

What is Big Data?

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“Big data” is a new catchphrase that has bubbled up recently to describe the explosion in digital data created by people, corporations and the government.

On a personal level, there has been a sharp increase in data in terms of the large number of status updates and photos and video uploads on social networks.

On a corporate level, there has been an explosion of structured data as an increasing number of corporations have moved their internal and external functions – from expense and time reporting to employees' FSA claims – to online systems. In addition, a dramatic amount of data is now being produced by digitization of forms filled in paper by customers before they are processed by the companies, hospitals and government -- ranging from auto and health insurance claims to medical records and bank, brokerage and credit card statements. And finally, the government agencies have also been increasingly digitizing data collected by the geographical and climate sensors, space, ocean and land data collected by NASA and other agencies, census data, public benefits data and even crime profiling data by agencies such as FBI.

As a result, we have been creating 2.5 quintillion bytes of data every day – so much that 90% of all the data in the world today was created in the last two years alone. This enormous amount of data - which the new catch phrase "Big Data" refers to - creates both a challenge and an opportunity for software and Web service providers, especially those involved in the field of analytics.

As you might imagine, contextualizing this information is an enormous challenge – fortunately, there are many innovative techniques and tools which allow us to analyze and make sense of the big data and use it for business benefit.

The ability to mine big data will be a boon to Social and Mobile Commerce -- companies will finally be able to serve advertisements and present offers which are precisely targeted to consumers based not only on traditional demographic data (age, sex, marital status, income, zip code), but also their current location as captured by their GPS enabled phones; and not only factors such as what they recently bought, but also what their friends bought.

In B2B scenarios, companies will be able to effectively qualify and manage leads across all the novel channels, including social media, and present customized offers to their potential customers. They will also be able to analyze customers' issues faster and serve personalized offers for repeat business.