Data for Social Innovation | PADM-GP 4341
An introduction to emerging trends in data, technology, and their applications to social innovation.

Instructor | Laura Manley (laura.manley@nyu.edu)
Course Description
An introduction to emerging trends in data, technology, and their applications to social innovation.

In the last decade, new uses of data and technology have fundamentally changed the way we make every day choices, deliver goods and services, and increasingly, govern society. From planning our daily commute, reviewing local doctors’ ratings, or looking up the forecast to determining who gets a job, approved for a loan, admitted into school, or granted parole – data (and everything that comes with it) is central to these decisions. As computer calculations are increasingly used to steer life- and society-altering outcomes, policymakers and social innovation students must understand the data behind the formulas.

Learning Objectives
This course provides an overview of the innovative uses of data and how they can shape our decisions. Through a combination of class discussions, case studies, and recent news articles, students will develop their own data-driven social innovation projects throughout the course. The course will teach students how to:

i. Understand the growing data ecosystem and key resources available;
ii. Critically evaluate the pros and cons of utilizing various types of data and tech; and
iii. Identify opportunities for data-driven decision making in social innovation projects.

Key Initiatives Covered in Class
Key US and international initiatives that will be examined throughout the class include: the official U.S. government data site (Data.gov) providing increased public access to federal government datasets, the World Bank’s development data portal (Data.WorldBank.org), and the United Nations SDG National Reporting Initiative (SDGReporting.org). The instructor will use firsthand knowledge working on these initiatives to help students navigate these institutions to find the innovation spaces within them.

Course Project
The course project will teach students how to utilize various types of data to improve the outcomes of social innovation projects. Students, in small teams of two to three, will choose a new or existing project and develop a strategy for integrating public data and/or visualization techniques. Teams are responsible for researching, designing their project and delivering a pitch of their proposal including a brief slide deck and written summary during session 4.

After the last session, teams will also submit a separate feasibility analysis and implementation plan for their proposal reviewing the type of data they have used, benefits and drawbacks of the data and applications, the social innovation impact, and policy implications. Teams will be asked to evaluate the expected value-add of the proposal against the costs required.
Course Dates

The course will be held on two full Fridays over the 2019 Summer term. The course will be broken into four half-day sessions:

- **Session 1:** 5/31 from 9:30AM to 12:30PM
- **Session 2:** 5/31 from 1:30PM to 5:00PM
- **Session 3:** 6/14 from 9:30AM to 12:30PM
- **Session 4:** 6/14 from 1:30PM to 5:00PM

Attendance is required for all four sessions to receive course credit, unless prior approval was obtained for a missed session.

Pre-Course Work

To make the most of the four sessions, students are required to do pre-course work to begin the first session with informed discussion questions and a basic understanding of the subject matter.

Readings:

- WIRED - MFarm Empowers Kenya’s Farmers with Price Transparency and Market Access: [https://www.wired.co.uk/article/mfarm](https://www.wired.co.uk/article/mfarm)
- Nature International Journal of Science – Bias Detectives: the Researchers Striving to Make Algorithms Fair: [https://www.nature.com/articles/d41586-018-05469-3](https://www.nature.com/articles/d41586-018-05469-3)
- Stanford Social Innovation Review – Data as a Means, Not an End: [http://ssir.org/articles/entry/data_as_a_means_not_an_end_a_brief_case_study](http://ssir.org/articles/entry/data_as_a_means_not_an_end_a_brief_case_study)

Assignments:

- Write a 2 to 3-page memo (double-spaced, 10 pt. font) discussing the major opportunities to utilize data for social innovation. These opportunities should be based on your experiences in work or real-world projects and the pre-course readings. Also include a list
of three social innovation projects that you would like to focus on for this class with brief
descriptions of each. Note: these projects may be new or something that you are already
working on for other classes or work.

Grading

There is no curve in this course. Everyone may receive an A or everyone may receive a failing grade. This course will abide by the Wagner School’s general policy guidelines on incomplete grades, academic honesty, and plagiarism. It is the student’s responsibility to become familiar with these policies. All students are expected to pursue and meet the highest standards of academic excellence and integrity.

Incomplete Grades: http://wagner.nyu.edu/students/policies/incompletes

Academic Honesty: http://wagner.nyu.edu/students/policies

Grade Breakdown & Submissions

Course grades will be calculated based on overall class participation and pre-session preparation, a pitch deck and proposal, and a feasibility assessment and implementation plan.

<table>
<thead>
<tr>
<th>Description</th>
<th>Grade %</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Participation &amp; Preparation</td>
<td>20%</td>
<td>May. 29 (for pre-course memo)</td>
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<tr>
<td>Active participation in teams and during class discussions and pre-course work and readings</td>
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<td></td>
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<tr>
<td>Pitch Deck &amp; Proposal</td>
<td>30%</td>
<td>Jun. 14</td>
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<tr>
<td>5-minute pitch deck with an accompanying 2-page written summary of proposal (double-spaced, 10 pt. font)</td>
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<tr>
<td>Feasibility Assessment &amp; Implementation Plan</td>
<td>50%</td>
<td>Jun. 21</td>
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<tr>
<td>6 to 8-page paper critically assessing the proposal’s feasibility through technical, economic, legal, and operational considerations. (double-spaced, 10 pt. font)</td>
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<tr>
<td>Peer Review Form</td>
<td>Required</td>
<td>June. 21</td>
</tr>
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Please submit all assignments through NYU Classes (Summer 2019 Data for Social Innovation) under assignments. Note: All submissions will be verified through Turnitin.
Late Policy
Extensions will be granted only in case of emergency. This is out of respect to those who have abided by deadlines, despite equally hectic schedules. Papers handed in late without extensions will be penalized one-third of a grade per day.

Schedule

Session 1 – Data Driven Society
Description: The first session provides students with an introduction to the prevalence of data and tech in social innovation through case studies and ongoing projects including public, private, and nonprofit examples. Major technological advances powered by data will be reviewed to demonstrate the unprecedented growth of data-driven social innovation.

This session delves into the policy applications of information and introduces the various types of data, how they relate, and the pros and cons of each type. Specific topics will include big data, open government data, privately-held, crowd-sourced/citizen generated data.

In addition, the first session will review the current policies and institutions that govern information and support technological advances from both domestic and international perspectives. Students will discuss how these institutions help or hinder the growth of social innovation.

Course Project Activity: Brainstorm three potential social innovation projects for data utilization using the framework of the Value Proposition Canvas. Students should identify areas where data could role to streamline processes, improve outcomes, or develop measurement guidelines.

Session 2 – Finding, Accessing, and Utilizing Relevant Data
Description: Session 2 explores the various sources for finding and accessing relevant types of information for your project or initiative. Specific topics reviewed will include information usability and relevance, navigating data portals, and accessing information. The following data portals will we reviewed and discussed:

- World Bank Data http://Data.WorldBank.org

After reviewing various data sources and their pros and cons for use, we will delve into audience/customer segmentation to assess opportunities for maximizing the impact of specific types of data. Session 2 will also review several techniques for data analysis, visualization, and integration. Presentation of information will be a major focus for both the quality and quantity of data utilized.

Course Project Activity: Teams will explore and identify potential data sources that address various elements of their social innovation projects. Each data source must be assessed for its
relevance and impact on project outcomes. Teams will also investigate and test various tools for data analysis, integration, and visualization based on the needs of the selected social innovation project. Each team will begin preparing their pitch deck and written summary for presentation in session 4.

**Session 3 – Policy Considerations**

**Description:** Session 3 discusses the major policy considerations for the prioritization, use, and management of various types of information. Key considerations to be reviewed will include information life cycle, privacy, quality, interoperability and standards, and accessibility. The various environmental factors that influence data-related social innovation and how they affect current initiatives will be discussed.

**Course Project Activity:** Based on the lecture and class discussion, teams will assess their project data’s reliability, quality, and long-term accessibility. Additional data sources may be required to address potential policy related concerns.

**Session 4 – Implementation & Presentations**

**Description:** In the final session, the feasibility of projects will be discussed by reviewing the technical, economic, legal, and operational aspects of the data-driven social innovation. This will also include how teams have integrated data for improved outcomes or decision making with a before and after comparison. Time, money, and resource savings will also be discussed and the trade-offs for each in terms of implementation.

**Course Project Assignment:** Teams will present their pitch deck to the class summarizing the data-driven social innovation and how their utilization of data improves project-outcomes. Based on class feedback and additional readings, teams will develop their feasibility assessment and implementation plan to be submitted by June 21st.