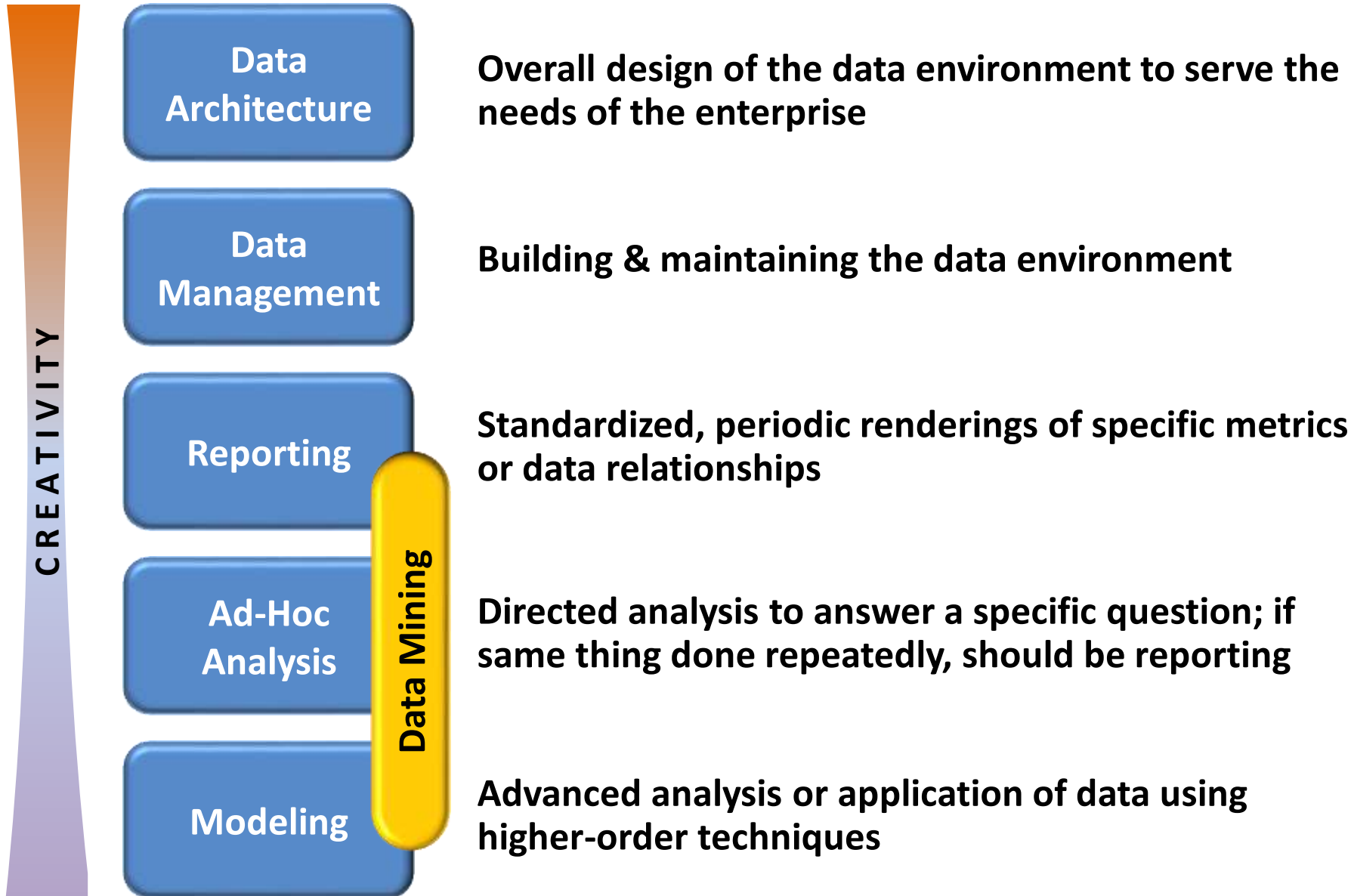


The Value Chain vs. The Real-World Organization

- **The value chain describes a linear pathway that information follows from event to action**
- **However, real organizations are not constructed around information alone:**
 - Functional (Marketing, Finance), Customer Group (Business vs. Consumer), Line of Business (Generators, Shop Tools), etc.
 - Various flavors of specialized skills or knowledge
- **There is a general tension and trade-off between technical skills and contextual acumen**
 - Resources with more technical skill tend to do the ‘heavy lifting’
 - Resources with more context tend to interpret and make decisions
- **Where analytics are concerned, organizations tend to focus on broad activity classes and the types of outputs produced**

Analytical Activities – A Simple Lexicon



Analytical Organizations – Who Does What?

Highly Technical “IT” Support Functions



- **Infrastructure** – Typically manages the physical hardware and connections inside and outside the company
 - *Almost always in an IT organization*

- **Source system / application development & administration** – Builds & manages systems that capture front-line information
 - *Almost always in an IT or Software development organization*
 - *May also include support of ancillary functionality like Corporate IT*

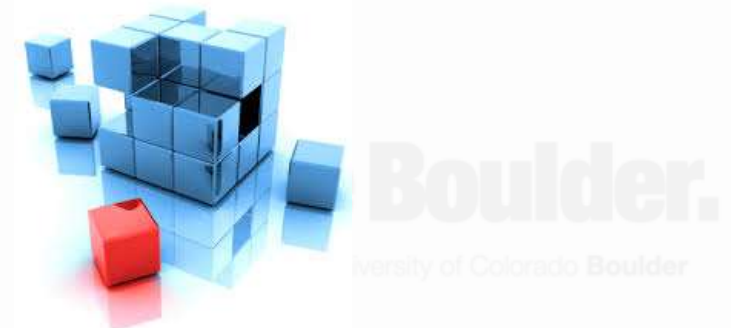


Analytical Organizations – Who Does What?

Technical Database & BI Management Functions



- **Data Architect** – Designs and structures the databases in which information is to be stored
 - Usually in an IT organization
- **Database Administrator** – Manages the creation and maintenance of databases, as well as access, stability, and efficiency
 - Usually in an IT organization, often in a data warehousing team
- **ETL Developer** – Implements the Extract, Transform, and Load logic that populates databases
 - Usually in a data warehousing team within an IT organization
- **BI Developer** – More loosely defined, but generally administers more technical maintenance & development functions for a Business Intelligence toolset
 - Usually in a data warehousing or BI team within an IT organization



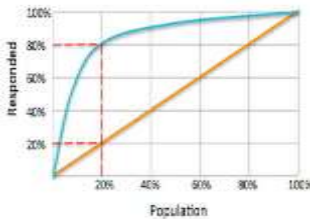
Analytical Organizations – Who Does What?

Data Manipulation and Analysis Functions



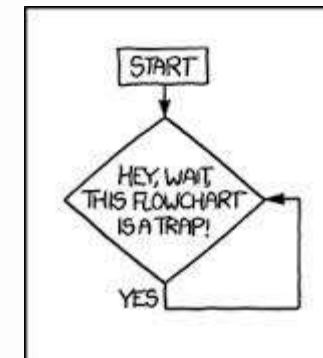
- **Database Analyst** – Extracts and analyzes data, usually by directly accessing one or more databases
 - *Sometimes in IT, sometimes in 'the business'*

- **Data Analyst** – Analyzes data; may not access database directly, and often has more business context
 - *Usually in a business / functional team*



- **Modeler** – Uses advanced techniques, including statistical modeling, to reveal insights and make predictions
 - *Usually in a business / functional team*

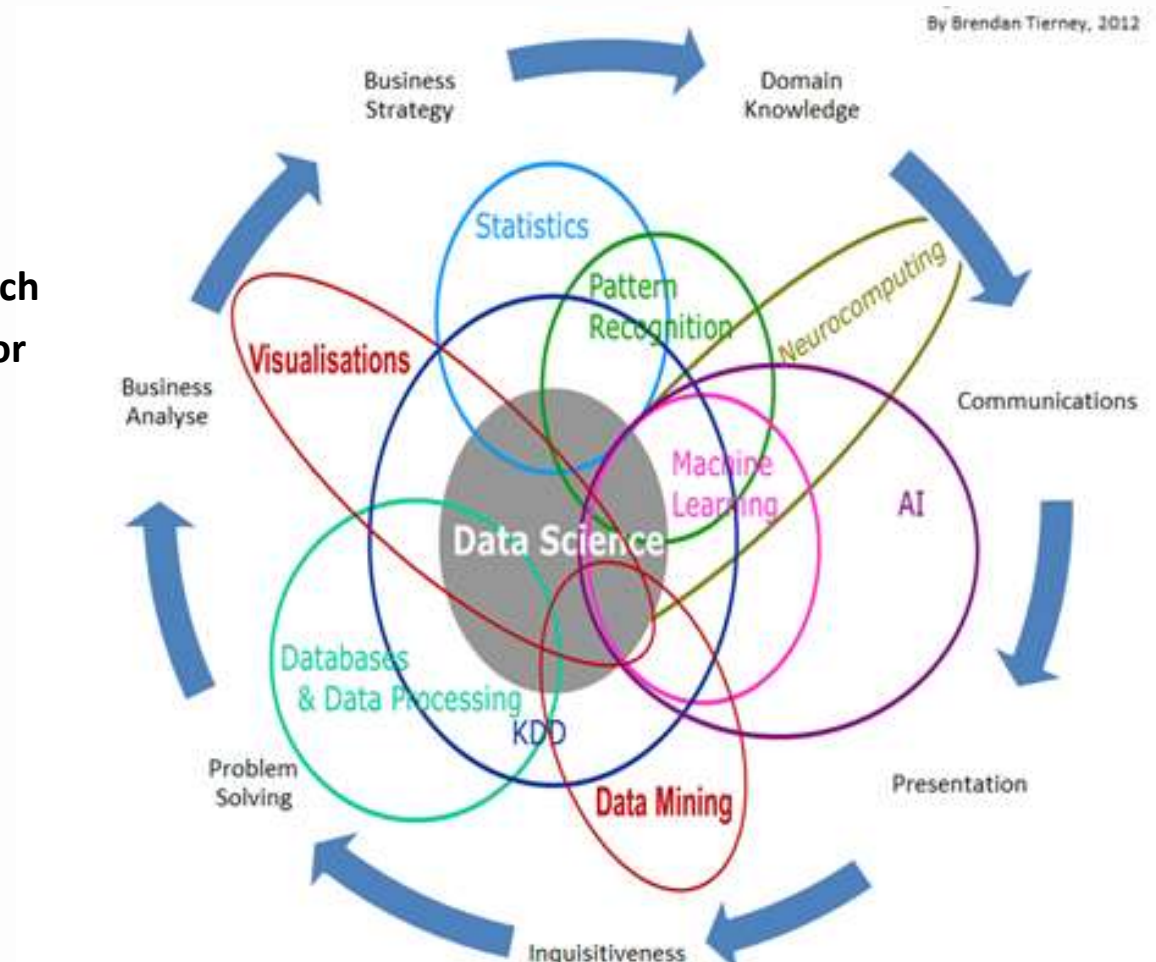
- **Business Analyst** – May use data, but more directed at understanding business processes and how things work
 - *Can be anywhere*



Analytical Organizations – Who Does What?

Data Manipulation and Analysis Functions

- The “DATA SCIENTIST”
 - Reflects blurring of roles
 - Has broad skill set
 - Has context
 - Applies scientific approach
 - Is a master communicator



Recap

- **Organized around functions, customer groups, lines of business**
- **Activity Classes:**
 - **Data Architecture**
 - **Data Management**
 - **Reporting**
 - **Ad-Hoc Analytics**
 - **Modeling**
- **Roles:**
 - **Highly Technical IT & Support Roles**
 - **Technical Data Management & BI Roles**
 - **Data Manipulation & Analysis Roles**
 - **Multidimensional role of Data Scientist**