Loyola University Chicago

Fall 2016

Data Mining for Digital Advertising - COMM 370-201 Syllabus

Corboy Law Center - Room 326

Thursdays, 7:00 PM to 9:30 PM

Prof. Eric Bryn - ebryn@luc.edu - Office location: 30 minutes before class AND 30 minutes after class.

Course Description

DATA MINING FOR DIGITAL ADVERTISING COMM 370-201 This course gives a theoretical and practical overview of digital advertising analytics and data mining. By looking at analytic thinking through a critical, theoretical, and practical lens, students will acquire an intellectual framework for further study and practice in digital analytic and data mining in digital advertising communications.

Course Learning Outcomes

The purpose of this course is to teach applied digital analytic and data mining thinking to students who plan careers in communication-related fields. We will relate digital analytic and data science theory to modern communication forms, with a particular emphasis on the advertising and marketing professions. Students will increase knowledge of digital analytic thinking and data science (data mining) methodologies.

Textbooks

DATA SCIENCE FOR BUSINESS, WHAT YOU NEED TO KNOW ABOUT DATA MINING AND DATA ANALYTIC THINKING; Provost, Foster; Fawcett, Tom; © 2015. O'REILLY MEDIA. ISBN 978-1-449-36132-7. The abbreviation for this book hereafter is "DSB".

THE 4TH REVOLUTION, HOW THE INFOSPHERE IS RESHAPING HUMAN REALITY; Luciano Floridi; © 2015. OXFORD UNIVERSITY PRESS. ISBN 978-0-19-960672-6. The abbreviation for this book hereafter is "4THR".

Grading

Your grade for COMM 370-201 takes into account your class participation, weekly writing assignments ("Reaction Papers"), and two position papers ("Position Papers"). Grading is based on a points system. There are 600 total points available. The breakdown is below:

Class participation, 150 points, 25%: At the beginning of the semester you are given full credit for class participation; that is, you already have been allocated 150 points. To keep this points total you must participate in class discussions and come to class prepared to participate in these discussions. I teach in a Socratic method; as such, if I call on you during class and you

are not prepared to answer the questions I pose to you and/or you do not participate in a discussion based on any assignments, I will debit you 15 points from the original 150 points for not being prepared. Additionally, each class that you miss without prior approval you are debited 15 points from the original 150 points. However, you are given three (3) missed classes without penalty. Class participation is necessary for the success of the class. You are expected to prepare for each class as indicated by completing the required assignments, and any additional work as specified, prior to class, and come to class prepared to discuss these assignments.

Weekly writing assignments ("Reaction Papers"), 150 points, 25%: For each THURSDAY class, you are required to submit a 150 to 300 word essay about the reading assignments for the week in response to a challenge question that relates to the required reading/viewing. There are 10 Reaction Papers due throughout the semester; hence, each Reaction Paper is worth 15 points. I am not interested in a summary or recitation of the reading. Rather, I am interested in what you think about the reading assignments, how these assignments apply and/or relate to the broader themes of the class discussion and topics, etc. Each reaction paper is due by 11:55 PM CST the Wednesday prior to the Thursday class day, submitted to me via Sakai. Grading for Reaction Papers is as follows:

- 15 points: Concise, demonstrates understanding of reading material, includes appropriate citations to current and prior reading material to support arguments, meets general "A" grade criteria as specified below.

-10 points: Simple recitation, or summary of reading material, rote citation of reading material, meets general "B" or "C" grade criteria as specified below.

-5 points: Simple recitation, or summary of reading material, no use of citations, meets general "D" grade criteria as specified below.

-0 points: No submission of assignment by deadline, or meets general "F" grade criteria as specified below.

Position Papers, 300 points (each Position Paper is 150 points), 50%: The two position papers relate to the topics discussed during lectures, assigned reading, and additional class assignments. Each paper must be, at minimum, four pages in length, double-spaced, 1" margins, and include short introductory and conclusory paragraphs. Each position paper will be in response to a challenge question. Position Papers are due by the end of class on the respective due date, submitted to me via Sakai. You will be able to work on Position Papers during class on the respective due date. I will not accept Position Papers past the due date. If you submit a Position Paper late, you will NOT receive a grade on this Position Paper.

General Grading Criteria for Written Work

·   A: Publishable work with no spelling, grammatical, punctuation or AP Style errors and the proper information and sources written in a lively, well-organized manner.

·   B: Minimal spelling, grammatical, punctuation and/or AP Style errors. Minimal missing information and sources; minimal problems with framing arguments and organization.

· C: Notable number of spelling, grammatical, punctuation and/or AP Style errors. Noticeable missing information and sources; problems with organization.

· D: Significant number of spelling, grammatical, punctuation and/or AP Style errors. Significant missing information and sources; significant problems with organization.

· F: Misspelling of proper names. Other major spelling, grammatical, punctuation and/or AP Style errors. Almost total lack of information and sources; severe problems with organization.

Letter grading

A = 100% – 94%

A- = 93% – 90%

B+ = 89% – 88%

B = 87% – 83%

B- 82% – 80%

C+ = 79% – 78%

C = 77% – 73%

C- = 72% – 70%

D+ = 69% – 63%

D = 62% – 60%

F = 59% – 0 (Fail)

This grading breakdown is subject to rules and policies as specified by Loyola University Chicago and the Dean of the School of Communications and, thus, is subject to change as necessary.

Classroom Demeanor

Please treat this class like any professional commitment and attend and actively participate in every class session. Missing class, frequent late arrivals, and leaving early will lower your grade because you will miss valuable content. Quizzes and in-class assignments may be given without prior notice. You are not permitted to make up in-class work.

Conduct yourself courteously in class, which includes refraining from distracting and disruptive behaviors such as texting or talking (to each other or on the phone) during lectures, eating, arriving late or leaving early. Additionally, given the nature of the class subject matter it's not inconceivable to encounter vulgarity and other adult content, and the expectation is for you discuss such content appropriately and responsibly.

You are expected to conduct yourselves in accordance with Loyola University's Academic Integrity Standards (http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml) and the School of Communication Academic Integrity Standards (http://www.luc.edu/soc/academics/academicintegrity/). I have included the School of Communication Academic Integrity Standards below:

Academic Integrity

Statement on Academic Integrity

A basic mission of a university is to search for and to communicate truth as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty.

Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism, copying another student's work, and submitting false documents.

Academic cheating is a serious act that violates academic integrity. Cheating includes, but is not limited to, such acts as:

·   Obtaining, distributing, or communicating examination materials prior to the scheduled examination without the consent of the teacher;

·   Providing information to another student during an examination;

·   Obtaining information from another student or any other person during an examination;

·   Using any material or equipment during an examination without consent of the instructor, or in a manner which is not authorized by the instructor;

·   Attempting to change answers after the examination has been submitted;

·   Unauthorized collaboration, or the use in whole or part of another student's work, on homework, lab reports, programming assignments, and any other course work which is completed outside of the classroom;

·   Falsifying medical or other documents to petition for excused absences or extensions of deadlines; or

·   Any other action that, by omission or commission, compromises the integrity of the academic evaluation process.

Plagiarism is a serious violation of the standards of academic honesty. Plagiarism is the appropriation of ideas, language, work, or intellectual property of another, either by intent or by negligence, without sufficient public acknowledgement and appropriate citation that the material is not one's own. It is true that every thought probably has been influenced to some degree by the thoughts and actions of others. Such influences can be thought of as affecting the ways we

see things and express all thoughts. Plagiarism, however, involves the taking and use of specific words and ideas of others without proper acknowledgement of the sources, and includes, but is not limited to, the following:

· Submitting as one's own material copied from a published source, such as Internet, print, CD-ROM, audio, video, etc.;

· Submitting as one's own another person's unpublished work or examination material;

· Allowing another or paying another to write or research a paper for one's own benefit; or

· Purchasing, acquiring, and using for course credit a pre-written paper.

The above list is in no way intended to be exhaustive. Students should be guided by the principle that it is of utmost importance to give proper recognition to all sources. To do so is both an act of personal, professional courtesy and of intellectual honesty. Any failure to do so, whether by intent or by neglect, whether by omission or commission, is an act of plagiarism. A more detailed description of this issue can be found at http://luc.edu/english/writing.shtml#source .

In addition, a student may not submit the same paper or other work for credit in two or more classes. A student who submits the same work for credit in two or more classes will be judged guilty of academic dishonesty, and will be subject to sanctions described below. This applies even if the student is enrolled in the classes during different semesters. If a student plans to submit work with similar or overlapping content for credit in two or more classes, the student should consult with all instructors prior to submission of the work to make certain that such submission will not violate this standard.

Plagiarism or any other act of academic dishonesty will result minimally in the instructor's assigning the grade of "F" for the assignment or examination. The instructor may impose a more severe sanction, including a grade of "F" in the course. All instances of academic dishonesty must be reported by the instructor to the appropriate area head and to the office of the Dean of the School of Communication.

The office of the Dean of the School of Communication may constitute a hearing board to consider the imposition of sanctions in addition to those imposed by the instructor, including a recommendation of expulsion, depending on the seriousness of the misconduct. In the case of multiple instances of academic dishonesty, the Dean's office may convene a separate hearing board to review these instances. The student has the right to appeal the decision of the hearing board to the Dean of SOC. If the student is not a member of the SOC, the dean of the college in which the student is enrolled shall be part of the process. Students have the right to appeal the decision of any hearing board and the deans of the two schools will review the appeal together. Their decision is final in all cases except expulsion. The sanction of expulsion for academic dishonesty may be imposed only by the Provost upon recommendation of the dean or deans.

Students have a right to appeal any finding of academic dishonesty against them. The procedure for such an appeal can be found at: http://www.luc.edu/academics/catalog/undergrad/reg_academicgrievance.shtml .

The School of Communication maintains a permanent record of all instances of academic dishonesty. The information in that record is confidential. However, students may be asked to sign a waiver which releases that student's record of dishonesty as a part of the student's application to a graduate or professional school, to a potential employer, to a bar association, or to similar organizations.

(The School of Communication policy is based entirely on and is consistent with the Academic Integrity Policy of the College of Arts & Sciences.)

If you are a student with special needs such as those covered under the Americans With Disabilities Act, please contact me early in the semester and immediately get in touch with Loyola University Chicago Services for Students with Disabilities (http://www.luc.edu/sswd/).

COURSE SCHEDULE (SUBJECT TO CHANGE)

01/21/2016 – Introduction to Data Analytic and Data Science Thinking

Required reading and assignment for this session:

- DSB: Chapter 1
- 4THR: Chapter 1

01/28/2016 — Framing the Business Issues

Required reading and assignment for this session:

- DSB: Chapter 2
- 4THR: Chapter 1
- Reaction Paper 1: Topic TBD

02/04/2015 – Predictive Modeling & The Infosphere

- DSB: Chapter 3
- 4THR: Chapter 2
- Reaction Paper 2: Topic TBD

02/11/2016 – Predictive Modeling & The Infosphere

- DSB: Chapters 4
- 4TH: Chapter 2
- Reaction Paper 3: Topic TBD

02/18/2016 – Overfitting and Online Identity

- DSB: Chapter 5
- 4TH: Chapter 3
- Reaction Paper 4: Topic TBD

02/25/2016 — Data Similarities and The Online Self

- DSB: Chapter 6
- 4THR: Chapter 4
- Reaction Paper 5: Topic TBD

03/03/2016 — Position Paper 1

- Position Paper 1: Topic TBD

03/07/2016 to 03/12/2016 - Spring Break!

03/17/2016 – Creating Useful Data Models and Privacy

- DSB: Chapter 7
- 4THR: Chapter 4
- Reaction Paper 6: Topic TBD

03/24/2016 — Data Visualizations and Data Inscription

- DSB: Chapter 8
- 4THR: Chapter 6
- Reaction Paper 7: Topic TBD

03/31/2016 – Probabilities and Data Inscription

- DSB: Chapter 9
- 4THR: Chapter 6
- Reaction Paper 8: Topic TBD

04/07/2016 — Text Mining and Agency

- DSB: Chapter 10
- 4THR: Chapter 7
- Reaction Paper 9: Topic TBD

04/14/2016 – Data Analytical Thinking and Politics

- DSB: Chapter 11
- 4THR: Chapter 8
- Reaction Paper 10: Topic TBD

04/21/2016 — Data Science Strategies and Ethics

- DSB: Chapters 12 and 13
- 4THR: Chapter 10

04/28/2016 — Ethics and Class Review

- 4THR: Chapter 10

05/03/2016 – Final Exam – Position Paper 2