

# Emerging trends



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The amount of data being generated globally increases by 40 percent a year, according to the McKinney Global Institute, the consulting firm's research arm. Garner predicts that data will grow 800 percent over the next five years and 80 percent of the data will be unstructured.

International Institute for Analytics predicts that " Big data analytics will top all other areas of growth in analytics during 2012 due o the rapid expansion of social, mobile, location and transaction-based data taken in by various industries. " As the volume of enterprise data sky-rockets, an industry is growing up around using this flood of information to help companies operate more efficiently and sustainable. Companies Increasingly will be deploying sophisticated software as a key component of their sustainability strategy.

Mum Sigma, for example, an Indian firm providing data analytics and declension support services for global enterprise, secured a \$108 million Investment round led by General Atlantic. " My marathoner produces a huge amount of data, my car produces ridiculous amounts of really valuable data, my house is throwing off data, everything is making data," said Erik Swan, 47, expounder of Spunk, a San Francisco-based start-up whose software indexes vast quantities of machine-generated data into searchable links.

Companies search those links, as one searches Google, to analyze customer behavior in real time. Spunk is among a crop of enterprise software start-up companies that analyze big data and are establishing themselves in territory long controlled by giant business- genealogy vendors Like Oracle and I. B. M. Founded in 2004, before the term " big data" had worked Its way Into the

vocabulary of Silicon Valley, Spunk now has some 3, 200 customers in more than 75 countries, including more than half the Fortune 100 companies.

The usage: Here's an unsubstantiated anecdote: " There's a cell service provider in Japan that collects GPS data from cell phone users. The cell provider collects the data in real time, and keeps track of which people are walking the furthest. Once a month, the cell provider gives an award to the walker who covered the greatest distance. In a way, cell phones are working like sensors to collect and analyze streaming big data. " " Imagine a consumer walking around downtown in a city, shopping.

Now imagine letting a shopping service know where he is, plus maybe the kinds of goods he is looking for. As I walk, the GPS coordinates could stream to the shopping service, and it could point him to stores that match his interests. " " A lot of people know how to work with data," observed And Ragman, " but now there is a lot more data so the kinds of things you can do with it and the way you work with it can be very different. Ragman is now senior vice president at Wal-Mart Global e-commerce and co-founder @Wallabies, and a professor at Stanford.

Traditional users of large amounts of data ? retail, telecoms and intelligence ? are already comfortable with it. The next big set of users is in mobile-social, especially incorporating collocation. Some areas have been undeserved, such as health care, which is described as the third rail because it has been too hard and too slow. But now health care is experiencing a fundamental change similar to what retail felt when customers came armed with smart phones and had more information than sales people.

Patients are starting to acquire more information and health care providers are developing more analytics. The Education: To arrive at solutions on how to perceive, derive, collate, store, sort and use data for business decisions is Data Analytics. All areas of commerce, business, economics and sciences are using data analysis to arrive at solutions. To do this there is a certain skill set that has to be created, the science of teaching this has grown into what academic institutions call Data Analytics or Business Intelligence programs.

The institutions that have taken on the mantle of teaching data analytics are the management institutions with inputs from their engineering, mathematics and statistics departments creating interdisciplinary programs to acquire data mining and interpreting skills. Most management institutions are at the forefront on this learning derivative because business now believes that this skill will be critical to improving their penetration and profitability. The Education programs train students on: Data Collection and Integration Processes for Enterprise Decision Making

The new AMPS degree provides core basics such as data mining concepts and applications, and extends into advanced data analysis, advanced statistics, database management, financial analysis, web analytics, predictive modeling and marketing analytics. 4. Students can earn a Master of Science in Business Intelligence (MISS) from Saint Josephs University. The program offers evening classes and addresses technology integration, quantitative skills and analytics within a business context. 5. The University of Denver also offers an MISS degree program through the Daniels College organizations and guide decisions.

The cross-functional coursework covers data arousing, marketing, finance and operations and incorporates real project work. 6. The University of Tennessee Knoxville offers a Master of Science in Business Analytics through the College of Business Administration. The program provides students with an understanding of business and helps them learn the analytical skills needed to solve business problems. Students can choose one of three areas of concentration: Applied Statistics, Process Optimization or Business Intelligence. 7. Since 2003, Central Connecticut State University has offered a Master of Science in Data Mining degree.

The program helps students master the cross-industry standard process for data mining, become proficient with leading data mining software, and to understand and apply a wide variety of mathematical and statistical techniques. It also introduces students to the latest data mining techniques and applications such as text mining and mining genomics data.