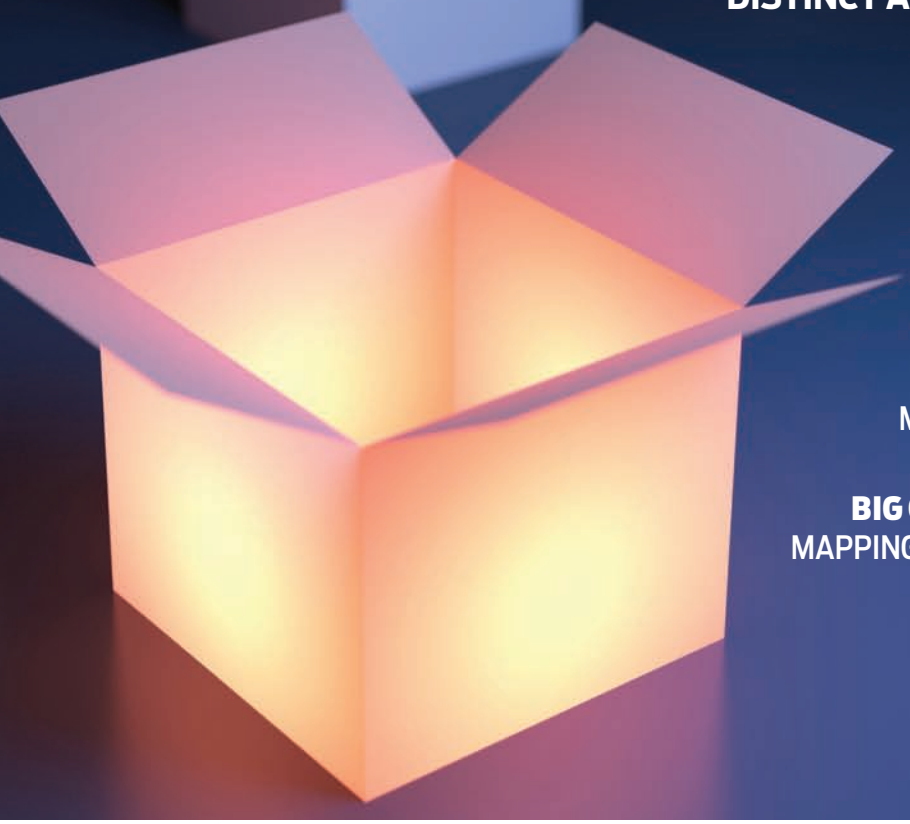
ignite

VOL. 3, ISSUE 1

CONNECTING AND INSPIRING YPO-WPO'S GLOBAL LEADERS

PIONEERS OF THE POSSIBLE

AT THE FRONT LINE OF INNOVATION YPO AND WPO MEMBERS HAVE A DISTINCT ADVANTAGE — EACH OTHER



+

BIZ ZEN
MINDFULNESS AND MEDITATION BOOST THE BOTTOM LINE

BIG OPPORTUNITIES IN BIG DATA
MAPPING THE INFORMATION GOLD MINE

REGIONAL SPOUSE FORUMS
CONNECTING ACROSS COUNTRIES, CULTURES

BETTER LEADERS THROUGH EDUCATION AND IDEA EXCHANGE™ MAY 2014

Copyright © 2014 Young Presidents' Organization. All rights reserved. No part of this publication can be reproduced, stored in a retrieval system or transmitted in any other form or by any other means, electronic, mechanical or otherwise, without written permission of the publisher.



BIG OPPORTUNITIES IN BIG DATA

By Angela Shah

The Internet of Things means big data touches each part of our lives, whether on screen or in real life. It's more than number-crunching, though. Without smart analytics that relate to the bottom line, big data is just noise.











AT THE TURN of the last century, factories were adding a vice president of electricity to their senior management teams. After all, electricity was an innovative, new technology disrupting the way business was being done.

"It sounds absurd to us now, but electricity was unique and special at the time," says **Wes Nichols** (YPO Los Angeles, WPO Angeleno), founder and CEO of MarketShare. "The same thing is happening with data and analytics now. It's quickly becoming so integral to all parts of business that it won't need to be called out as a special shiny object."

Big data is a catchall term that engulfs our everyday lives — both real and virtual. Think of the "quantified self" possible from wearables, the "If you liked this, you'll like ..." pitches from Amazon and Netflix, or why a Wal-Mart in Toledo, Ohio, might place Pop-Tarts near the cash register while a store in Phoenix might offer shoppers Coca-Cola.

"I don't have to ask you to recall what you did," says Arvind Sathi, global communication sector lead architect for the information agenda team at IBM. "I can observe what you actually did. There is an accuracy factor in recalling. But if I can see it, it is really factual. That is powerful."

Big data came of age very quickly. Nearly nonexistent 10 years ago, data and the analytics of it emerged as a serious business strategy for first adopters in 2007. Two to three years ago, big data became a must-have tool for executives seeking to maximize market share.

For example, for the first time, IBM found purchases on mobile devices topped online sales on Black Friday 2013, the day after the Thanksgiving holiday, which is one of the busiest U.S. shopping days of the year. "At 5 a.m., they are on their mobile phones and they are buying there," Sathi says. "We have the numbers to prove that the segment is the fastest growing."

The IBM report zeroed in on the shopping data to report that people tended to use smartphones to browse and tablets to buy (and they spent more when making the purchases on a tablet).

While executives are increasingly aware that they should be incorporating analytics and data into their strategic plans, few are fully taking advantage of the opportunities. "Big data is like teenage sex," says **Michalis Michael** (YPO London), CEO of Digital MR in London, borrowing a quote from author Dan Ariely. "Everyone talks about it. Nobody really knows how to do it. Everyone thinks everyone else is doing it, so everyone claims they are doing it."

Quantity versus quality

Experts say the most important concepts executives must grasp are: Why did you need it, and what are you going to do with it? What is the lever that impacts my sales?

If you are not careful about how you use the data, the sheer amount available for perusal — and the amount is doubling every two or three years — will only confuse your business's mission.

"Companies that apply the wrong type of analysis to large data sets are just getting the wrong answer with more granularity," Nichols says.

This doesn't necessarily mean you have to go out and collect a lot of new data. Many businesses are already sitting on a gold mine of information. Telecommunications companies by definition have the instrumentation to collect reams of data on their customers' habits — "data that they were throwing away," says Sathi, the author of *Big Data Analytics: Disruptive Technologies for Changing the Game*.

"Autos were collecting a lot of performance data, but did that within a car," Sathi adds. "But they didn't put it on a USB stick and give it to you. With connected cars, you can do that."

Retailers are quickly adding big data analytics to their marketing efforts, especially as they relate to loyalty programs. Electronic medical records are enabling hospitals to find trends among patients and diseases across the world and to collaborate among caregivers in offering patients better treatment.

The big data era

Big data is all around us. "Google is storing every search query it has received," says Viktor Mayer-Schönberger, professor of Internet governance and regulation at the University of Oxford and co-author of *Big Data: A Revolution That Will Transform How We Live, Work, and Think*. "They were able to predict the spread of the flu relatively precisely because of what people search for."

For executives who are still wary of committing too many resources to big data, thinking it might be more of a buzzword and less important to the bottom line, Sathi offers this advice: "Look at the market cap of Google, Apple, Facebook, Yahoo. They are all data driven. Their combined market valuation is more than US$1 trillion."

Successful companies not only incorporate data and analysis into their business plans, but they also understand that doing it effectively requires a culture change.

"Big data is not nearly as valuable if you don't rethink how your decision processes are being made," says Erik Brynjolfsson, director of the Center for Digital Business at the Massachusetts Institute of



"COMPANIES THAT APPLY THE WRONG TYPE OF ANALYSIS TO LARGE DATA SETS ARE JUST GETTING THE WRONG ANSWER WITH MORE GRANULARITY."

– **Wes Nichols** (YPO Los Angeles, WPO Angeleno)

Technology. "Most managers are used to command-and-control. That's a trained, effective management style for most of history."

But effective managers in the big data era will act more like scientists, he says. "You look at a question and have self-confidence and tell your team, 'I don't know the answer. Let's go find out.' "

Charting a new course

The foot soldiers in this new era of business will be teams of data scientists specially trained to understand and analyze data. But they will have to be capable of more than number-crunching.

"One of the main skills necessary for them is to be creative, not just have a knowledge of math, statistics and computer science," Michael says. "They need to be able to go from being a quantitative person to being a qualitative person, to provide context and understand what big data is about."

Be prepared to invest in some of the most sought-after candidates in the modern workforce. "Analytics and the leveraging of data is definitely one of those areas you could go broke saving money on," says Nichols.

As companies assimilate big data into their operations and their cultures, executives will need to know where to draw the red lines, beyond which they won't go. For example, GE or Volvo analyzing reports from sensors in jet engines or 18-wheeler trucks to figure out which vibration patterns indicate engine failure doesn't strike most of us as odd. Data analytics to predict individual health status or a predisposition to alcoholism, for example, might be considered an invasion of privacy.

Minority Report, a 2002 movie about a fictional judicial system that arrests and convicts "killers" before they commit any crimes, should probably remain a feature in the theater, says Mayer-Schönberger.

"Using big data to predict when a part in an engine breaks, that's fine. But when you get to human individuality, such as predicting pregnancies, companies will need to tread carefully," he adds. "If trust is undermined, it's very hard to win it back." ▲

Curious to learn more about big data? Join YPO-WPO's Big Data Group (ypowpo.org/bigdatagroup)or email group owner ***David Chun*** *(YPO SF Bay) at dchun@equilar.com.*



BIG DATA 101
BUSINESS SCHOOLS CREATE ANALYTICS CURRICULUM

One way to know big data and its importance to business is not simply a buzzword is that it is being added to the curriculum of some of the world's most prestigious business schools.

In fact, HEC Paris, in an alliance with IBM, has created what is believed to be the first MBA with a specialization in the development of big data.

HEC is not the only institution making data and analytics part of the curriculum. "A lot of attention has been focused on the technology and data side," says Erik Brynjolfsson, director of the Center for Digital Business at the Massachusetts Institute of Technology. "We focus on the management side. How big data has created a management revolution."

MIT offers two tracks of courses, one for students in its Sloan School of Management and another for seasoned executives looking for real-world case studies.

IBM, which is the home of Watson, an artificially intelligent computer system capable of answering questions posed in natural language, will provide HEC students with access to its big data and analytics software. IBM engineers and analysts will also give guest lectures on campus. The classes will teach students how to understand and predict buying trends, gather and analyze information related to competitors, and look at trends related to consumer sentiment on brands.

Oxford University's Said Business School has also worked with IBM in researching data and analytics and recently incorporated a big data module into its curriculum. Nearby in London, Imperial College has teamed up with Huawei, the Chinese telecommunications company, to develop a research and development center focused on big data.

"In some of these companies that I've met with, 50 to 60 percent of senior managers couldn't make the (big data) transition and had to be let go," Brynjolfsson says.

Sounds like an opportunity for the next generation of management.

