Spring 2015 MIS 491-002 Social Media Analytics

DESCRIPTION

The explosive growth and adoption of social media such as Facebook, Twitter, Flickr, YouTube, Instagram, Wikipedia has transformed the way we express our preferences, communicate with others, and share information. This course will cover the history, theory, technologies, practical uses of social media, and topics in social data analysis. Students will have hands-on experience of using social media data for answering a particular question, analyzing the data for strategies, and measuring their effectiveness. By completing this course, students will know how to use social media productively, apply analytical techniques, and evaluate new social analysis tools and platforms.

Meeting Time and Place

Location: Art and Design Building L008
Time: Mondays 7:20 pm - 10:00 pm

Instructor Information

Name: Eui-Hong (Sam) Han, Ph.D.
Email: ehan6@gmu.edu
Website: http://www-users.cs.umn.edu/~han/
LinkedIn: https://www.linkedin.com/profile/view?id=9859816
Phone: (202) 505-0977

Office Hours: By appointment

LEARNING OBJECTIVES

Program Learning Goals of the Information Systems and Operations Management Program

- ISOM students can apply knowledge of information technology and business functions to understand its application in assessing, designing and improving business processes.
- Our students will be aware of the uses of technology in business
- Our students will be effective communicators
- Our students will be knowledgeable about the legal environment of business
- Our students will be critical thinkers
Goals of this class

- Gain understanding of social networks broadly and social media in particular
- Gain understanding of social media analytics by linking social media data and metrics to strategic decisions and performance
- Gain understanding of underlying analytics techniques

REQUIRED MATERIALS

Required Textbook: Social Media Intelligence by Wendy W. Moe and David A. Schweidel, Cambridge University Press (February 24, 2014)

Optional: The culture of connectivity: a critical history of social media, by Jose Van Dijck, Choice Reviews Online, 2013, Vol.50(12)

Optional: The power of real-time social media marketing: how to attract and retain customers and grow the bottom line in the globally connected world, by Beverly Macy and Teri Thompson, c2011. Available at George Mason University Fenwick Stacks (HF5415.1265 .M325 2011)

Grading and Assessment

Grade Distribution

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>A/A-</td>
<td>&gt;= 90%</td>
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<tr>
<td>B+/B-/</td>
<td>80% to &lt; 90%</td>
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<tr>
<td>C+/C-/</td>
<td>70% to &lt; 80%</td>
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<tr>
<td>D</td>
<td>60% to &lt; 70%</td>
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<tr>
<td>F</td>
<td>below 60%</td>
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Grading Scale

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quiz</td>
<td>10%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Discussion Board</td>
<td>15%</td>
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<tr>
<td>Twitter Monitoring</td>
<td>15%</td>
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<tr>
<td>Research Paper Review</td>
<td>20%</td>
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<tr>
<td>Project</td>
<td>30%</td>
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</tbody>
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Split between +/- scores will be determined by the instructor based on clustering of scores.
Instructions for all assignments will be posted on Blackboard. Completed written assignments should be submitted via Blackboard only.

All assignments must be completed by the due dates. If you know you will be busy on the day an assignment is due, please turn it in early. Assignments that are turned in by you after the due date will be deducted 10% during the first 24 hours they are late, and after that will receive half the credit they would have otherwise earned.

Quiz

For the weeks designated in the schedule, you will be responsible for reading chapters from the textbook and a few articles. On each of those weeks, there will be a short quiz based on the chapters and articles, at the beginning of the class. You should also be prepared to discuss the articles in class.

Class Participation

You will be expected to participate in class discussions. You will be evaluated based on your involvement in these and other discussions in class. You are encouraged to discuss your own work experience when relevant to the material being covered in class. You are also encouraged to ask questions in class.

The following factors will contribute positively to your participation score: (i) Arriving before the start of class and staying till the end, (ii) Listening actively to the instructor and peers, (iii) Asking good questions, (iv) Responding to questions asked to the class, (v) Neither dominating the conversation nor being too quiet, and (vi) Exhibiting a good sense of humor.

The following factors will contribute negatively to your participation score: (i) Arriving after the start of the class and/or leaving before the end, (ii) Lack of involvement, silence, detachment or disinterest, (iii) Distracting others by surfing the web, e-mailing, texting (iv) Not listening actively, and (v) Leading the discussion into unrelated topics.

Discussion Board

There will be several discussion board assignments during the semester. In each of the assignment, you will be asked to post an original thread in the discussion forum in the blackboard. Your post will be evaluated by the instructor for relevance to the social media analytics, originality, thought-provoking content, ability to generate discussion, and writing. Your peer students will also rate your original thread by replying to your thread. Each student vote by replying to 3 original threads in the discussion forum (need to have #vote in the reply text). The reply post should contain relevant conversation/discussion/evaluation of the original thread post. You will also have a chance to evaluate replies by selecting one of them as the best reply (reply to the best reply with #best in the reply text). You will get credit for your replies that are selected as the best reply.
Each discussion board will have the following components and scores.

1. Original Post (40 points)
2. Reply to other posts (30 points)
3. Selection of the best reply of your original post (10 points) - Note if you don't receive any reply for your post, then you can select one reply from other posts.
4. Number of replies (#vote) to your original post (max 10) (10 points)
5. Selected as best replies (#best). Sum up total number of replies in the thread where your reply is selected as the best. (max 10) (10 points)

Twitter Monitoring

You will collect twitter posts about a company, or a product, or a service throughout the semester. You will be asked to identify sentiment, category, intent, product features or service features of the twitter post. These twitter posts will serve as the dataset for the final project.

For this project, you will need access to the internet, Twitter account (link), and Google Sheets (link).

Article Review

This will be a combination of an individual work and group project of 2-3 students. You will provide a critical review of an article in the field of social media analytics. Your group can select an article from the list provided or select a different article. You need to get a permission from the instructor for an article outside of the list. The review report needs to be turned in as an individual assignment (50 points). Your group will present the article in class and lead the discussion (50 points)

Project

This will be a group project of 2-3 students. Your team will perform a detailed analysis of the twitter data collected over the semester. You will be asked to submit a proposal (10 points) a final report (45 points) and present the summary in the class (45 points).

Semester Grade

Your semester grade will be assigned based on the total points earned on the assignments described above; no extra credit will be available. A solid job on all the assignments will be evaluated at the A-/B+ border. To earn an A, performance must go beyond “meets expectations.” You can request a review of any grade within a week following the assignment of grades. After that period no grade will be revised.
Other Information

Academic Integrity

GMU is an Honor Code university; all students are responsible for knowing and following the GMU Honor Code Statement: “Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.” In the event of a violation of the GMU Honor Code, the violating student will be reported to the GMU Honor Committee. Another aspect of academic integrity is the free play of ideas. Discussions are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. Please refer to http://oai.gmu.edu for further details. When in doubt (of any kind), please ask the instructor for guidance and clarification.

Learning Disabilities

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 703-993-2474, during the first two weeks of the semester. All academic accommodations must be arranged through the ODS. More information about ODS is available at http://ods.gmu.edu.

Religion

Students who will miss class for religious reasons should inform me of their anticipated absences as soon as possible.

Other Course Policies

- Attendance: Attendance in class is mandatory. If you are absent, it is your responsibility to find out from a classmate what you missed (both course material and announcements).
- E-Mail Correspondence: Outside of the designated class time and office hours, e-mail is the easiest and quickest method to contact me. Consistent with federal privacy laws, I do not respond to non-GMU email ids with confidential information. Any email that you send me must include “MIS 491” in the subject and your full name in the body.
- Laptops and hand-held devices: Technology can greatly assist learning, but it can also be a distraction. Laptops or any other hand-held devices should strictly be used for class related activities such as taking notes or following lecture slides.

LESSONS

Lesson 1 - 01/26/2015

1. Topics
Lesson 2 - 02/02/2015

1. Topics
   a. Fundamentals of Opinion Formation
   b. Facebook
2. Readings
   Uploaded file available [here](https://mymasonportal.gmu.edu/bbcswebdav/pid-4666726-dt-content-rid-72561226_1/xid-72561226_1)
3. Assignments
   a. Discussion Board assignment #1 [part 2](https://mymasonportal.gmu.edu/bbcswebdav/pid-4666726-dt-content-rid-72561226_1/xid-72561226_1) due (note [part 1](https://mymasonportal.gmu.edu/bbcswebdav/pid-4666726-dt-content-rid-72561226_1/xid-72561226_1) is due 1/29/2015)
   b. Twitter assignment #1 due
   c. Discussion Board assignment #2 open

Lesson 3 - 02/09/2015

1. Topics
   a. Why Do We Share Our Opinions?
   b. Twitter
2. Readings
   a. Moe and Schweidel, Chapter 3: Why Do We Share Our Opinions?
3. Assignments
   a. List of papers for article review assignment provided
   b. Article/Project group team member list due
4. Quiz 1

Lesson 4 - 02/16/2015 - CANCELLED DUE TO INCLEMENTAL WEATHER

1. Topics
   a. The Social Effects of Strangers
   b. Flickr, Instagram
2. Readings
   a. Moe and Schweidel, Chapter 4: The Social Effects of Strangers

3. Assignments
   a. Discussion Board assignment #2 part 1 due
   b. Finalize selection of a review article for the group.

Lesson 5 - 02/23/2015

1. Topics
   a. The Social Effects of Strangers
   b. Flickr, Instagram

2. Readings
   a. Moe and Schweidel, Chapter 4: The Social Effects of Strangers

3. Assignments
   a. Discussion Board assignment #2 part 2 due
   b. Twitter assignment #2 due

4. Quiz 2

Lesson 6 - 03/02/2015

1. Topics
   a. Opinion Ecosystems and the Evolution Within
   b. Are Social Media Fragmenting the Population?
   c. YouTube

2. Readings
   a. Moe and Schweidel, Chapter 5: Opinion Ecosystems and the Evolution Within
   b. Moe and Schweidel, Chapter 6: Are Social Media Fragmenting the Population?

3. Assignments
   a. Discussion Board assignment #2 part 3 due

Lesson 7 - 03/16/2015

1. Topics
   a. Managing Social Media Communities for Better Social Media Intelligence
   b. Social Network Basics

2. Readings
   a. Moe and Schweidel, Chapter 7: Managing Social Media Communities for Better Social Media Intelligence

3. Assignments
   a. Discussion Board assignment #3 part 1 due
   b. Article review report due
Lesson 8 - 03/23/2015

1. Topics
   a. Cutting through the Online Chatter
   b. Analytics: Classification Models
   c. Student group article presentation: 2 teams
2. Readings
   a. Moe and Schweidel, Chapter 8: Cutting through the Online Chatter
3. Assignments
   a. Discussion Board assignment #3 part 2 due
   b. Twitter assignment #3 due

Lesson 9 - 03/30/2015

1. Topics
   a. Intelligence Integration
   b. Analytics: Text Mining & Sentiment Analysis
   c. Student group article presentation: 2 teams
2. Readings
   a. Moe and Schweidel, Chapter 9: Intelligence Integration
3. Assignments
   a. Discussion Board assignment #3 part 3 due
4. Quiz 4

Lesson 10 - 04/06/2015

1. Topics
   a. Building Social Media Intelligence into Our Strategies
   b. Analytics: Association Rules & Sequential Patterns
   c. Student group article presentation: 2 teams
2. Readings
   a. Moe and Schweidel, Chapter 10: Building Social Media Intelligence into Our Strategies
3. Assignments
   a. Discussion Board assignment #4 part 1 due

Lesson 11 - 04/13/2015

1. Topics
   a. Moving from Social Media Monitoring to Social Media Intelligence
   b. Analytics: Clustering & Segmentation
   c. Student group article presentation: 2 teams
2. Readings
   a. Moe and Schweidel, Chapter 11: Moving from Social Media Monitoring to Social Media Intelligence
3. Assignments
   a. Discussion Board assignment #4 part 2 due
   b. Twitter assignment #4 due
Lesson 12 - 04/20/2015

1. Topics
   a. Ethics, Bots, Spams, Misleading Reviews, Privacy
   b. Future of Real-Time Social Media
   c. Student group article presentation: 2 teams

2. Readings
   a. TBD

3. Assignments
   a. Discussion Board assignment #4 part 3 due

Lesson 13 - 04/27/2015

1. Topics
   a. Project Presentations

2. Readings
   a. TBD

3. Assignments
   a. Discussion Board assignment #5 part 1 due (note part 2 is due 4/30/2015)
   b. Project report due

Lesson 14 - 05/04/2015

1. Topics
   a. Project Presentations

2. Readings
   a. TBD

3. Assignments
   a. Discussion Board assignment #5 part 3 due (note part 2 is due 4/30/2015)