

**2018**

**CyHRMA**

Annual Conference

6th June 2018 | Hilton Park



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partnering people and business

[www.cyhrma.org](http://www.cyhrma.org)



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# People Analytics

Ian Bailie  
@ianbailie

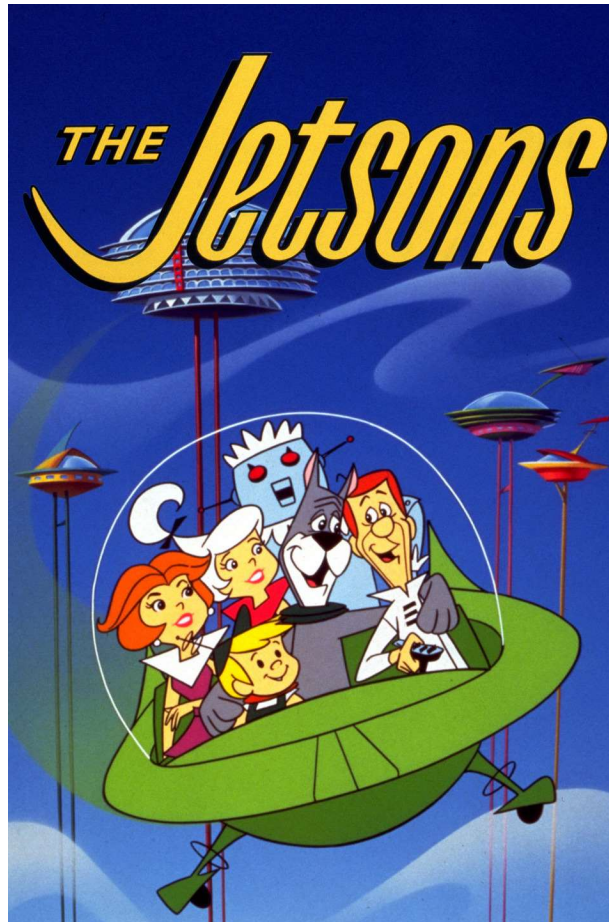


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# What do we know about the Future of Work?

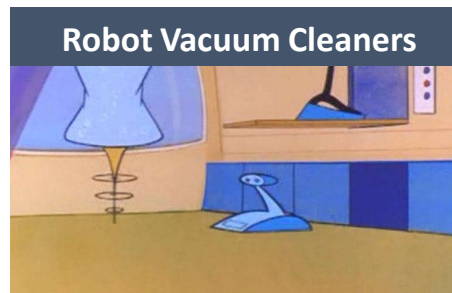
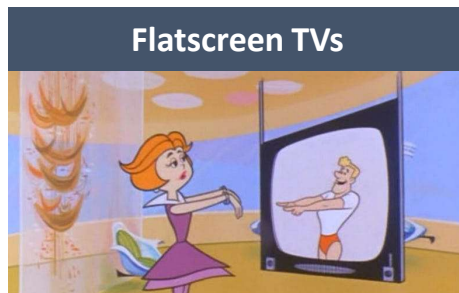
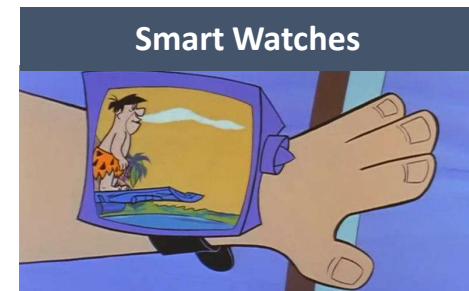


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# What would life be like in 2062?





# But what about work?



**George Jetson  
worked a 9-  
hour week**





# The world of work is changing

The average  
career is now  
60 to 70 years  
long

The half-life of  
a learned skill  
is 5 years

The average  
tenure in a job  
is 4.5 years

Sources: The 100-year life: Living and Working in an Age of Longevity; A New Culture of Learning: Cultivating the Imagination for a World of Constant Change



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# Average tenure of employees at Tech companies



Source: Paysa.com (2017)





# Employees are overwhelmed and overworked

37% of British workers think their jobs are meaningless

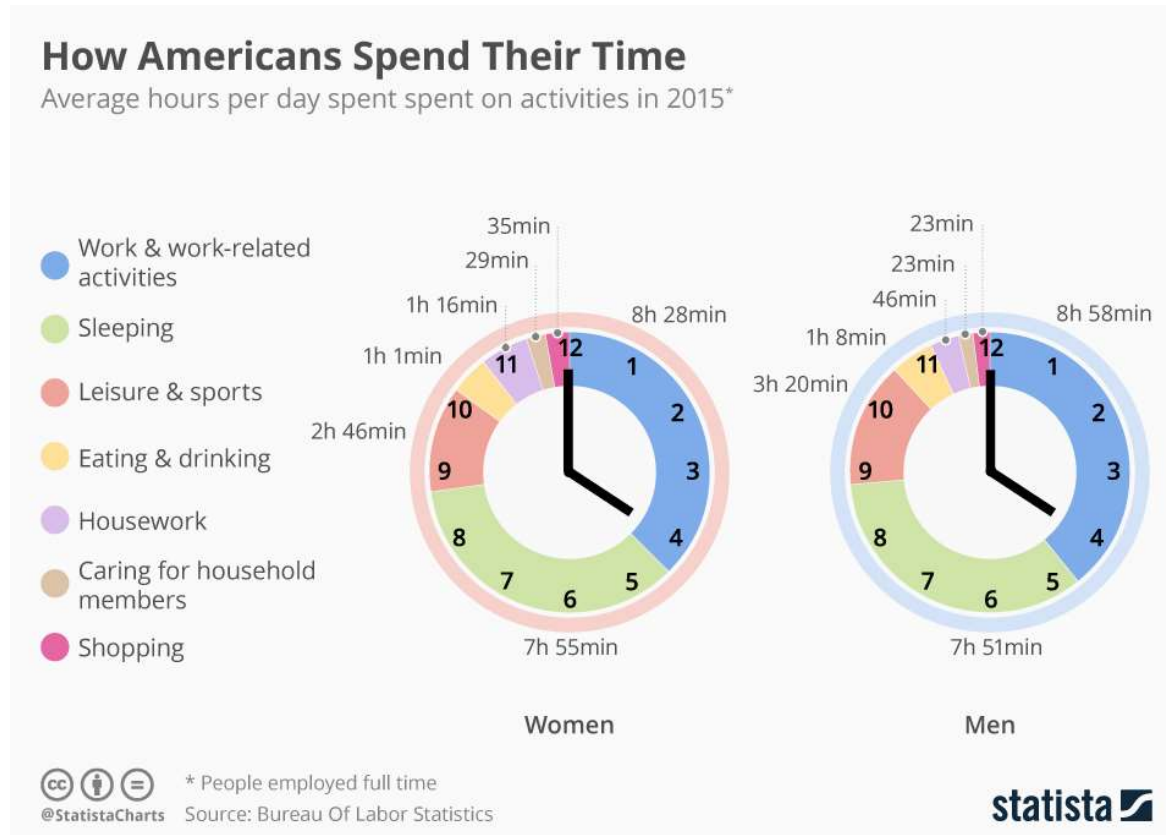
We are “accessible” to work 88.5 hours a week

28% of a worker’s time is spent answering email

Sources: YouGov Poll 2015; Harvard Business School and University of California research (Melissa Mazmanian, Leslie Perlow and Jessica Porter) ; Mckinsey - The social economy: Unlocking value and productivity through social technologies



# We spend more hours working than anything else



What technology do you use for each of these categories?



 You can find anything in seconds

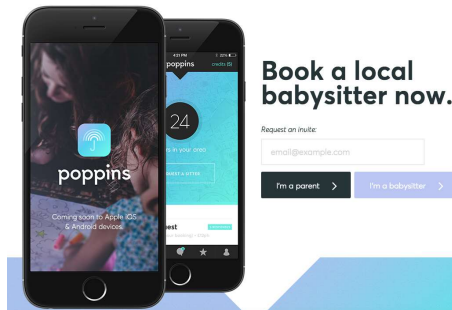


UBER



NETFLIX

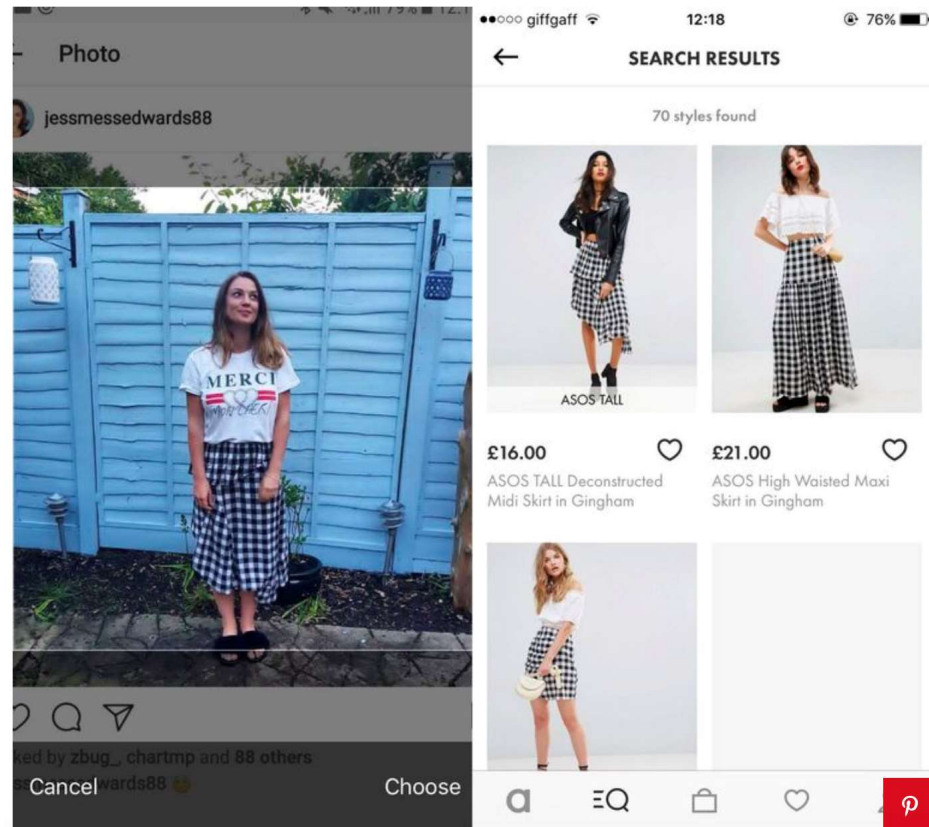
Etsy





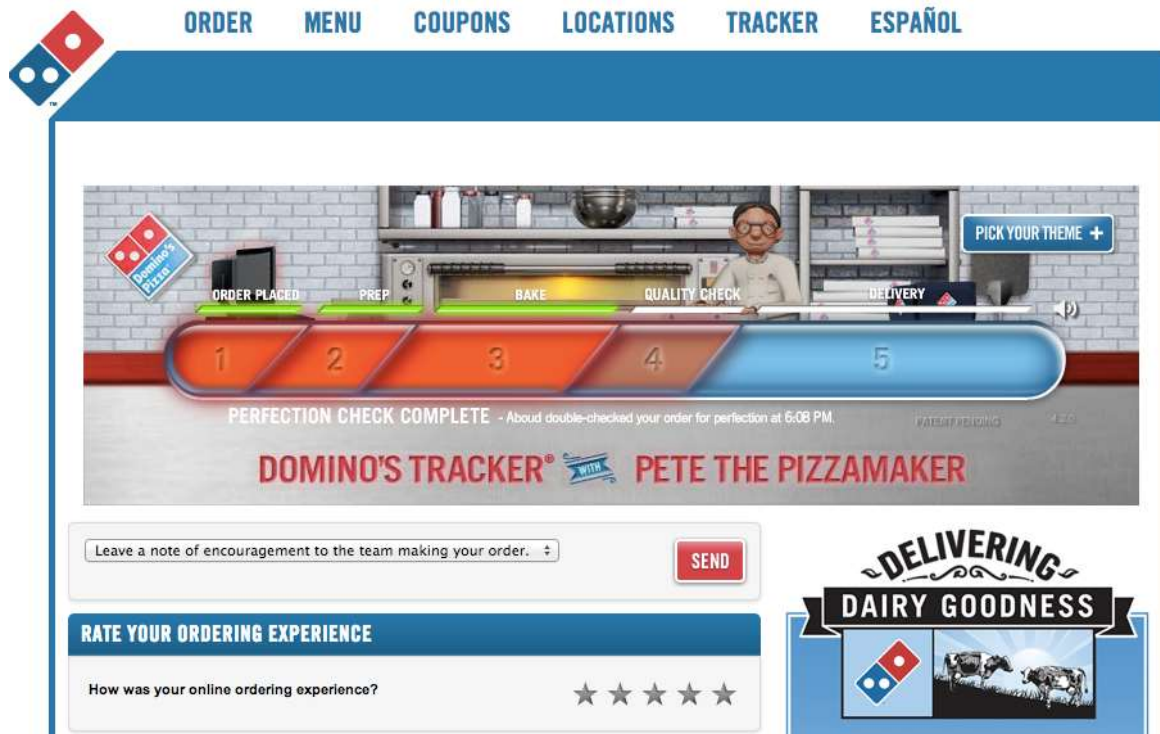
# Visual search for shopping apps

Upload an image and the app matches clothes for you to buy





# Tracking where your food order is online




Domino's  
allows you to  
track your  
pizza at every  
stage





# We all know Facebook has a lot of data!

 **Your information** Close ^

About you **Your categories**

The categories in this section help advertisers reach people who are most likely to be interested in their products, services, and causes. We've added you to these categories based on information you've provided on Facebook and other activity.

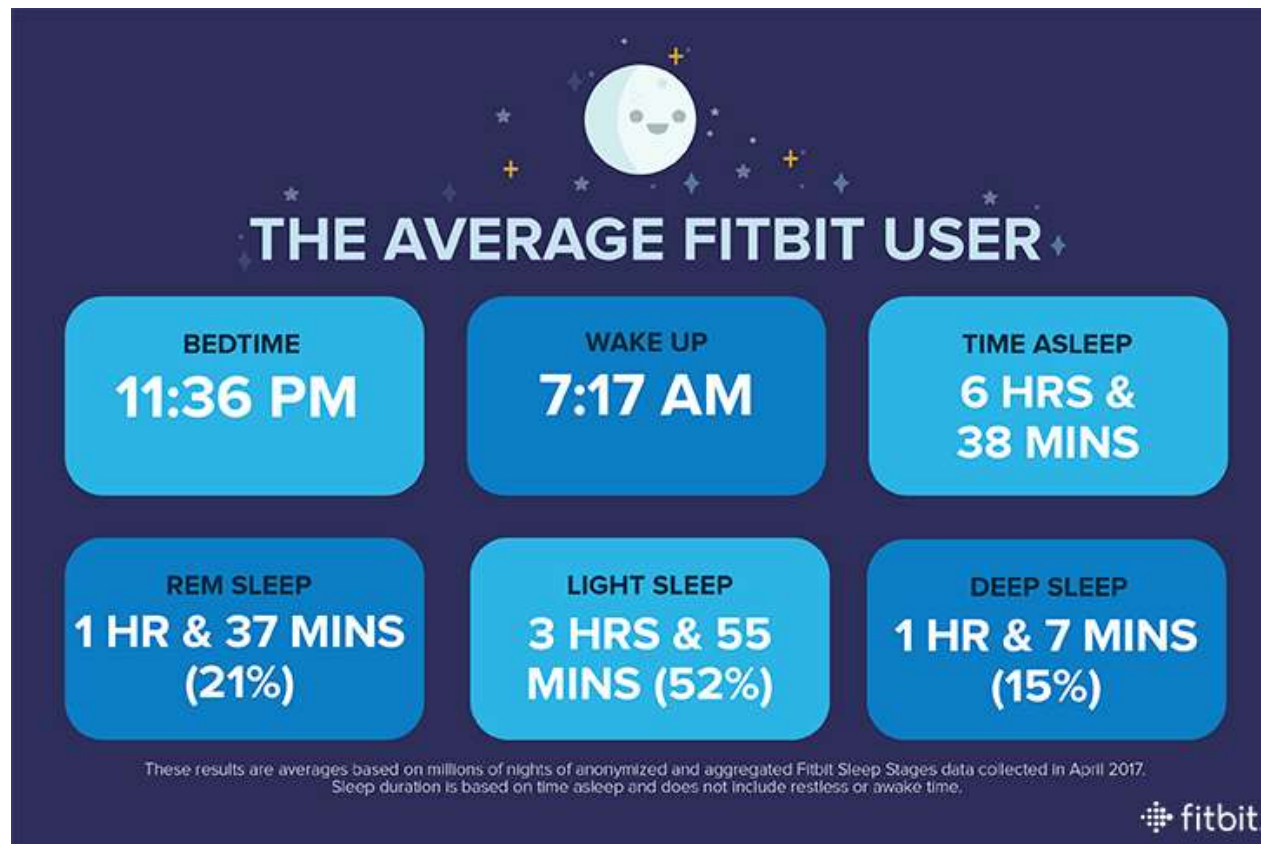
(13-18 Years) Parents with Teenagers	Parents (All)
Birthday in 06 June	Likely To Engage in Politics (Liberal)
US Politics (Very Liberal)	Close Friends of Expats
All iOS devices	iPhone 7 Plus
Primary Browser: Chrome	Sierra OS Mac
All frequent travelers	WiFi Connection
Smartphones and tablets	Primary OS Mac OS X
Frequent International Travelers	Smartphone Owners
4G Connection	Facebook Page Admins
Millennials	Family-based Households

Facebook  
categorises  
your activity  
to target  
advertising





We even have more data about our sleep than work!



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# But how we find work hasn't really changed....

Before



Now

indeed

software engineer London, Greater London Find Jobs Advanced Job Search

software engineer jobs in London

Sort by: relevance - date

Distance: within 25 miles

Salary Estimate

- £35,000 (6241)
- £45,000 (4864)
- £50,000 (4066)
- £55,000 (1181)
- £70,000 (1218)

Job Type

- Permanent (2848)
- Full-time (2397)
- Contract (454)
- Temporary (103)
- Apprenticeship (50)

Location

- Home Counties (276)
- Greater London (248)
- Woking (89)
- Slough (67)
- Croydon (57)

Company

- re&m (355)

what where

software engineer London, Greater London Find Jobs Advanced Job Search

job title, keywords or company city or postcode

Jobs 1 to 10 of 7,477

New! Join Indeed Prime - Get offers from great tech companies

Cloud Native Software Engineer - Ruby / Go / Java / TDD / Ag...

Armakuni - London

£60,000 - £80,000 a year

Duties as a Cloud Native Software Engineer: Deliver world-class PaaS environments as full stack engineers. Enable engineers to own the services they develop...

Easily apply to this job

Sponsored - save job

Software Engineer

Indeed Prime - London

Apply to 100+ top companies with 1 simple application to Indeed Prime. Free for job seekers. How Indeed Prime Works Apply to Prime in 5 minutes. Add your...

Sponsored - save job

Software Developer

Varsity Tutors - ★★★★★ 134 reviews - London

We have a complete CI/CD software lifecycle and an evolving services-oriented architecture hosted in AWS. Varsity Tutors is seeking a Software Developer to join...

Easily apply to this job

Sponsored - save job

Get new jobs for this search by email

My email:

Also get an email with jobs recommended just for me

Send me new jobs

Company with software engineer jobs

armakuni.

Armakuni

Armakuni is a team of technology consultants and software engineers who specialise in leveraging cloud native and as-a-service enablers to b

Cloud Native Software Engineer - Ruby / Go / Java / TDD / ...

Senior Cloud Native Software Engineer - Ruby / Go / Java / ...

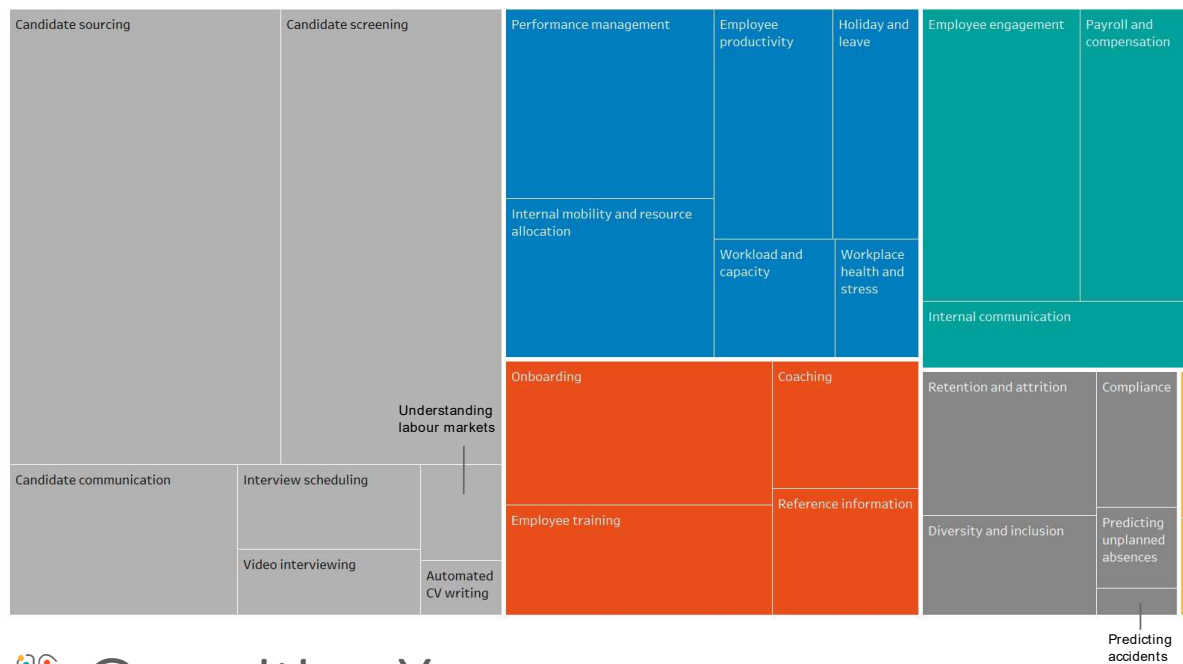
Jobs (7)





# ...yet. The HR technology market is growing rapidly

Over 300 AI products are being applied across use cases



Number of AI companies in each HR activity (grouped by general area)

- Recruitment
- Learning and development
- Performance (People)
- Engagement and recognition
- Risk Management (People)
- Separation and retirement (5 products not visible here)

 CognitionX

Source: CognitionX Research (2018)





# The link between technology and analytics

- An increase in data opens the door for advanced People Analytics
- People Analytics can help all levels of the workforce:
  - **Employees:** Skill/job matching, career planning, personalised recommendations
  - **Managers:** Hiring, Coaching, Team performance and engagement levels
  - **HR:** Increase credibility, improve organisational performance and partner as a strategic advisor



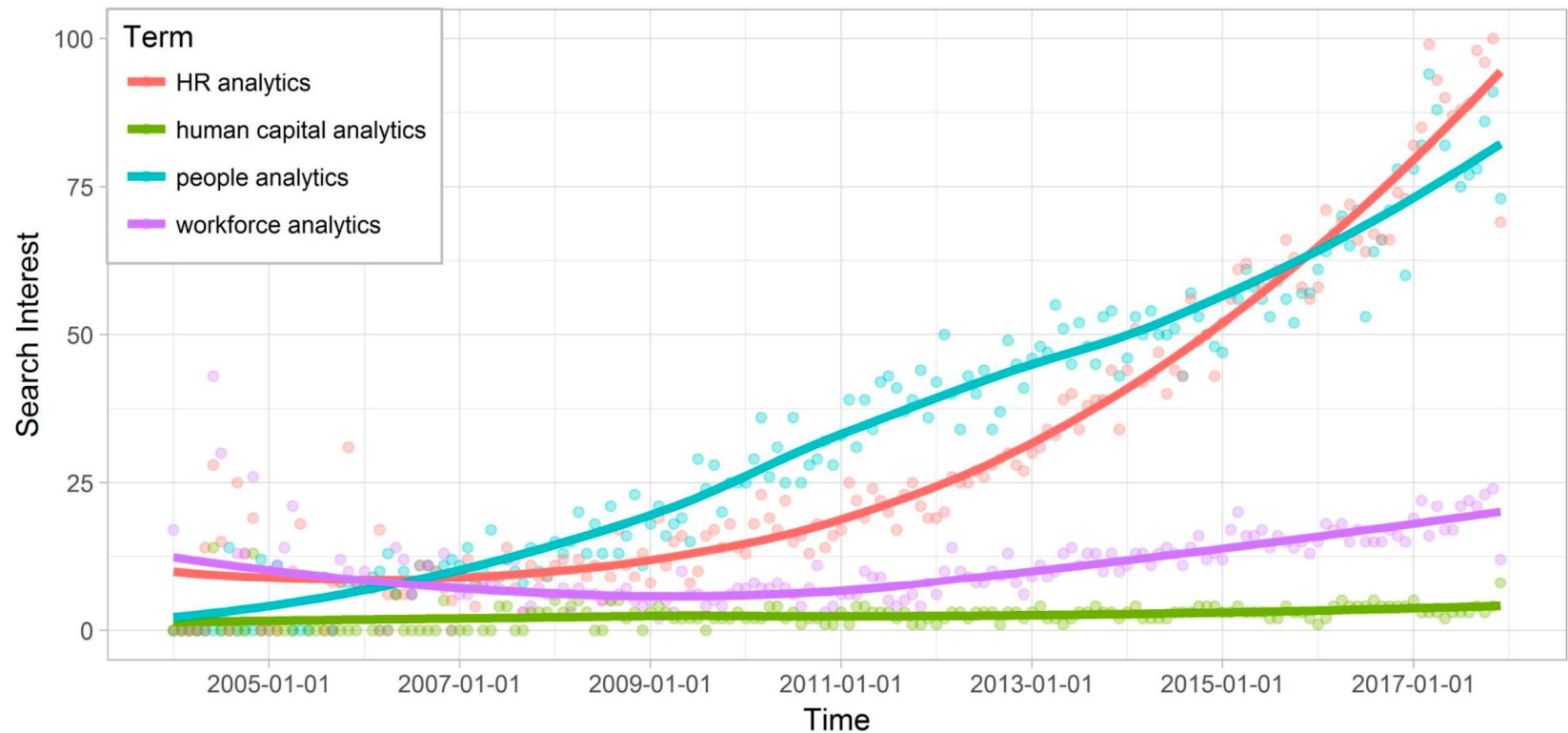


# What is People Analytics?





# The Rise of People Analytics...



paulvanderlaken.com





...but getting traction can feel like this



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# Seven Characteristics of Leading People Analytics

1. Analytics maturity is not possible without data accuracy, security and consistency
2. Mature organisations use multiple listening channels to gain a clearer understanding of talent issues

Source: Bersin by Deloitte (2017). High-Impact People Analytics



# Example of a Listening Architecture



Source: Bersin by Deloitte (2017). High-Impact People Analytics





# Seven Characteristics of Leading People Analytics

1. Analytics maturity is not possible without data accuracy, security and consistency
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3. Data literacy among HR practitioners is now critical
4. Strong People Analytics teams possess a diversity of expertise and deep organisational connections



# Typical roles in a People Analytics Team

## Data Analyst



Excel  
Tableau  
Database Mgmt

## Data Scientist



Statistical Modelling  
NLP  
R / Python

## Specialists



I/O Psychologist  
Employee Listening  
External Datasets

## Consultant



Customer Facing  
Business Savvy  
Storytelling





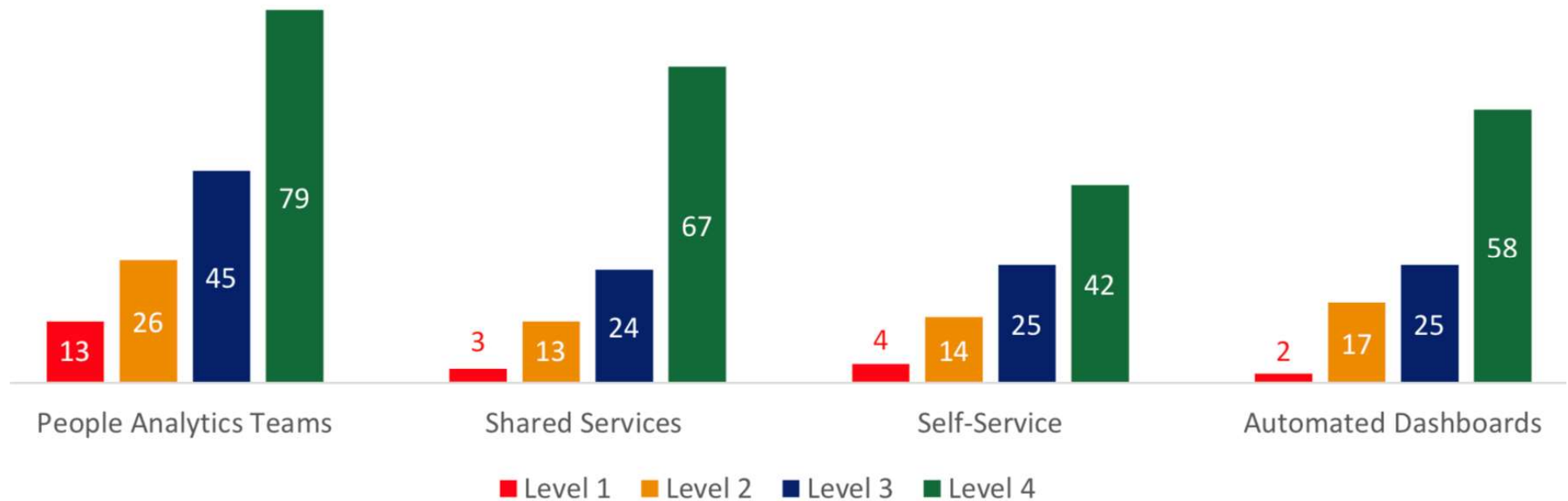
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5. Strong analytics teams focus on actionable and scalable information delivery solutions





# Orgs using Delivery Solutions by Maturity Level



Source: Bersin by Deloitte (2017). High-Impact People Analytics





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6. Strategic alignment with the Business and partnerships with Operations and Corporate Functions are key





# How to Drive Alignment with the Business

1. Identify and work on problems that are relevant to the Business
2. Translate insights from People Analytics projects into ACTION and Business decisions





# Seven Characteristics of Leading People Analytics

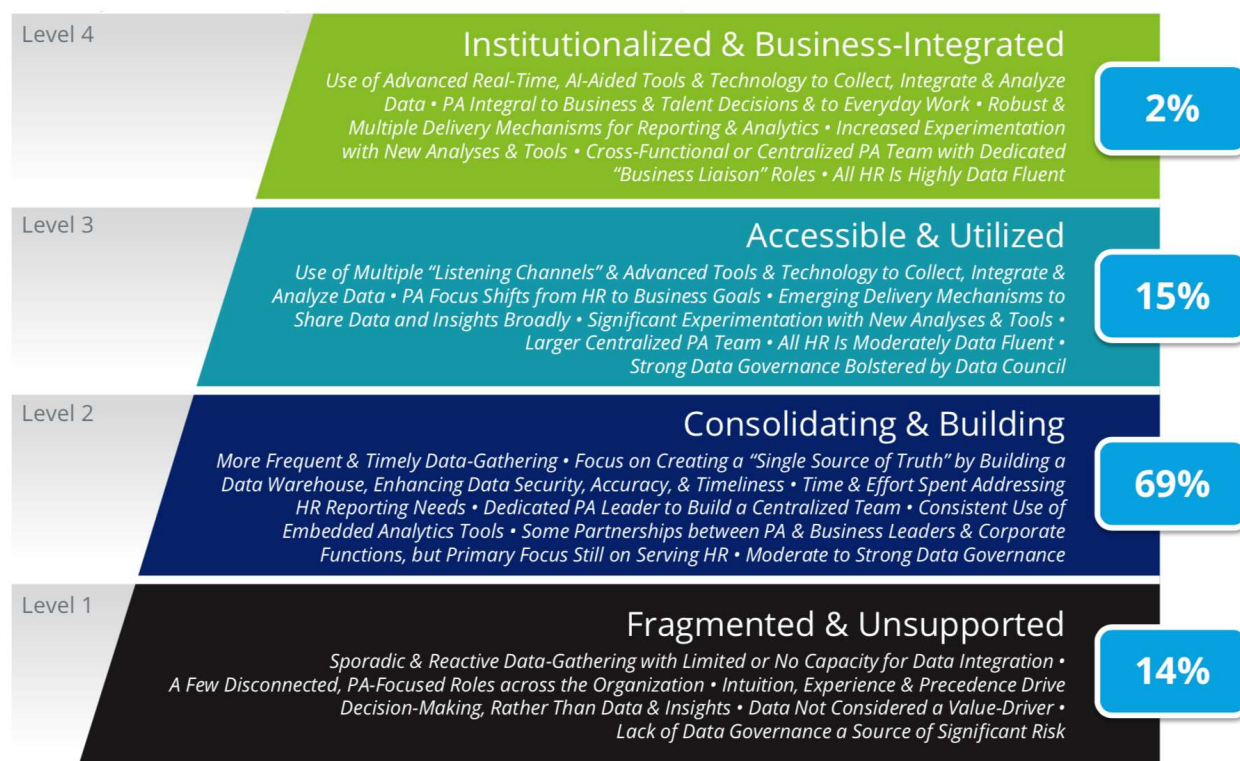
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6. Strategic alignment with the Business and partnerships with Operations and Corporate Functions are key
7. Organisations can only reach their full potential in analytics maturity when data-driven decision-making is embedded in the culture







# Bersin's People Analytics Maturity Model



Source: Bersin by Deloitte (2017). High-Impact People Analytics



# Building a Successful People Analytics Team





# Six Skills Needed for Successful People Analytics Teams

*Particularly relevant for People Analytics leaders*

## Business Acumen

- Financial literacy
- Political astuteness
- Internal awareness
- External awareness

## Communications

- Storytelling
- Visualization
- Writing
- Presenting
- Marketing

## Consulting

- Problem definition
- Hypothesis building
- Project management
- Solution development
- Change management
- Stakeholder management

## Data Science

- Quantitative: mathematics and statistics
- Computer Science: databases and programming
- Data awareness

## Human Resources

- HR sub-functions
- HR interdependencies
- International HR
- Privacy and ethics
- HR “sixth sense”

## Work Psychology

- Industrial psychology
- Organizational psychology
- Research design and analysis

n = 60 interviews (across 54 companies from 15 countries in 5 continents)  
Source: The Power of People; Guenole, Ferrar, Feinzig



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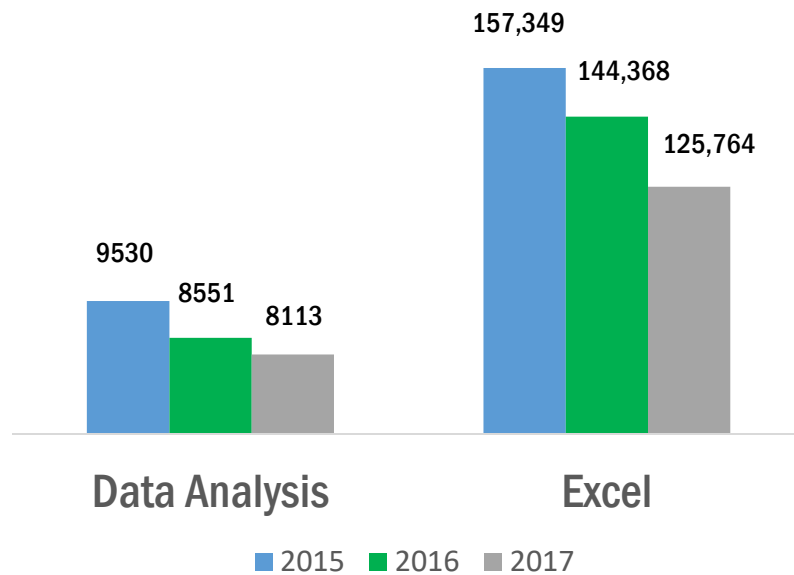
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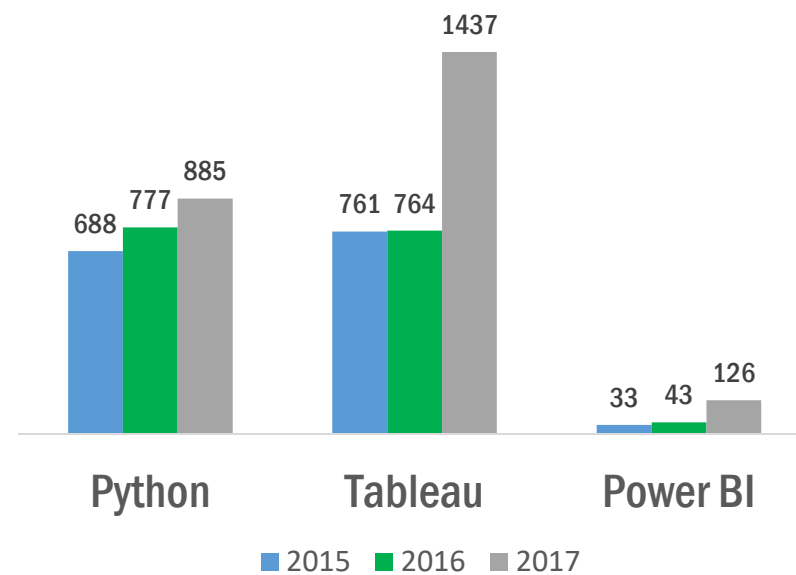


# What analytics skills do you really need?

Reduction in demand for generic analytics skills



Increase in demand for specific analytical skills

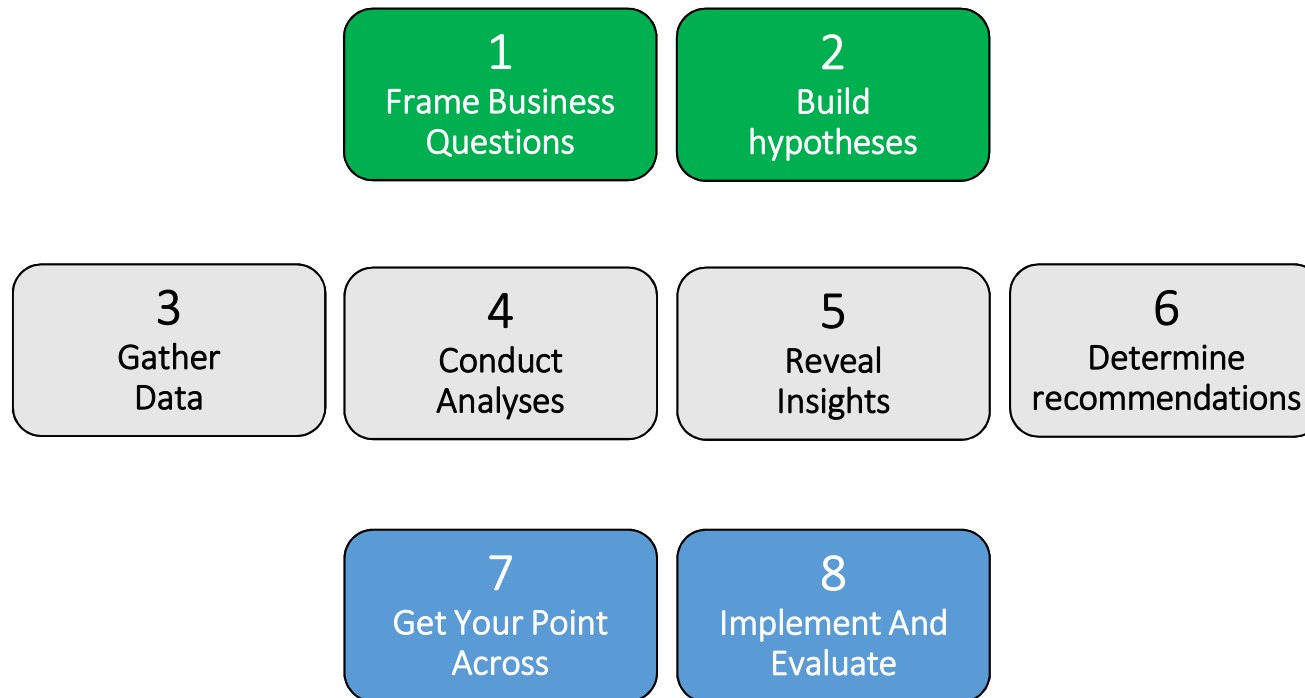


Source: Burning Glass Technologies: Skills mentioned in US Job postings each year (2018)





# How to Run a Successful Analytics Project



Source: The Power of People; Guenole, Ferrar, Feinzig



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# Principles of Storytelling

## Principle 1

Educate  
Don't  
Fabricate

Present Facts  
Convey Your Message  
Be Honest

## Principle 2

Enlighten  
Don't  
Overwhelm

Provide Highlights  
Stay Relevant  
Be Concise

## Principle 3

Convince  
Don't  
Confuse

Guide Your Audience  
Articulate Actions  
Inform Decision Making

Source: The Power of People; Guenole, Ferrar, Feinzig



# My People Analytics Journey





# HR needs to do more than just count steps...

fitbit



Started by monitoring steps / calories burned



Added distance travelled, floors climbed and sleep patterns



Added heart rate and GPS tracking



Added weight and body fat tracking with scales



Added food intake and hydration tracking



Created integrated dashboards and targets





...we need to provide insights to drive action

fitbit







# My People Analytics journey at Cisco



HC data, org levels, attrition, hiring, diversity, comp etc



Added monthly engagement, listening and performance data



Added contingent worker and workspace usage data



Added external talent views, candidate and glassdoor data



Added sales performance and internal skills data



Created integrated dashboards and targeted analytics



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# Examples and Case Studies



# Implementing People Analytics

Remember to focus on the business problems your company faces

Common people analytics projects include ones to:

- Predict employee flight risk and/or absence
- Link employee engagement to business performance
- Improve quality of hire and reduce time to productivity
- Understand characteristics of high performers and high performing teams
- Support site strategy and workplace design
- Promote diversity and inclusion initiatives
- Personalise and improve the employee / candidate experience
- Improve organisational effectiveness



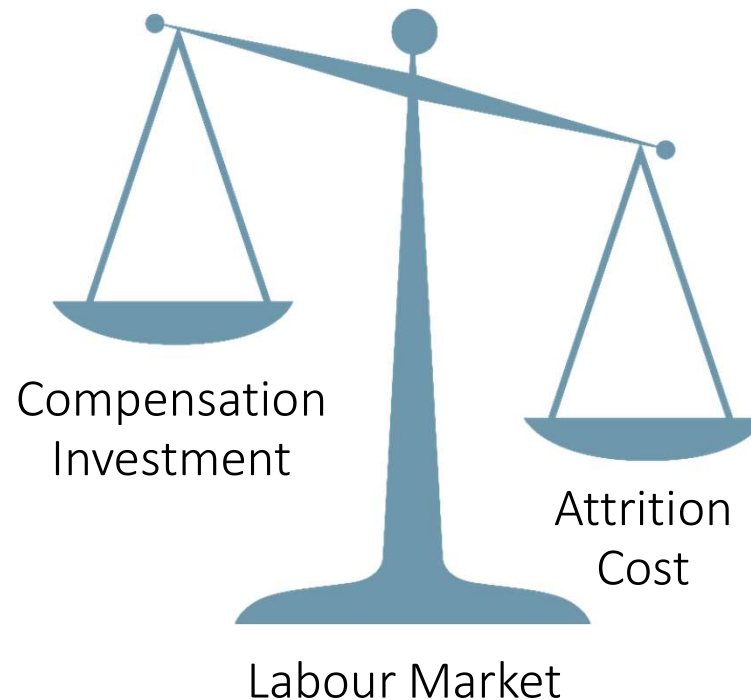
# Case Study: IBM

Proactively identify top talent at risk of voluntarily leaving the organisation and take appropriate action in time to actually affect such employee departures, avoiding financial and knowledge losses

**~25%**  
Reduced attrition

**~\$300M**  
Net benefits

**~200%**  
ROI





# Case Study: Virgin Media

The impact of candidate experience on customer retention:

**7,500**

customers left Virgin Media as a result of a poor candidate experience

**\$6m**

lost revenue from poor candidate experience

**\$7.7m**

potential new customer revenue stream by getting candidate experience right





# Adding Glassdoor data to Engagement reports







# Using External data to understand Hiring and Attrition

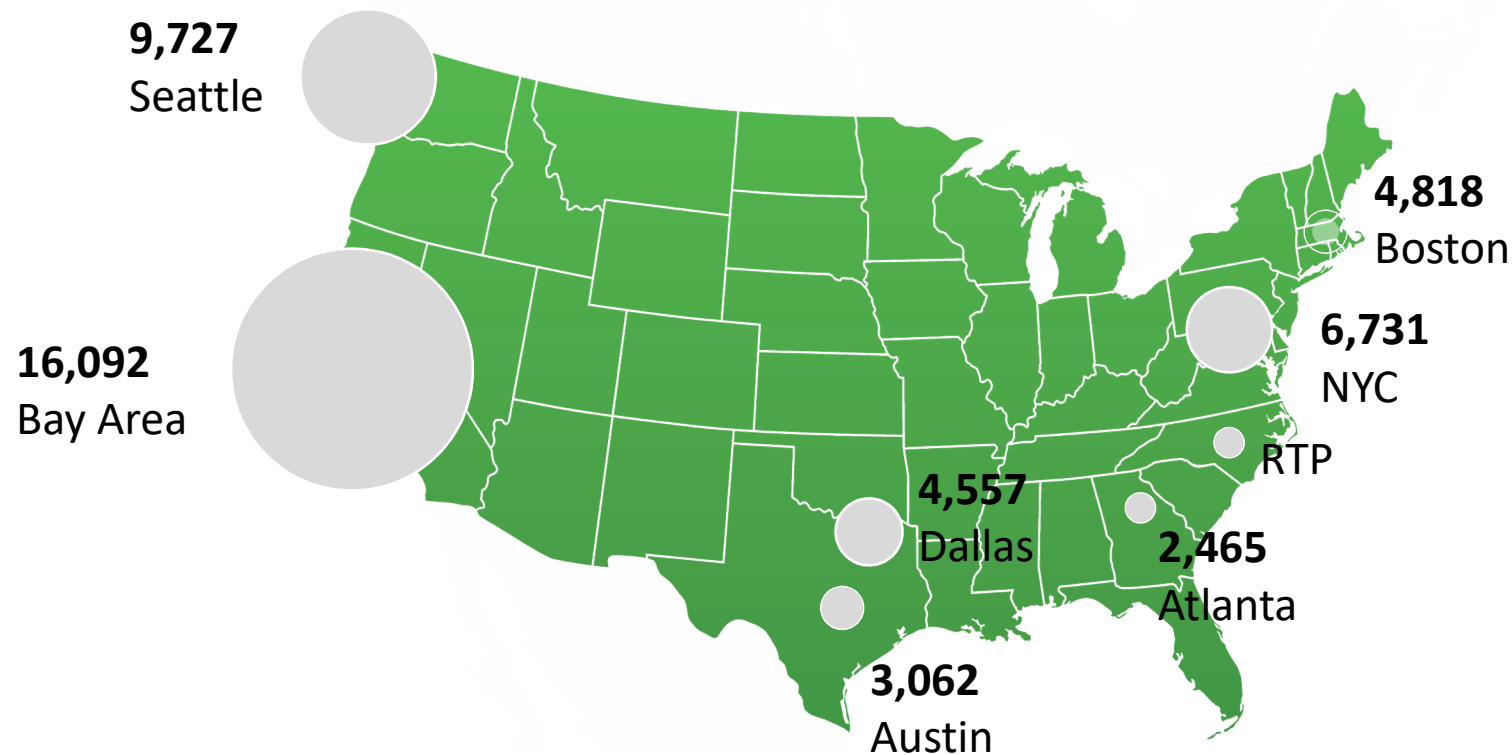


\* Illustrative data only





# Understanding External Talent Supply



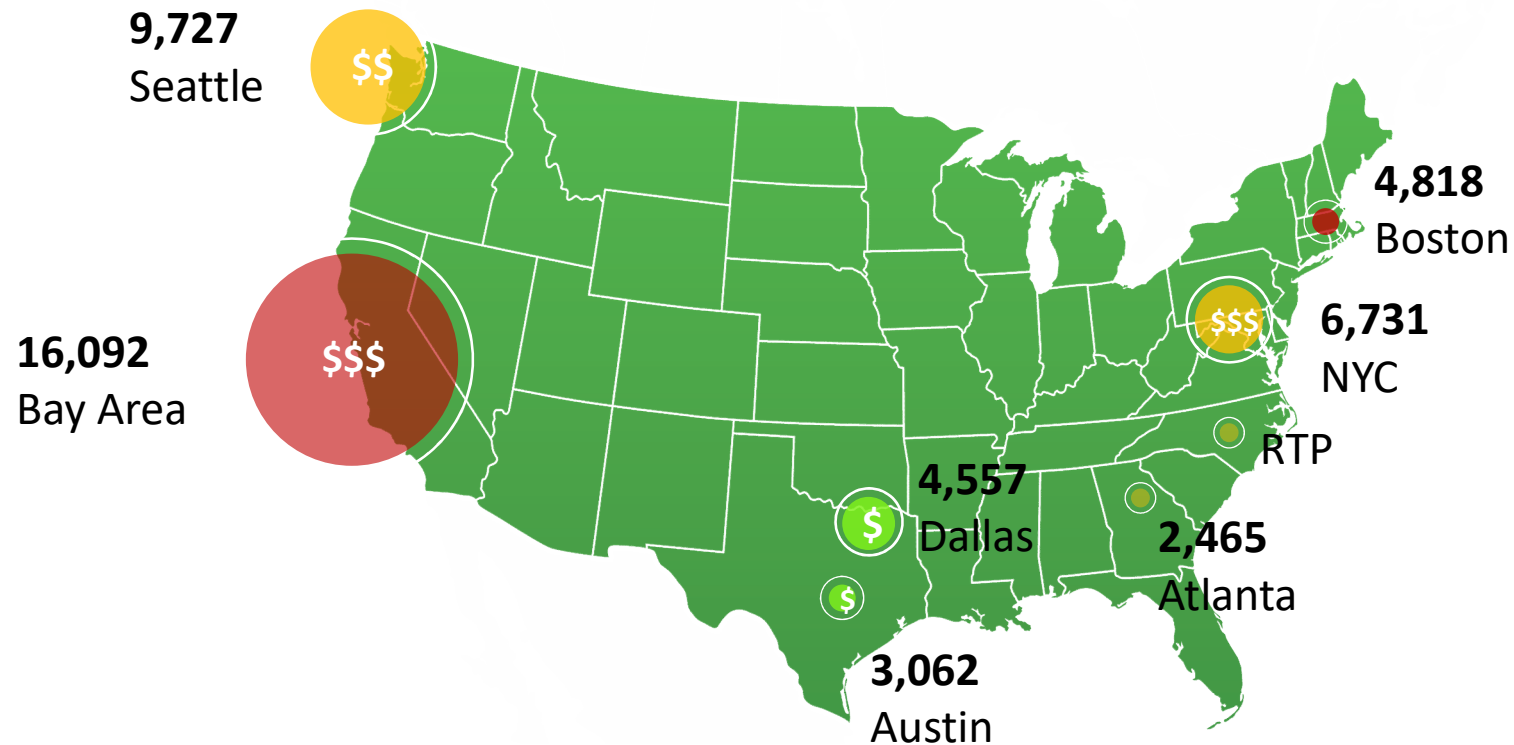
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# Adding External Demand and Cost

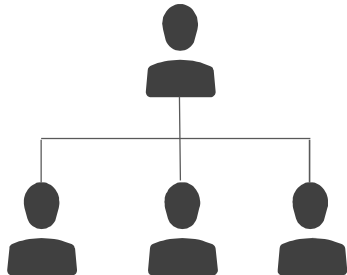






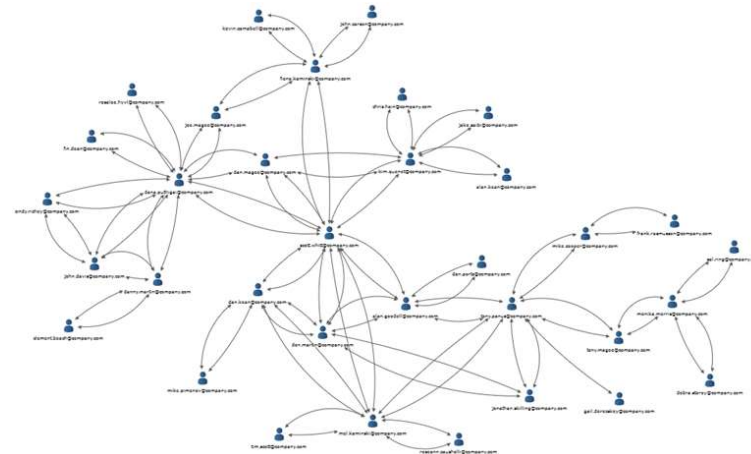
# Using ONA to Understand Org Dynamics

Traditional Org  
Charts



vs.

Dynamic Org  
Behaviours



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# Understanding how your teams work and collaborate



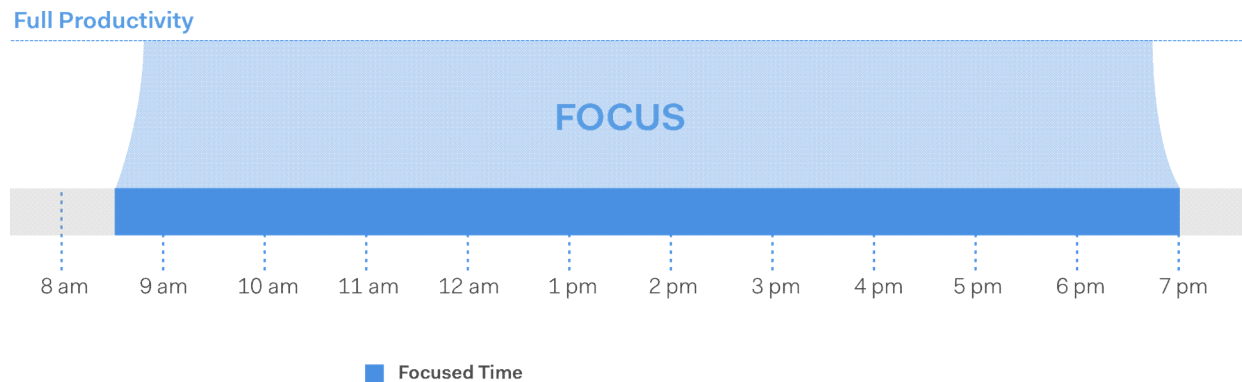




# Understanding the impact of interruptions



Day in the life of a Software Engineer



Worklytics



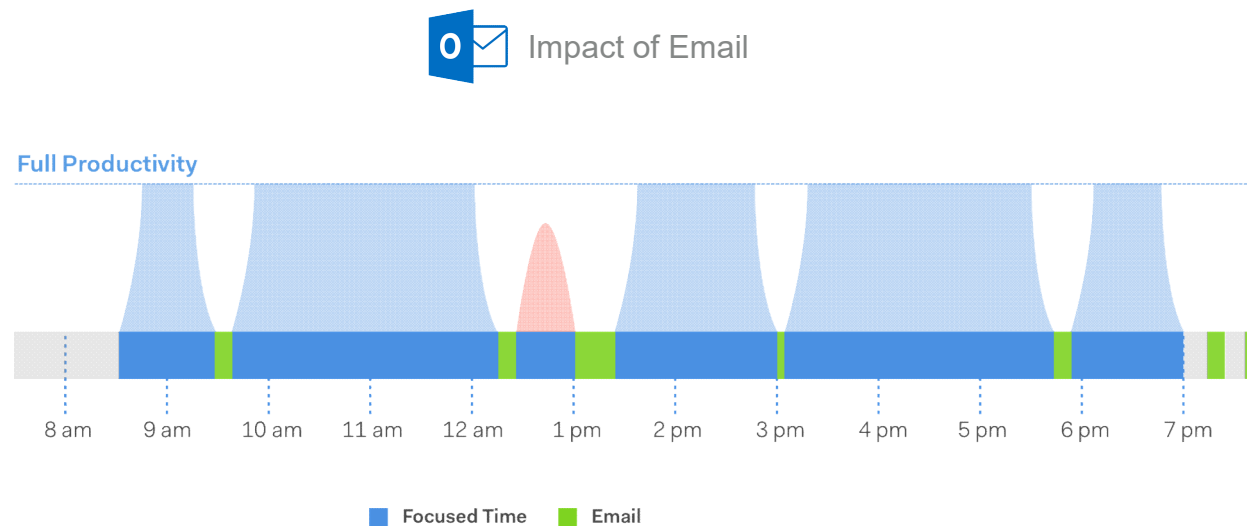
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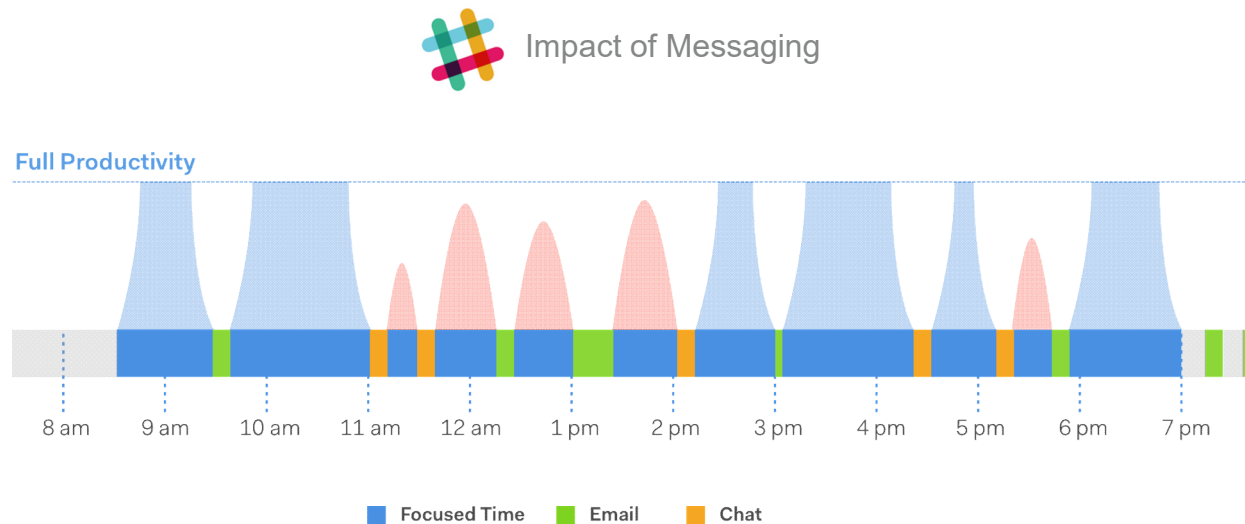


Worklytics





# Understanding the impact of interruptions



Worklytics



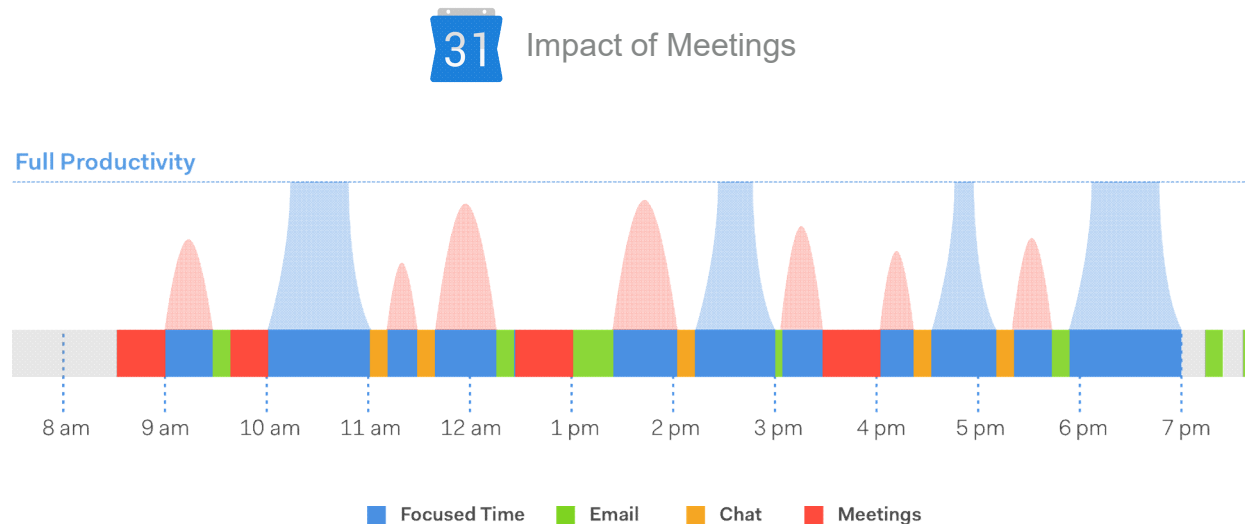
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# Understanding the impact of interruptions



Worklytics



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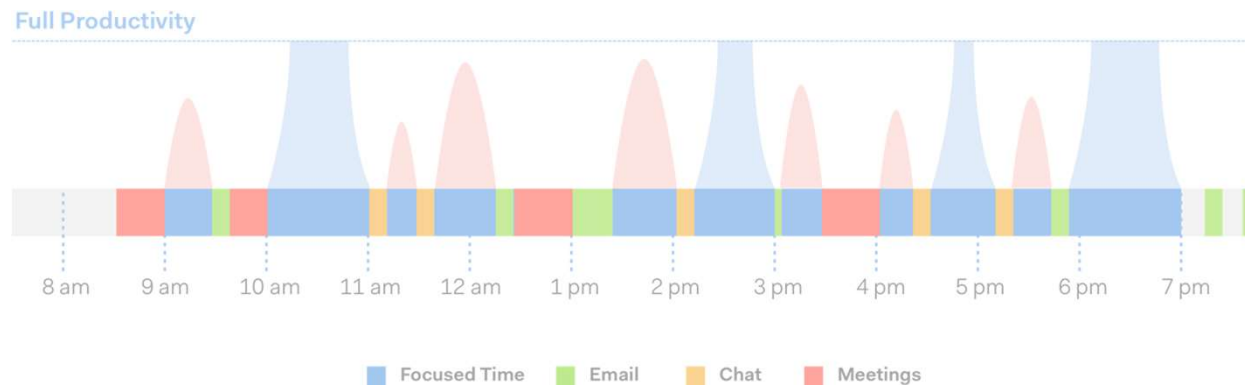




# Understanding the impact of interruptions



Burnout!



1:35

Time at full productivity

2:25

Time lost due to poor scheduling



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# The Future of Work is here

- How we work has evolved and will continue evolving
- Everyone will work several careers; across multiple businesses and industries
- Workers expect everything to be on-demand and hyper-personalised
- Orgs will need to foster a culture of life-long learning
- Businesses will need to think about, engage and manage their workforce differently
- HR technology and analytics is going to be critical in how we adapt to the new world of work





# People Analytics is essential to success

- People Analytics is being used by organisations to solve a range of different business challenges
- Remember that while it's okay to be inspired by what other companies are doing, make sure you apply it to your own organisation – **always focus on the Business problem**
- There are a number of resources available to inspire and support your learning



# Questions?

@ianbailie



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