CONTACT INFORMATION: Roxanne.hiltz@gmail.com
Home phone: 973 361 6680 (between 10 am and 8 pm please; making appointment for phone or Skype is suggested)
Office at NJIT: GITC Informatics Dept. Emerita office; by appointment
Skype: Mturoffsrhiltz

According to Wikipedia (a social media system), “Social software enables people to rendezvous, connect or collaborate through Computer-Mediated Communication and to form online communities.” Social media are those systems for which the “users” of the information are also the “providers” of the content of the information. The specific social media systems structure the exchange of this communication.

Formal course description:
Prerequisite: A graduate course on research methods. Ability to read and understand empirical studies in leading IS journals such as MIS Quarterly and ACM TOCHI publications. Seminar style course that covers design and impact of computer-based systems for human communication, including email and IM, Microblogging, discussion boards, Computer-Supported Cooperative Work (CSCW), Group Decision Support Systems (GDSS), and Social Networking Systems. Topics include theoretical foundations, alternative design structures, social impacts, and recent empirical studies of virtual teams, online communities, and systems used for social networking and information exchange, including applications related to emergency management, business, education, and “location aware” systems. Completion of a pilot research study or other term project is required.

Course format: seminar style. Guided independent study with online discussions, some face to face or synchronous online meetings, required online participation, exam and project.

Note: all students are of course required to follow the provisions of the NJIT honor code.

Office hours:
Roxanne: on campus, by appointment; If you need to see me on campus, please email me and I will let you know when I will be on campus next.

Online, via Skype: by appointment
The readings may be updated as new publications appear.

The objectives of this course are to:
1. Familiarize you with the history and state of the art of research on computer-mediated communication (an older and more broad term than “social media”, through reading and discussion of both “classic” articles and current research articles.
2. Enable you to understand the nature of social computing applications and of social, design, and research issues related to these applications. This includes applications designed or used for specific purposes, such as group decision support, education, and emergency management.
3. Prepare participants to do original research in this area (including design research).

The pre-requisite is any basic graduate-level research methods course or graduate statistics and probability course with a grade of B or higher; this is necessary to be able to understand the research articles. Intended primarily for Ph.D. students, but masters students planning a project or thesis in this area may also wish to participate.

There are recorded lectures (posted in the course Moodle); a few will be “required” but most are optional; some of them are out of date and you may decide that you don’t want to watch them after giving them a try. We will be doing our work primarily online on Moodle, but we may try a week or two on other social media platforms, e.g. a Facebook group space. There will be occasional face to face meetings on campus that could be participated in remotely, day and time and location to be chosen based on schedules of participants.

This is a draft plan, subject to revision as opportunities and the interests of the group evolve. Nobody is expected to read all of these sources. Seminar members will share the work of locating, reading, summarizing and critiquing the more important articles for one another. Each student will be responsible for summarizing/ critiquing two articles per week, on the average. You can find your own recent articles on a topic in a journal or proceedings, in addition to choosing from the suggested list. For those subtopics of less interest, you may do only the “required” articles; for those more closely related to your future research plans, you may read everything listed here, and more.

**GRADING (Assessment)**
One third each: class participation, exam, final project

**Systems tour: part of class participation**
Each student will choose a social media application that is successful in the sense that it has survived thus far and has a reasonable number of users, but not one of the “top” established systems such as Facebook or Twitter, that “everybody” already knows about. Create an online presentation and report which gives a “tour” of the main features of the system(s); what it is used for and by whom; possible research issues that are suggested; and questions for discussion. We will try to have a face to face meeting for these system tours and discussions about week 3 or 4 of the course.

**Participation, 33.3%** (one third of grade)- Students are required to engage in online summaries and discussions of course materials, each week, as an ongoing formative assessment. This will probably be divided into the two halves of the course.
Each Ph.D. student is expected to post two “reviews” of articles for the module per week in the first part of that week (on or before Wednesday), that will include some questions for discussion, and then to respond to at least two other postings. (Master’s students are expected to review at least one per week.) An entry will list the suggested articles appropriate to a module; you can “claim” yours by replying to that post; first to reply with a choice gets it. (You can make your choices several days ahead, but should do it by Monday of the week in which the module begins.) You should check into Moodle every day if possible and post/ respond several times a week. The grades will assess whether the student is reading and understanding the articles required for the course for each module, and is contributing to the shared building of knowledge by the class.

**Exam 33%.**
At about the 12th to 14th weeks of the semester, the students will participate in an online collaborative examination to demonstrate their knowledge of the assigned readings and research challenges in this area. Participation will be in the form of individuals each contributing possible questions, answering questions selected for them online, and then doing initial grading of responses to their questions. Questions may cover any aspect of articles that are “required” (with an asterisk) or the content of online reviews and discussions of articles posted by students on Moodle. This is a “summative” assessment of the student’s mastery of the literature in the field.

**Term Project: Research study and paper, 33%.**
Students will work with the instructor (and/or perhaps other instructors connected to NJIT) to find a topic of mutual interest and be encouraged to collaborate on research design, data collection, and data analysis. Results should be presented in the form of a draft paper for a conference such as AMCIS or CHI. This has been successful in the past in getting students a “first” publication.

The work and data will be “divided” in terms of each student in a two or three person group choosing a topic (such as a set of questions on a questionnaire used as the dependent variables) and then analyzing these data and writing up results. All students who collaborate on a project will be coauthors of all papers, but the student who takes the primary responsibility for writing up the paper will be first author. An objective is to actually submit the paper for a conference or a journal. Each group should also submit a statement of “who did what.” Alternatively, a student may propose an individual project that includes data collection and analysis. This project is an assessment of the student’s readiness to do original research in the field.

**DETAILED BIBLIOGRAPHY AND SYLLABUS FOR IS 735**

The following is an overview of the topics and the corresponding suggested readings for each module. These readings include a selection of articles published recently in the top journals and conferences that include coverage of social media, and some seminal (classic, oft cited) papers on each topic. Many of these articles will be made available for the students online; others will be located by students who will contribute the URLs or attachments to our online forums for each module.

**Abbreviations**
MISQ= MIS Quarterly
CSCW= Proceedings of the Conference on Computer Supported Cooperative Work (ACM)
ISCRAM: Proceedings of the conference on Information Systems for Crisis Response and Management (see [http://idl.iscram.org](http://idl.iscram.org))
JASSIST Journal of the Association for Information Science and Technology
HICSS= proceedings of the Hawaii International Conference on ‘System Sciences (at [www.hicss.org](http://www.hicss.org)).
JCMC: Journal of Computer Mediated Communication (online)
http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%29291083-6101
**READINGS and reference list:** An Asterisk means they are “required” and there may be questions specifically on them included in the exam. A double asterisk means very important... AN XX means an “alumnus of this course” was an author.

**Part I: General Overview**

**Weeks 1 and 2  Module 1: Literature Review, Theoretical Frameworks, General Overviews**

Note: Weeks in terms of class work start on Mondays and end on Saturday nights. In Fall 2016 “week 1” is the week of Sept. 3, even though that specific day is a holiday.

The objective of this module is to introduce you to the course and the current participants and to familiarize you with the major theories used in research on CMC/ Social media.

**Optional Lectures: Lecture 1, Introduction/ History and Lecture 2, theories**


Zhang, X., & Venkatesh, V. (2018). From design principles to impacts: A theoretical framework and research agenda. AIS Transactions on Human-Computer Interaction, 10(2), 105-128. DOI: 10.17705/1thci.00106 Available at: http://aisel.aisnet.org/thci/vol10/iss2/3


**Week 3: (Module 2)- Design Choices and Technology: Historical Overview and Web 2.0 applications**

The objective of this module is to introduce you to the range of different “structures” and varieties of software systems that have been designed, and to the design choices that may be included in any specific example of a social media system.

**A. Historical structures and issues**


**B. Web 2.0 / Social Media**


http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

*Beer, D. Social network(ing) sites... revisiting the story so far: A response to dana boyd & Nicole Ellison. JCMC, 13 (2008).

Dwyer, C. (XX) and Hiltz, S.R. Designing Privacy into online communities. Proceedings of Internet Research 9.0, Copenhagen, Denmark October 15th to 18th 2008.


*Steinkuehler, C. and Williams, D. Where everybody knows your (screen) name: Online games as “third places”. JCMC. 11 (4) 2006.


*Video: “Massive Scale Online Collaboration”

https://www.ted.com/talks/luis_von_ahn_massive_scale_online_collaboration?language=en

Optional: (you could post a summary and review as a contribution)- On Netflix, Steve Jobs: the Lost interview. Not really on SM per se, but on the history of computing. (I was lucky enough to see both Steve Jobs and Bill Gates in the “early days” of the 1980s).

(Note: Systems “Tour” assignment with this module)

**Weeks 4 5 6 (Module 3)- Social Impacts Studies**
Objective: Social media have social impacts, on the individual, group, organization or community, and societal levels. This module should provide you with an overview of the range of studies of SM use and potential impacts, how they have been studied and measured, and the major findings thus far.

Optional Lectures: L5 - Studies of the Social Dynamics of CMC
L6 Social Impacts of CMC
Newer Lecture: (some) recent studies

Graham, T. & Wright, S. 2014. Discursive equality and everyday talk online: the impact of “superparticipants.”. JCMC, 19, 625- 642.
Grandhi, S.A., Plotnick, L., Hiltz, S.R. and XX Xu, Y. “I (don’t) think I’ll be ok....”: Understanding perceived impacts of internet outage. Proceedings, AMCIS 2017, Boston, August. (revision of a paper for this course)


XX Mayer, Julia, Jones, Quentin, and Hiltz, Starr Roxanne (2015). Identifying Opportunities for valuable encounters: Towards context-aware social matching systems. ACM TOIS, 34, 1, August 2015, Article 1. (note: Julia is now working at Facebook).


Sproull & Kiesler, A two-Level perspective on Electronic Mail in Organizations, J. of Organizational Computing, 1, 2 1991, 125-131

Thompson, D. and Filik, R. (2016). Sarcasm in written communication: Emoticons are efficient markers of intention. JCMC, 21, 105-120.


Yoo, Y and Alavi, M. Media and group cohesion: Relative influences on social presence, task participation, and group consensus. MISQ, Sept 2001.


**Privacy Issues:**


Spottswood, E.L., and Hancock, J.T. 2017. Should I share that? Prompting social norms that influence privacy behaviours on a social networking site. JCMC, 22, 55-70.

Vishwanath, A. 2015 Habitual facebook use and its impact on getting deceived on social media. JCMC, 20, 83-98.


“Fake News” and Political Impacts Issues


PART II SPECIFIC APPLICATIONS

Module 4 (Week 7) Social Media and Emergency Management

Objective: Understand how social media are currently being used for the various stages of emergency management, the unique demands in terms of software design, the problems and inadequacies of current systems (e.g., data quality/trustworthiness and information overload) and some potential design solutions to overcome these inadequacies.

*Lecture: Newer lecture on research on Trustworthiness of social media for emergency management (2013).

Bajpai and Jaiswal, A Framework for Analyzing Collective Action Events on Twitter


Chew C, and Eysenbach G. (2010). Pandemics in the Age of Twitter: Content Analysis of Tweets during the 2009 H1N1 Outbreak. Plos One, 5 (11), e14118.) (available on boyd’s site)


Tapia, A. H. & Kathleen Moore 2014. Good enough is good enough: Overcoming Disaster response organizations’ slow social media data adoption. Computer supported cooperative work, (accepted. Web only as of july 2014).


**Week 8: Research Project Plans**
By this week at the latest, you should choose your topic and team, be put in a private conference space on Moodle to coordinate and plan your work so that I can loosely oversee it.

**Weeks 8 and 9 (Module 5) Group Decision Support**

Objective: Group Decision Support Systems are a variety of social software that includes CMC structures and tools to support a group through the phases of decision making, from surfacing alternatives and decision criteria, through consensus formation and agreement on the “best” solution. Students should become familiar with the major tools and systems that have been developed, the research findings about their effectiveness, and the methods used to assess effectiveness.

("old" Lectures: 7- Experimental Studies of “same time” GSS (Roxanne Hiltz); 8 and 9- NJIT experiments on Asynch GSS
L10 An overview of studies of Group Support Systems)

A. General

**Dennis, A.R. Information exchange and use in group decision making: you can lead a group to information but you can’t make it think.** MIS Quarterly, 20, 4 1996, 433-455.


**NJIT Studies of GDSS**


**Arizona (prof's and former students) Studies of GDSS**

*Briggs, RO, GSS Gert-Jan de Vreede, and Jay F. Nunamaker, Jr. 2003. Collaboration Engineering with ThinkLets to pursue sustained success with group support systems. JMIS, 19, 4 31-64.


Module 6 (Week 10) Virtual Teams and Virtual communities

Lecture: Virtual teams

Objective: Whereas GDSS provides support to short-lived, single-decision groups, support for virtual teams and virtual communities continues over a relatively long period of collaboration and information work related to a joint project or shared interest, from weeks to months. You should become familiar with the major variables that are related to success of virtual teams and virtual communities, including characteristics of the teams (e.g., fully distributed vs. partially distributed) and the building and importance of trust and shared identity.

Mojdeh, S., Head, M., & El Shamy, N. (2018). Knowledge sharing in social networking sites: How context impacts. individuals’ social and intrinsic motivation to contribute in online communities. AIS Transactions on Human-Computer Interaction, 10(2), 82-104. DOI: 10.17705/1thci.00105  Available at: http://aisel.aisnet.org/thci/vol10/iss2/2


Module 7 (Week 11) Educational Applications- Asynchronous Learning Networks

Lecture: 11 ALN lecture (Roxanne Hiltz) Recorded 1/15/2007

Ocker, R., Dana Kracaw, Starr Roxanne Hiltz, and Mary Beth Rosson, , Enhancing learning experiences in Partially Distributed Teams: Training students to work effectively across distances, Volume 1
Number 1 of ACM Transactions on Computing Education, March 2009.


**Module 8 (Week 12): Business and Marketing** (including marketing of political candidates or government programs) (Optional unit/selections)


NOTE: Weeks 12-14: collaborative Exam (administered online; for which students make up the questions and do initial feedback/ grading on the questions they make up)

Week 12, you will post three questions by Wednesday – to cover topics through week 12.
Week 13, you will answer two questions assigned to you (by Saturday)
Week 14, you will do initial grading of the answers to the questions you made up
Then by week 15 or so I will review the grading and post your final exam grade.

Module 9 (Week 14)- Location-aware systems, Future systems, future research

Objective: Enable you to make informed speculations about the types of systems and features that will become popular in the next decade, and their impacts. This may help you to identify areas for design research and social impacts research.

(Will be based on discussion and a few very recent articles)

Time for a Post-Mortem?: Business Professionals’ Perspectives on the Disillusionment of Virtual Worlds


Online: a Disutopian view of the future of the internet:
http://www.circleid.com/posts/20160714_internet_quo_vadis_where_are_you_going/
Final projects: If you wish a grade at the end of the semester, your project must be turned in by the end of the reading day or days after the end of classes. In any case, you will have a project report due by the end of week 14, describing your analysis progress and planned paper. If you elect to take an Incomplete, it is expected that your final project paper will be turned in by Feb. 1.