Organizations increasingly value big data and data science and embrace more diverse data sources to gain insight about customers, increase efficiency, and generate new revenue streams. Developing an effective analytics and data science strategy, however, is often a struggle. In the recent TDWI Best Practices Report: Data Science and Big Data – Enterprise Paths to Success, we take a look at organizations’ experiences with and plans for big data and data science and offer best practices for successfully implementing big data programs. Here are several of the key survey results.

**BETTER BUSINESS INSIGHT IS DRIVING BIG DATA ADOPTION**
Organizations are using big data to understand their businesses and customers and to report performance.

- Percentage of respondents ranking the following drivers for big data deployments, “increasingly important,” in their organization or company:
  - Better Business Insight: 47%
  - Improved Customer Understanding: 49%
  - Increased Revenue: 44%
  - Increased Profitability: 22%
  - Decreased Costs: 19%

**NEARLY 30% OF RESPONDENTS HAVE A VP OF ANALYTICS LEADING THEIR BIG DATA EFFORTS.**

**NEARLY HALF OF RESPONDENTS BELIEVE OPEN SOURCE TECHNOLOGIES BUILD ONCE THEY CAN BE DEPLOYED IN PRODUCTION FOR BIG DATA.**

- Percentage of respondents regarding the following views for big data deployments, “increasingly important,” in their organization or company:
  - Open Source and Big Data: 47%
  - Open Source Technologies are Popular: 49%
  - Open Source Technologies are Good for Experimentation: 44%
  - Open Source Technologies are Good for Innovation: 22%
  - Open Source Technologies are Good for Integration: 19%

**MANAGING BIG DATA IN THE CLOUD IS GROWING.**

- Percentage of respondents regarding the following views for data management platforms, “increasingly important,” in their organization or company:
  - In the Cloud: 34%
  - On Premise: 24%
  - Hybrid (Cloud/On Premise): 15%
  - In-House: 6%
  - Managed Service (Not Pure Cloud): 7%

**The biggest organizational and technology barriers to adoption of big data are:**

- A Shortage of Analytics Professionals and Not Understanding the Knowledge and Skills Deficit is a Challenge to Big Data Adoption: 28%
- What will be the biggest organizational and technology barriers to adoption of big data in your organization? (Select up to three responses)
  - Lack of Integration and Interoperability: 40%
  - Lack of Investment in Analytics: 40%
  - In-House: 38%
  - Not having a Data Strategy: 36%
  - In-House: 36%
  - Lack of Investment in Analytics: 34%
  - In-House: 34%

**WHAT KIND OF DATA MANAGEMENT PLATFORMS ARE YOU USING FOR BIG DATA NOW?**

- Percentage of respondents regarding the following views for data management platforms, “using now,” in their organization or company:
  - In the Cloud: 39%
  - On Premise: 23%
  - Hybrid (Cloud/On Premise): 16%
  - Managed Service (Not Pure Cloud): 4%
  - In-House: 3%

**WHAT KIND OF DATA MANAGEMENT PLATFORMS ARE YOU USING FOR BIG DATA WITHIN TWO YEARS FROM NOW?**

- Percentage of respondents regarding the following views for data management platforms, “planning to use,” in their organization or company:
  - In the Cloud: 32%
  - On Premise: 20%
  - Hybrid (Cloud/On Premise): 18%
  - Managed Service (Not Pure Cloud): 15%
  - In-House: 9%

**WHAT KIND OF DATA ARE YOU MANAGING AS BIG DATA NOW?**

- Percentage of respondents regarding the following views for data management platforms, “managing now,” in their organization or company:
  - Text/Content: 28%
  - Event Data: 15%
  - Machine-Sensor: 11%
  - Real-Time Streaming Data: 10%

**WHAT KIND OF DATA ARE YOU MANAGING AS BIG DATA WITHIN TWO YEARS FROM NOW?**

- Percentage of respondents regarding the following views for data management platforms, “managing within two years,” in their organization or company:
  - Text/Content: 25%
  - Event Data: 22%
  - Machine-Sensor: 21%
  - Real-Time Streaming Data: 19%

**WHERE DO YOU LEAD DATA SCIENCE EFFORTS?**

- Percentage of respondents regarding the following views for data management platforms, “planning to use,” in their organization or company:
  - VP of Analytics: 28%
  - CIO/CDO/CAO: 15%
  - CTO: 14%
  - Other: 11%

**WHAT WILL BE THE BIGGEST ORGANIZATIONAL AND TECHNOLOGY BARRIERS TO BIG DATA ADOPTION?**

- Percentage of respondents regarding the following views for data management platforms, “increasingly important,” in their organization or company:
  - Lack of Integration and Interoperability: 38%
  - Lack of Investment in Analytics: 34%
  - In-House: 27%
  - Not having a Data Strategy: 19%
  - Lack of Investment in Data: 16

**What is the best method for developing new skills?**

- Percentage of respondents regarding the following views for data management platforms, “most effective,” in their organization or company:
  - Training and Education: 40%
  - Experience and Learning: 22%
  - On-the-Job Training: 11%
  - Commercial Software: 25%

**WHAT KIND OF DATA MANAGEMENT PLATFORMS ARE YOU USING FOR BIG DATA NOW?**

- Percentage of respondents regarding the following views for data management platforms, “using now,” in their organization or company:
  - In the Cloud: 47%
  - On Premise: 13%
  - Hybrid (Cloud/On Premise): 18%
  - Managed Service (Not Pure Cloud): 5%
  - In-House: 6%

**WHAT KIND OF DATA MANAGEMENT PLATFORMS ARE YOU USING FOR BIG DATA WITHIN TWO YEARS FROM NOW?**

- Percentage of respondents regarding the following views for data management platforms, “planning to use,” in their organization or company:
  - In the Cloud: 47%
  - On Premise: 13%
  - Hybrid (Cloud/On Premise): 18%
  - Managed Service (Not Pure Cloud): 5%
  - In-House: 6%

**WHAT KIND OF DATA ARE YOU MANAGING AS BIG DATA NOW?**

- Percentage of respondents regarding the following views for data management platforms, “managing now,” in their organization or company:
  - Text/Content: 28%
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  - Machine-Sensor: 11%
  - Real-Time Streaming Data: 10%

**WHAT KIND OF DATA ARE YOU MANAGING AS BIG DATA WITHIN TWO YEARS FROM NOW?**

- Percentage of respondents regarding the following views for data management platforms, “managing within two years,” in their organization or company:
  - Text/Content: 25%
  - Event Data: 22%
  - Machine-Sensor: 21%
  - Real-Time Streaming Data: 19%