



Patient Identity in a Dynamic Environment

Presented by Stacie Durkin, CEO & Tina Grady, Project Manager

Velocity Overview

- ▶ Woman Owned Company
- ▶ Focus:
 - ▶ Data Quality
 - ▶ Remediation
 - ▶ Integration
 - ▶ Information Governance

Data as an Asset

- ▶ Potential Value of Data
 - ▶ Can be the difference between business success and failure
 - ▶ Historically, healthcare has been the producers of data
 - ▶ Few resources allocated to use the data constructively
 - ▶ A necessary part of doing business but not used to its full potential

Data as an Asset

- Emerging technologies and products
 - Facilitate faster data entry—data was viewed as a key piece of the business
 - Can be leveraged to improve operations
 - Sales, cost reduction/containment, inventory management

Data as an Asset

- ▶ Ever-increasing pressure on Organizations
 - ▶ Regulatory compliance
 - ▶ Industry standards compliance
 - ▶ Achieve sustainability and profitability
 - ▶ Meeting shareholder expectations
 - ▶ Uncertain and constantly changing economy

Data as an Asset

- To combat these pressures, Organizations **MUST** rely on consistent data to govern their business regardless of industry
 - Timely
 - Consistent
 - Accurate
 - Free of Duplication
 - Fit for Intended Purpose

Data Governance

“...the overall management of the availability, usability, integrity, and security of the data employed in an enterprise.” (TechTarget)

Data Governance

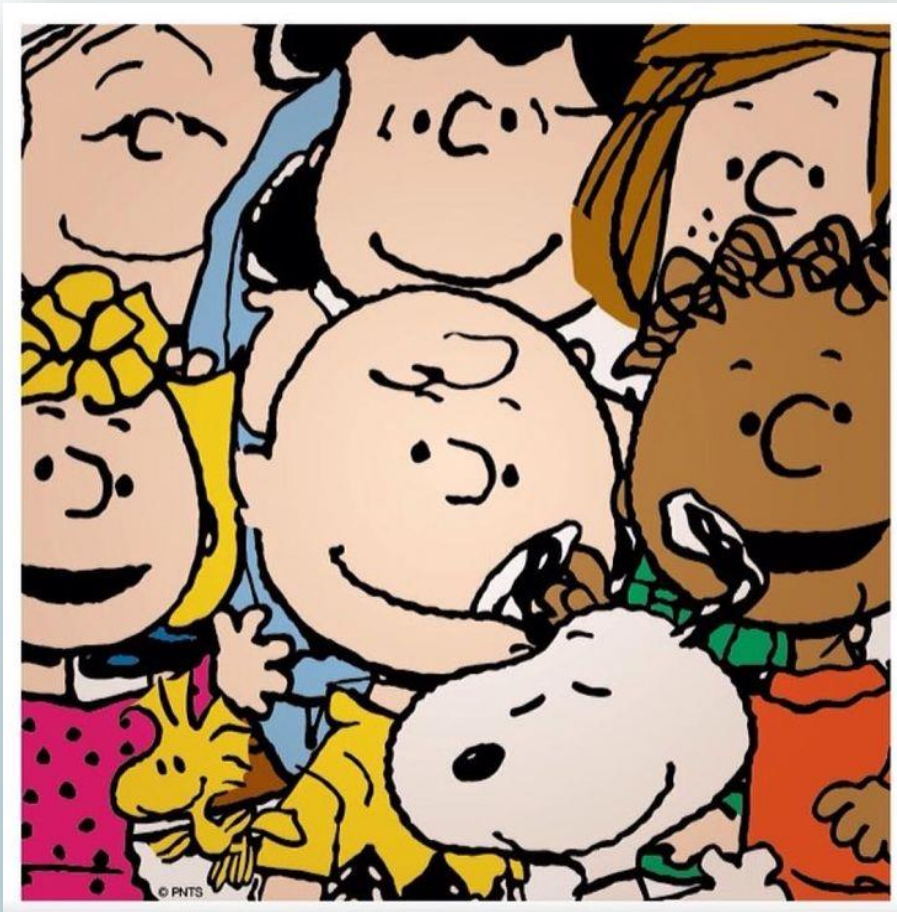
- The process created to maintain high standards across an Enterprise
- Data capture across an Enterprise
- Accountability of the data
- Complete transparency within the Organization (i.e., Sarbanes-Oxley, SOX)

Data Management

- ▶ Implement a methodology that ensure deployment of timely and trusted data across an organization

Data Management

Do you see yourself in this picture?





Ask Yourself:

- ▶ Does your organization measure the cost of inconsistent, inaccurate or unreliable data?
- ▶ Does executive management understand the import of poor data?
- ▶ Have your enterprise systems (EHR, ERP, CRM, Analytics, ect) failed to deliver a single version of the truth?

Data Management—The Low-hanging Fruit

- ▶ Start your data quality efforts with data management processes
 - ▶ Implement monitoring & metrics
 - ▶ Standardize:
 - ▶ Data capture
 - ▶ Naming conventions
 - ▶ Field formatting, ect.

Data Management

- Begin building a business case for better data by addressing:
 - Risk mitigation
 - Revenue optimization
 - Cost control

Data Management— Remediation

- ▶ Events that lead an organization to embark on a remediation project:
 - ▶ Merger and Acquisitions
 - ▶ System Updates
 - ▶ System Conversions

Remediation—Case Study

One

- Large multifaceted Integrated Delivery Network (IDN)
 - Twenty-Eight Hospitals
 - 50k+ Employees
 - Acquiring facilities without pre-acquisition analysis or clean up
 - The result?
 - Two remediation projects totaling more than 1.4 million records

Remediation—Case Study

Two

- ▶ Large multifaceted IDN
- ▶ A total of 229 Facilities including twenty-nine hospitals
- ▶ System Conversion
- ▶ Little Data Governance in place
- ▶ Phased remediation project

Industry Drivers—Today's Challenges in Healthcare

- ▶ New Regulatory Legislation
 - ▶ Payment Model Transition
 - ▶ Uncertainty around the Affordable Care Act
- ▶ Industry Consolidation
 - ▶ Mergers & Acquisitions
 - ▶ Redundant IT Systems



Industry Drivers—Today's Challenges in Healthcare

- ▶ Rapid adoption of Technology
- ▶ Mission Critical IT Investments



Industry Drivers—Turning Data into Action

Tools of the Future

- ▶ Technology can help ensure success

Tools of the Future

- ▶ Automated Transaction Reconciliation
- ▶ Data Enhancement Software
 - ▶ Capture data from multiple sources to update common data fields, such as patient address or phone number

Tools of the Future

- ▶ **Biometrics** - is any process that validates the identity of a user who wishes to sign into a system by measuring some intrinsic characteristic of that user.
 - ▶ Facial recognition
 - ▶ Finger printing
 - ▶ Hand geometry biometrics. ...
 - ▶ Retina scan. ...
 - ▶ Iris scan. ...
 - ▶ Signature. ...
 - ▶ Voice analysis.



Tools of the Future

- ▶ Machine Learning Solutions

- ▶ **Supervised learning algorithms** (represents about 70 %) are “trained” using labeled examples where the desired output is known. Supervised learning is commonly used in applications that use historical data to predict likely future events.
- ▶ **Unsupervised learning** (represents about 10-20 %) is a type of machine learning where the system operates on unlabeled examples. In this case, the system is not told the “right answer.” The algorithm tries to find a hidden structure or manifold in unlabeled data.
- ▶ **Reinforced learning** which actions yield the greatest rewards through trial and error. Reinforcement learning has three primary components:
 - ▶ 1. The agent – the learner or decision maker.
 - ▶ 2. The environment – everything the agent interacts with.
 - ▶ 3. Actions – what the agent can do



Questions?



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Thank You!