglen
https://www.youtube.com/watch?v=9Igfu0VwdkQ

Sep 11   **Design Critique:** Network Representations (Assignment 2)

Sep 13   **Discussion:** Communication and Information Networks

"Communication, Power, and Counter-Power in the Networked Society," Castells

"Informationalism, Networks, and the Network Society: A theoretical blueprint," Castells

"Digital Networks and the State: Some governance questions." Sassen
       (*required for PhD students only*)

Center for Spatial Research: Superstorm Sandy
http://c4sr.columbia.edu/projects/superstorm-sandy

Center for Spatial Research: Conflict Urbanism: Columbia
http://c4sr.columbia.edu/projects/port-port

Center for Spatial Research: Port to Port
http://c4sr.columbia.edu/projects/port-port

Sep 18   **Design Critique**: System Model and Wireframes (or Other) (Assignment 3)

Sep 20   **Discussion:** Open and Participatory Networks Part 1
"VillageCell: Cost Effective Cellular Connectivity in Rural Areas." Anad, et al.

"RootIO: ICT+Telephony for Grassroots Radio." Csíkszentmihályi & Mukundane
          (*required for PhD students only*)

Red Hook's Cutting Edge Wireless Network
https://www.nytimes.com/2014/08/24/nyregion/red-hooks-cutting-edge-wireless-network.html?mcubz=3&_r=0

Inside Cuba's DIY Internet Revolution, Martinez
https://www.wired.com/2017/07/inside-cubas-diy-internet-revolution/

Things Network
https://www.thethingsnetwork.org

Flood Network
https://flood.network

Sep 25   **Design Critique:** Computational / Digital Media Representations (Assignment 4)

Sep 27   **Discussion:** Open and Participatory Networks Part 2
"Citizen Sensing, Environmental Monitoring, and 'Media' as Practice in the
     Making," Gabrys
 https://citizensense.net/about-airsift/
 https://citizensense.net/data-stories-intro/
 https://citizensense.net/data-stories/

"Materializing Infrastructures for Participatory Hacking," Davoli & Redström
http://smoothings.com/new-index/#/the-drone-postbox/
http://smoothings.com/new-index/#/trojanboxes/
http://smoothings.com/new-index/#/antenna/

"Design and Dissensus: Framing and Staging Participation in Design
        Research. Keshavarz & Maze (*required for PhD students only*)

Oct 02   **Design Session**: Brainstorming Problems and Concepts (Assignment 5)

"What Should We Expect from Design Research?," Gaver

"Abductive Reasoning," Kolko

"Making Patches," Lindström and Ståhl (*required for PhD students only*)

Oct 04   **Discussion:** Contesting / Contested Networks in Visual Culture

"'Warning Do Not Dig': Negotiating the Visibility of Critical Infrastructure," Starosielski

"Technostruggles and the Satallite Dish," Parks

Oct 09   **Fall Break – NO CLASS**

Oct 11   **tbd**

Oct 16   **Present Research & Concept**

Oct 18   **Present Research & Concept**

Oct 23   **Discussion:** Practices of Prototyping

Oct 25   **tbd**

Oct 30   **Discussion:** Presenting Prototypes

Nov 01   **tbd**

Nov 06   **Present Prototype**

Nov 08   **Present Prototype**

Nov 13   **Discussion:** Project Documentation as Design

Nov 15   **Open Design Critiques**

Nov 20   **No Class – Thanksgiving**

Nov 22   **No Class – Thanksgiving**

Nov 27   **Discussion:** Emerging Topics in Network Media

Nov 29   **Open Design Critiques**

Dec 04   **Rehearse Presentations**

Dec ??   **Final Presentations:** Date & Time tbd