

Why, Al.

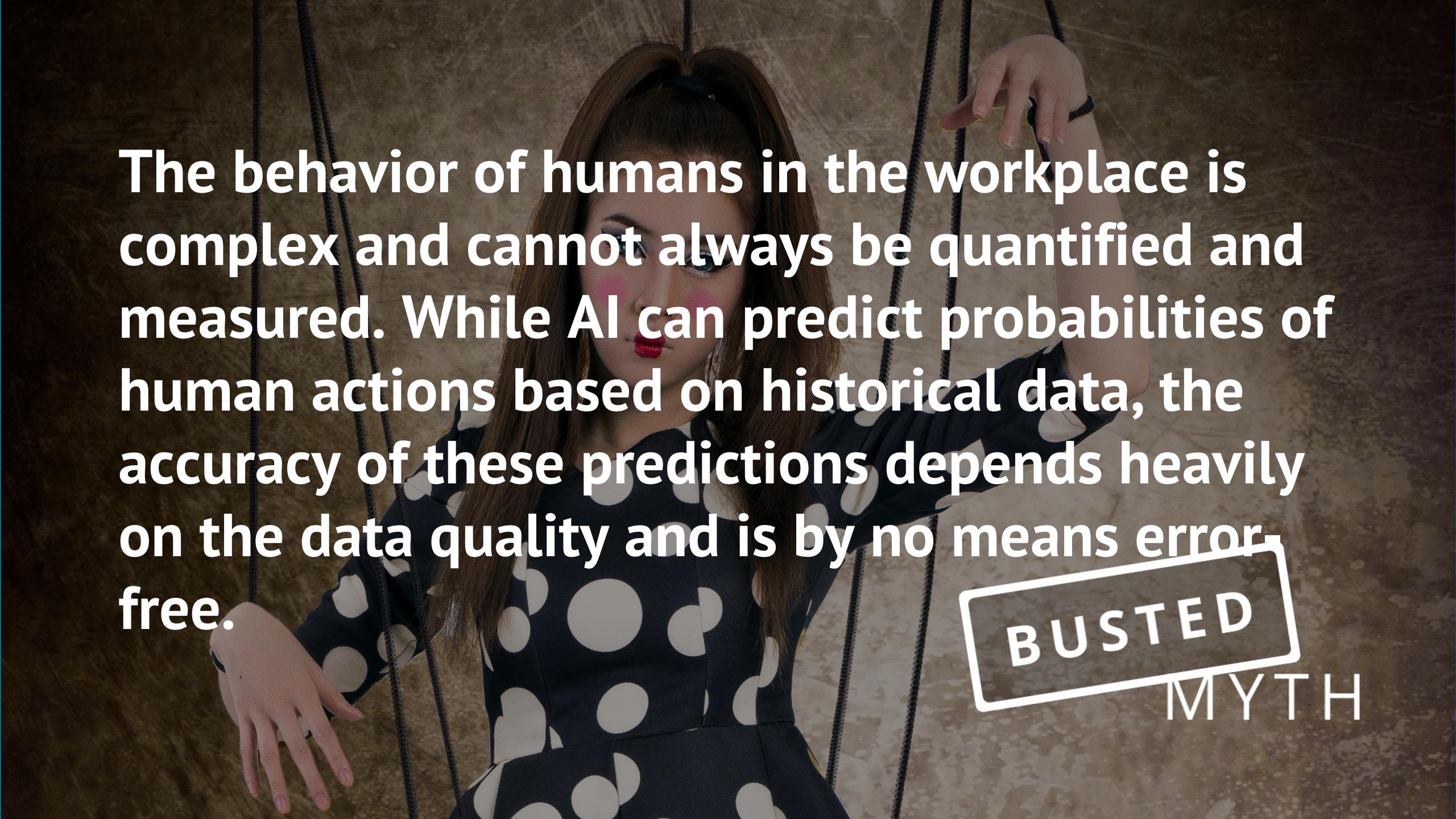


BUSTED
MYTH

A woman with long brown hair, wearing a black dress with large white polka dots, is suspended in mid-air by several thin black strings attached to her wrists and ankles. She has a neutral expression and is looking directly at the camera. The background is a textured, light-colored wall.

AI can accurately predict and optimize human behavior.

MYTH

A woman with long brown hair tied back in a ponytail is wearing a black dress with large white polka dots. She is being manipulated from above by four black strings attached to her head and hands. Her eyes are closed, and she has a neutral expression. The background is a textured, light-colored surface.

The behavior of humans in the workplace is complex and cannot always be quantified and measured. While AI can predict probabilities of human actions based on historical data, the accuracy of these predictions depends heavily on the data quality and is by no means error free.

BUSTED
MYTH

Who we are



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People analytics ...

- ... describes the evaluation of data on human behavior, relationships and characteristics in order to optimize business decisions.
- ... includes descriptive, predictive, prescriptive or even autonomous analyses.
- ... refers less to a specific technology than to an evidence-based and data-driven approach to human resource management.

Sources: Nielsen/McCullough 2018, Tursunbayeva et al. 2018, Giermindl et al. 2021

Künstliche Intelligenz

Was E-Mails über das Burn-out-Risiko verraten

Wer schreibt wann E-Mails an wen – und wie lange dauern die Antworten? Ein Be

2. März 2020, 6:07 Uhr Arbeitswelt

Personalanalyse von Mitarbeitern oft rechtswidrig

Auf Druck der Datenschutzbehörde: Zalando muss umstrittene Bewertungs-Software ändern

BI

Business Insider Deutschland
① 09 Apr 2021

Bossware

Gewerkschaften warnen vor KI-Überwachung am Arbeitsplatz

Zahlreiche Firmen bieten Software an, die Beschäftigten am Arbeitsplatz automatisiert überwacht. Der Einsatz solcher Systeme ist nach Ansicht von Gewerkschaftsverbänden bereits rechtswidrig, es fehle aber an speziellen und strengen Regeln gegen den Missbrauch.

23.06.2021 um 17:23 Uhr - Alexander Fanta - in Überwachung - 10 Ergänzungen



KI IM UNTERNEHMEN

Ein Arbeitszeugnis von der Maschine

VON EVA HEIDENFELDER - AKTUALISIERT AM 04.12.2020 - 14:33

Sources:

- <https://www.spiegel.de/karriere/kuenstliche-intelligenz-was-e-mails-ueber-das-burn-out-risiko-verraten-a-e4e71962-68b9-4cfe-9649-ca2b8181b5cf>
- <https://netzpolitik.org/2021/bossware-gewerkschaften-warnen-vor-ki-ueberwachung-am-arbeitsplatz/?fbclid=IwAR1AIUYOv6qdd4O22UKYiKtvFBIkylS9A2z22pCh500ti4NChL2GQoy2LWg>
- <https://www.sueddeutsche.de/wirtschaft/personalsoftware-arbeit-studie-algorithm-watch-1.4826639>
- <https://www.faz.net/aktuell/karriere-hochschule/ki-wird-in-unternehmen-immer-praesenter-17072729.html>
- <https://www.businessinsider.de/wirtschaft/handel/zalando-muss-seine-personalsoftware-aendern-urteilt-datenschutzbehoerde/>

Why is people analytics so relevant right now?



Technological developments

- an **increasing amount of behavioral data** is generated by employees
- progress in the field of **machine learning** facilitates predictions



Leadership challenges

- a need to **objectify** decision making
- high **work loads** of HR and managers
- increasing remote work: improve **self-organization**, prevent **overwork**, compensate for **loss of control** by managers



Advances for regulation

- **EU AI Regulation:** AI in HR as “high risk AI”
- “**Betriebsrätemodernisierungsgesetz**”: Ensuring co-determination in automated recruiting

Sources: Leonardi 2021, Stieler 2021, Giermindl et al. 2021, BMAS 2021, European Commission 2021

How is it applied in practice?



Recruiting



Talent Search



HR Analytics



Communication



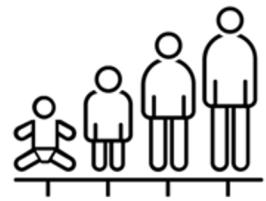
Feedback



Marketing



Network-Analyses



Age/ Gender -
Structure



Workforce-
Management



Fluctuation

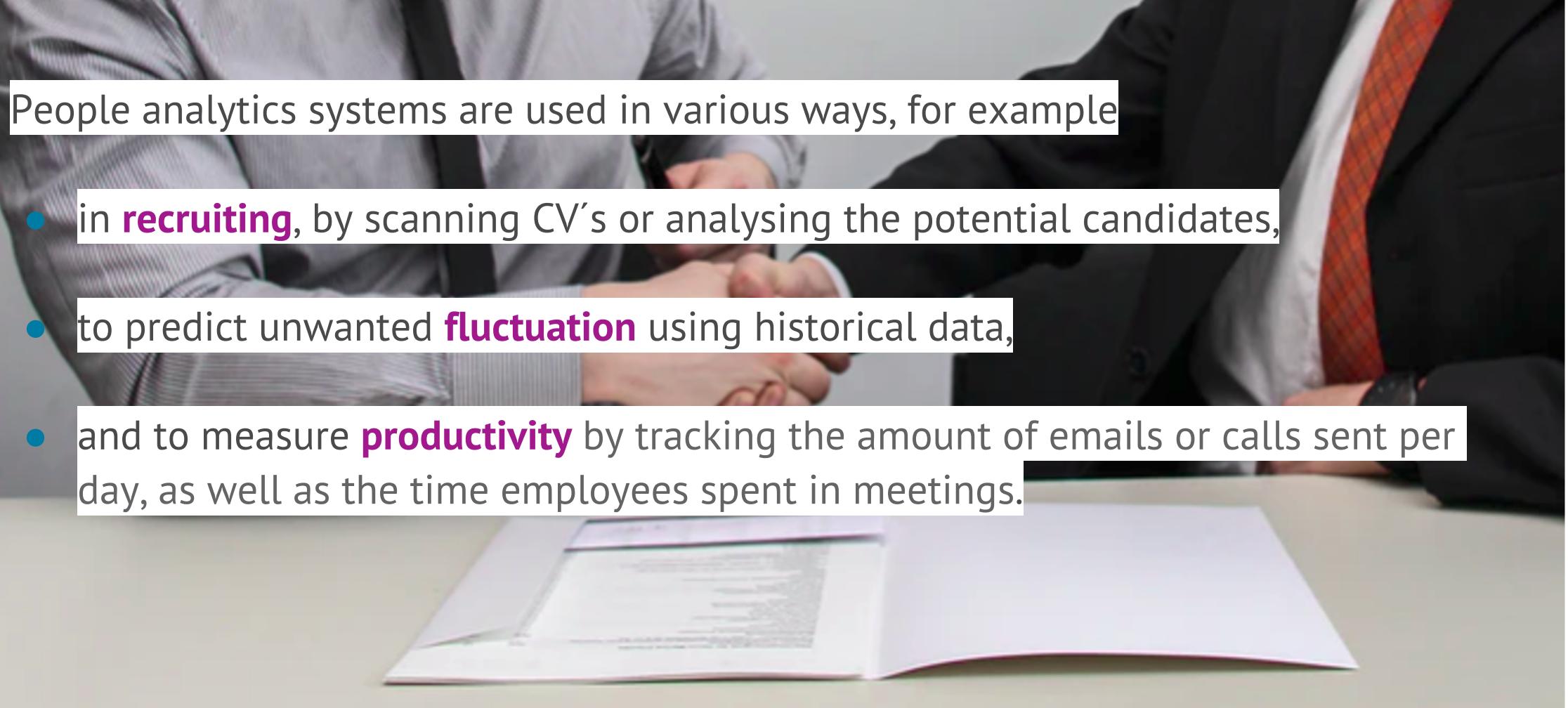


Performance-
Management



Artificial Intelligence

Source: Geib 2021



People analytics systems are used in various ways, for example

- in **recruiting**, by scanning CV's or analysing the potential candidates,
- to predict unwanted **fluctuation** using historical data,
- and to measure **productivity** by tracking the amount of emails or calls sent per day, as well as the time employees spent in meetings.

What do vendors say?



Workplace Analytics

Gain data-driven visibility into how work patterns affect wellbeing, productivity, and business performance.

SAP SuccessFactors Workforce Analytics

Make HR decisions based on accurate workforce intelligence – not guesswork – with our cloud-based people analytics solution.



ANALYTICS AND REPORTING



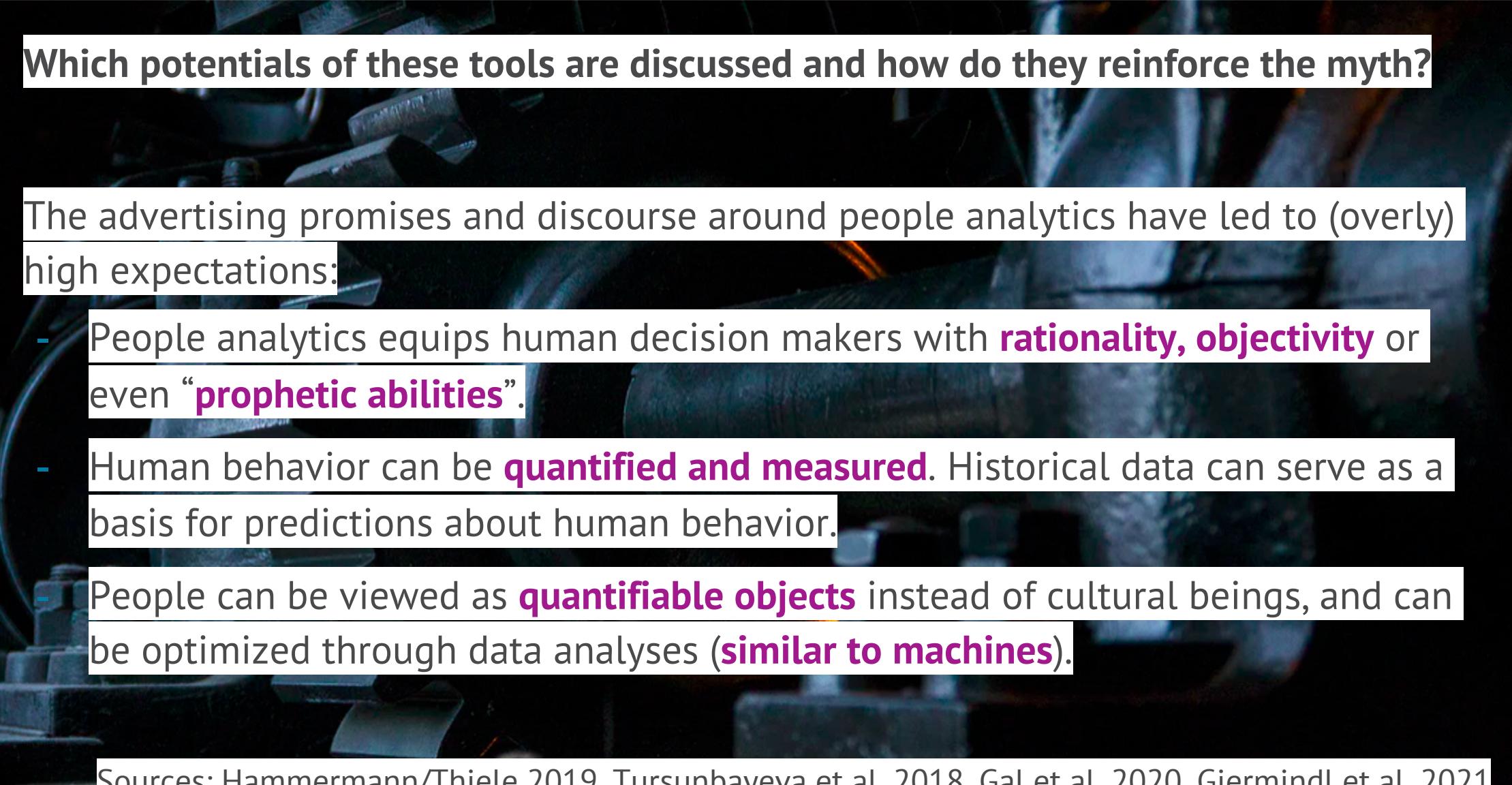
See your people in a whole new way with workforce analytics.

Sources:

<https://www.microsoft.com/en-us/microsoft-365/business/workplace-analytics>

<https://www.workday.com/en-gb/products/human-capital-management/analytics-reporting.html>

<https://www.sap.com/products/workforce-analytics.html>



Which potentials of these tools are discussed and how do they reinforce the myth?

The advertising promises and discourse around people analytics have led to (overly) high expectations:

- People analytics equips human decision makers with **rationality, objectivity** or even "**prophetic abilities**".
- Human behavior can be **quantified and measured**. Historical data can serve as a basis for predictions about human behavior.
- People can be viewed as **quantifiable objects** instead of cultural beings, and can be optimized through data analyses (**similar to machines**).

Sources: Hammermann/Thiele 2019, Tursunbayeva et al. 2018, Gal et al. 2020, Giermindl et al. 2021



Risk ahead!

We identified six common risks to help us *bust the myth*.

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- 1. Recommendations and prognoses are hardly ever questioned.**
 - 2. It is hard and sometimes impossible to decline the usage of the tools.**
 - 3. Non-technophile employees could be left out.**
 - 4. Important social interaction might become invisible.**
 - 5. Growing information asymmetry.**
 - 6. Information privacy and personal privacy are threatened.**

Sources: Gal et al. 2020, Giermindl et al. 2021, Tursunbayeva et al. 2021

How does that bust the myth?



What does this mean for employees and managers?

Planning

- **Holistic analysis:** Critically evaluate needs, risks and benefits. What are the real needs of employees and managers, and can they be met with data analyses?
- **Integration:** Early involvement of the works council to ensure an employee-centered approach.

Implementation

- **Competence building:** Extensive training of all users to enable them to challenge and question system recommendations.
- **Transparency:** Critically evaluate the functionality and data usage of the systems. Are the metrics used actual indicators of the behavior you are looking to analyze?

Reflection:

- **Continuous evaluation:** If necessary, set up an AI ethics committee.
- **Intervention:** Set up complaint and intervention procedures.

Sources: Rasmussen/Ulrich 2015, AlgorithmWatch 2020, Thieltges 2020

Literature

- AlgorithmWatch (2020): Positionen zum Einsatz von KI im Personalmanagement. Rechte und Autonomie von Beschäftigten stärken – Warum Gesetzgeber, Unternehmen und Betriebsräte handeln müssen. Online via https://algorithmwatch.org/wp-content/uploads/2020/03/AlgorithmWatch_AutoHR_Positionspapier_2020.pdf [retrieved 25.01.2021].
- BMAS (2021): Gesetz zur Förderung der Betriebsratswahlen und der Betriebsratsarbeit in einer digitalen Arbeitswelt (Betriebsrätemodernisierungsgesetz).
- European Commission (2021): Regulation Of The European Parliament And Of The Council – Laying Down Harmonised Rules On Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Online via https://eur-lex.europa.eu/resource.html?uri=cellar:e0649735-a372-11eb-9585-01aa75ed71a1.0001.02/DOC_1&format=PDF [retrieved 22.07.2021].
- Gal, Uri; Jensen, Tina Blegind; Stein, Mari-Klara (2020): Breaking the Vicious Cycle of Algorithmic Management: A Virtue Ethics Approach to People Analytics, in: *Information and Organization*, 30(2), pp. 1-15, doi: <https://doi.org/10.1016/j.infoandorg.2020.100301>.
- Geib, Magdalena (2021) [unpublished].
- Giermindl, Lisa Marie; Strich, Franz; Christ, Oliver; Leicht-Deobald, Ulrich; Redzepi, Abdullah (2021): The Dark Sides of People Analytics: Reviewing the Perils for Organisations and Employees, in: *European Journal of Information Systems*, ahead of print, doi: 10.1080/0960085X.2021.1927213.
- Hammermann, Andrea; Thiele, Christopher (2019): People Analytics: Evidenzbasiert Entscheidungsfindung im Personalmanagement, *IW-Report*, No. 35/2019. Köln: Institut der deutschen Wirtschaft (IW).
- Leonardi, Paul M. (2021): COVID-19 and the New Technologies of Organizing: Digital Exhaust, Digital Footprints, and Artificial Intelligence in the Wake of Remote Work, in: *Journal of Management Studies*, 58(1), pp. 249-253, doi: <https://doi.org/10.1111/joms.12648>.
- Nielsen, Chantrelle; McCullough, Natalie (2018): How People Analytics Can Help You Change Process, Culture, and Strategy, in: *Harvard Business Review*. Online via <https://hbr.org/2018/05/how-people-analytics-can-help-you-change-process-culture-and-strategy> [retrieved 25.01.2021].

Literature

Rasmussen, Thomas; Ulrich, Dave (2015): Learning from Practice: How HR Analytics avoids being a Management Fad, in: *Organizational Dynamics*, 44(3), pp. 236–242, doi: 10.1016/j.orgdyn.2015.05.008.

Stieler, Wolfgang (2021): Die Vermessung der Arbeit, in: *MIT Technology Review*, 4/2021, pp. 22-27.

Thieltges, Andree (2020): Machine Learning Anwendungen in der betrieblichen Praxis – Praktische Empfehlungen zur betrieblichen Mitbestimmung, in: *Mitbestimmungspraxis* Nr. 33, Düsseldorf: Institut für Mitbestimmung und Unternehmensführung.

Tursunbayeva, Aizhan; Di Lauro, Stefano; Pagliari, Claudia (2018): People analytics—A Scoping Review of Conceptual Boundaries and Value Propositions, in: *International Journal of Information Management*, 43, pp. 224–247, doi: 10.1016/j.ijinfomgt.2018.08.002.

Tursunbayeva, Aizhan, Pagliari, Claudia, Di Lauro, Stefano, & Antonelli, Gilda (2021): The Ethics of People Analytics: Risks, Opportunities and Recommendations, in: *Personnel Review*, ahead of print, doi: <https://doi.org/10.1108/PR-12-2019-0680>.