

# Driving Organizational Performance through BUSINESS INTELLIGENCE

**Presented by** Wayne Newitts, Dexter + Chaney

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### Our Speaker



#### WAYNE NEWITTS Marketing Director

#### DEXTER+CHANEY

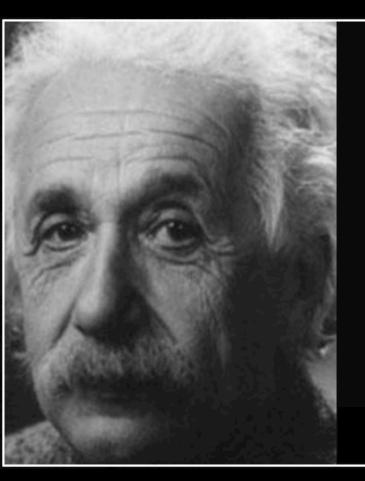
Wayne Newitts has spent the last 25 years delivering technology solutions for business. Working as a design engineer, project manager and now, as marketing director for Dexter + Chaney, Newitts has spent the majority of those years developing and providing software and information technology for both the telecommunications and construction industries. Newitts is an electrical engineer by education, earning a degree from Texas A&M University.





### Provide a framework you can use to consider the way your company uses data to drive better business decisions





# A little knowledge is a dangerous thing. So is a lot.

— Albert Einstein —

# Information is not knowledge.

**Albert Einstein** 



- Defining business intelligence (BI)
- Why BI for construction?
- Developing and implementing a BI strategy
- Bl use cases for construction



# **Defining BI**



### Defining BI



### Quick Poll 1

### What is business intelligence?

- A. An oxymoron
- B. Enhanced custom reporting
- C. Data analysis tools
- D. Data mining to uncover relationships
- E. A marketing buzzword



### Data



### Information

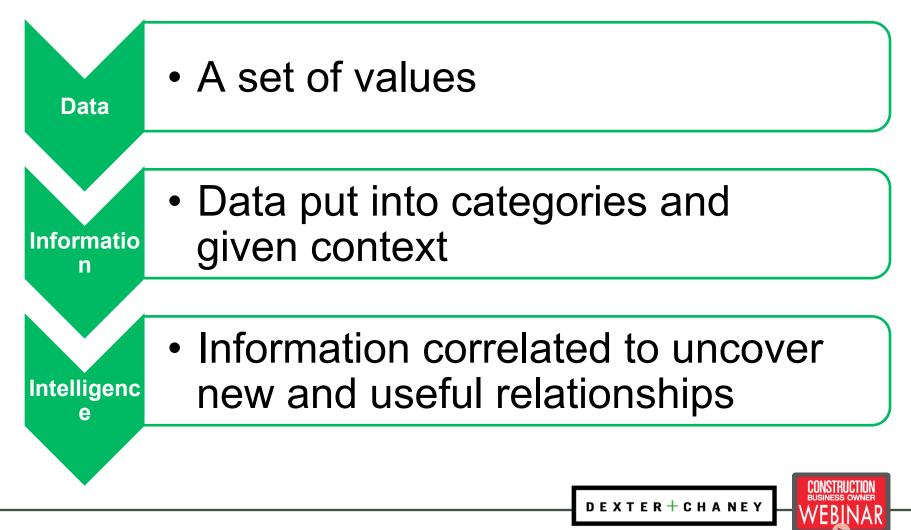








### **Building Intelligence**



halping construction companies grow

### When Intelligence Fails





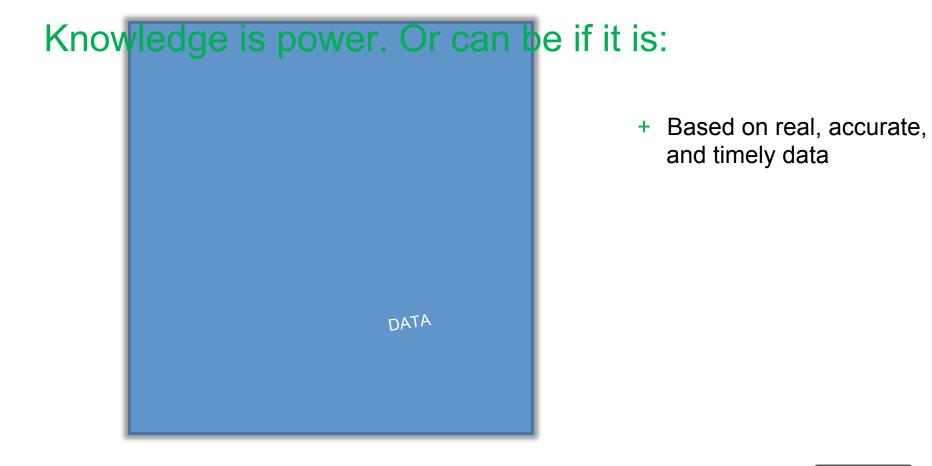
# 6 reasons why smart businesspeople fail

- 1. Feeling untouchable taking success for granted
- 2. Equating one (or several) people with the company
- 3. Being the "smartest person in the room"
- 4. Being surrounded by "yes" people
- 5. Ignoring red flags
- 6. Relying on what has worked before
  - Sydney Finkelstein Dartmouth's Tuck School of Business

IF YOU'RE SO SM&RT, WHY & REN'T YOU RICH?

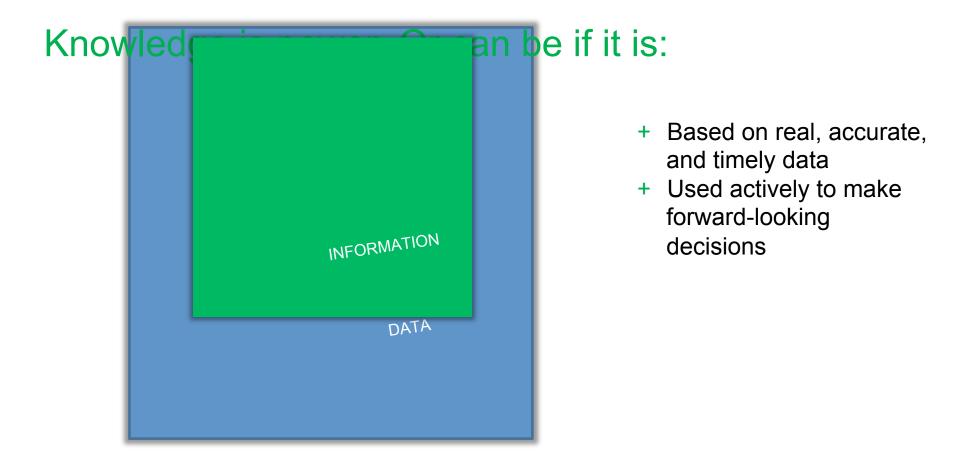


### **Toward Business Knowledge**



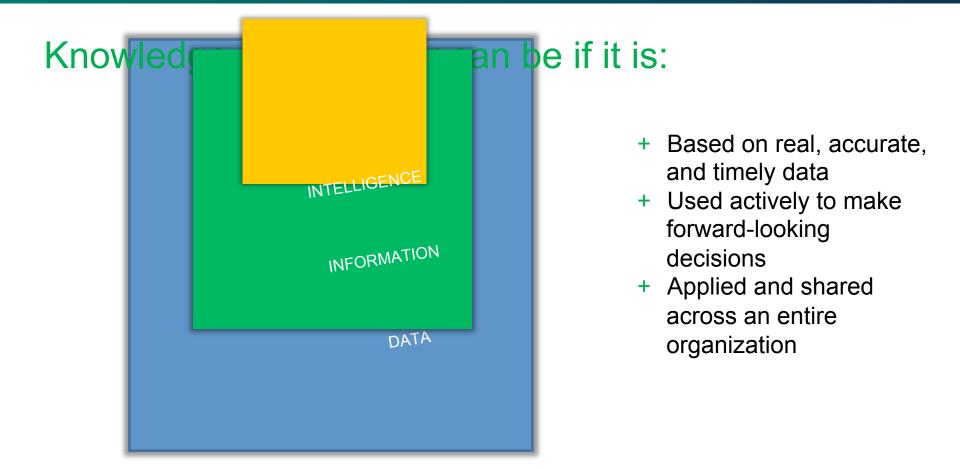


### **Toward Business Knowledge**





### **Toward Business Knowledge**





# Why BI?



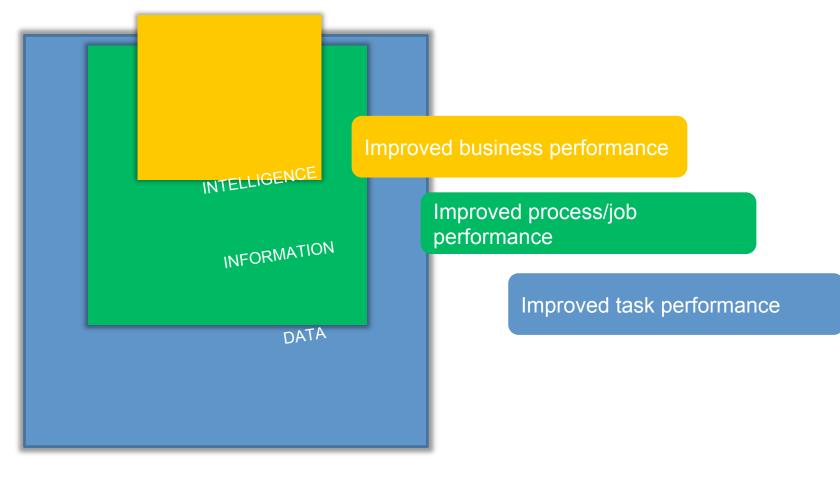
### Quick Poll 2

# The following best describes my company's approach toward BI:

- A. Nonexistent or not sure
- B. We generate required reports as necessary
- C. We track key performance indicators
- D. We analyze opportunities for improved performance
- E. We use predictive analysis to guide strategy



### Continuous Improvement





### Data

# Running your business based on data is being **Reflexive**



### Data



Running your business based on data is being **Reflexive** 

#### Improved task performance



DATA

### Information



INFORMATION

DAIM

Running your business based on information is being **Reactive** 

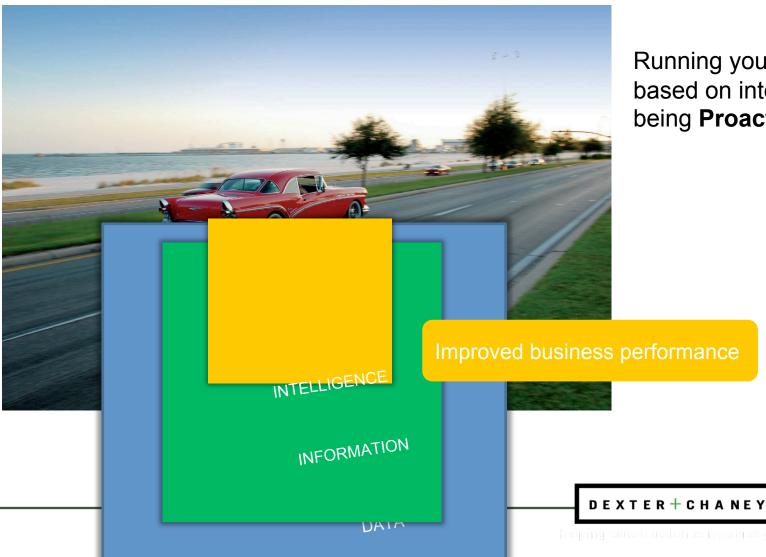
Improved process/job performance





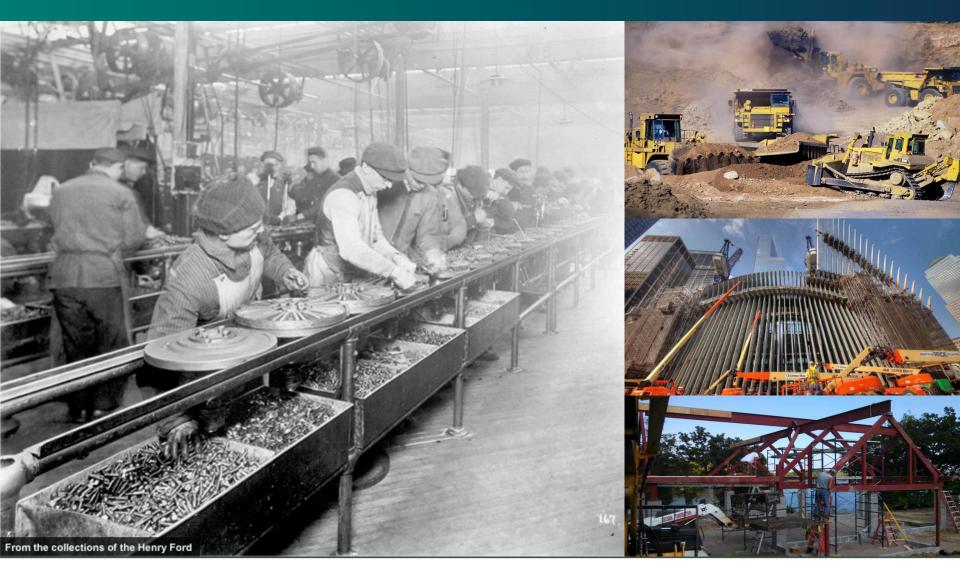
CONSTRUCTION

-halping construction companies grov

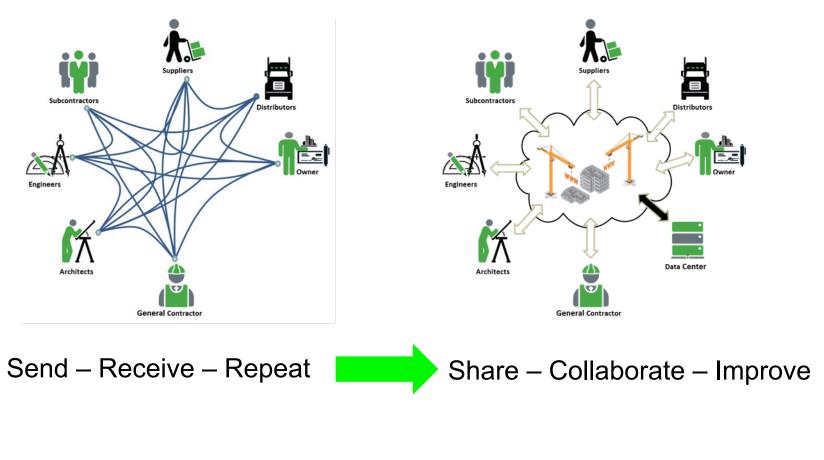


Running your business based on intelligence is being **Proactive** 

### Bl in Construction



### **BI in Construction**

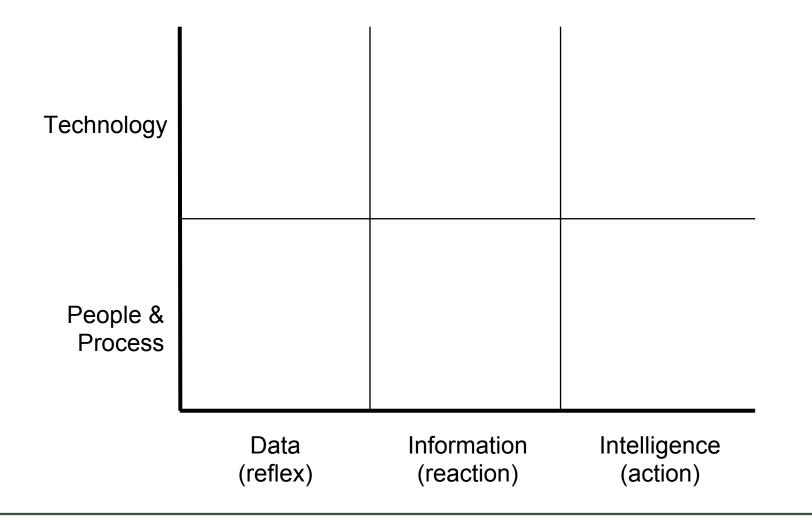




# **Implementing BI**







### Data: Objectives and Goals

Objective: Improve task performance and enable action

Goals:

- + Improve accuracy
- + Improve timeliness
- + Increase data points captured
- + Streamline (or automate) data capture process
- + Eliminate paper
- + Eliminate dual entry
- + Ensure data security
- + Establish bi-directional communications



### **Data: Approaches and Considerations**

#### **People & Process**

- + Mobile device management
- Distributed data capture duties
- + Empowered field staff
- + Single system of record
- Standardized and simplified capture

### Technology

- + Standardize on apps
- Synchronize app data with ERP
- + Evaluate new data sources
  - + Telematics
  - + Drones
  - + IoT
- + Open database structure



### Is there an app for that?



Can I get the data into my system of record?

### Information: Objectives and Goals

Objective: Improve process/job performance and enable analysis

Goals:

- + Establish and track KPIs
- + Create benchmarks
- Identify performance gaps
- + Test performance
- + Protect against litigation
- + Communicate expectations and results
- + Encourage dialogue and solicit feedback



## Information: Approaches and Considerations

#### **People & Process**

- Pick common applications within functional groups
- Establish collaboration protocols
- + Maintain strict version control
- Capture and save unstructured data

### Technology

- + Cloud computing
- Document imaging and management
- + Rich media
- + Open APIs and databases
- + Virtual workspaces



## Intelligence: Objectives and Goals

Objective: Improve business performance and enable foresight

Goals:

- + Rise above the trees and look for patterns in the forest
- + Put the full power of your data to use in decision making at all levels of the company
- + Make course corrections on the fly
- + Identify true strengths and weaknesses in your organization
- + Identify the predictors of success and failure



## Intelligence: Approaches and Considerations

#### **People & Process**

- Pick a common BI platform across all departments
- Reduced time and money in custom report building
- + Formalized risk analysis
- Buy-in from (and use by) senior management
- Implement test-measurerefine-repeat

### Technology

- + One common database
- Automated workflows
- Customizable and interactive dashboards
- + Modeling tools
- + Correlation tools
- + Interface built on self-service
- Separate (but synchronized)
  data warehouse

## **BI Use Cases**



## Training



# What is the fastest and most effective way to train project managers?



### Bidding



# When should we go through the bidding process and when should we walk away?



### Growing



# Where should I focus my efforts in growing new business?



### Retiring



# How long should I keep running a machine and what is a good number for fleet average age?





You know, it's not more knowledge, it's not more education, it's not more facts that we need. It's a better use of what we already have that we need to have. You have each and every one of you, within your potential power right now to do a wonderful job in your chosen field - if you would only embrace it and use it.

— Napoleon Hill —

## Artificial Intelligence, Data Mining, AR/VR...

# ...and other futuristic stuff that is already here



## The Fast-Approaching Horizon

#### **Artificial Intelligence**

- + Is not artificial wisdom (yet see "data mining")
- + Is not so artificial anymore

#### Data Mining ("Big Data")

- + It's becoming a big mine
- + The patterns can be fascinating...

#### AR/VR

- + The world is your search engine
- + Risk-free scenario building



### CONSTRUCTION BUSINESS OWNER WEBINAR

## Webinar Q&A

Have a question for today's presenter?

#### **Wayne Newitts**

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