Marketing Analytics and Big Data

Professor: Manel Guerris Larruy, Pedro Rojas
E-mail: manuel.guerris@upf.edu; pedro@theplancompany.com
Office hours: by appointment

Course Description

Nowadays, people generate more data and do so at a faster rate than in any other moment in History. From mere individuals and small communities, to small and medium companies, to large multinationals and government organizations and administrations, everyone’s capacity to generate information rapidly grows every day.

We are constantly generating data and this phenomenon is being boosted even further due to the Internet, cell phones, and the Internet of Things (which allows traditionally off-line devices such as electronic appliances or cars to connect to the Internet in order to send and receive data). Thanks to those technological advances, not only computers and Smartphones but also medical equipment and even electronic appliances generate millions of data every second, data waiting to be used as information.

Companies are already aware that the correct analysis and understanding of the available data, both internal and external, is the key to find competitive advantages. In the fields of business and marketing, all the talk about data is focusing more and more on consumer trends, the planning of new products, and other market insights.

Working with traditional statistical techniques, explorative analysis, and data mining, marketing professionals will have to face the new challenge of interpreting this huge amount of data and incorporating it into their decision-making processes.

From a marketing perspective, the advantage of using data is not limited to the possibility of offering better contents or applications to consumers. By relying on data, it is also possible to improve the products and services brands offer, or to facilitate the process of making certain marketing decisions beyond what traditional market research would allow.

Objectives

- Understanding the new challenges that marketing professionals have to face when, in order to improve an organization’s products and services, they use technologies and documented principles to extract and analyze information out of large volumes of data, they access and disseminate information on cell phones, and they gain presence in social networks.
- Understanding the importance of data bases and knowledge bases in order to manage and reach the company’s goals.
- Understanding the concept of ‘Key performance indicator’, its design, and its applications as a measurement tool of marketing management.
- Learning how to efficiently integrate the company’s internal and external information.
- Learning to use Business Intelligence (BI) by familiarizing oneself with the appropriate tools and data analysis techniques.
Methodology

Students are expected to actively participate in class, to work in groups, and to use the Internet.

In-person activities to be conducted in theory sessions:

- Theory classes
- Project presentations
- Debates and discussion around marketing cases
- Seminars taught by collaborators (professionals in the field...)

Autonomous learning:

- Preparation of group/individual projects
- Resolution of cases
- Research on topics related to the course
- Group dynamics involving topics discussed in class
- Individual and group tutorial sessions
- Final exam


We will rely on the conceptual framework by Payne and Frow and, specifically, we will focus on the information management process and its five components (see figure 1 below):

1) Data repository
2) IT systems
3) Analysis tools
4) Front office applications
5) Back office applications

Evaluation criteria

- In-class participation in activities related to the Master’s Final Project: 30%
- Resolution of cases and group projects: 30%
- Final exam: 40%

Important: all the activities that are submitted past the deadline or that do not follow the submission instructions in terms of content, format, etc. will be considered as ‘not submitted’. Students will be informed about the submission and presentation dates the first day of class.
Students are required to attend 80% of classes. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program.

As with all courses taught at the UPF BSM, students who fail the course during regular evaluation will be allowed ONE re-take of the examination/evaluation. Students that pass any Retake exam should get a **5 by default as a final grade for the course**. If the course is again failed after the retake, students will have to register again for the course the following year.

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they study the possibility of rescheduling the exam (one possibility being during the “Retake” period). In the meantime, the student will get an “incomplete”, which will be replaced by the actual grade after the final exam is taken. The “incomplete” will not be reflected on the student’s Academic Transcript.

Plagiarism is to use another’s work and to present it as one’s own without acknowledging the sources in the correct way. All essays, reports or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the “Honor Code,” students acknowledge that they understand the schools’ policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program.”

### Calendar and Contents

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Reading Materials/ Bibliography/Resources

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- The Data Warehouse Institute, http://tdwi.org/Home.aspx

Bio of Professor

Manuel Guerris Larruy: Lecturer of operations, logistics, industrial management and business strategy at UPF- Barcelona School of Management, UPF-ESCI, Universitat Politècnica de Catalunya (UPC), and IQS – Universitat Ramon Llull. PhD in Economics and Management awarded by IQS, MBA awarded by IESE, MSc in Economics and Management awarded by IQS, Industrial Engineering degree awarded by UPC. Has been President of the ‘Comisión de Internacionalización de la Asociación Profesional e Industrial de Ingeniería’. Ample experience

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as a Consultant working for private and public European companies. Has founded a new company in the sector of e-health. Partner of Neo Consulting BCN, consulting company specialized in operations and internationalization processes and that helps other companies expand their internal and external borders.

Pedro Rojas: (user: @seniormanager in Twitter, Instagram and SnapChat) Social Media Marketing and Digital Strategy Consultant at theplancompany.com, specialized in design and development of social media plans for enterprises and individuals focused in business objectives through social networks channels in a strategic and measurable way. Business Degree and Accountings Degree with a specialization in finance and post grade in Social Media Management. MBA professor in several business schools and universities in Spain and Author of the following books: ‘Cómo monetizar las redes sociales’, ‘Cómo preparar un Plan de Social Media Marketing’, ‘Community Management para Dummies’, ‘Community Management en un semana’, and ‘Reclutamiento y Selección 2.0’. Moderates the Blog: www.pedrorojas.es.