Overview
New digital marketing strategies are continuously emerging based on the unprecedented access to vast amounts of information about products, firms, and consumer behavior. From Twitter to Facebook to Google to Apple to Amazon, the shared infrastructure of IT-enabled platforms are playing a transformational role in today’s digital age. These processes are just beginning and will have enormous impact on our activities and the way we relate to people and organizations.

Traditional marketing has always been about the 4Ps: Product, Price, Place, and Promotion. This course will examine how the digital revolution has transformed all of the above, and augmented them with the 5th P of Participation (by consumers). The course will cover the business implications of social media such as product reviews, social networking platforms, search engine advertising, digital advertising, crowdsourcing and crowdfunding, and the emerging mobile ecosystem. The cases to be used in the course have been chosen to cover a range of industries and transformations of business models over the last ten years, and span search advertising, mobile banking, social media, user-generated content, crowdfunding, crowdsourcing, and social networking.

While there will be sufficient attention given to top level strategy used by companies adopting social media and digital marketing, the focus of the course is also on analytics: how to make firms more intelligent in how they conduct business in the digital age. Measurement plays a big role in this space. The course is complemented by cutting-edge projects and various business consulting assignments that the Professor has been involved in with various companies over the last few years. In addition to assignments analyzing data using Excel, we will discuss:

- statistical issues in data analyses such as selection problem, omitted variables problem, endogeneity and simultaneity problems, dummy variables, autocorrelation, and multi-collinearity.
- assessing the predictive power of a regression and interpreting various numbers from the output of a statistical package. Goodness of fit tests and selection of models.
- various econometrics-based tools such as simple and multivariate regressions, linear and non-linear probability models (Logit and Probit), estimating discrete and continuous dependent variables, count data models (Poisson and Negative Binomial), cross-sectional models vs. panel data models (Fixed Effects and Random Effects).
- various experimental techniques that help can tease out correlation from causality such as randomized field experiments and A/B testing.

We will primarily be using a software package called STATA 14 (available from the Stern Apps server) to analyze data. In order to get the most out of the course, students need to have an understanding of basic regressions and statistics. The focus of data analytics will be on econometrics or explanatory modeling as opposed to predictive modeling. The emphasis of the class will be on doing rather than on reading. In-class time will be spent largely on lectures, guest speakers, assignments involving data analyses using econometrics and HBS style case study discussions in-class.
Class Dates and Times

The course is being in the intensive format. The class will meet as follows:

- Aug 24, 25, Aug 31, Sep 1: 6 PM to 9 PM
- Aug 26, Sep 2: 9 AM to 4 PM and Aug 27: 9 AM-12 PM

This course is taught in a flipped classroom style with some video lectures compensating for in-class time. Note there are no classes on September 3 (all day) and Aug 27 (second half). In lieu of this we will send you links to videos to be watched remotely offline. Specifically, I will also ask you to watch STATA related videos prior to coming to class.

The class will be taught in a Workshop mode with long periods of in-class data analytics assignments to be done in your groups (roughly 1 hour per assignment). During those times there will be no lectures. Actual class times are therefore adjusted as per the information above.

Course Perspective and Description

Our goal in this class is to discuss the new business models that have been enabled by Internet-based social media and advertising technologies, and to analyze the impact these technologies and business models have on industries, firms and people. We will inform our discussions with insights from data and conceptual frameworks that can guide us. To recognize how businesses can successfully leverage these technologies, we will therefore go beyond the technology itself and investigate some key questions. A few examples (these are just illustrative and by no means comprehensive) are as follows:

1. What are some challenges faced by businesses in transitioning to digital media?
2. How are businesses adopting social media? What are the different kinds of media?
3. What are the key technologies and strategies used by firms in digital advertising?
4. What role are search engines playing in digital marketing? What are the metrics for measuring ROI in sponsored search engine advertising?
5. What are the different experimental methods used for measurement and causal analyses in the digital world? What frameworks are deployed today for digital marketing and digital attribution analyses?
6. How are mobile technologies enabling newer kinds of predictive analytics for better targeting of consumers? What are the key effectiveness metrics used by firms these days to measure the performance of mobile marketing? What kinds of data analytics are these technologies and associated methods enabling?
7. What are some of the key measurement challenges in the mobile ecosystem? How do we measure cross-device and cross-media synergies in the mobile ecosystem?
8. What is the economic value of textual information in online markets? How can we monetize user-generated content on the Internet? What are the big data analytics used these days in this space for mining unstructured data?
9. What are the key metrics used by firms these days to measure customer engagement in social media? What kinds of data analytics are these engagement metrics enabling?
10. What are different kinds of crowd-funding marketplaces and their business models? What factors that influence individuals’ decisions to post projects in the marketplace? What drives individuals to invest in projects? How are companies using open innovation?

These are some examples of questions we will address through lectures. Lectures will be complemented by formal discussion of case studies from Harvard Business School, Kellogg, Carlson, and other similar sources. The questions for each case study presentation will be given to the students ahead of time. Students will also be doing in-class exercises and making group presentations based on the analyses.
Final Exam (Take home)
• Individual final exam (open books open notes)

Requirements and Grading
Besides the project described in the previous section, there will be open-ended data analytics based assignments administered in-class in Workshop mode. In addition, there will be several cases studied in this class. Students need to be prepared for each class and have read the assigned cases for that class. Students will be required to submit answers to the questions handed out for each case prior to the start of each class, and then we might have some in-class presentations of those cases. Thereafter students need to participate actively in the case discussions and be engaged during the class. There will be a final exam on the last day of the course. A student’s overall grade will be calculated as the weighted average of the scores computed according to the following distribution:

1. Class participation 20%
2. Case Analyses and Group Presentations 20%
3. In-class Data Analytics in Workshops 40%
4. Final Exam 20%

Course norms and expectations
We will use a variety of lectures in this course, and as such, it is crucial to appreciate that students in the class are co-producers of class discussions and collective learning. For this to happen, class members need to listen carefully to one another and build on prior comments. We will keep track of your contributions towards each class session, and these contributions can include (but are not restricted to) raising questions that make your classmates think, providing imaginative yet relevant analysis of a situation, contributing background or a perspective on a classroom topic that enhances its discussion, and simply answering questions raised in class. Emphasis is placed on the quality of your contribution, rather than merely on its frequency. A lack of preparation or negative classroom comments or improper behavior (such as talking to each other, sleeping in the class or walking out of the class while the lecture is in progress) will lower this grade. **Cell phones, smartphones and tablets are a disturbance to both students and professors, so these devices must be turned off during each class. Students are expected to arrive to class on time and stay to the end of the class period. Arriving late or leaving class early will have a negative impact on a student’s grade. All these factors will affect the class participation grades.**

Below is a guideline of the different sessions. The exact order will depend on progress made in each session.
<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Topics</th>
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| Aug 24   | Introduction                 | • Introduction and description of course  
            |                              | • History of Social media  
            |                              | • Basics of Social media and business models  
            |                              | • **NY Times Paywall Case** |
| Aug 24   | Social Media Marketing and   | • Trends in social and digital marketing  
            | Analytics                   |                              | • Paid/Earned/Owned media and Inbound/Outbound  
            |                              | • Data-driven decision making  
            |                              | • Metrics in social media and digital marketing |
| Aug 25   | Digital Advertising         | • Web search engine ranking  
            |                              |                              | • Search engine marketing  
            |                              | • **Workshop: Air France Internet Marketing** In Class Case Analyses |
| Aug 26   | Social Platforms and Digital | • **BBVA Budget Allocation Digital Case**  
            | Advertising II              |                              | • **Buzz Feed Native Advertising case**  
            |                              | • Field experiments in digital marketing |
| Aug 26   | Digital Budget Allocation   | • STATA module on basics of econometrics and in-class data analytics  
            |                              |                              | • **Workshop: STATA module on paid search advertising and in-class data analytics (Cloverleaf Case)** |
| Aug 31   | Social Communities          | • **Workshop: High Note Freemium Pricing In-Class Case Analyses**  
            |                              |                              | • Social communities and Freemium Platforms  
            |                              | • **Workshop: Minnesota Wild Case** and Facebook Insights  
            |                              | In Class Data Analytics |
| Aug31    | User Generated Content and  | • Big Data analytics and sentiment analysis  
            | Social Listening            |                              | • Text Mining of user-generated content (UGC)  
            |                              | • **Ford Fiesta Case** |
| Sep 1    | Mobile Analytics I          | • Mobile path to purchase, mobile couponing, mobile showrooming and location based advertising  
            |                              | • **Workshop: STATA module on mobile services adoption and in-class data analytics** |
| Sep 2    | Mobile Analytics II         | • Mobile advertising, cross-device synergies, mobile commerce, and mobile apps.  
            |                              | • **Workshop: STATA module on demand estimation of mobile apps and in-class data analytics** |
| Sep 2    | Open Innovation and Wrap Up | • Open Innovation and harnessing the wisdom of the crowds  
            |                              | • Crowdfunding  
            |                              | • **Workshop: STATA module on crowdfunding and in-class data analytics**  
            |                              | • **Amazon in 2015 case**  
            |                              | • **Pop Quiz (Open notes)** |
|          | Final Exam                  | • Take home |

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*Notes:*  
- **Workshop:** Sessions where practical skills and knowledge will be developed through hands-on exercises.  
- **In Class Case Analyses:** Sessions where students will analyze and discuss real-world case studies in class.  
- **In Class Data Analytics:** Sessions where students will work with data to develop insights and analytics.  
- **Case Studies:** A few case studies of interest will be discussed in class.
1. The New York Times Paywall Case
A. Why are newspapers in trouble? What is the goal of the Times in creating the Paywall?
B. Is Paywall working? How would you evaluate the current Paywall compared to the two previous ones? Do you think it is appropriately designed compared to the Financial Times and WSJ?
C. Should the Times actively manage its transition from print to digital? If you could move subscribers from print to digital will the Times be viable? Will it be better off than that in the current situation?
D. Does the Paywall seem like a good strategy for newspapers in general?

2. The Ford Fiesta Case
A. Appraise Ford’s marketing strategy for the Fiesta in the US against the challenges it seeks to overcome.
B. Appraise Ford’s agent selection process.
C. How is the Fiesta movement performing by the metrics reported in the case? Should other metrics have been used?
D. Is the campaign under control? Are you satisfied with the reach of the campaign?

3. Buzzfeed- The Promise of Native Advertising
A. Does Buzzfeed have a sustainable competitive advantage?
B. Think of a native ad that is likely to be shared. What is the headline? How do successful pieces of editorial content and successful Buzzfeed ads differ? (Consider metrics for evaluating effectiveness of online ads)
C. Why do people share online content? What content do they share?

4. BBVA Compass: Marketing Resource Allocation Case
A. What is the role of offline and online advertising for acquiring checking account customers for the bank? Is the 2010 ad budget allocation between offline and online media appropriate?
B. What is the effective acquisition cost of customers acquired through the online channel?
C. What is the role of display and search advertising in acquiring new checking account customers? Is the 2010 ad budget allocation between display and search appropriate?
D. Is the budget allocation among various ad networks appropriate? Which ad networks are working better and would you change the budget allocation across them?

5. Amazon in 2015 Case
A. What business is Amazon in? Is it spreading itself too thin? Or is it well positioned for the future?
B. Who are Amazon’s competitors? What is Amazon’s competitive advantage?
C. What could traditional retailers like BestBuy do to compete with Amazon?

INSTRUCTIONS FOR CASE ASSIGNMENTS

• All cases are group assignments.
• Group size should be limited to a maximum of 4.
• Please be prepared to discuss each of these questions in advance of coming to class. You are required to submit answers to the questions handed out for each case prior to the start of each class, on NYU Classes. Thereafter students need to participate actively in the case discussions and be engaged during the class.
• Cases 1 (NY Times Paywall) and 3 (BBVA) are quantitative so please use the exhibits and the tables in the cases to answer questions as best as you can.
• Given time constraints and depending on the rate of progress in class, priority (in terms of time spent in class) would be given to some cases over others.

REQUIRED READINGS