

Talent Management Conference

Talent Analytics Trends

John R. Mattox, II, Ph.D.
Senior Consultant, Talent Solutions

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10:45 - Noon



Today's Journey



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Macro Trends

- Changing Economies
 - Example—Implications for hiring
- Big Data
 - What does big data give us—besides more data?
- Wall Street Valuation
 - How do we quantify the value of intangibles?
- Information for Decision Making
 - What does the c-suite need?



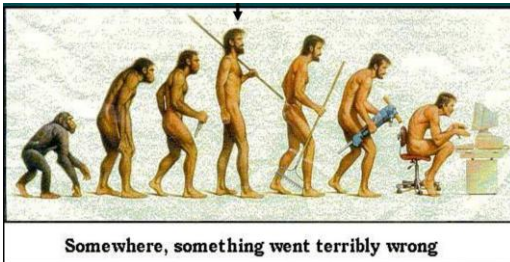
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A Tour Through History



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The Evolution of Talent



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Industrialized Economy vs. Knowledge-based Economy

- | | |
|--|--|
| ▪ Report to a factory | ▪ Work from anywhere |
| ▪ Punch in / Punch out | ▪ Work any time; day or night |
| ▪ Do the job as prescribed; follow standard operating procedures | ▪ Work with colleagues distributed around the globe |
| ▪ Base salary with minimal bonus | ▪ Innovate, solve problems, create processes that machines (including computers) can perform |
| ▪ Life-long career at one company | ▪ Differential salaries based on performance |
| | ▪ Leap frog career advancements |
| | ▪ Role shifting |
| | ▪ Company switching |



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Implications for Business

The profile for successful candidate changes...

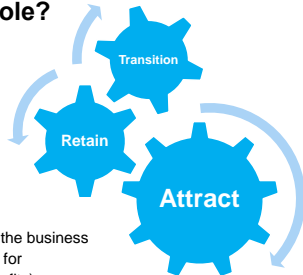
- Hire for specialized roles—IT specialist with Hadoop skills (Deep technical skills)
- Hire someone who has the requisite skills for the current job and potential for future roles (Broad competencies—e.g., leadership)
- Hire curious, innovative, game-changing, improvement-minded, provocative, brilliant, challenging, interesting people...



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HR's Role

What is HR's role?



Why?

To drive profitability for the business
(or achieve the mission for
government and non-profits)



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Attract...

- The main question for most companies is build or buy?
 - Consider the Tennessee Titans Marcus Mariota's skills.
 - The Titan's bought a quarterback,
 - But they will also build his skills through coaching



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Back to the business...why build?

Micro level (Individual Level)

We train and coach and develop our talented professionals so they become better at the specific jobs that they do.

Macro level (Business Unit or Organization)

If the business unit is operating effectively, increased individual productivity, innovation, efficiency etc. will lead to more profitability (or mission achievement)

When we **hire, retain and transition** talent effectively, the organization should optimize performance



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Today's Journey



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Convergence of Forces

- Technology provides massive amounts of data
- Wall Street wants valuation
- C-suite wants to manage the business in times of rapid change for profitability



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Massive Amounts of Data

- New terms to describe the massive amount of data available
- Zetabyte = 10^{21} bytes



If 1 stamp = 1 byte, one zetabyte of stamps would cover the world how many times?



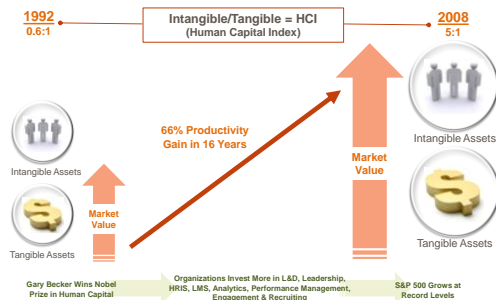
6 trillion times



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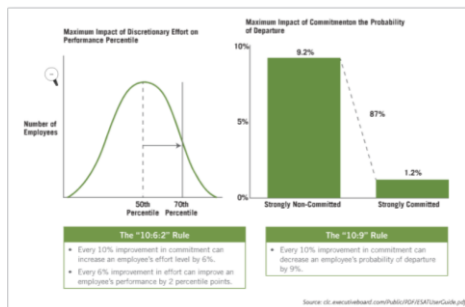


Valuation—How Does Wall Street Value Companies?



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Engagement, Productivity & Turnover



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Today's Journey



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Six Pillars of Talent

CEB—Metrics That Matter categorizes the variety of talent measures into six pillars

- Talent Acquisition
- Learning & Development
- Capability Management
- Leadership Development
- Total Rewards
- Performance Management

What is missing?



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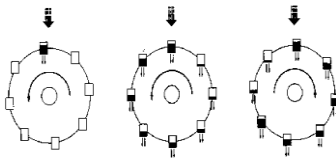
Today's Journey



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Chaos Theory: Water Wheel Experiment

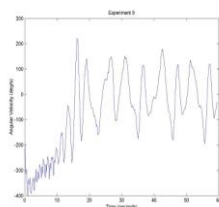
- Chaos Theory is a set of mathematical approaches that attempt to find patterns in data that are seemingly random
- Take a look at this [water wheel](#)
- Is there a pattern?



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Water Wheel Experiment

- Is there a pattern in two dimensions?
 - Is there a pattern in three dimensions?
 - [Lorenz Attractor in Motion](#)



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Talent Analytics

What are the reasons to analyze talent?

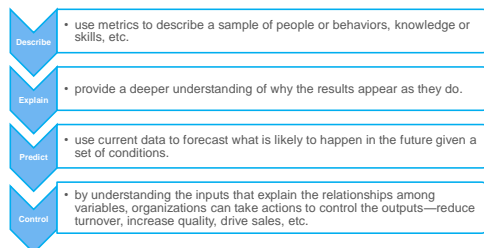
- Measures of activities and outcomes related to various aspects of talent within an organization that provide insight about what is the current state
- Analytics can be performed to compare across segments for differences
- Analytics can be used to describe relationships among data
- The purpose of analytics is to assist leaders to make informed decisions about talent



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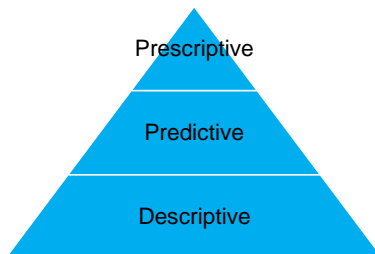
Why Use Talent Analytics?

Four general reasons to measure talent:



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Types of Analytics



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Types of Data Analysis

Descriptive > Predictive > Prescriptive

Descriptive Statistics

Use numbers to describe the observed data (N, mean, distribution)

Predictive Statistics (Inferential)

Use analytic techniques for three general purposes:

- Find relationships among variables (As X moves, so does Y)
- Determine differences among groups (Is A better than B?)
- Reduce data to simplify groups or classify cases into groups

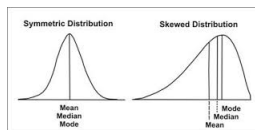
Prescriptive Statistics

Based on analysis, provide guidance to stakeholders
Guidance becomes goals and performance is tracked
(e.g., revise or retire the course, invest in company Z)

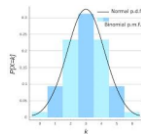


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Descriptive Statistics



Central Tendency: Mean, median, mode



Distribution (spread): Frequency distribution, standard deviation



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Descriptive Statistics: Recruiting Measures

What is the average length of time to fill a position?

Avg: 45 days

What is the range to fill?

1 day to 365 days

What is the standard deviation?

10 days

Simple prediction exercise...

If you have 5 open requisitions, what is your best guess at when will you have your work force staffed if they are sourced simultaneously?

Early and late estimate?

What if they were sourced sequentially?

Note: Similar Topic at this Conference: The Power of Prediction: How to Forecast and Prevent Key Talent Turnover Salons A-C
Tom Daglis, Associate Data Scientist, Ultimate Software



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Predictive Statistics: Recruiting Measures

What is the average length of time to fill a position?

Multiple business units
Different levels
Years of experience
Salary requirements
Locations
Languages required

It varies per all of these factors

Complex prediction exercise...

Use regression to examine relationships among variables and predict the average time to fill based on the characteristics of the job

Dummy code the discrete variables (Biz units, levels, locations); keep the continuous data as is (years of experience, salary, languages, & time to fill)



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Predicting Engagement

Three factors predict time to fill: The business unit, years of experience and number of languages spoken. Respectively, each factor adds 4.75 days, 5.25 days and 4.0 days to the time to fill. (Note: Bogus data)

Business Unit (A = 1, B = 2, C = 3)



Years of Experience



Number of languages required

Time to fill

Exercise: How many days on average do you predict it take to fill a position for Business Unit B, when the position requires 10 years of experience and two languages?



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HR and Business Intelligence

- Talent Analytics is the intersection of HR processes and business intelligence systems
- BI systems are designed to analyze data and provide insights
- Effective systems should do the following:
 - Gather, analyze and report data
 - Create efficiencies that yield cost savings by eliminating routine manual processes
 - Provide insights and recommendations (e.g., prescriptions) to the end users and stakeholders



Critical End Goal



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Scrap Learning

What is scrap learning?

Scrap learning is training content that is delivered to employees, but is never applied back on the job.

Research has found that the majority of organizations have a scrap learning rate that is greater than 50%!



Metrics That Matter™ is a cloud-based evaluation tool used to collect post-event (e.g., Level 1) evaluations after training.

The data supporting the following concepts come from MTM.



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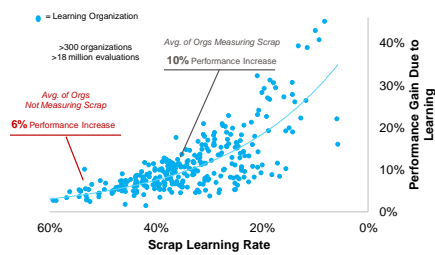
Questions about Scrap

- Is scrap learning too high?
- If so, what are the key elements of the curriculum that are contributing to scrap?
- What are the best practices that can be applied to improve the problematic elements of training and thus reduce scrap?
- What is the economic benefit gained from reducing scrap?



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Scrap Learning



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[illegible][illegible]

- Our ever-changing economy requires that we adjust our HR practices with regards to attracting, retaining and transitioning our talent
- CEB's 6 pillars of talent provides a valuable framework for understanding the key processes within talent
- Talent analytics is the only way forward. Only by measuring, monitoring and managing key metrics will HR be able to manage talent and meet business goals

John R. Mattox, II, Ph.D.
Senior Consultant, Talent Solutions
615 714 7299
jmattox@executiveboard.com
