WHY QUAL IS NECESSARY TO ADD MEANING TO BIG DATA

Big Data may answer the ‘who, what, when, where and how,’ but brands need to understand the ‘why’ in order to truly create behavior change and influence.

Brought to you by:

L&E research

TABLE OF CONTENTS

THE BIG DATA REVOLUTION

"Big Data" is the term used to describe how advancing trends in technology will change the way information is delivered to businesses.

A lot more data now exists. In fact, industry pundits note that 90% of the data that exists today was created in the last two years. And, with the sheer volume of social media and mobile data streaming in daily, businesses expect to use Big Data to aggregate all of this data, extract information from it, and identify value to clients and consumers.

Our relationships between each other, brands and governments are increasingly mediated by technology. A wide view of our lives is therefore now captured by data. Banks and retailers have long held our shopping activity data. But, there is an explosion in other ways that our lives are now 'datafied.'

Sentiment is captured by social networks, speech by call centers, and our travel patterns by electronic travel cards. Even our culture is captured in data by initiatives such as Google Ngram. The list gets ever longer.

The potential value for brands using these data assets is huge. McKinsey, for example, has estimated that a retailer using Big Data can potentially increase its margin by more than 60%. No wonder then that scale of investment is unprecedented. For example, AT Kearney forecast the value of global Big Data tech market at $114B by 2018.

One feature of Big Data is its ability to manage data that was too large to handle only a few years ago. The "3 Vs" illustrate why we are truly in a Big Data revolution:

- **The Volume of information.** The sheer amount of data is massive.
- **The Variety of data.** More than just structured data, big data includes unstructured data like text from social media, audio, video, GPS locator data, etc.
- **The Velocity of data.** The speed at which data can be accessed and analyzed is exploding.

> *... a retailer using Big Data can potentially increase its margin by more than 60%*

THE OPPORTUNITY & THE CHALLENGE OF BIG DATA

The promise of Big Data is to tell a story that nobody could tell before. And the future is about telling that story faster than ever.

There is incredible opportunity to be found in the emerging patterns in Big Data. In healthcare, insight into the spread of influenza in a city can be revealed by viewing Internet search terms for the flu. Big Data also enables retailers to use real-time transaction data to manage their inventory, restocking popular merchandise and

Understanding emotion is the key to predicting behaviors

marking down poor sellers more effectively than ever. That same data can be used to predict what the demand will be for new products for the next holiday season.

The opportunity of Big Data is also its challenge. We are drowning in data. And tweets, posts and video are not the structured data that fits well into relational databases for traditional querying. As a result, Big Data simply requires a new way of thinking about how to store and analyze information to accommodate these new realities and turn insights into actionable decisions.

Understanding the conversation of social media requires a new, more holistic view to make sense of the data. Text Analytics uses natural language processing techniques to "listen" to massive numbers of social media posts in real-time. By applying hundreds of algorithms, metrics can be created to derive sentiment and, in some cases, the underlying emotional state of the author. Understanding emotion is the key to predicting behaviors such as whether a product will be returned to the store, whether a restaurant will get a second visit, or whether a movie will be recommended to a friend.

Big Data can also be applied to video, photos and even voice. For example, emotion recognition software can photograph someone's face repeatedly during an interview, offering marketers faster and more accurate insight on their product. How does Big Data do it? By analyzing facial muscles from hundreds or even thousands of frames and then classifying them into emotion categories.

The biggest opportunity for unstructured data is to tie it into business performance and business context. Connecting what people are saying and what a business is actually experiencing in terms of sales or other metrics would bring context to the data. Getting this right may require rethinking how the data is analyzed. Michael Wolfe at BBDO and a small number of others have been early pioneers making important contributions in this aspect.

Connecting what people are saying and what a business is actually experiencing in terms of sales or other metrics would bring context to the data

IS BIG DATA STALLING?

Despite all the excitement around Big Data, there is a growing concern that we might not be seeing the returns on the data that have been promised.

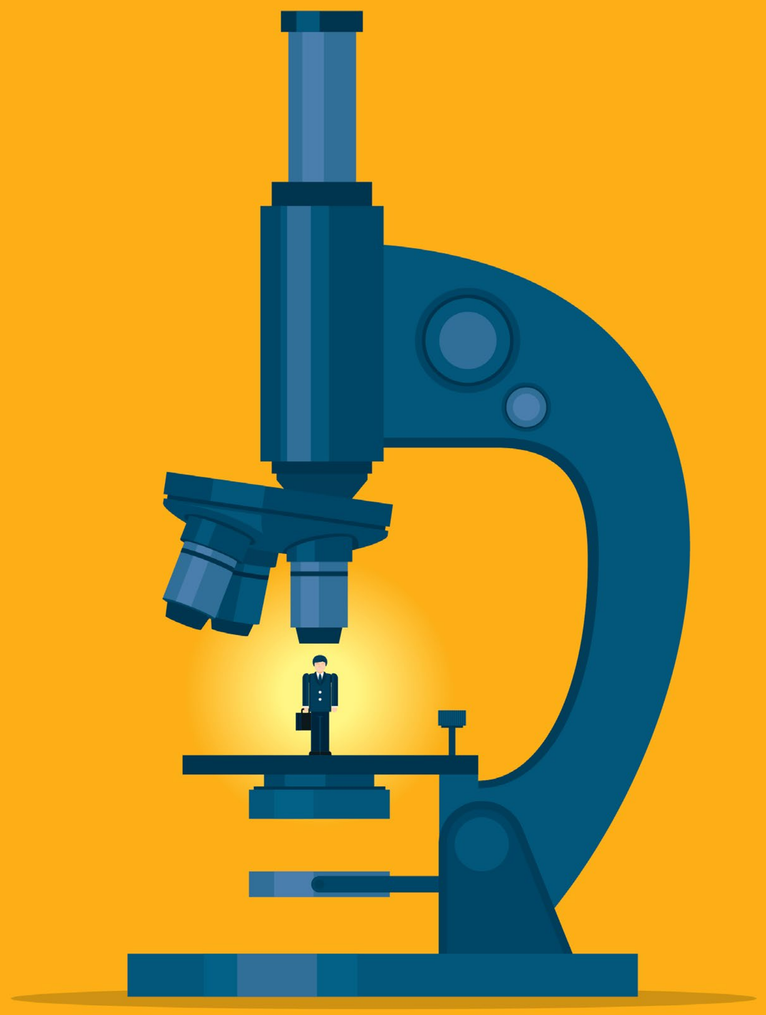
There have been murmurings that perhaps we are now in the ‘trough of disillusionment’ of Big Data, the hype around it having surpassed the reality of what it can deliver. Gartner suggested that the “gravitational pull of Big Data is now so strong that even people who haven’t a clue as to what it’s all about report that they’re running Big Data projects.”

[The] gravitational pull of Big Data is now so strong that even people who haven't a clue as to what it's all about report that they're running Big Data projects

– Gartner, Inc.

With this in mind, it is perhaps of concern that the Big Data analytics industry has to date mainly been led by those from 'numeric' disciplines such as statistics, computer science, applied mathematics, and economics. It could be argued that these skills are necessary but simply not sufficient to get value from data. Because behind the data points (for marketers at least), sit people. And where people are involved, we move from linear systems that align to identifiable "laws", to complex systems that are non-linear in nature. And that is the realm of Qualitative research in all its permutations.

THE DATA SCIENTIST OF THE FUTURE



It's the rare person who possesses the combination of skills needed to tame Big Data.

Key skills include: statistical acumen, the ability to "hack" a data set (i.e., pull it into a form ready for modeling), and a talent for turning insights into actionable business decisions.

With the need to connect structured and unstructured data and the likelihood that a very different analytical framework will be needed – perhaps a more humanistic approach that incorporates psychology and sociology –

Researchers with qualitative skills who are good at connecting the dots and who understand business context will become increasingly vital to fulfilling the promise of big data

the challenge is significant. Interestingly, researchers with qualitative skills who are good at connecting the dots and who understand business context will become increasingly vital to fulfilling the promise of big data.

Filling the data scientist gap will require significant retooling from educational institutions, from HR departments, and from businesses. It may also require creative solutions, like employing teams of people to handle the task.

Data Scientist Key Skills

MR SKILLS UNLOCK VALUE

In our view, the market research industry, and especially qualitative research, has a key role to play in unlocking the value of Big Data, because when it comes to understanding consumers our industry is hard to beat.

This is not about market researchers simply adding the ‘why’ to the ‘what’ of Big Data. We argue that there are much bigger roles for market researchers to play:

Keepers of Data Integrity: We can easily fall into the trap of thinking that just because a data set is big then it must somehow be representative. Similarly, we can forget that humans are center stage in determining how we gather, select, clean, analyze and interpret data, potentially introducing bias into the process. As data sources proliferate, understanding the provenance and representativeness of a data set is an increasingly important opportunity for the market research industry.

Market research skills are needed to filter the real insights

Behavioral Science Experts: We all know that stories do not leap out of data; hypotheses are needed to guide the mining of data and conceptual frameworks required to interpret data patterns. Market researchers cannot only provide these from their practitioner work, but there will be an increased opportunity for the profession to draw on its behavioral science legacy to create frameworks to guide analysis activities.

Consumer Understanding: In an environment where the sample sizes are so high that statistical significance testing has little relevance, pragmatic significance is what is needed to decide when a finding is meaningful. Market research skills are needed to filter the real insights, or 'signals' from the mass of 'noise' in any data set, large or small.

The argument therefore is that the market research skill set should be very much in demand in a Big Data environment. The challenge is repositioning the industry so that we are defined less by the tools that we use, and more in terms of the skill sets that allow better to navigation and understanding of big data assets.

DATA BLENDERS

In addition to these invaluable skill sets, there is also an opportunity for market research to occupy an infrastructure role, identifying and blending different data sets.

As available consumer data becomes ever more diverse, we have the opportunity to identify new data streams and understand how these can offer new insights into consumer behavior.

According to a recent survey among business and analytics leaders, there is a perceived inability within the Big Data industry to efficiently combine data from multiple sources. This is only going to get harder as the sources

The MR industry is increasingly using research communities as a means of aggregating the increasingly diverse data sets

of data proliferate beyond the boundaries of the organization. The MR industry is increasingly using research communities as a means of aggregating the increasingly diverse data sets. Importantly, when working with personal data, these platforms not only offer high levels of trust and engagement but can also facilitate a meaningful value exchange for the members.

MAKING SENSE OF THE DATA

To date, the Big Data agenda has been dominated by technology companies.

This is understandable as there is a huge technical task involved in extracting and aggregating data sources to transform the data into a usable format. But when it comes to *making sense* of the data and, indeed engaging with the consumer behind the data point, then the role of technologists needs to be respected but very much complemented by market research skill sets.