The Analytics Big Bang

Predictive analytics reaches critical mass as Big Data and new technologies collide

Milestones

New Users

• Government Agencies
• Corporations & Research Institutions
• Mid-size Businesses & Tech Startups

Key Innovations

• Monte Carlo simulations
• Computational models for neural networks
• Linear programming
• Non-linear programming
• Computer-based heuristic problem solving

Small Businesses & Analytic Experts

Analytics Innovation Accelerates
2000–2009: Production version of R language for analytic software grows from 0 to 1,000,000 users

Buy! Buy! Buy!
2000–2012: Analytic software market grows from $11 billion to $35 billion

21st Century’s Sexiest Job
2011–2012: Data scientist job posts jump 15,000%

Hyper-connectivity
2012: 1.7 billion mobile devices sold and 2+ billion people on social networks add to data explosion

Ubiquitous Analytics

• Cloud-based analytic exchanges:
  lead to Collaboration Economy between developers, businesses, researchers, scientists and entrepreneurs

• Individuals use analytics in everyday decisions:
  about education, careers, finances, healthcare, peer-to-peer renting and lending (“share economy”)

• Predictive policing:
  preempts many crimes

• Anticipatory analytics:
  makes it nearly impossible to crash a car or burn dinner

• Curing rare diseases:
  becomes a financial winner

• Server farms and low-cost, high-speed processing:
  make distributed computing and Big Data analytics viable for most organizations

• Growing demand for talent:
  190,000 more analytics experts and 1.5 million more data-literate managers needed in US alone by 2018

Analytic Talent Gap

Analytics’ Deep Impact

• Widespread analytics use:
  dynamic ticket pricing, shopping and movie recommendations, traffic management and much more

• Natural language processing:
  unlocks analytic value of unstructured data (e.g., Facebook posts, web pages, PDFs, email, Word docs)

• Big Data arrives:
  2.5 quintillion bytes of data created each day

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  make distributed computing and Big Data analytics viable for most organizations

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Affordable and Accessible analytics as tools become broadly adopted

2. IDC Market Analysis: Worldwide Business Analytics Software
4. http://www.indeed.com/jobtrends?q=%22Data+Scientist%22&l=&relative=1

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