Prologue

Some years ago, at a meeting with the Advisory Council for our School of Business, a senior executive from Bausch & Lomb strongly encouraged us to rename our Marketing Research course. His suggestion was to change it to Marketing Analytics, based on what was happening in his industry and others he had observed. We had a sense of the dramatic changes starting to occur and immediately followed his recommendation even though we weren’t entirely sure about what to do with it.

The challenge then was to figure out how to actually alter the course beyond the name. My research stream, for many years, focused on intangible assets of the firm, including not only formal patents and such but also harder to define knowledge, intelligence and data. The research has always focused on real activities at real firms, so the beginnings of widespread interest in big data and business intelligence were hard to ignore. Many of the sources of big data were found in marketing and compelling applications were starting to arise that were of interest in the course. The proposed merger of Omnicom and Publicis in 2013, for example, was sold as a means of building the scale to do the necessary data analytics required in digital advertising. Even though the deal fell apart, the reasoning behind it held. If even a creative, qualitative industry like advertising was heading in the big data/marketing analytics direction, it seemed inevitable that it would affect everyone at some point.

Around the same time, one of our top recent alumni came back to campus to recruit and present to students. She had been working for Nielsen for a few years. Her talk with students illustrated what Nielsen would do in evaluating a market opportunity for a proposed new offering in a consumer good category. She walked through an environmental analysis, a competitive analysis, and metrics on consumer behavior in the product category. What was interesting was that not one piece of data came from communicating with consumers, from a traditional focus group or survey or something similar. Everything was based on data Nielsen had already collected. From market size to market shares, from consumer buying preferences to their reactions to price-offs, everything came from internal Nielsen databases or external data to which they had access.
In a traditional marketing research course, much of the emphasis is on communication techniques, particularly questionnaires. Moreover, a lot of related material revolves around questionnaires, including instrument design, administration, sampling, and even things like coding and data entry. And a lot of courses require student projects, almost invariably an assignment to create, administer and report the results from a survey. One can't imagine marketing research without techniques like focus groups and surveys; they'll always be an important part of our toolset. But one can imagine a different emphasis more in line with contemporary practice.

Marketing analytics suggests that different emphasis, utilizing all the information resources available to a firm in order to explore marketing-related questions. As the course developed over time, I began to watch more carefully what was happening at firms doing interesting things with big data in a marketing context. I developed a number of case examples for use in class as well as some exercises focused more directly on understanding data and what to do with it. One issue, however, was that marketing research texts didn't seem to change much during this time. Some new details were added such as the use of mobile devices for administration or the possibility of virtual focus groups. But, invariably, these were short tacks on to main sections and didn't really reflect their growing importance. Marketing research texts still tended to center on communication-oriented research projects, especially surveys.

At the same time, statistical work in such texts generally included basics like means and standard deviations, where appropriate, as well as hypothesis testing, confidence intervals, and basic regression. All can be important but, again, the examples and any included exercises tended to flow from modest sample sizes and could easily be handled by standard Excel worksheets. So as I began incorporating big data concepts into courses, I found less and less of a match with what I was doing vs. available marketing research texts. More and more needed to be brought in from other sources.

In teaching marketing analytics, however, I also found increasing levels of math phobia in students. Part of that is that my own students aren't just from the Business School but also from a Communications School that cooperates with us on an Integrated Marketing Communications degree. Math skills seemed to be declining while, at the same time, the advanced techniques found in data manipulation and data mining were requiring even higher levels of proficiency. So the statistical work in research/analytics was becoming daunting, with a number of students expressing the feeling that they just “weren’t good at math”.
In talking to recent alumni and colleagues, however, and in learning more about big data and analytics, I found that the trends seemed to be in the direction of multifunctional teams. Those conducting the data analysis were often a marketer combined with a data scientist and a statistician. Even those directly involved in analytics weren’t going to be conducting the analysis themselves. But they would need to know how to converse with the data scientists and the statisticians. Those not directly involved would be the consumers of the research. They just needed to understand the results they were given and enough about how they were generated to have a feel for what the data meant and what the limitations might be.

In several visits to SAS’ training facility in Cary, NC, I acquired a sense for what analytics software could provide. But my most recent course, on SAS Visual Analytics, really opened the door to what I wanted to be able to do with students. The intuitive, drag-and-drop software was easy to use and generated a variety of visually appealing reports. This was the type of output I thought my students would be seeing, and generating it would acquaint them with advanced data monitoring and analysis techniques to which I thought they should be exposed. I soon incorporated SAS Visual Analytics into the course.

But after all these changes, I was left without a text that I thought presented what was really happening in terms of research design, data gathering, data analysis and data reporting. This book is an attempt to fill that hole. Although structured around a classic marketing research course framework, especially related to research designs, it covers many of the major trends in the field and focuses on what actual firms are doing with big data and marketing analytics.

In particular, the text highlights the explosion in observation research seen in data collected on web behavior, social media activities, transactions and their context, geo-location tracking, and similar advances. It also looks at the increase in combinations of observation and communication results, the ability of firms to track behavior and then ask subjects about the motivations and feelings behind it. The growth in ongoing relationships between firms and identifiable individual consumers is covered as an important trend, as is the variety of technologies available for gathering the data, including the internet and mobile apps. How researchers better motivate and engage subjects is included. And students are provided with details and hands-on illustrations of what the techniques for big data monitoring and predictive analytics actually look like, including the visualizations for reporting.
This book would probably best fit as a supplemental text in an undergraduate marketing research course, where students receive the traditional coverage but can also see the key advances over the last decade. But it has also been structured to stand by itself. Traditional topics are highlighted in each chapter, and students are well-versed in filling in the details by means of Google search, so it can be used as a stand-alone text if desired.

It’s written for advanced undergraduates or for more specialized graduate courses (which might include more work with the software). The data analysis examples feature SAS Visual Analytics, which can be accessed at www.teradatauniversitynetwork.com but other advanced analytics software could be used instead.

My thanks go to the Ithaca College School of Business for granting me the sabbatical leave during which this book was written. Thanks also go to the Fulbright Program, particularly the Iceland Fulbright Commission, as a good amount of work on the book was done while at Akureyri University when I wasn’t spending time sitting alongside the fjord. And thanks also to my IC marketing analytics students who have had the content tested on them over the last few years and responded to the challenge.