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 quantitative research methods. 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 alternative design structures, social impacts, and recent empirical studies of virtual teams, online communities, and systems used for social networking and information exchange, including “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.

Office hours:
Roxanne: on campus, by appointment; usually available on days of IS seminars. 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, or Webex: 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, through reading and discussion of both “classic” articles and current research articles.

2. Enable you to understand the nature of “Web 2.0” 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), and enable current researchers to exchange ideas and information.

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 will be recorded lectures that 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 that could be participated in remotely, or synchronous online sessions on Webex, 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. 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.

Lectures are available on NJIT’s Itunes.

**GRADING (Assessment)**
30% class participation, 30% exam, 40% 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, 30%** 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. (eg, participation first half, 15%, participation second half, 15%). Each student is expected to post at least one review of listed articles for the module that week, that will include some questions for discussion, and then to respond to at least two other postings. 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 30%**
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. This is a ‘summative” assessment of the student’s mastery of the literature in the field.

**Term Project:** Research study and paper, 40%.
Students will work with the instructor to find a topic of mutual interest and be encouraged to collaborate on research design, data collection, and data analysis. The data will be “divided” in terms of each student choosing a topic (such as 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 writes up the paper will be first author. An objective is to actually submit the paper for a conference or a journal. 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 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 (probably on Box); 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)


JCMC: Journal of Computer Mediated Communication (online) http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291083-6101

Journal of Asynchronous Learning Networks (JALN) (www.sloan-C.org)

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 “alumnus of this course” was an author.

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 2014 “week 1” is the week of Sept. 1, 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.
Lectures: Lecture 1, Introduction/ History and Lecture 2, theories


Malone and Crowston, "What is coordination theory and how can it help design “cooperative work systems?” CSCW ‘90, pp. 371-380.


Weeks 3 and 4: (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
*Beer, D. Social network(ing) sites... revisiting the story so far: A response to dana boyd & Nicole Ellison. JCMC, 13 ( 2008).
*Steinkuehler, C. and Williams, D. Where everybody knows your (screen) name: Online games as “third places”. JCMC. 11 (4) 2006.

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.


**Weeks 5 and 6 (Module 3)- Social Impacts Studies (Theories, Results and Methods)**

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 potential impacts, how they have been studied and measured, and the major findings thus far.

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


[http://jcmc.indiana.edu/vol10/issue4/cho.html](http://jcmc.indiana.edu/vol10/issue4/cho.html)


Graham, T. & Wright, S. 2014. Discursive equality and everyday talk online: the impact of “superparticipants.”. JCMC, 19, 625- 642.


Sproull & Kiesler, A two-Level perspective on Electronic Mail in Organizations, J. of Organizational Computing, 1, 2 1991, 125-134 (very short form of the above).


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

Privacy Issues:


**Module 4 (Week 7) Social Media and Emergency Management**

Objective: Understand how social media are currently being used in this application are 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 and information
overload) and some potential design solutions to overcome these inadequacies.

*Lecture: New 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)


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


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).


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**


**Minnesota Studies of GDSS**


Watson, R.T., DeSanctis and Poole 1987. Using GDSS to facilitate group consensus: some intended and unintended consequences. MIS Quarterly, 12.


(note: Zigurs is now at U. of Nebraska, chairing dept there)

**Arizona (profs 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.

*Coppola, Nancy W., Hiltz, Starr Roxanne, and Rotter, Naomi (2004)*
Building Trust in Virtual Teams. IEEE Transactions on Professional Communication, 47, 2 (June), 95-104.


**Module 7 (Weeks 11 and 12) 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.


**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 before Friday – to cover topics through week 12.

Week 13, you will answer two questions assigned to you

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 8 (Weeks 13 to 15)- 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 possibly a few very recent articles)


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 planned paper. If you elect to take an Incomplete, it is expected that your final project paper will be turned in by Feb. 1.