

**Ultimate**  
SOFTWARE  
People first.

**The Power of Prediction:  
How to Forecast and Prevent Key Talent Turnover**  
Thomas Daglis, Associate Data Scientist – August, 2015

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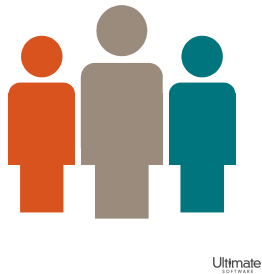
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**Good data  
tells a story**

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**Leaders Follow the Data**  
Good data can be trusted – it is never biased

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## Agenda

- State of Analytics in HR
- Judgment vs Data-Driven Decisions
- Predictive vs Prescriptive Analytics

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Most organizations are sitting on a wealth of workforce data — as many as **16 million** data points

Yet **only 4%** of companies have successfully executed HCM programs that are driven by data



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## Why Be More Data Driven in HR?



It can cost up to **3x** the annual salary to replace an employee



### Best-in-class

organizations are twice as likely to have a process in place to for identifying and retaining high potential talent



**91%**

of high performing companies rigorously assess the ROI of initiatives and programs using data

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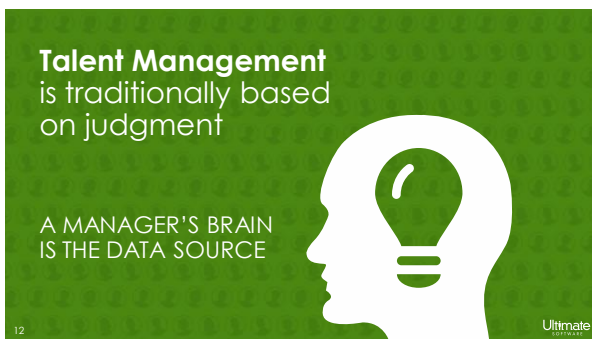
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**Managing is hard**

Cognitive brain performance peaks in the mid-40's

"Train Your Brain to Travel from Nine to Five" - Cite, Center for Brain Health, The University of Texas at Dallas, 2015

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The human brain has limits on how much **"working memory"** it has

**Magic Number:**  
**7 + or - 2**

"The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information" - Psychological Review 63, 1954

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What happens if there are more than **5 - 9** drivers of behavior?

**JUDGMENT WILL SUFFER**

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## Judgment vs. Data Predictions



### Judgment

Based on gut-level input

Planned Periodically  
Manually Updated  
Highly Subjective



### Data

Based on employee records

Always Available  
Always Up-to-date  
Unbiased

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## Two New Tools for Your HR Toolbox



Data



Knowledge

Prescriptive



Action

Predictive

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You might ask yourself...

**DO I NEED TO BE A DATA SCIENTIST  
TO USE PREDICTIVE ANALYTICS?**

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- Let the data scientists do the statistics
- HR leaders simply need to reap the benefits

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## Predictive Analytics

The power to use what happened yesterday to accurately predict what will happen tomorrow...



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## Credit Scoring Example



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# UltiPro Predictors

## UltiPro Retention Predictor™

Forecast an employee's likelihood of staying in the organization for the next 12 months

## UltiPro High Performer Indicator™

Identify who the top performers are in the organization

## UltiPro High Performer Predictor™

Identify the likelihood of an employee becoming a high performer in the organization

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If you can identify who your high performers are, organizations can focus on saving the most valuable employees

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Organizations can also optimize their investments in their employees, since high scoring people aren't going anywhere



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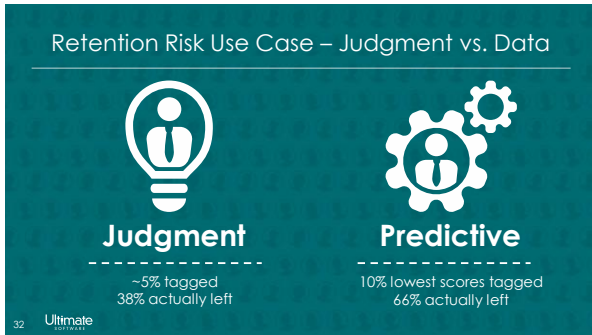
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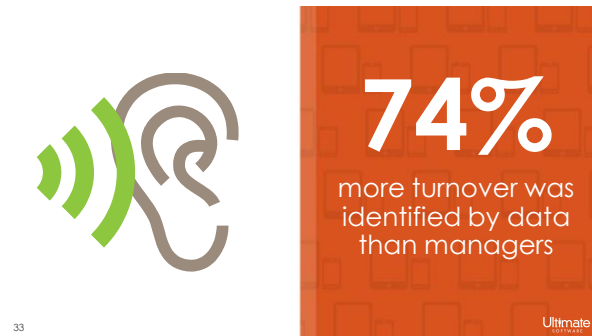
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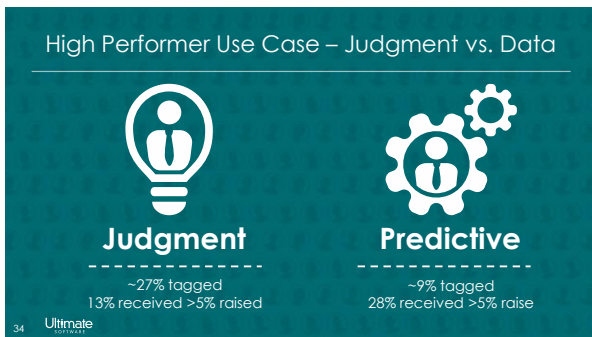
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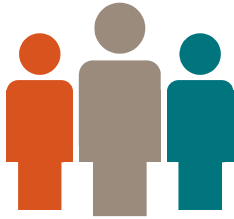
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Data is over **2x**  
**more accurate**  
in identifying high  
performers than  
judgment

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## Prescriptive Analytics

Suggesting the best  
action to take to  
influence a different  
outcome

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## Prescriptive Analytics

### High Likelihood of Turnover

Take the most appropriate action to try to save the employee

### High Likelihood of High Performer

Take the best action to develop the employee

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### Example: Prescriptive Actions

**GROWTH**  Receive Special Training

**MONEY**  Issue Cash Award

**POWER**  Become A Mentor

**RECOGNITION**  Send Handwritten note

**AUTONOMY**  Offer Flex Hours

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12 months later...

Did the  
actions  
work?



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**10-50%**

The actions are  
causing a  
reduction in  
turnover by 10-50%

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## Replacing Employees Is Expensive

Salaried  
Employees

**1.5 to 3 times  
the annual salary**

Non-salaried  
Employees

**\$5k - \$20k  
per employee**

Includes Separation, Replacement, and Training costs

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From SHRM, SHRM / Douglas Phillips, and Benji studies

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## The Surprise Outcome...

**PRESCRIPTIVE ACTIONS ARE  
ALSO CAUSING IMPROVEMENTS  
IN EMPLOYEE ENGAGEMENT**

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The few companies  
already applying big  
data to HR are  
reaping rewards, with  
HR teams **4 times  
more likely to be  
respected** by their  
business counterparts  
for **data-driven  
decision making**.

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Source: Deloitte, 2014

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# 30%

In financial terms, the stock prices of organizations with mature analytics capabilities outpaced the S&P 500 by 30%, on average, over the last three years.

**Mature analytics organizations are making far better decisions** about the people and they are learning faster every day.

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Source: High Impact Talent Analytics: Building a World-Class HR Measurement and Analytics Function. Note by Deloitte, October 2013

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**Data-driven tools**  
provide unbiased metrics  
**to help you better manage**  
**– and grow – your people**  
today and tomorrow

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## Key Points to Take Away



Data-driven HR  
departments are  
more successful



Unbiased metrics  
help you better  
manage and grow  
your people



Predictive and  
Prescriptive  
Analytics are two  
new tools to put in  
your HR toolbox

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