

**ISM 754: Information Systems Research in Digital Social Networks**  
**Bryan School of Business and Economics**  
**Department of Information Systems and Supply Chain Management**  
**Fall 2021 Syllabus**



**Instructor:** Dr. Hamid Nemati  
**Office:** 440 Bryan Bldg.  
**Office Phone:** (336) 334-4993  
**E-mail:** [nemati@uncg.edu](mailto:nemati@uncg.edu)  
**Office Hours:** By appointment

**Prerequisites:**

Enrollment in IS PhD program and Permission of the Ph.D. Director

**For Whom Planned:**

Doctoral students in Information Systems.

**Course Description (Catalog):**

This course introduces students to the seminal ideas, theories, and methodologies in the fast-changing area of digital social networks. The course provides students with the critical ability to explore the current extant literature and spot research opportunities in social media relevant to IS researchers. Students will develop and undertake a meaningful research in digital social networks.

**Course Overview:**

At the main entrance of Facebook headquarters in Menlo Park, California, a large banner is proudly displayed to greet visitors saying: “The social network IS the computer”. Aptly so, digital social network is the new computer, it is the instrument that we use to conduct most of our daily activities: communicating, getting information, shopping, etc. Digital social networks is one of the most significant technologies with far reaching impact that has burst into our lives and upended almost every aspect of our daily routines. It is estimated that 3.5 billion people are active users of social media worldwide. Studies have shown that 90.4% of Millennials, 77.5% of Generation X, and 48.2% of Baby Boomers are active social media users and they spend an average of 3 hours per day on social networks. The widespread use of social networks has impacted all aspect of our daily lives and has altered the way business is conducted. As a result, study of social networks from various perspectives have become an important area of concern for IS researchers and scholars. As shown by the vast number of published articles and recent special issue calls by some of most prestigious IS journals (e.g., JMIS and ISR) and conferences, research in various aspect of digital social networks, including behavioral, social, managerial, and strategic perspectives, have received considerable attention. Therefore, it is imperative for our PhD students to be familiar with basics of digital social networks theories and methodologies as well seminal research in this area in order to be prepared to undertake meaningful and publishable research in this area.

This seminar encompasses a systematic study of research on digital information and social networking and its related and associated issues and topic and their impact on people, organizations, and societies. The seminar will consider the volume of research on the effect of information and social networks and media on technical, social, organizational, and economic issues. Behavior influences technology and technology influences behavior. This course discusses the ‘what’, the ‘why’ and the ‘how’ of these influences in multiple contexts.

This is a survey course. The purpose is to develop an understanding of the variety of ways in which

information and social networks technologies influence behavior of individuals, organizations, and societies. The intent is to provide you with a broad understanding of these influences. In addition, the intent is to apply and extend the current knowledge to design and improve technologies used in digital social media. The course balances the acquisition of knowledge about the conduct of research in behavioral and organizational issues with the application of that knowledge to research on information systems.

This is a doctoral *seminar*, and as such, differs from a traditional course in the nature of pedagogy. The course is intended for doctoral students in Information Systems or related areas. You are expected to contribute, discuss, challenge and be challenged, and present logical arguments to support your positions. You are expected to speak in informed parlance as well as to write and present clearly, succinctly and precisely for all class discussions and prepared materials.

**Required text and readings:** No specific textbooks are required. All required readings, citations or articles are available on course Canvas. All readings should also be available electronically through the UNCG library databases.

### **Learning Objectives**

Upon completion of the seminar, students should be able to:

- Understand, evaluate, and gain knowledge from seminal works in digital social networks research.
- Integrate and evaluate the most important and salient theories, methodologies, and issues in digital social networks.
- Evaluate the current literature in digital social networks and identify research gaps.
- Attain a critical perspective on past and current IS Research on digital social media and assess potential impact of various issues on the future direction of research in digital social media.
- Understand and integrate multiple perspectives and appropriate scientific paradigms and approaches to conduct rigorous research project on digital social media.
- Understand appropriate methods to conduct behavioral and organizational research on the impact of digital social media and related technologies.
- Able to collect, clean and perform analytics on data generated by social media.
- Undertake a coherent, meaningful and publishable research project in various aspects of digital social networks.

### **Evaluation Methods:**

**Class preparation/participation/presentation/discussion:           50%**

This doctoral seminar course examines the assumptions, theories, and methodologies used in the study of the digital social media in information systems research. The course involves extensive reading and discussion of the research literature. Since this is a seminar not a lecture course, students are primarily responsible for all readings. Much of the class will involve discussion of ideas from readings. Each class meeting will have a number of required readings (including week 1). Each student will be expected to develop preparatory notes for each class session. Each week students will be assigned a number of articles that they will read, summarize, synthesize, evaluate and prepare an executive and research summary of each article and will present their review of each article to the class.

You should be prepared to discuss and defend your positions and help others understand your

positions. You will often be asked to take a position and defend it. It is your job to inform and support your discussion with literature and structure your position using conceptual frameworks. Students are expected to come to class fully prepared to discuss all the readings on a particular topic and play an active role in leading and participating in class discussions. In a seminar of this type, you *must* be active participants in the learning process. Excellent participation requires thorough preparation, critical thinking, a cooperative attitude, and the willingness to share ideas. You should approach the readings from a critical perspective, looking for aspects of the readings that are interesting, intriguing, counter-intuitive, confusing, or even contradictory. You should consider what the most important insights were, what new things were learned, what caused you to think differently about a phenomenon, what caused you to become aware of a phenomenon, or what you didn't understand. A better discussion assimilates, integrates and proposes concepts based on extant research, through a conceptual framework within guidelines of scientific theorization. This is the structure you should develop in your discussion. I suggest you read and re-read the articles, so you get a good understanding of the content and integrate concepts from related readings. Be prepared to summarize the main points of each reading and discuss the following questions:

- What is the research question of this article?
- What is the main contribution?
- What were the most important insights you obtained from the reading?
- What do you know now that you didn't know before?
- What do you now think about differently?
- What are the strengths and weaknesses of each article?
- What didn't you understand?
- What type of data and research method was used?
- How do the articles relate to each other and to others read in previous weeks (not applicable for week1)?
- Students will be asked to lead discussions on articles (to sign-up in class at least a week before).

The grade for this portion of the course depends on the quality of article summary and evaluation write up and the presentation of the article summary to the class. While the focus of summaries is on each article, the goal of the integrative summary is not to simply summarize each reading separately but to integrate but to frame the topic(s), provide a thoughtful evaluation of the materials read, raise some theoretical or empirical questions, compare and contrast methodologies, approaches or findings across the readings. The summary can also serve as quick review notes at comps time. Summaries are due before class meeting. Summaries must be posted in the Canvas. You are encouraged to take detailed notes during class that will help you with the summary.

**Final research project, presentation and paper: 50%**

The integrative final research project requires you to develop research related to digital social media based on the research discussions in class. The purpose is to develop a paper that is appropriate for submission to a reputable conference or a journal. Each student will develop a research project that should lead to a publishable paper based on one of the topics discussed in the course. The student will present this project to the class at the end of the course. The student is required to develop a research paper by the end of the semester as it relates to the topic that was selected and approved by me.

If the paper is theoretical, it should include a set of propositions. If the paper is empirical, it should

include an appropriate methodology and research design for examining it empirically.

An initial proposal (at least 3 pages not exceeding 5 pages) detailing the topic, research issues and relevant literature (not an exhaustive one at this point but the most relevant ones), proposed data source, and analysis approach must be submitted in writing by week 4. The proposal must be emailed. The proposals will be discussed in week 5. Each student should provide constructive comments on their peers' proposal (this will be counted towards class participation).

The full paper should expand the proposal by including the items listed above and outlining a research plan (of how this research may be conducted) including the appropriateness of research methodology employed to investigate the research question, and expected outcome (contributions to theory and practice). More will be discussed about the details of the project parameters.

Final project synopsis of due dates:

- Proposal – due week 4 (10% of your total grade will be assigned to this).
- Proposal discussion – week 5 (will impact your class participation grade)
- Initial draft of paper – week 10 (at least 40% to 50% of the paper must be done). I expect you to have covered the basis for the paper – research question, motivation, and literature review, etc.
- Final paper due and presentation – weeks 13-14 (40% of your grade).
- Please adhere to the timeline specified above. No incompletes will be awarded.

## **COURSE POLICIES**

All UNCG academic policies apply.

## **Course Outline<sup>1</sup>**

Weeks	Topic
1,2	Networks Big Picture and Big ideas
3,4	Network Dynamics Actors Models
5, 6	Network Dynamics Structural Models
7, 8	Network Basics and Analysis
9, 10	Information and Misinformation Networks
11, 12	Crowds Social Capital, behavior and Influence
13, 14	Final Project Presentation Final Research Paper submission

---

<sup>1</sup> This is a tentative outline and changes to this outline maybe needed.