

Data-driven hiring, labour relations and social justice

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The datafication of the workplace

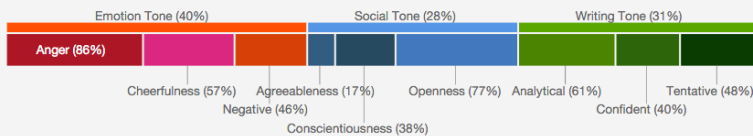
- Novel and heterogeneous data sources
- Predictive modelling
- Transformation in standard employment:
 - Surveillance
 - Management
 - Human Resources
 - ...



Alarm over talks to implant UK employees with microchips

Trades Union Congress concerned over tech being used to control and micromanage

Word Count returns the percentage of words per tone and the total number of words for each individual tone trait.



Click on any highlighted word to see suggested synonyms.

Open data folks could have a lot to learn from the API community, and vice-versa is true too. As the open data field is about exposing information, there is much overlap between open data 188 and APIs or Application Programming Interfaces, which expose an application's data or functionalities for third party integration.



▲ Jowan Österlund from Biohax holds a microchip implant the size of a grain of rice between his thumb and forefinger. Photograph: James Brooks/AP

Hiring

- **Sourcing** (job description and advertising)
- Candidate **screening** and ranking
- Automated **interviews** and **assessment**
- **Selection**
- **Scheduling** and activity forecasting

Technology: audience segmentation, sentiment and personality classification, problem-solving tests, chatbots...

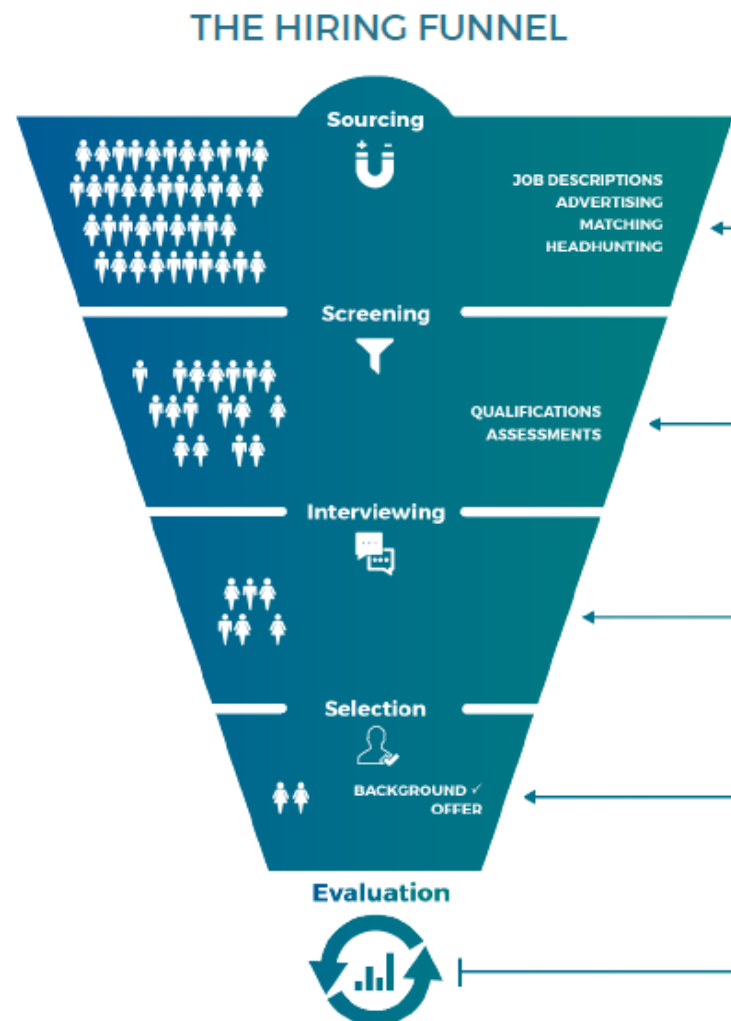


Image Credit: Bogen, Miranda, and Rieke Aaron. 'Help Wanted: An Exploration of Hiring Algorithms, Equity and Bias.' Upturn, 2018.

Augmented candidate profile

- Audience segmentation (skills, interests, demographics...)
- Predictive tools (turnover risk...)
- Emotional AI



Jay Walker

Senior Product Designer @ Acme

San Francisco · 8 Years Total Experience · University of California

rapid prototyping 

usability 

web design 

MORE LIKELY TO MOVE



- Turnover rate at Acme for the past 12 months is 6%

12527 words analyzed: **Very Strong Analysis**

 Average for this role  For Paul

Agreeableness ▾



Introversion/Extraversion ▾



Conscientiousness ▾

Candidate (pre) assessment

Common steps:

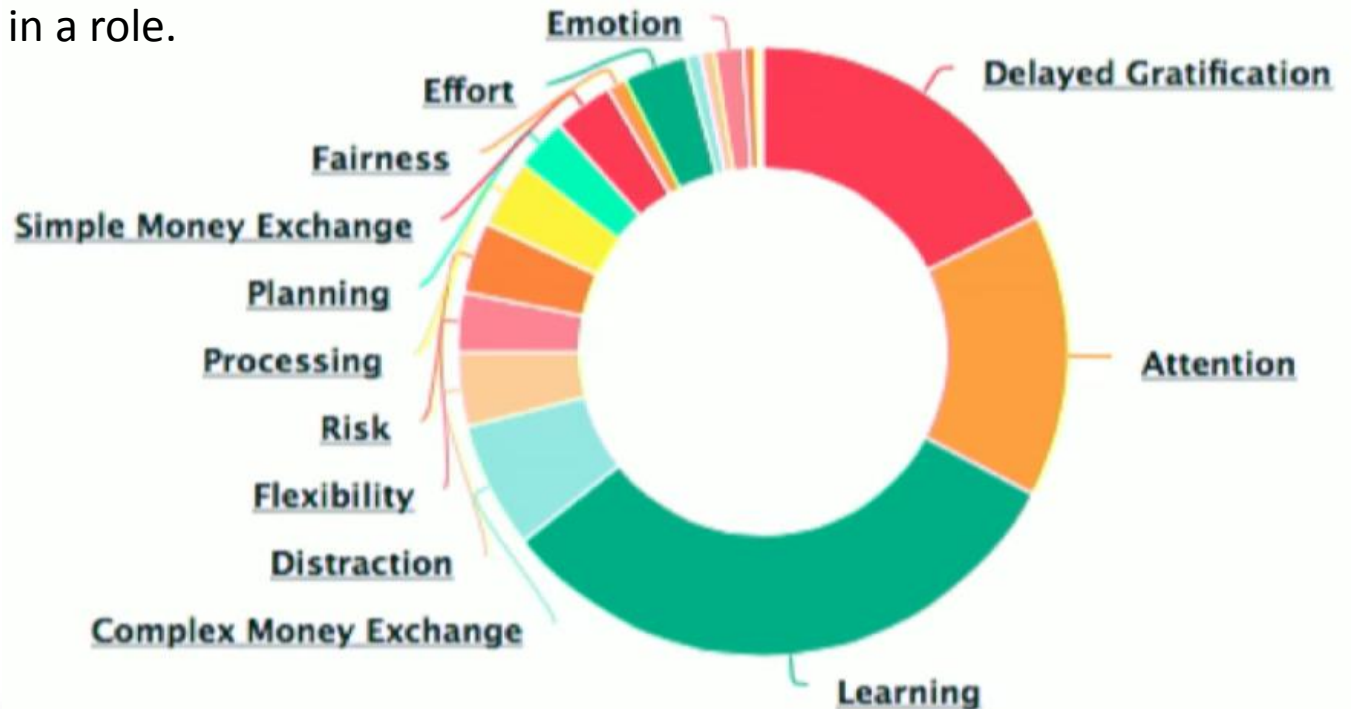
1. Data extraction and profiling
2. Candidate scoring and comparison with **'best'** or **'ideal'** performers in a role.

\$ 0.85



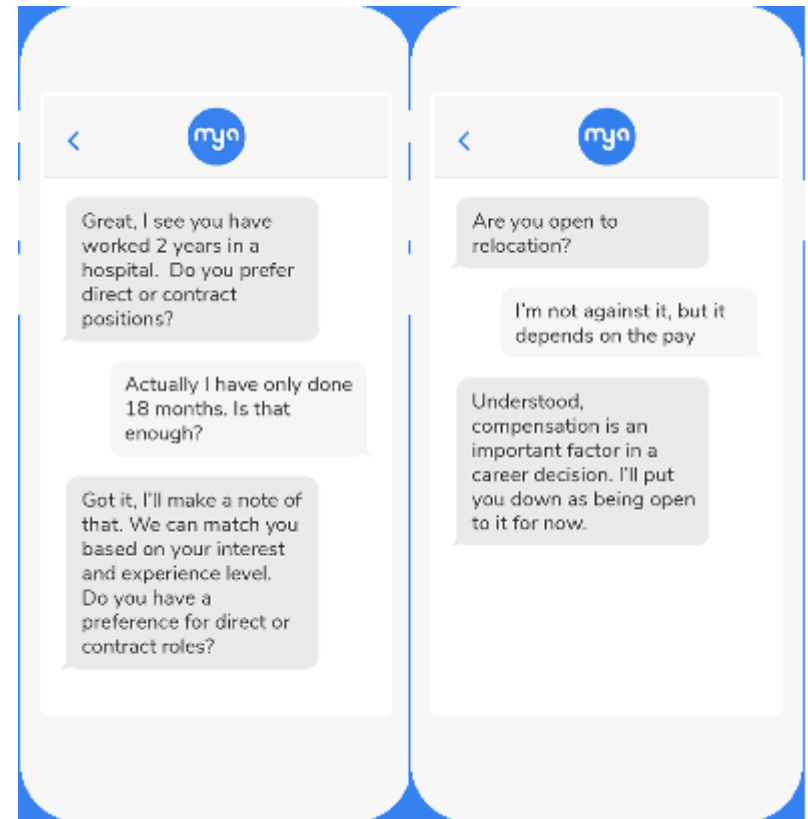
Pump

Collect \$



Issues

- Information asymmetry
- Dehumanization
- Privacy
- Non-US sociolegal contexts
- Automation of bias and discrimination
 - Discriminatory ads placement
 - Different accuracy for underrepresented groups
 - ...



Bias mitigation claims

- Some companies claim to mitigate discrimination in hiring through technological means
- What does this mean in technological, social and legal terms?

Understanding of fairness by automated hiring companies

- **US-centric approach:**
 - Disparate treatment and disparate impact
 - Definition of protected groups
 - 4/5th rule (demographic parity)
 - Data protection laws and (not) right to explanation
- **Technological fixes:** (1) anti-classification; (2) classification parity; and (3) calibration;



Predicting talent success, bias free.

**pymetrics: Using Neuroscience and Data
Science to Revolutionize Talent Management**

Discussing fairness claims in the European context

- **Lack of information** for external and independent auditing:
 - Actual data, code, mathematical models and documentation
 - Real customers use cases and design assumptions
 - Abstract definitions of fairness and discrimination
- Ongoing discussions about **statistical definitions of fairness**
- **Inherent limitations** of data-driven hiring
- Problems associated with the definition of **'best' employees**
- **Group** definition and identification, intersectionality and protected attributes
- Transfer of tools within a **US socio-legal context** to the context of UK/EU