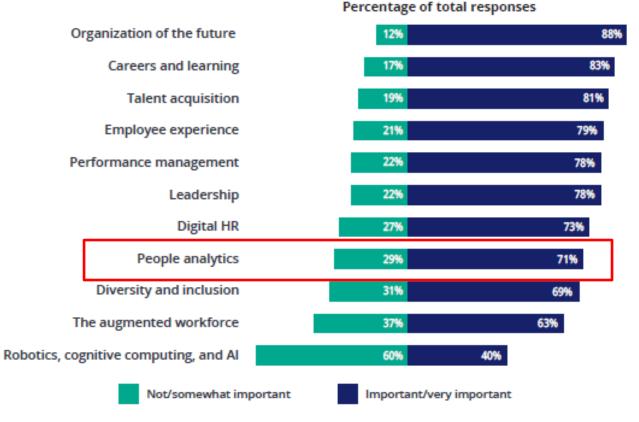
People Analytics

May 2017 Globe and Mail HR Department Jennifer Nguyen

People Analytics

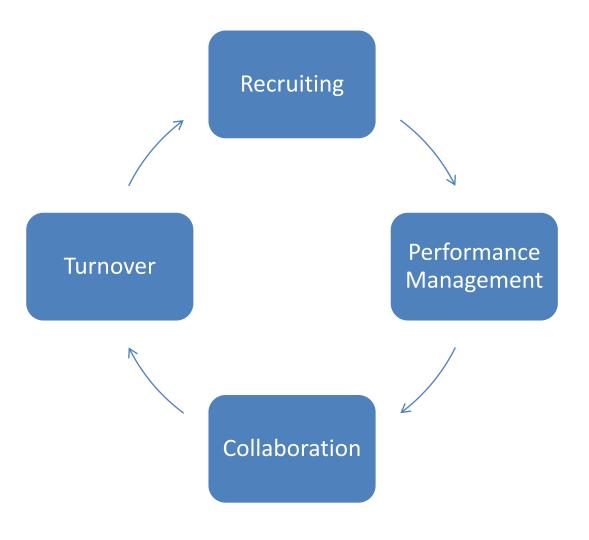
Figure 3. The 2017 trends by Importance



Note: Ratings for "The augmented workforce" and "Robotics, cognitive computing, and AI" both relate to the broader trend on "The future of work" discussed in this report.

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The Talent Cycle

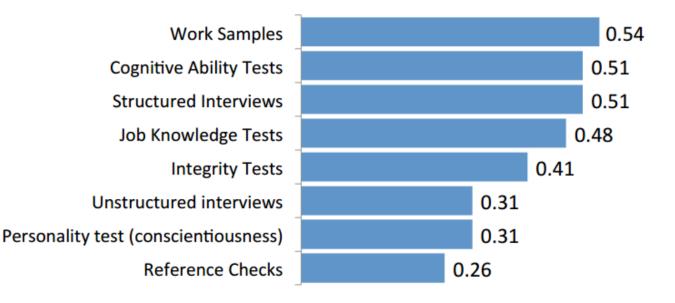


People Analytics

Recruiting

Relationship between interview techniques and employee success

Correlation with subsequent performance (0-1)



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Source: Ryan & Tippins (2004)

Modelling employee performance

- Identify employee traits that lead to high performance
- Look for these traits in job candidates

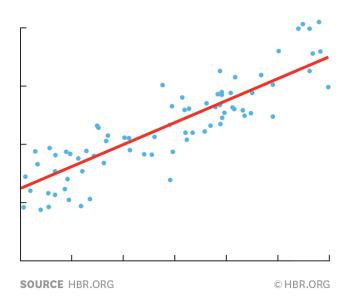
Input observations	Key outputs
Demographics Educational background Professional background Skills	Performance measures Likelihood to leave Likelihood to get promoted Other key outcomes
Etc.	

Side bar: Statistical Models

A generalization of the **relationship** between **input** variables and **output** variables

Building a Regression Model

The line summarizes the relationship between x and y.



People Analytics: Recruiting

Optimize resume screening

- Use historical hiring data to identify resume traits that correlate with a job offer
- Eliminates unconscious biases

Input observations	Key outputs
Resume characteristics	Likelihood of offer

Jane Doe Retail Industry Manager	123.456.7890 janedoe@gmail.com linkedin.com/jane-doe www.janedoe.com
History of orchestrating successful sales strategies and marketing initiatives designed to increase revenue. Strong background in retail sales.	SKILLS Merchandise Planning
Inventory planning, branch management, and operations oversight experience, with nine years in progressive roles	and Allocation Financial Planning and Profit Analysis
with large regional chains.	POS Software (Lightspeed, ShopKeep)
Refined relationship-building skills and experience	Inventory Shrinkage Control
working collaboratively with vendors and customer-facing	Sales Coaching
sales staff.	QuickBooks
PROFESSIONAL EXPERIENCE	Multisite Retail Operations
	Merchandising Standards
Assistant General Manager	Vendor Relations and Negotiation
Grayson's Furniture Stores, Jacksonville, FL, 2011–Present Joined as Assistant Manager, promoted rapidly through a series of increasingly responsible management positions based on strong financial.	Employee Training and Development
operating, and team Leadership performance. Currently manage 160-plus employees at six regional locations.	HIGHLIGHTS
 Increased profit \$5 million amid tough economic pressures. 	Financial responsibility to \$35 million
 Reduced absenteeism 47% and turnover 35% with strategies to recruit, train, and retain high-quality employees. 	Achieved record sales in multiple markets up to 40% sales growth
 Implemented next-generation POS technology. Reduced annual purchasing costs 3.5%. 	Hired and trained more than 50 employees
Manager, Multiple Store Locations Boaters World (Virginia/Maryland Regional District), 2007–2011	10-year proven sales growth track record
Coached and led a 13-store district with 150 employees. Educated customers on products and provided customized solutions for increased sales. Drove growth by focusing on customer service, merchandising, and teamwork.	Won 14 "Branch Manager of Month" and "General Manager of Year" awards for profit and revenue growth
 Launched new safety product in response to regulatory requirements and sold \$2 million in first year. 	EDUCATION
Cut operating budget 20% by implementing cost-saving initiatives. Received three "Top Sales Producer" awards, Ranked No. 4 out of	Bachelor of Arts, cum laude University of Virginia, Charlottesv
214 sales associates nationwide.	Capstone project, Coaching Skills for Managers course

Pairing individuals with right roles

- Department of Defence and others created profile of a typical employee with high likelihood of succeeding in particular roles
- Used these profiles to match prospective employees to the right role
- Use Case: promotions

Performance Management

Process vs. Outcome

- Companies emphasizing *how* an employee does her job vs. *what* she does
- Measuring processes becomes more important when employees have less control over environment

Process vs. Outcome



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People Analytics: Performance Management

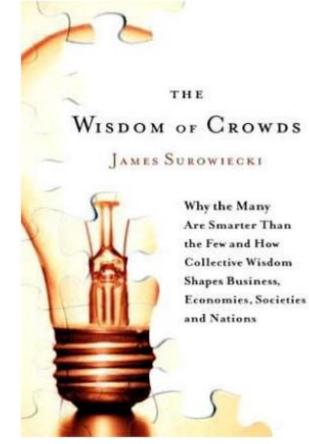
Process vs. Outcome

Identify and **track** which processes lead to key outcomes

Department	Outcomes	Processes
Digital	Releasing bug-free features	Number of JIRA issues closed Number of bugs reported
Advertising	Increase sales	Meeting with clients Creating proposals

Crowdsourcing

- Multiple sources of feedback to get complete picture of an employee's performance
 - E.g., 360 evaluations, peer evaluations (TapMyBack)
- Caveat: reviews need to be independent



Frequent Reviews

- Companies replacing annual reviews with real time feedback and forward coaching
- More data allows for more reliable results and better analytical capabilities

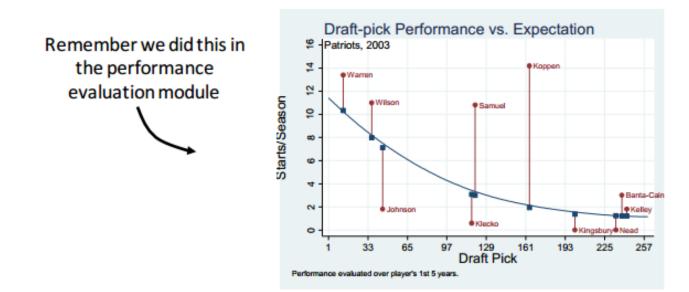


People Analytics: Performance Management

Providing Context

"Don't confuse brains in a bull market"

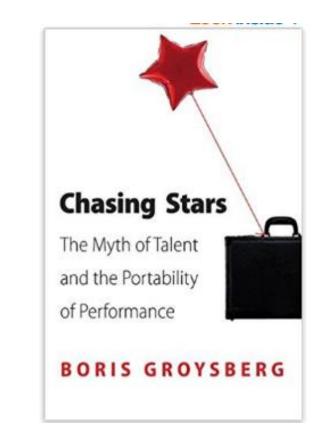
Key issue: Identify expected performance for each situation.



People Analytics: Performance Management

Team vs. Individual

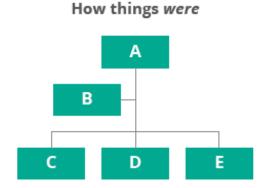
- Recognizing teamwork is involved
- As companies become more team-centric, companies focusing on individual's contribution to the team
- Ideally, observe individual in different team settings



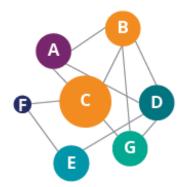
Collaboration

Collaboration

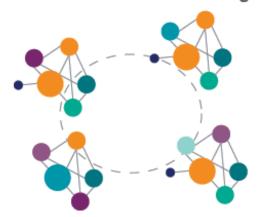
Figure 2. A network of teams



How things are



How things work



· Shared values and culture

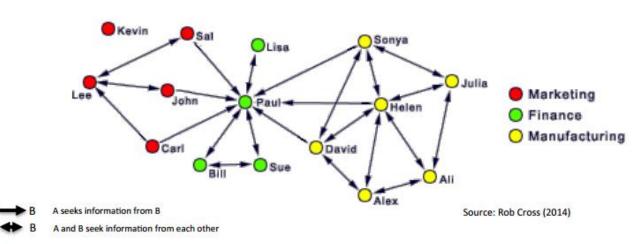
- Transparent goals and projects
- · Free flow of information and feedback
- People rewarded for their skills and abilities, not position

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Collaboration Networks (CN)

Network Characteristics

- Size
- Strength
- Density
- Range
- Centrality



Applications of CNs

- Performance management
- Pay and promotion
- Roles and responsibilities
- Training and mentoring

Identifying processes that lead to business outcomes

...and measuring them in performance reviews



Source: Cross, Martin & Weiss (2014), McKinsey Quarterly

Problem:

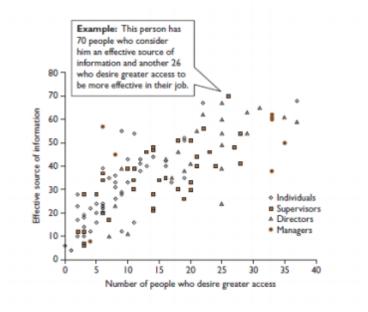
- A global consulting firm mapped the networks of about 80 partners, and found two types of collaboration that were very valuable for the firm but not recognized at all in its performance management processes, which focused on individual revenue production:
 - Collaborating to win clients
 - Collaborating to serve clients

Intervention:

 Revise performance evaluation systems to recognize contributions of partners who help others to win new clients or serve current clients

Redistribute workload

...to reduce work on over utilized individuals



Source: Cross & Gray (2013), California Management Review

Problem:

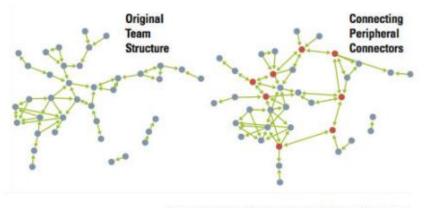
 In this financial services organization (like many organizations), a network analysis revealed that about 5% of people accounted for up to 35% of the value-added collaborations; these valuable people often felt very overloaded.

Intervention:

 Identify overloaded people (top right corner), and match them with well-regarded employees who are relatively underutilized (often from bottom left corner), who can relieve some of the burden.

Increase network resiliency

... by connecting isolated individuals



Source: Cross et al. (2010), MIT Sloan Management Review

Problem:

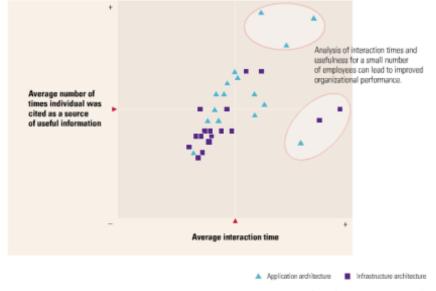
 A multinational agribusiness company found that its global IT teams often relied on only a few key people to connect their members across the world; if a few key people left, these teams were vulnerable to breakdown.

Intervention:

 Identify a small number of new connections that would have the biggest positive impact on team connectivity, and shift responsibilities more evenly across the members.

Reducing collaboration inefficiencies

... by identifying ineffective collaborators



Source: Cross, Martin & Weiss (2014), McKinsey Quarterly

Problem:

 A major utility company asked employees how much time they spent interacting with each other and how useful those interactions were; the analysis revealed some employees who were very highly regarded, but also a small number of employees who were much less effective than the rest.

Intervention:

 Focus personalized coaching efforts on collaborative issues unique to each of the low performers.

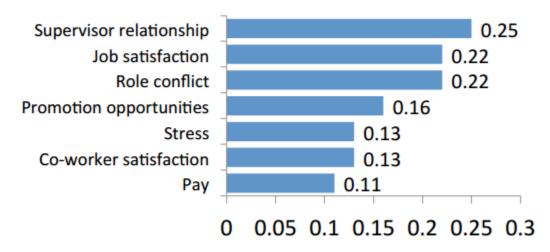
Where to get this data?

- Surveys
- Calendars
- Emails
- Slack
- Jira

Turnover & Retention

Why people leave

Inverse correlation w turnover



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Allen, Bryant and Vardaman 2010

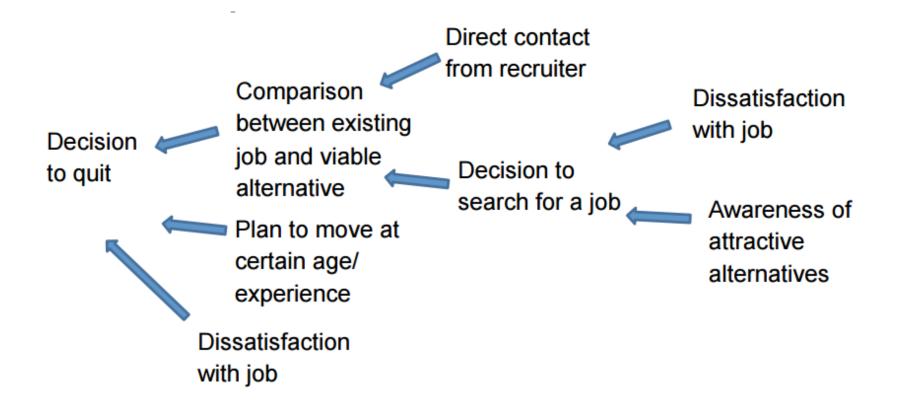
Strategies for reducing turnover

Table 3 Evidence-Based HR Management Strategies for Reducing Turnover

Recruitment (Breaugh & Starke, 2000)	 Providing a realistic job preview (RJP) during recruitment improves retention. Employees hired through employee referrals tend to have better retention than those hired through other recruitment sources.
Selection (Griffeth & Hom, 2001; Hunter & Hunter, 1984; Kristof-Brown, Zimmerman, & Johnson, 2005)	 Biodata (biographical data) and weighted application blanks (WAB) can be used during the selection process to predict who is most likely to quit. Assessing fit with the organization and job during selection improves subsequent retention.
Socialization (Allen, 2006; Kammeyer-Mueller & Wanberg, 2003)	 Involve experienced organization insiders as role models, mentors, or trainers. Provide new hires with positive feedback as they adapt. Structure orientation activities so that groups of new hires experience them together. Provide clear information about the stages of the socialization process.
Training and Development (Hom & Griffeth, 1995)	 Offering training and development opportunities generally decreases the desire to leave; this may be particularly critical in certain jobs that require constant skills updating. Organizations concerned about losing employees by making them more marketable should consider job-specific training and linking developmental opportunities to tenure.
Compensation and Rewards (Griffeth & Hom, 2001; Heneman & Judge, 2006)	 Lead the market for some types of rewards and some positions in ways that fit with business and HR strategy. Tailor rewards to individual needs and preferences. Promote justice and fairness in pay and reward decisions. Explicitly link rewards to retention.
Supervision (Aquino, Griffeth, Allen, & Hom, 1997; Griffeth, Hom, & Gaertner, 2000; Tepper, 2000)	 Train supervisors and managers how to lead, how to develop effective relationships with subordinates, and other retention management skills. Evaluate supervisors and managers on retention. Identify and remove abusive supervisors.
Engagement (Ramsay, 2006; Vance, 2006)	 Design jobs to increase meaningfulness, autonomy, variety, and coworker support. Hire internally where strategically and practically feasible. Provide orientation that communicates how jobs contribute to the organizational mission and helps new hires establish relationships. Offer ongoing skills development. Consider competency-based and pay-for-performance systems. Provide challenging goals. Provide positive feedback and recognition of all types of contributions.

Allen, Bryant, Vardaman (2010)

Many paths to turnover



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Adapted from Lee and Mitchell, 1994

Modelling attrition

- US insurance company collected data to identify traits of **at-risk** employees
- Employees with long periods between promotions and low-performing managers most likely to leave
- Intervention: development opportunities and training for managers

Summary

Recruiting	•Models to streamline hiring and optimize employee success
Performance Management	 Process vs Outcome Wisdom of crowds Frequent feedback Team vs Individual
Collaboration	 Identify key processes Redistribute workload Increase network resiliency Reducing collaboration inefficiencies
Turnover	 People don't quit because of pay Other factors involved that are unique to a company and/or team

References

- <u>Collaborative Overload</u> (Harvard Business Review)
- <u>How Effective Is a Number-crunching Approach to Managing People?</u> (Wharton University)
- <u>Ahead of the curve: the future of performance management</u> (McKinsey)
- <u>In headhunting big data may not be such a big deal</u> (New York Times)
- <u>People analytics reveals three things HR may be getting wrong</u> (McKinsey)
- <u>Can an algorithm hire better than a human</u> (New York Times)
- <u>2017 Global Human Capital Trends</u> (Deloitte)
- <u>Wall Street hopes artificial intelligence hires loyal bankers</u> (Reuters)
- <u>Retaining talent: replacing misconceptions with evidence-based strategies</u> (Academy of Management Perspectives)
- <u>People Analytics</u> (Coursera)