— DATA PRIVACY —

Untapped 'Big Data' could be wellspring of opportunity

By Maria Sendra

As we move forward into 2013, the buzzwords that have the technology world in a frenzy are "Big Data" — the promise of a company's potential ability to extract valuable insights from significant stores of data with respect to its customers and its business.

From a macroeconomic perspective, the McKinsey Global Institute (MGI) describes Big Data as "underpin[ning] new waves of productivity growth and consumer surplus." According to MGI, "services enabled by personal location data can allow consumers to capture $600 billion in economic surplus." James Manyika et al., "Big Data: The Next Frontier for Innovation, Competition, and Productivity," McKinsey Global Institute, May 2011. From a capital markets perspective, we saw Splunk, a San Francisco-based software firm focused on helping businesses analyze large amounts of Web data, go public in April 2012 and become the subject of speculation regarding potential acquisition by two of its highly branded competitors — IBM and Oracle, all in under a year from its public debut.

The literature and markets in this sector are compelling, but the truth is that most companies are still at the relatively early stages of mining the Big Data asset. While data is pouring into organizational networks, nearly one in four respondents to a recent survey indicated that the vast majority of the company's data is untapped. Another 53 percent are able to use only half of their data. And for companies furthest along in the continuum, data management strategy remains a C-level executive problem. See SAS Sponsored, "Big Data, Harnessing a Game-Changing Asset," Economist Intelligence Unit, The Economist, 2011. Of course, therein lie the tremendous technological and entrepreneurial opportunities.

But, what exactly is the power of Big Data? And what are the critical factors in creating value from it?

The term "Big Data" is sometimes used to refer to the significant stores of information being gathered from its users by the popular incumbents such as Facebook and Google to maximize targeted advertising revenues, for example. However, some would argue that in order to be predictive and actionable, Big Data must be about what actually happens, or in the case of people, what they actually do, as opposed to what they say they would do.

In his Aug. 30, 2012, interview with Edge, Alex 'Sandy' Pentland, Director of MIT's Human Dynamics Laboratory, notes, "I believe that the power of Big Data is that it is information about people's behavior instead of information about their beliefs. It's about the behavior of customers, employees and prospects for your new business. It's not about the things you post on Facebook, and it's not about your searches on Google … [The former] comes from things like location data off of your cell phone or credit card … by analyzing this sort of data [about real behavior], scientists can tell …whether you are the sort of person who will pay back loans … if you're likely to get diabetes."

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John Brockman et al., "Reinventing Society in the Wake of Big Data," edge.org.

So the first question in determining the value of the data is the source and the context. Is it narrative or outcome? The second point of analysis lies in determining whether that data integrates the entire context of the particular situation and potential solution — human, technological and environmental. These efforts have spun out a whole generation of Big Data companies focused on machine-related data and the Internet of Things — sensor embedded objects storing massive amounts of information around the world. The following provides a colorful glimpse into the rather revolutionary aspect to this method of gathering information: "Pill-shaped micro-cameras already traverse the human digestive tract and send back thousands of images to pinpoint sources of illness. Precision farming equipment with wireless links to data collected from remote satellites and ground sensors can take into account crop conditions and adjust the way each individual part of a field is farmed — for instance, by spreading extra fertilizer on areas that need more nutrients. Billboards in Japan peer back at passersby, assessing how they fit consumer profiles, and instantly change displayed messages based on those assessments." Michael Chui et al., "The Internet of Things," McKinsey Quarterly, March 2010, mckinseyquarterly.com.

But who owns this data, what are the risks that might erode the ultimate value? We have been here before with the pioneering incumbents that revolutionized internet search and social media faster than we could imagine. As a result, many of these companies built their models in an unregulated and unsustainable context. There is a history of personal information being collected and monetized in ways that consumers did not understand and from which consumers did not benefit. There is a history of abuses and regulatory sanctions as the models evolved. Federal Trade Commission, "Protecting Consumer Privacy in an Era of Rapid Change," F.T.C. Report, March 2012.

As a result, federal regulators stepped in with the Consumer Privacy Bill of Rights in the U.S. and the declaration of Data Rights in the EU. And in anticipation of smart phones becoming one of the richest sources of individual data, the FTC recently extended "do-not-track" to the mobile industry. In the business world, companies are increasingly addressing consumer ownership and distinguishing themselves in the competitive landscape by building models aimed at respecting guidelines similar to those proposed in the Consumer Privacy Bill of Rights.

However, it will not be an easy task to avoid missteps. Cybersecurity continues to grow at threatening levels, resulting in the very recent Feb. 12 cybersecurity order issued by President Barack Obama. Further, some technology tracking devices are so complicated and embedded within systems that many technical or publishing companies do not even know what is happening on their own sites or who and how they are tracking. Within the U.S. and abroad, various federal and state laws and regulations govern the collection, use, retention, sharing and security of the data received from and about users. Regulatory requirements and sanctions continue to evolve around the world, many conflicting with one another as uniform standards continue to be sought. In the meantime, the interpretation and application of privacy and data protection laws are still uncertain.

The "all about Big Data" buzz is clearly warranted. The vision and market are there. But how does one diligence and grow in an environment early enough to be deemed pioneering where large organizations are still pondering some rudimentary questions, yet the capital markets are jumping in with specific valuations? Based on history so far, it is not different than any other business with issues such as management, technology/product and market triangulating the potential diligence around the value of the business.

Management. As we have seen around the management theme, diligence includes understanding the judgment behind the business. Who/what is the source and ultimate management of the core data? Is it narrative, action, result, mechanical readings? Is there a protectable intellectual property around it? Who owns it? Was it developed with C-level management priorities or the right, very complicated statistical mindset? There is quite a shortage of the latter with MGI predicting a need for 1.5 million more data-savvy managers to address the Big Data opportunity in the U.S. alone. See Manyika, cover page.

Technology/Product. What is the nature of the product? Is the technology such that it is impossible to know what your own technology is and is not tracking? Where does it lie within the risk spectrum in terms of cybersecurity and hacking? Which industries does it touch? Industries, such as telecommunications, healthcare and financial are heavily regulated. Does the product comply with the respective regulations? Does it touch any ambiguities within those regulations? If it falls in the currently evolving gray areas, what are the trends in those areas to which it will ultimately be subject? Does it follow best practices trends as supported in the regulatory guidelines, such as the recent FTC mobile guidelines or the Consumer Privacy Bill of Rights? Finally, what is the magnitude and need with respect to the problem the technology solves which would warrant valuing the company and addressing any of the foregoing risks?

Market. With respect to the market, as consumers become a bigger part of the ownership question, the value of the business could depend more heavily on what message its practices convey to its customers. A possible guide on where a business lies in this spectrum is to measure its activities along the guidelines proposed in the recent Consumer Privacy Bill of Rights. These guidelines value models built on: transparency, respect for context, security, access and accuracy, focused collection, and accountability. White House, Office of The Press Secretary, "We Can't Wait: Obama Administration Unveils Blueprint for a 'Privacy Bill of Rights' to Protect Consumers Online," www.whitehouse.gov., Feb. 23, 2012.

Facebook itself is currently analyzed by the market according to how far it can take its data collection efforts and still keep its users happy. After all, its users are providing it with the core data product and are, ultimately, its customers' customers. In the end, successful and lasting business models are all about happy and well-served constituents. Big Data opportunities which are managed and structured around this understanding should yield significant value.

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