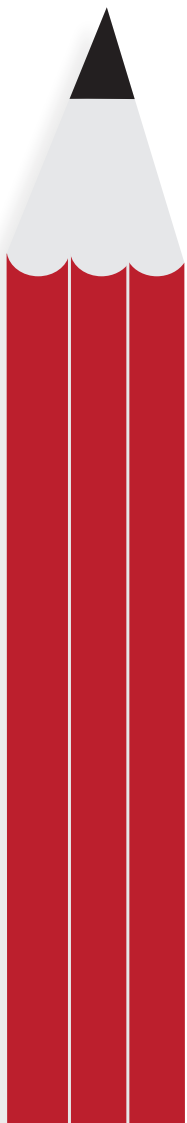


BIG DATA

leads to **BIG INNOVATIONS**

for
Marketers



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Preface

In February of 2013, the Atlanta chapter of the American Marketing Association (AMA) convened its Executive Advisory Board (EAB) for a round-table discussion on the topic of Big Data. The questions on the table for these top marketing executives were:

- How does your company define “Big Data”?
- What will be some of the most significant changes marketers will need to cope with?
- In the next 3 – 5 years, what elements of Big Data must marketers get a better handle on?



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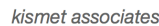
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Introduction

Big Data, as the Internet and social media were in their early days, is the shiny new object. It is the topic du jour in early 2013, and as with the Internet and social media – the magnitude of changes it will bring is the subject of intense debate.

Revolution or Evolution?

To many, Big Data ushers in a brave new world, a new paradigm; to others, it's more of the same, and the rules of the game remain the same.

Many articles have been written on Big Data and there is almost a breathless sense of drama – “Big Data is changing the whole equation of business” (as *The Wall Street Journal* headline put it, in its recent special section on Big Data). *The Harvard Business Review* has run multiple cover stories on Big Data, including, “How vast new streams of information are changing management” and “How big data is changing the art of persuasion”.

Ginny Rometty, CEO of IBM, in her recent speech at Council on Foreign Relations, predicted that Big Data would spark a whole new era: “Data is indeed the basis of competition in the ‘smarter’ era. And Big Data is indeed the next natural resource – promising to do for our era what steam, electricity and oil did for the Industrial Age.” Wow!

Some members of the AMA Atlanta EAB challenge the notion that Big Data represents a big sea change. **J. Walker Smith, Executive Chairman of The Futures Company/Yankelovich**, who spent decades helping

companies put trends in perspective, says, “Much of what Big Data is ushering in is not new. It’s been around forever. Big Data just makes it better, easier, more in-depth and more widespread. I do think there is a phase shift occurring, too, but for now, at least, many of the old things are still pertinent, just in Big Data form.”

“This is so not a new era!” said **Michael Kogon, CEO & Founder of Definition6**. “What is different today is the amount and digestion of the information. This is not a new era of big data – it’s the era of big synthesis. If you’re not good at synthesizing, you’re paralyzed.”

Death to the HiPPO's?

Other predictions include death to the HiPPOs (highest paid person in the room) and the downgrading of any non-digital or even non-quantitative inputs to decision-making (intuition, gut and instinct, e.g.). IBM’s ad in *The Wall Street Journal* special section on Big Data reads: “Executives have long regarded intuition and experience as the keys to formulating strategy and assessing risk. That thinking may have worked in an earlier time of information scarcity - but not in the time of Big Data.”

Companies that have always been data-driven are now the role models other companies want to learn from. According to **Tom Lowry, Director of Industry & Technology for Google**, the first question asked at Google when making a decision is, “What does the data say? Google believes that ‘data beats opinion’”. And, when you consult the data first and then apply your instinct/judgment, it removes some of the ego from the room,” he adds.

In some historically gut-driven businesses such as entertainment, some of the HiPPOs are pushing back. John Landgraf, president and GM of FX Networks, who presided over numerous hit shows, was quoted in *The New York Times* as saying that number crunching would never have predicted the success of “The Sopranos” or “Mad Men.” “Data can only tell you what people have liked before, not what they don’t know they are going to like in the future... choices (like “The Sopranos” and “Mad Men”) were made in a black box that data can never penetrate.” So there.

Stop Calling it Big Data!

Our Executive Advisory Board could not even enter into a discussion about Big Data without first objecting to the name. What's wrong with the name? Everything.

- “Big” is wrong: it belies the true difference between pre-2012 data and present day data: it’s not just the volume; it’s also the velocity and variety.
- “Data” is wrong: It puts the focus on the wrong place. “Data-driven insights” is better – it puts the focus on insights vs. data. It’s the prescriptive insights you’re after and that’s where the focus should be.

Note: We will call it “Big Data” in this paper for lack of a better substitute term at this moment in time.



1. *See the big picture.*

Setting aside the debate on nomenclature and revolution vs. evolution, all our EAB members believe that the way data is viewed and used in the organization needs an overhaul:

- Companies (not just marketers) need to see the big picture and think about where/how data needs to flow – from where it's generated to where in the organization it's captured, synthesized, turned into insights and deployed. With the right flow, synthesis and deployment, Big Data can fuel innovation, improve profits and even create competitive advantage.

1. Free the data

For starters, says Tom Lowry, “Data needs to be taken out of silos and made accessible to everyone. There shouldn't be a queue outside the IT door of people waiting for their questions to be answered. Every department needs to have the ability to access and mine data.”

2. Integrate different kinds of data

Non-digital and digital data need to be integrated. This is a major undertaking for companies such as The Coca-Cola Company that have treasure troves of consumer data – qualitative and quantitative – that enable them to engender such deep and close ties with their audiences.

“Merging online data with traditional data sources is the opportunity,” says **Julie Bowerman, Group Director of Digital Platforms at The Coca-Cola Company**. “Our Digital Marketing group works entirely with digital data, while much of Marketing still uses many traditional methodologies. We’re working on creating greater integration between the two because the combination of the two kinds of data will give us an even deeper understanding of our consumer.”

Another critical task, says **Ken Bernhardt, Regents’ Professor of Marketing at the Robinson College of Business, Georgia State University**, is integrating data from customer contact people with other data. Most companies have not mastered getting information from front line employees. He quotes Carol Godfrey, Vice President of Southwire Company, as saying, “all my best data exists in body parts” (e.g. hip pockets of employees).

“The task,” says Tom Lowry, “is to aggregate the data and make it ‘liquid vs. locked’ to remove the friction and get the data to people who need it.”

3. Integrate all aspects of customer experience

“You have to have a whole customer picture,” says **Karstin Bodell, Vice President General Business Marketing, IBM North America**. “The challenge is to get your arms around everything that touches the customer and everything that is involved in his or her experience. You need to manage that system of engagement.”

However, this is no small task when you are integrating consumer and retail customer data from dozens of places. “We manage consumer and retail customer data from retail transactions, in-store activation, in-store shopping paths, consumption behavior, consumer research and more,” says **Douwe Bergsma, Chief Marketing Officer for Georgia-Pacific**. “We’re mapping many,

many consumer attributes. But success means getting a very clear picture of your consumers and retail customers and what the marketing opportunities are at each touch point along the path to purchase.”

4. Integrate the process of collecting, analyzing, disseminating and acting upon information throughout the organization

Another challenge is integration of data within the organization.

“Integration of the data - retail, consumer, shopper, company, competition, etc. – is one of the biggest challenges for a CMO right now,” says Bergsma. “You can’t get from data to insights without integration. We have a long way to go and therefore I meet more with analysts now than I do with the creative departments.”

“When we started this process, each department was using data differently. Not every department viewed data as valuable, and different departments had different systems and measured in different data sets. In marketing, we sometimes ended up missing opportunities because the data was compartmentalized and analyzed in a vacuum,” he said.

“Now we know how sales and marketing activities compare not just within disciplines (e.g. one trade event vs. another) but across disciplines. We connect all the data, looking at shipments, demand and investments. The percent contributions of each discipline often added up to more than 100%. Now they add up to 100%. We now understand how activities strengthen each other and we can really measure synergies. For example, most CPG companies know the ROI of a sales event and a coupon individually but also in combination, so we know now how to maximize ROI. This allows us to make allocation decisions based on a more

accurate contribution of each activity and combination of activities and we can be more precise in attributing success to different investments.”

5. Change the culture

Capitalizing on the wealth of data in organizations requires new skill sets, but more importantly, new mindsets.

“Organizations need to make a shift to put data at the core, and they need to know how to make data central to their decision-making processes,” says Tom Lowry. “But organizations also need to think more broadly about where valuable data lies within their company: it’s not just living in IT. There is data scattered in every broom closet.”

Heather Foster, Vice President of Marketing for ControlScan, agrees. “It’s a strategic mindshift for everyone. In our organization, there are certain departments that don’t think about looking at data. There are some power users, but we all need to think about how to aggregate the data from all our touchpoints and use it.”

Several EAB members spoke about the broad spectrum of “relationships” with data within their organizations, ranging from data-phobes to data-natives, and the need to create a culture of universal data embrace. “There’s a new generation that’s comfortable with the growing amount of data,” said Douwe Bergsma. “But there are also a few people in the organization who don’t even realize the need.”

Bergsma found success in creating a common culture by putting IT and Analytics and Marketing executives on the same leadership team. “They’re still different departments, but they’re integrated via the leadership team. IT can’t design the infrastructure and Analytics can’t create models if they don’t know what Marketing is going to do with it,” he said.

Senior marketers are also rethinking required skills sets in their new hires. “We won’t hire even a junior person who isn’t analytical,” says Tom Lowry. “They don’t have to be quant geeks, but they have to be comfortable with data. Ultimately, we want everyone in every department to know how to use data.”

Companies will be revising job descriptions and hiring specs but also rethinking internal training. Big Data = Big Retooling.



II. *Act small.*

While it’s important to think big and holistically about the body of data that your company owns and the data needs of each part of the organization, it’s equally important to do the inverse - think small - when acting on it.

As Tom Lowry put it, “Success is making big data focus, making it smaller.”

The operative word is “FOCUS”

- On the individual problem to be solved
- On the few actionable pieces of data
- On the project at hand
- On the individual consumer and not the average one

Focus provides essential protection from data overload and its associated ill effects – paralysis, drowning and negative ROI.

1. Focus on individual problems to be solved

One of the misdirections caused by centering the conversation on “Big Data” is that it causes us to start our thinking at the wrong end. “We need to start backwards,” says Ken Bernhardt, “and start not with the data but with ‘what decisions do we need to make that data-backed insights can help?’”

“Many of us in marketing are collecting digital data,” says Julie Bowerman, “But it needs to be about more than collecting data. Start by determining what question you are trying to answer and then collect the data that best informs that answer.”

2. Separate the signal from the noise

As Nate Silver says in his recent best seller, *The Signal and the Noise*,

“...If the quantity of information is increasing by 2.5 quintillion bytes per day, the amount of useful information almost certainly isn't. Most of it is just noise... the noise is what distracts us from the truth.”

Google's IT expert put a number to it: [98% of data is noise.](#)

And the noise is distracting. “People think that more data points makes the picture clearer, like pixels,” said, **Moira Vetter, Chief Executive Officer for the Modo-Modo Agency**. “But when the data points are not relevant, then more data points makes it blurrier, especially in B2B. In B2B, the universes are smaller, and the big numbers such as ‘1 billion users of Facebook’ or ‘15 trillion terabytes of data’ are dizzying and disorienting. For many of our clients, the relevant universe is the top 30 customers who matter to them. They need to stay focused on the segment of their data that’s worth acting on.”

3. Start small

“Small” applies to both the scope of the project and the amount of data you take on board for each decision.

The speed, manipulability and real-time nature of big data enables quick “test and learns” that make acting big seem like an unnecessary risk.

“Act big and you will go wrong quicker and bigger,” says Michael Kogon. “Act small and you can learn with daily sampling. You can slice your audiences thinner and test option A with a select ½ % of your traffic and option B with another ½ % and leave the rest alone; and with print-on-demand, we can do things like test new packaging in a small sample of stores and switch it out within two months if the turnover is slow,” he said. “We get feedback so much more quickly now that everything is disposable – even stores.”

Starting small with data doesn't seem like something you'd associate with Google, but Tom Lowry says Google is a believer in what he calls, "small data". "You take on batch at a time and find an insight," he says. "And it's not just the big, 'Aha!' data that matters. It's also the things that are at the edges. You may find a few 'Aha!' insights that have a significant impact, but often gains are made through the many small insights. Don't just set up one big test."

Increasingly, marketers turn to small-batch data to get answers to focused questions. "Fielding regular, smaller online consumer surveys, for example, allows people to put their finger on whatever pulse they need to read at the moment. This is small data – small samples, quick to gather, quick to read. Small data can yield big actionable insights," said Lowry.

4. Deploy the data at the individual level

Another misdirection of the term, "Big Data" is the focus on the big numbers – the terabytes of data and samples of millions. One of the biggest gifts of big data is the depth of understanding it can provide. Because of its ability to create such a rich picture of an individual's wants/needs/preferences, Big Data enables a whole new level of personalization.

This is where B2B marketers like Moira Vetter get excited about the possibilities of Big Data. "In B2B, customers have highly individualized needs. Big Data can give us the ability to customize and allows us to be more intimate."

But Vetter is very emphatic about the right way use data in her business: "One of my clients sells lithium ion batteries to large consumer electronics companies. Ten companies may represent 80% of their business.

They also create military applications and sell to the Department of Defense (DOD). For DOD, there's one buyer. My clients don't need data points on millions of people; they need thousands of data points on ten people. This isn't about models and algorithms. You can make bad decisions trying to come up with a formula when what you should be looking for is the differential, the anomaly, the aberrant, not the norm or the average. There is no 'typical customer' in my business - they're all snowflakes - and any way you try to batch them makes them generic and stunts your ability to understand them."

The Coca-Cola Company has famously broad reach and scale, and has become expert in using its wealth of data in the aggregate.

The company's new frontier is using data to personalize interactions with consumers, says **Rebecca Messina, Vice President, Global Marketing Capability & Integration at The Coca-Cola Company**. "Our goal is to keep the story going with the consumer," she says, and particularly the super-users. She cites Lady Gaga as an example of personalization done well. "Lady Gaga knows who her superfans are, and she knows how to make them feel elite and engage them in 'conversations'. The data that comes from these kinds of exchanges is 'a whole new level of data,' says Messina. "Someone is telling you something in a more organic and natural environment. But it's how you use this data that makes the difference. With any consumer engagement, we have the opportunity to transform the experience into something that deepens their relationship with the brand and creates something positive for the brand.

"For example, we see that a superfan attended our Olympic Torch Relay; we keep the story going by reaching out to him and saying, 'Here's a coupon. If you had a good time, please tell someone about it.'"

5. Start with people who will embrace it

Many EAB members talked about the different degrees of data-enthusiasm within their companies and customers' companies. The rule of "start small" seems to help here, too.

"The first order of business in using marketing analytics is to focus on the people in the organization anxious to use it," says **Jon Bridges, Vice President of Customer Experience at Chick-fil-A**. "Many people in the organization have a long history of making successful decisions based on experience and intuition. We don't want to force data on them or make them second-guess themselves or slow them down. Our Product Group is very hungry for data to help determine the optimal sales mix and there are restaurant operators who are begging for more insights into their customers. Our strategy is to offer data to the hungry hunter and let them get successes and be evangelists to the rest of the organization."

Heather Foster uses the same strategy both internally and with customers. "We are a smaller company and we don't have the resources to tackle this on a big scale all at once. But regardless, you don't want to inundate people and overwhelm them. It's best to digest it in small chunks so that people can get used to it and achieve victories along the way. For customers in particular, introducing it slowly makes it more a value you're providing to them than a train you're pushing them to jump on."



III. *Don't be afraid to use it.*

In some ways, Big Data has redefined “failure”. The ability to slice off a small representative sample of your audience and test in small batches and get real-time feedback has created a new sort of “five second rule”: if it wasn't a failure on a big scale for more than a few minutes/days/weeks, it doesn't count, right?

Big Data plays a pivotal role in empowering companies such as Facebook to preach, “Move fast and break things”.

“You should be constantly testing,” says Tom Lowry, “and even when you have a successful test, you should keep on testing. To do that successfully, you need an organization that values failure – not just is comfortable with it, but embraces it.”

Failing faster (and smaller) would certainly have helped The Coca-Cola Company back in 1985. The introduction of New Coke might not have made it into the book of cautionary marketing tales if the company had had the benefits of today's Big Data. “First of all, we probably wouldn't have started with the entirety of the United States,” says Rebecca Messina. “But back then it took us 75 days to read consumer reactions and put old Coke back on the shelves. Today, it would take 75 minutes. This is a great to/from example for Big Data.”

Big Data is not just enabling fast failure – it's forcing it. As J. Walker Smith elegantly puts it, “The data-saturated world places a greater priority on real-time experimentation (and response) as a corporate competency.”

Failing faster = learning faster than the competition.

Part of moving quickly is letting go of the aim for perfection. "Making a decision now with 80% of the data is often better than waiting 3 months seeking perfection. Understand if your department suffers from 'analysis paralysis'," says Tom Lowry.



IV. *Be afraid not to use it.*

If you have data, it's not optional to use it.

"Ignoring the insights your customers are sharing will make you appear out of touch quickly," says Tom Lowry. "Collecting insights changes the value exchange: consumers expect more in return for what they're sharing."

The findings from one of IBM's recent studies spell this out:

- Nearly 90% of shoppers were willing to contribute 20 minutes on average to set up preferences, with the expectation that offers and communications will be personalized, but most shoppers **expect the retailer to use past purchases in order to offer relevant promotions.**
- They are willing to make occasional updates, but **expect the retailer to keep the ball rolling.**

Consumers should also be able to expect that providing data once will exempt them from having to do it again when dealing with the same company on other occasions, says Moira Vetter. “Don’t make them do the work again,” says Vetter. “They shouldn’t have to say, ‘I told you that before!’ The left hand should know what the right hand is doing.”

(Author’s note: dream on.)

The Coca-Cola Company faces these rising expectations on many fronts as it creates more intimacy and personalization with its consumers at different touchpoints.

“All our connection points with consumers are becoming digital, which allows us to talk to the consumer so much more relevantly,” says Julie Bowerman.

“Consumers expect this now, too. They expect that we’ll make it easy for them to engage with our brands and customize communications based on their interests and passions. How we talk to consumers as individuals will become increasingly important for marketers to adapt to, and build capability to do so.”

The addendum to “Be afraid not to use it” is “Be afraid not to use it the right way” and that means for the benefit of the customer, not just the bottom line.

To our EAB members, this is basic common sense. “Start by thinking about how it benefits the customer,” says Moira Vetter. “If it doesn’t benefit them, don’t do it. And if you do it for the customer’s benefit, then it should benefit you, too.”

“If you’re gathering data and not improving the customer experience, then you’re wasting the information you’re gathering,” says Michael Kogon.

Rebecca Messina takes it a step further: “Having all this data gives us the opportunity to get it right first time out. Shame on us if we don’t get this right.”

What it looks like when data is used for mutual benefit

1. Identifying your best customers and giving them a VIP Club

Chick-fil-A has a new initiative that it calls the A List, says Jon Bridges. “It’s an insiders’ club that customers can opt into. They are invited to give us information on who they are, what their preferences are and which stores they frequent most. If they want to pre-order their meals and have them ready when they get there, they can turn on geosensing so that the store will have food ready when they get close. Based on their data, we can also predict what menu items the customer will like best. Essentially, we will ‘Amazon’ the customer experience. Customers will be able to define their own menus and promotions based on their preferences. We will also use the data to determine what new occasions and new experiences to create for customers.”

2. Identifying your best customers and giving them personalized VIP perks

Michael Kogon lists Delta and The Ritz-Carlton as companies that know how to use data to benefit its customers.

“I’m a Diamond level flier on Delta. Delta figured out that maybe another airline ticket or hotel night was not the best way to thank me. So, instead, about three times a year, Delta drives me from my car directly to the gate.”

As to The Ritz-Carlton, “They always have the right newspaper at my door, every time I stay there, no matter what which The Ritz-Carlton I’m staying in,” said Kogon. “There are lots of ways to show customers that you’re using what they shared with you for their benefit. Sometimes you get credit for just showing you listened. Other times, its more subtle – more, ‘this place just knows me’. Either way, it’s a win-win for brands and their customers.”

3. Personalizing Recommendation Engines to Individuals, not Accounts

To “Amazon” is becoming a verb to describe bringing the benefits of a personalized recommendation engine to new places. **Joe Rooney, Senior Vice President of Branding, Advertising and Social Media at Cox Communications**, sees an opportunity in television. “This is a place where we can use data to make the customer’s experience better,” says Rooney. “If the average consumer spends 8 minutes figuring out what to watch, then a recommendation engine that factors in their past preferences can provide a real benefit.” There is one improvement over Amazon and Netflix that’s needed, though. “In my household, like many, we have single, shared Netflix and Amazon accounts. Amazon and Netflix don’t know that I don’t watch medical mysteries or read vampire novels (those were my daughter’s picks). There needs to be one more level of personalization.”

4. Personalizing the channel experience

Rooney also talks about the opportunities to use data to improve the channel experience. “Personalization is not just about product experience,” he says. “For example, if someone buys Hispanic channels, we can pick up on that cue and ask if they want Spanish-speaking installer.”

5. Creating Individualized Experiences

Julie Bowerman's Digital Platforms group at The Coca-Cola Company uses digital data to better inform how the company communicates with consumers. “We believe consumers expect value today in marketing communications, whether it's unique offers and content based on their preferences, or a simple, personalized message recognizing them,” she said. “For example if we know a consumer is a music fan, we can customize our messages to him leveraging many of the assets and partnerships we have to create something of value for him, and provide a reason for him to engage more deeply with our brands.”



V. Don't abuse it or over-use it.

Data abuse is using data without recognizing or acknowledging its limitations. It's about forgetting or ignoring the human factor in data generation and selection.

Over-using it is viewing data as a replacement for judgment vs. an aid to informed decision-making.

Alvin Toffler, author of the 1970's best seller *Future Shock* predicted that our main coping strategy for "information overload" (a term he coined) will be to "simplify the world in ways that confirm our biases." In other words, we will make data say what we want to hear.

IBM's ad in the recent special section on Big Data in *The Wall Street Journal* suggests that the new generation of data analysis is immune to such biases: "Analytics is increasingly helping business and government leaders look beyond their own biases to discern real patterns and anticipate events."

But Nate Silver isn't buying it. Silver, the author of *The Signal and the Noise*, is very direct: "We perceive (data) selectively, subjectively and without much self-regard for the distortions this causes." We put data on a higher plane of "truth" or "fact" and forget that it's contaminated by our unpreventably human handling of it – from choosing what and how to measure, to our models and interpretations.

Does data need to prove its value by denigrating all things subjective, qualitative and basically human? Not at all, says Tom Lowry.

"It's not 'either/or'; it's 'and'," says Lowry. "For those who make excellent decisions based on gut, if you add data to the equation, it makes you even stronger. Data and judgment should be intertwined because even the most comprehensive data won't explain everything."

“Once you’ve drilled down into the data, you need to step WAY back and ask yourself, ‘Do I trust this data? Am I tempted to ignore it because it doesn’t match my preconceived notions?’ Then drill back down. When the data yields good insights, use it.”

Moira Vetter agrees that data and judgment should serve as checks and balances to each other. “An analytic mindset and measurement are good,” says Vetter. “But if the models have gotten too far from observable behavior as a sort of reality check, then it’s time to back away from the data.”

Pitting Big Data against judgment and intuition is not only unhelpful to marketers, it’s also misguided: data and gut are not antithetical, as Nobel Prize winning economist Daniel Kahneman says in his recent best-seller, *Thinking, Fast and Slow*. Judgment is based on a different kind of Big Data: “The situation has provided a cue...[which] has give the expert access to information stored in memory, and the information provides the answer. “ In its own way, your gut is data-driven.

Michael Kogon, referencing Malcolm Gladwell’s theories in *Blink* and *Outliers*, says, “When you have 10,000 hours of experience, go with your gut. Some things just can’t be predicted by past behaviors. What model would have predicted the sudden rise in sales of gray ties last year. (Note: Google *Fifty Shades of Grey* if the reference needs explanation). Sometimes you have to stop using data and go with your experience. You can’t run a business without a spreadsheet and but you can’t run one through it, either.”

There are certain kinds of decisions, say some EAB members, where data just doesn’t help. Says Kogon, “You don’t want to the era of Big Data to

mean that you operate within the predictive mean and play within the average. You can't compete that way, or innovate."

"We have to be careful not to let data overpower the power of the story," says Douwe Bergsma. "There's a human element – the moments a brand improves someone's life a little bit: triggers a smile or contributes to something meaningful. The story of a brand is not driven by the growing amount of data."



VI. *Show, don't tell.*

Making data into pictures that tell a story – data visualization – is an essential tool for surviving and thriving in the realm of Big Data. Data visualization helps on four levels – sort of a Maslow's Hierarchy of Needs.

Level I: Survival – Avoiding Paralysis, Drowning

Data visualization can offer a form of shield against the Big Data hazards of paralysis or drowning. The exercise of data visualization forces a telescopic focus on the few essential facts that are important to convey to the data audience. It pushes the analysts of the data to separate the signal and the noise, and protects the data audience from being distracted by the noise.

The Harvard Business Review, in its October 2012 issue on Big Data, described data visualization as sort of life raft: "... if management teams do not consciously build in great visualizations, their organizations will waste an inordinate amount of time sifting through the river of bits and not get the effective insights they need."

Level II: Comprehension – Understanding What the Data Says

After survival, comprehension is the second most basic need to address to ensure the organization gets value from Big Data. "When the presentation of the data is not packaged so that the decision-making culture can absorb it," says Michael Kogon, "there's no ROI on your data."

Numerous scientific studies have shown that our brains process information in the form of images more quickly and with less effort than in the form of words or numbers. The use of infographics has skyrocketed in the past year as we try to absorb more data faster.

"Good infographics find common denominators," says **Mike Popowski, Senior Vice President and Senior Client Partner at Engauge**. "They employ things that are universally understood or familiar, like a cup of coffee or the Great Wall of China to draw correlation, dimensionalize the numbers and simplify the concepts."

Level III: Actionability – Knowing What to Do with the Data

Infographics are the newer, sexier form of data visualization, but let's not forget dashboards. "Dashboards are the more action-oriented version

of reports,” says Tom Lowry. “A report is static – it says, ‘I got the data!’ but a dashboard enables you to focus on context, movement, trajectory, trends. Dashboards symbolize the idea that I will be constantly looking at this information. That’s what enables you to be forward-looking.”

Brevity is the key to actionability, says Heather Foster. “Our dashboard went from one page to twenty pages, and no one was looking at it. We boiled it back down to one page because then you know that you’re looking at what’s really meaningful. And, we were spending less time pulling data together and more time acting on it.”

Level IV: Marketing – Changing Minds and Behavior Through Data

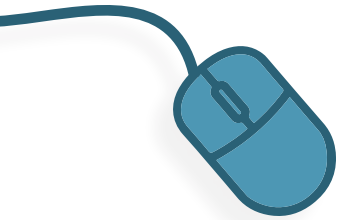
Data visualization is also a powerful marketing tool.

Good infographics can sell the data, the point it’s making and the company that creates it. The well-crafted ones weave the numbers into a simple story, create a bit of drama to highlight the key facts, and make the sale. The really good ones are also likeable enough to be social and shareable.

That is the goal of Jeff Hilimire’s team at Engauge in their work for Cisco, one of their clients. “Infographics are a key example of how we as a society are transforming the way we consume information. Telling a brand’s story through digestible and compelling content is an optimal way to get through to an audience that is short on time.”

Cisco Case History

Cisco's recent brand campaign focuses on connecting the unconnected and how Cisco makes amazing things happen when these connections are made. As more people, processes and things are connected to the network on the Internet of Everything, a concept spearheaded by Cisco, more data is generated to leverage for competitive advantage. The primary objective of the brand campaign is to place the company at the heart of this transformation, and establish it as a trusted partner that helps transform your business.



Cisco's target is technology enthusiasts and very importantly, the C suite. Cisco drove the launch of the campaign by seeding thought leadership pieces that visualized its research and data in the social space. Whether part of a blog post or a stand-alone asset, the data visualizations communicated the transformational nature of our connected future with Cisco at the center theme found in denser material in a consumable manner. Cisco found data points that are relatable to anyone and created easily digestible, bite-sized content like mini-infographics, blogs and videos to introduce the Internet of Everything.

Using attention-getting numbers, such as the \$14 trillion value at stake on the Internet of Everything, to draw you in creates an entrée for Cisco to show its thought leadership as “the steward of network transformation”.

Good infographics can also sell products. Heather Foster shared an infographic that her company created as a different approach to selling an excellent new product that wasn't getting the notice it deserved.

"Initially we were approaching our customers in a very traditional way to introduce a new security offering that was very complementary to our current services," she says. "It took us months to realize it wasn't resonating. We decided to take a different approach and target a specific market segment that was of particular risk and came up with an infographic that helps them comprehend their risks and steps they need to take to protect their business."



Conclusion

1. Step back

To rethink data in a more holistic sense

- a. Mentally lift everything out of silos – whatever those silos are: data type (quantitative, qualitative), source/origin, current residence, etc.
- b. Re-imagine the entire digestive/circulatory/nervous systems of your data: how data comes in, gets channeled, stored, processed, fed to the right places.
- c. Think through the structural, cultural and talent management implications to this redesigned set of activities and interactions

2. Step in

Just do it. Pick a problem to solve, a data set to include, a team seeking to learn and willing to fail. Test, learn, revise, repeat, a step at a time.

3. Watch your step

- a. Get it right with the customer/consumer. Do the right thing by them and they'll return the favor.
- b. Watch out for blind spots. Biases and assumptions are unavoidable, but being aware of them sharpens your perspective.

4. Step up

Big data presents a huge opportunity for marketers to lead the way by doing what we do best. Big data needs good marketing as much as marketing needs big data.

This is your moment. *Jump on it!*