

Big Data Demystified

By David Marco

President

EW Solutions



EW Solutions' Background

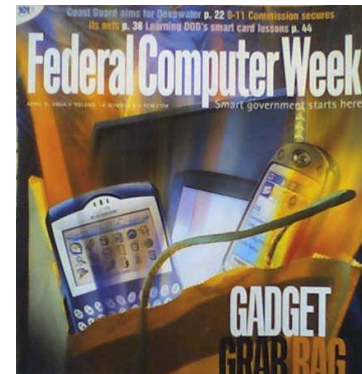
EW Solutions is a Chicago-headquartered strategic partner and full life-cycle systems integrator providing both **award winning** strategic consulting and **full-service implementation services**. This combination affords our clients a full range of services for any size enterprise information management, meta data management, data governance and data warehouse/business intelligence initiative. Our notable client projects have been featured in the Chicago Tribune, Federal Computer Weekly, Journal of the American Medical Informatics Association (JAMIA), Crain's Chicago Business, and won the 2004 Intelligent Enterprise's RealWare award, 2007 Excellence in Information Integrity Award nomination and DM Review's 2005 World Class Solutions award.



*2007 Excellence in Information
Integrity Award Nomination*



*Best Business Intelligence Application
Information Integration
Client: Department of Defense*



*World Class
Solutions Award
Data Management*

For more information on our Strategic Consulting Services, Implementation Services, or World-Class Training, email us at info@EWSolutions.com or call at 630.920.0005

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EW Solutions' Partial Client List



Schedule

AFLAC
Arizona Supreme Court
Bank of Montreal
BankUnited
Basic American Foods
Becton, Dickinson and Company
Blue Cross Blue Shield companies
Booz Allen Hamilton
Branch Banking & Trust (BB&T)
British Petroleum (BP)
California DMV
California State Fund
Canadian National Railway
Capella University
Cigna
College Board
Comcast
Corning Cable Systems
Countrywide Financial
Defense Logistics Agency (DLA)
Delta Dental
Department of Defense (DoD)
Driehaus Capital Management
Eli Lilly and Company
Environment Protection Agency
Farmers Insurance Group
Federal Aviation Administration
Federal Bureau of Investigation (FBI)
Fidelity Information Services
Ford Motor Company

GlaxoSmithKline
Harbor Funds
Harris Bank
The Hartford
Harvard Pilgrim HealthCare
Health Care Services Corporation
Hewitt Associates
HP (Hewlett-Packard)
Information Resources Inc.
International Paper
Janus Mutual Funds
Johnson Controls
Key Bank
LiquidNet
Loyola Medical Center
Manulife Financial
Mayo Clinic
McDonalds
Microsoft
MoneyGram
NASA
National City Bank
Nationwide
Neighborhood Health Plan
NORC
Physicians Mutual Insurance
Pillsbury
Quintiles

Sallie Mae
Schneider National
Secretary of Defense/Logistics
Singapore Defense Science & Technology Agency
Social Security Administration
South Orange County Community College
Standard Bank of South Africa
SunTrust Bank
Target Corporation
The Regence Group
Thomson Multimedia (RCA)
Thrivent Financial
United Health Group
United Nations (ICAO)
United States Air Force
United States Army
United States Department of State
United States Navy
United States Transportation Command
University of Michigan
University of Wisconsin Health
USAA
US Cellular
Waste Management
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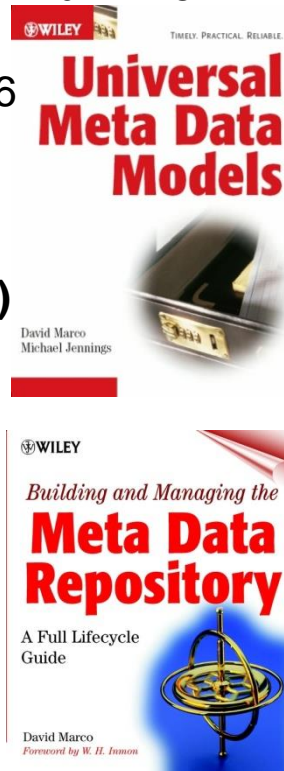


David Marco – Professional Profile

Best known as the world's foremost authority on meta data management and the father of the Managed Meta Data Environment, he is an internationally recognized expert in the fields of data governance, big data, data warehousing, master data management and enterprise information management (EIM). In 2004 David Marco was named the “**Melvil Dewey of Metadata**” by **Crain's Chicago Business** as he was selected to their very prestigious “**Top 40 Under 40**” list. David Marco has authored several books including the widely acclaimed “**Universal Meta Data Models**” (Wiley, 2004) and the classic “**Building and Managing the Meta Data Repository: A Full Life-Cycle Guide**” (Wiley, 2000).

- ☐ **2014** EWSolutions was inducted into the Hinsdale **business Hall-of-Fame** after 6 consecutive years of receiving “Best of” awards in Enterprise Information Management
- ☐ Selected to the prestigious **2004 Crain's Chicago Business “Top 40 Under 40”**
- ☐ **2008 DAMA Data Management Hall of Fame** (Professional Achievement Award)
- ☐ **2007 DePaul University** named him one of their “**Top 14 Alumni Under 40**”
- ☐ Presented hundreds of keynotes/seminars across four continents
- ☐ Published hundreds of articles on information technology
- ☐ Author of several best selling information technology books
- ☐ Taught at the **University of Chicago** and **DePaul University**
- ☐ Holds both a CDMP and a CBIP certification

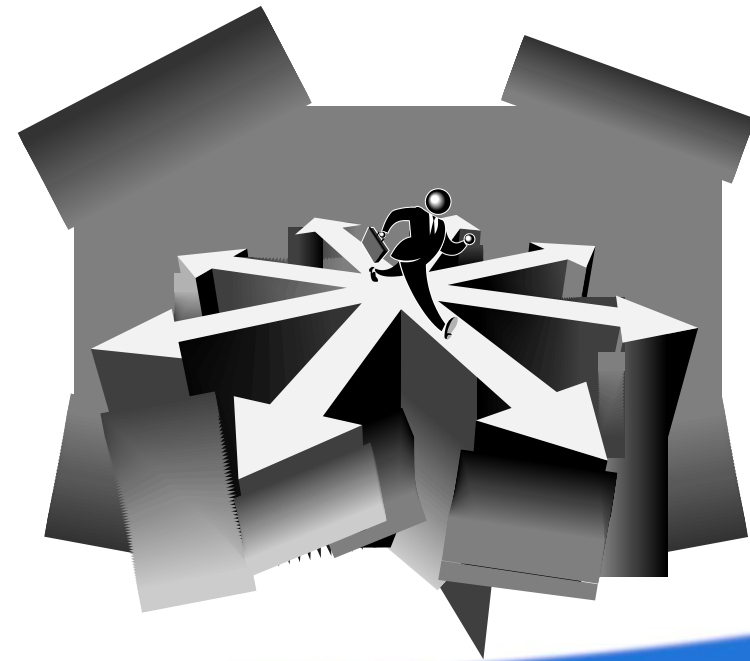
Email: DMarco@EWSolutions.com





Agenda

- ❑ Introduction – an Overview of Big Data
- ❑ Fundamental Big Data Definitions
- ❑ What Really is Big Data?



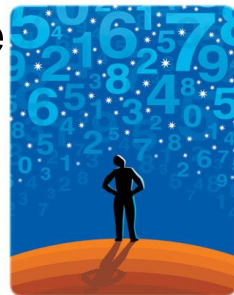


Big Data Defined



What is Big Data?

- ❑ Definition #1: “Big data is a broad term for data sets so large or complex that traditional data processing applications are inadequate.” (www.wikipedia.com)
- ❑ #2: “data of a very large size, typically to the extent that its manipulation and management present significant logistical challenges.” (Oxford English Dictionary)
- ❑ #3: “datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze,” (widely-quoted 2011 big data study by McKinsey)
- ❑ #4: “The ability of society to harness information in novel ways to produce useful insights or goods and services of significant value” and “...things one can do at a large scale that cannot be done at a smaller one, to extract new insights or create new forms of value.” (*Big Data: A Revolution that Will Transform How We Live, Work, and Think*, Viktor Mayer-Schönberger & Kenneth Cukier)
- ❑ #5: “The broad range of new and massive data types that have appeared over the last decade or so.” (Tom Davenport)





What is Big Data?

- ❑ #6: The new tools helping us find relevant data and analyze its implications.
- ❑ #7: The convergence of enterprise and consumer IT
- ❑ #8: The shift (for enterprises) from processing internal data to mining external data.
- ❑ #9: A new attitude by businesses, non-profits, government agencies, and individuals that combining data from multiple sources could lead to better decisions

List adapted from Forbes, "12 Big Data Definitions: What's Yours?", 9/3/2014, Gil Press



Big Data Defined

- ❑ **Big Data:** a collection of data sets so large and complex that it becomes difficult to process using traditional database management tools or conventional data processing applications
- ❑ This definition has much meaning
- ❑ Big Data technology and techniques should be used when traditional database management tools **CANNOT**



Big Data is NOT..

- ☐ The cure for cancer and global hunger
- ☐ The answer to all data ecosystem issues and challenges
- ☐ A replacement for the enterprise data warehouse
- ☐ Reliable, scalable, and flexible on its own without hard work performed by skilled professionals
- ☐ Solving your data management issues
- ☐ A fully matured solution

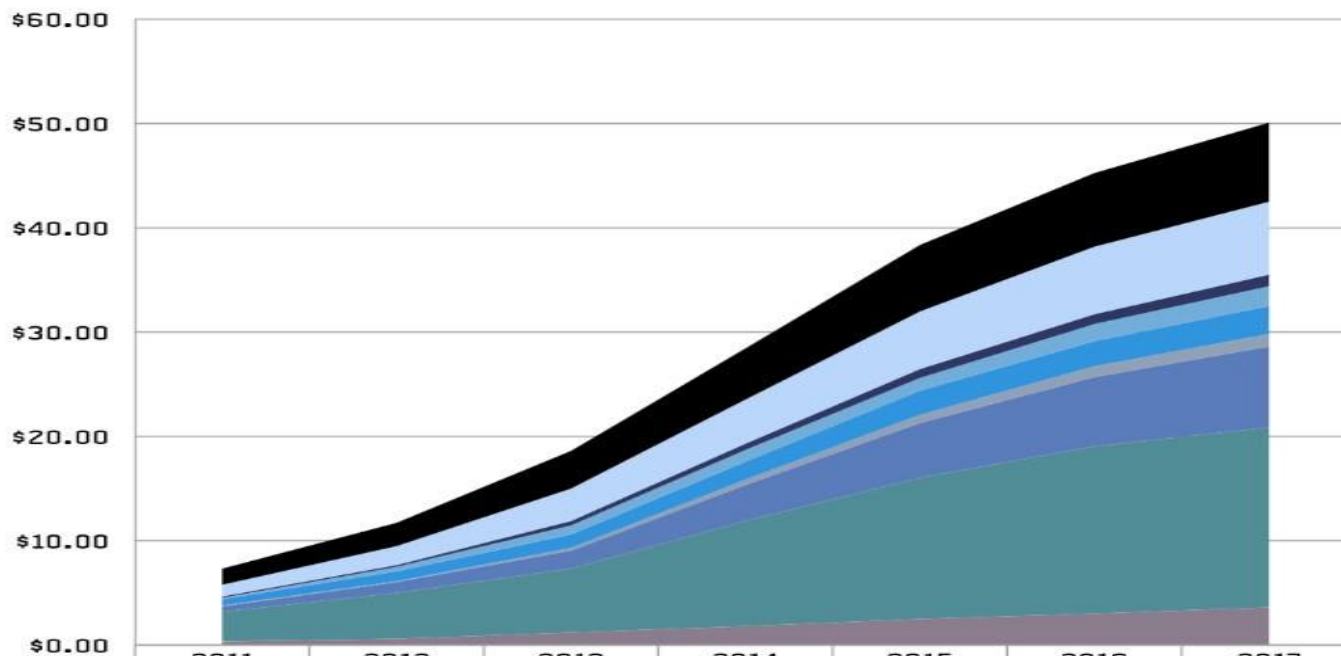


Big Data Landscape

Big Data Growth Rates - 1



Big Data Market Forecast by Sub-Type, 2011-2017
(in \$US billions)



	2011	2012	2013	2014	2015	2016	2017
Compute	\$1.53	\$2.29	\$3.65	\$4.92	\$6.40	\$7.10	\$7.60
Storage	\$1.10	\$1.75	\$3.09	\$4.20	\$5.50	\$6.40	\$6.95
Networking	\$0.15	\$0.23	\$0.42	\$0.65	\$0.85	\$1.01	\$1.15
Infrastructure Software	\$0.14	\$0.44	\$0.83	\$1.08	\$1.25	\$1.60	\$1.90
SQL	\$0.62	\$0.88	\$1.31	\$1.75	\$2.25	\$2.45	\$2.70
NoSQL	\$0.07	\$0.13	\$0.29	\$0.50	\$0.80	\$1.00	\$1.20
Apps & Analytics	\$0.52	\$0.99	\$1.69	\$3.45	\$5.29	\$6.65	\$7.75
Professional Services	\$2.80	\$4.42	\$6.15	\$10.10	\$13.50	\$16.00	\$17.20
Cloud	\$0.36	\$0.62	\$1.19	\$1.82	\$2.52	\$3.05	\$3.65



Big Data Growth Rates - 2

Figure 7: Big Data Analytics Market Size by Business Category



Source: Heavy Reading



What is Big Data?



What is Big Data?

- ❑ A **MASSIVE** marketing campaign
- ❑ Actual technology, methods and techniques
- ❑ **A significant impact to the data management field!!**



Questions

