Overview
The emergence of the Internet has drastically changed various aspects of a firm’s operations. Some traditional marketing strategies are now completely outdated, others have been deeply transformed, and new digital marketing strategies are continuously emerging based on the unprecedented access to vast amounts of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 Groupon to iPhone, the shared infrastructure of IT-enabled platforms are playing a transformational role in today’s digital age. The Internet is now encroaching core business activities such as new product design, advertising, marketing and sales, creation of word-of-mouth and customer service. It is fostering new kinds of community-based business models. There is a lot of economic value accruing from the content generated in spaces mediated by social media. There are tangible means for monetization of content through newer forms of online advertising and interactive marketing tools on the mobile web. 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). Management of marketing communications is critical for firms today due to the proliferation of media and channels (including social media) as well as an erosion of traditional business models and cost structures (e.g., for digital advertising). Aside from various Internet marketing strategies and applications, the course will cover the business implications of social media such as blogs, micro blogs and product reviews, social networking platforms, viral marketing, search engine advertising and optimization, digital advertising, leveraging the wisdom of the crowds such as open innovation, crowdsourcing and crowdfunding, and mobile.

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 mobile apps, social media, user-generated content, healthcare, gaming, crowdfunding, crowdsourcing, and social networking. The objective is to end up with a framework that you will find useful in generalizing across contexts in which information technologies are changing the nature of business and the world.

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. We will do several excel-based assignments analyzing data using different tools in Excel. Participants will learn how to do multivariate regressions, linear and non-linear probability models, count data models and panel data models using STATA (available from the Stern Apps server) and analyze data in the social and digital media space. We will discuss various experimental techniques that help can tease out correlation from causality such as randomized field experiments, A/B testing, multivariate testing. In order to get the most out of the course, students need to have an understanding of basic statistics.
**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. How does Internet marketing differ from traditional marketing? How will electronic markets affect the pricing, positioning and availability of products and services in the physical world? What are the key measurement issues in the offline-online integration space?
2. What are key strategies used by firms in digital advertising? What role can search engines play in this regard? What is search engine optimization? How is it related to search engine marketing? What are key metrics used for measurement? How does one do attribution modeling in digital media?
3. What is the economic value of textual information in online markets? How can we monetize user-generated content on the Internet? What text mining techniques that enable this? How do we use these techniques to display products in online markets?
4. What is the impact of electronic word-of-mouth and how can it be measured? What are the big data analytics tools used these days in this space for mining unstructured data? How do you estimate elasticity of demand in the presence of online word of mouth?
5. What are different kinds of crowd-sourcing marketplaces and their business models? What are different kinds of crowd-funding marketplaces and their business models? What factors that influence individuals’ decisions to post projects in the marketplace? How are companies using open innovation?
6. What is the impact of online social networks and online communities on traditional businesses? What are the key engagement metrics used by firms these days to measure customer engagement? What kinds of big data analytics lead to the formulation of these engagement metrics?
7. How are mobile advertising and marketing different from traditional advertising and marketing? What are the key effectiveness metrics used by firms these days to measure the performance of mobile media? What kinds of analytics lead to these metrics? What factors determine sales of mobile apps? How do you estimate price elasticity of demand?

These are just some examples of questions we will address through lectures. Lectures will be complemented by formal discussion of case studies from Harvard Business School, Kellogg, and other similar sources. Students will be divided into groups (Exact size will be determined after final enrolments) and each group is expected to present one case study during the course. The questions for each case study presentation will be given to the students ahead of time. Students will also be doing in-class exercises. Finally, students may also be expected to make end-of-semester group project presentations.

**Group Project: Create a New IT-enabled Start-Up:** Your project will involve analyzing and formalizing a strategy to launch a new IT-enabled start-up. It will involve generating an idea for a new IT-enabled business, forming the appropriate team with the human capital assembled in the class, analyzing the market opportunity, the disruption the venture intends to capitalize on, business model development, competitor analysis, and intellectual property development and defense. More details will provided later.
**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 other electronic devices are a disturbance to both students and professors. All electronic devices must be turned off prior to the start of each class meeting. 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.

Below is a tentative guideline of the different sessions. The exact order will be subject to change.
<table>
<thead>
<tr>
<th>Session</th>
<th>Topics</th>
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| 1       | Introduction  
• Introduction, Basics of Social Media and Business Models, Basics of Web Search Engines and Digital Marketing. |
| 2       | Web Analytics and Search Engine Marketing I  
• Analyzing Internal Web Traffic, Online Advertising, AdWords and AdSense, Attribution Modeling in Digital Media  
• Learning STATA Module 1  
• Air France Internet Marketing Case Study Analyses |
| 3       | Web Analytics and Search Engine Marketing II  
• Med Net Search Marketing Case Study Presentation  
• BBVA Digital Case Presentation  
• Guest Lecture  
• Learning STATA Module 1 |
| 4       | Analyzing User Generated Content in Social Media  
• Sentiment Analysis, Buzz Tracking, Text Mining of User Generated Content, Measuring Economic and Social Impact of UGC  
• Tripadvisor Case Study Presentation  
• Patients Like Me Case Study Analyses |
| 5       | Collective Intelligence and Social Media  
• Harnessing the Wisdom of Crowds, Crowdsourcing, Crowdfunding, Contests and Communities  
• MusicJuice Crowdfunding Case Study Presentation  
• TopCoder Case Study Analyses  
• Guest Lecture |
| 6       | Social Networks I  
• Measuring the Impact of Social Networks, Social Commerce, Social Media and Viral Marketing  
• Facebook Insights Data Analysis  
• Facebook Platforms Case Study Presentation |
| 7       | Social Networks II  
• Guest Lecture  
• Hub Spot Case Study Presentation  
• United Breaks Guitar Case Study Presentation |
| 8       | Mobile  
• Consumer behavior on the Mobile Internet, Mobile vs. PC web, Mobile App pricing  
• Baseball-Apple Case Study Presentation  
• Bank of America Mobile Banking Case Study Presentation  
• Guest Lecture |
| 9       | Search, Privacy and Intellectual Property  
• Copyrights, Trademarks, Privacy and Data Collection  
• Guest Lecture  
• Recap of course |
| 10      | Group project presentations  
| 11      | Group project presentations  
| 12      | Final Exam  
• Closed book final exam |