University of Waterloo
Faculty of Arts | Stratford Campus
Global Business and Digital Arts 303
Innovation, Project, and Change Management
Fall 2017

Course Director: Philip J. Boyle
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                     PAS 2051 (Waterloo)
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Class Hours: Section 1: Tuesday 2-3:50pm; Section 2: Tuesday 10-11:50am
Tutorial Hours: Section 1: Friday 1-1:50pm; Section 2: Friday 9-9:50am
Office Hours: Tuesdays & Fridays by drop-in and appointment
Classroom: Seminars: DMS 1004
                     Tutorials: DMS 3129

Calendar Description

This course focuses on a key challenge of the 21st century: how do individuals contribute to social innovations, new ways of doing and seeing, which provide breakthrough solutions to intractable problems? The course will review the literature both on social change and transformation and on private sector innovation. Students will be challenged to draw from these two disparate literatures to form working hypotheses for initiating, building, and disseminating social innovation.

Detailed Description

This course will examine various aspects of the digital information economy as a force for disruptive innovation. We will focus in particular on the promise of 'big data' to provide new ways of doing and seeing that disrupt established models of public governance and private enterprise. We will also develop an evaluative stance towards the digital information economy in order to understanding of the promise and pitfalls of living in a time of information saturation.

Course Goals and Learning Outcomes

- Students will, through a series of directed and self-selected topical analyses, understand how the information economy is changing established models of business, scientific, and social enterprise
- Students will be familiar with the strengths and shortcomings of the fair information practice principles (FIPPs) in the context of the digital information economy
- Students will exercise skills in data visualization in order to simplify and communicate complex problems to a wide audience

Required Resources

Neef, D. 2015. *Digital Exhaust: What Everyone Should Know About Big Data, Digitization, and Digitally Driven Innovation*. Pearson Education. [Available from Amazon.]

Slee, T. 2017. *What's Yours is Mine: Against the Sharing Economy*. OR Books. [Available from Amazon.]

Course Deliverables & Assessment

Students will be assessed through the following deliverables:

Assignment	Weight	Due Date
Small Assignments (7; Individual)	25% (5% each)	Throughout semester
Book Review (Individual)	25%	Dec 8
Privacy Assessment & Infographic (Group)	20%	Oct 13
Data Visualization Project (Group)	30%	Nov 28

Small Assignments – 5 @ 5% each

You will be required to complete 7 small assignments throughout the semester. These assignments may consist of in-class quizzes, short written responses, or other formats as determined by the instructor. These are 'surprise' assignments to be completed in class. The two assignments with the lowest grade will be dropped from your final grade. There are no make-ups or re-dos for missed small assignments.

Book Review – 25%

You are required to write a 5-page (double spaced) book review of *What's Yours is Mine: Against the Sharing Economy* by Tom Slee. Consult the following web page from the University's library when writing your review:

http://subjectguides.uwaterloo.ca/content.php?pid=257515&sid=2386985

You should adhere as close as possible to the six objectives outlined on this page. Note that describing the contents of the book is only one of these objectives; as such, you should restrict summarizing the book to one page or less. Your final submission should include a cover page with a title (not the title of the book), your name, student ID number, course name, my name, and the date. Book reviews are to be submitted on Learn by the due date.

Privacy Assessment & Infographic – 20%

In groups to be assigned by the instructor you will research and assess the privacy policy of a selected social media platform. Your assessment should focus on the extent to which the policy of your firm aligns with the Fair Information Practice Principles (FIPPs). You will justify your assessment in a five page (max, double spaced) written report. You will also design an infographic that is suitable for display on the Christie wall that communicates your assessment. Your report and infographic must include an explicit letter grade (A, B+, C-, etc). This assignment will be discussed in greater detail in class.

Data Visualization Project – 30%

In groups assigned by the instructor you must develop a data visualization that represents some aspect of our increasingly global, urban, and economically polarized world. Your visualization must show <u>change over time</u> with respect to the phenomena you are visualization (e.g., how many aircraft depart Toronto annually over a decade; how many UPS packages were delivered daily in 2016; how many hurricanes occurred in North America since 1970). You visualization may be static, though visualizations that are dynamic and/or interactive will be favorably assessed. Your first step is to locate an open-source dataset that is suitable for this assignment, and you are encouraged to use either Processing or Tableau to visualize the data. In order to facilitate the data visualization workshop at the end of the semester, you should prepare your visualization for horizontal, wide-screen viewing, though use of the Christie Wall is acceptable. Your visualization must be accompanied by a five page (max, double spaced) statement that explains what your visualization reveals about our changing world, the significance of the issue you have chosen to represent, your data sources and methods for creating your visualization, and anything else that is important to your project. The group will also provide a short verbal presentation of your visualization at a showcase class at the end of the semester. This assignment will be discussed in greater detail in class.

Weights for assignment components: visualization (50%), report (40%), presentation (10%).

Course Schedule & Reading List [Material available on Learn where indicated]

Sept 12:   Introduction to Course. What is the Data Revolution? What is Big Data?
Sept 15t: Privacy group project initiated (groups assigned; project outlined)

Theme 1:   The Personal Information Industry Complex

Sept 19:   Living in a Big Data World
              Required Reading: Neef Ch. 1, 2, & 11

Sept 22t: Open work session (meet directly with your group in meeting rooms; I will circulate)

Sept 26:   Privacy in the Digital World
              Required Reading: Levin & Nicholson (2005), Privacy Law in the United States, the EU
              and Canada: The Allure of the Middle Ground [on Learn]

Sept 29t: Open work session

Oct 3:   Film: Terms & Conditions Apply (& discussion)

Oct 6t: Open work session

Oct 12:   No class

Oct 17:   Big Data & the Personal Information Industry
              Required Reading, Neef Ch. 3, 4, & 5

Oct 20t: Privacy Assessment due by END OF TUTORIAL (9:50am & 1:50pm respectively)

Theme 2:   Disruptive Innovation, Big Data, & Data Visualization

Oct 24:   Data Visualization Workshop

Oct 27t: Open work session (data visualization project)

Oct 31:   What is Disruptive Innovation?
             Required Reading: Bower & Christensen (1995), Downes & Nunes (2013) [on Learn], &
             Slee Ch. 1, 2, & 4

Nov 3t: Open work session

Nov 7:   Film: The Joy of Data (& discussion)

Nov 10t: Open work session

Nov 14:   The Internet of Things
             Required Reading: Neef Ch. 7 & OPC (2016)
             Links on Learn: Cullen (2017), Quain (2017), & Reilly (2017)

Nov 17t: Open work session

Nov 21:   Algorithms and Automatic Living
             Required Reading: Gillespie (2014)
             Links on Learn: Luckerson (2015), Harris (2017), & Carpenter (2015) [all on Learn]

Nov 24t: Open work session

Nov 28:   Data Visualization Showcase

Dec 1t: Book review consultation

Classroom Policies

Please read and observe the following classroom policies. The University's policies on Academic
Integrity and Accommodation for Students with Disabilities appear after the Course Schedule &
Reading List. You are expected to adhere to all classroom and University policies.

A Note on (Your) Expectations

This course has more academic content than a studio or skills acquisition course. This means that
you will be expected to read, think, synthesize, and apply ideas in written and verbal forms. Grades
of 85%+ are reserved for students who exceed expectations in all categories of evaluation, not
merely meet expectations.

Course Delivery

This course will be run in seminar format, meaning that lecturing will be kept to a minimum in favor of directed discussion and activities. My role will be to act as a facilitator and manager of class time, while your role is to <u>read all assigned material before class</u> and be prepared to <u>discuss the material</u> each and every meeting. The success of our seminar time together depends upon you doing so.

Attendance Policy

You are expected to attend all classes and tutorials. Absences, especially when group work in tutorials is scheduled, should be avoided unless absolutely necessary and due to reasons acceptable to the University. Travel plans are not acceptable reasons for being absent or requesting alternative due dates.

Late Submission Policy

All assignments must be submitted on the due date. Late assignments will be penalized at 5% of the value of the assignment per day.

Electronic Device Policy

Laptop computers and/or tablets may be used in the classroom for learning purposes only. All other uses are prohibited. Mobile phones should be turned off and stored until the end of class. No selfies in class (I'm not kidding – it happens). Do not wear headphones in class. Making audio/video recording of class lectures or tutorials without permission is prohibited. You may be asked to leave the classroom if any use of technology is disruptive.

Email Policy

Please keep email correspondence to a minimum. I will strive to respond to all emails I receive within one business day, but most questions can be answered by consulting the course outline, asking your colleagues, or waiting until the next time we meet.

University Policies

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the UWaterloo Academic Integrity Webpage (https://uwaterloo.ca/academic-integrity/) and the Arts Academic Integrity Office Webpage (http://arts.uwaterloo.ca/current-undergraduates/academic-responsibility) for more information.

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4 (https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70). When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline

A student is expected to know what constitutes academic integrity to avoid committing academic offenses and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. For information on categories of offenses and types of penalties, students should refer to Policy 71, Student Discipline (http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm). For typical penalties check Guidelines for the Assessment of Penalties (http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm).

Appeals

A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals (http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm).

Note for Students with Disabilities

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.