AI, Gender Equality & Positive Action

Ana Maria Corrêa
Ku Leuven
CiTiP

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Outline

1. **AI Gender Inequality: Recruitment of Workers**
   ⇢ Overview
   ⇢ Challenges
   ⇢ Impact

2. **Technical Remedies: Fairness Through Awareness**
   ⇢ Importance of Technical Solutions for Gender Equality
   ⇢ Examples
   ⇢ Legal Narratives

3. **Is Fairness Through Awareness Positive Action in the EU?**
   ⇢ EU Perspective
   ⇢ Case Law
   ⇢ Implications and Future Outlook

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1. AI & Recruitment of Workers
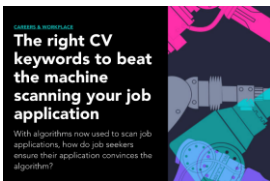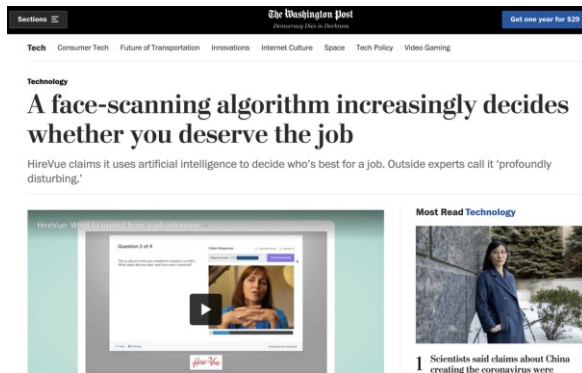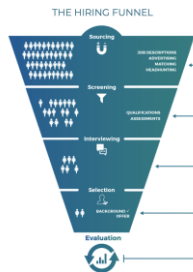
Side Effects

Documented discrimination based on the grounds of sex

1. Overrepresentation of CVs belonging to male candidates for employment positions (Goodman, 2018)

2. Discrimination on the grounds of gender in the assessment of candidates' voice intonation, inflection and demonstrable emotions during online interviews (FTC, 2019)

3. Women received poor scores in a public employment support program (Holl et al, 2020)
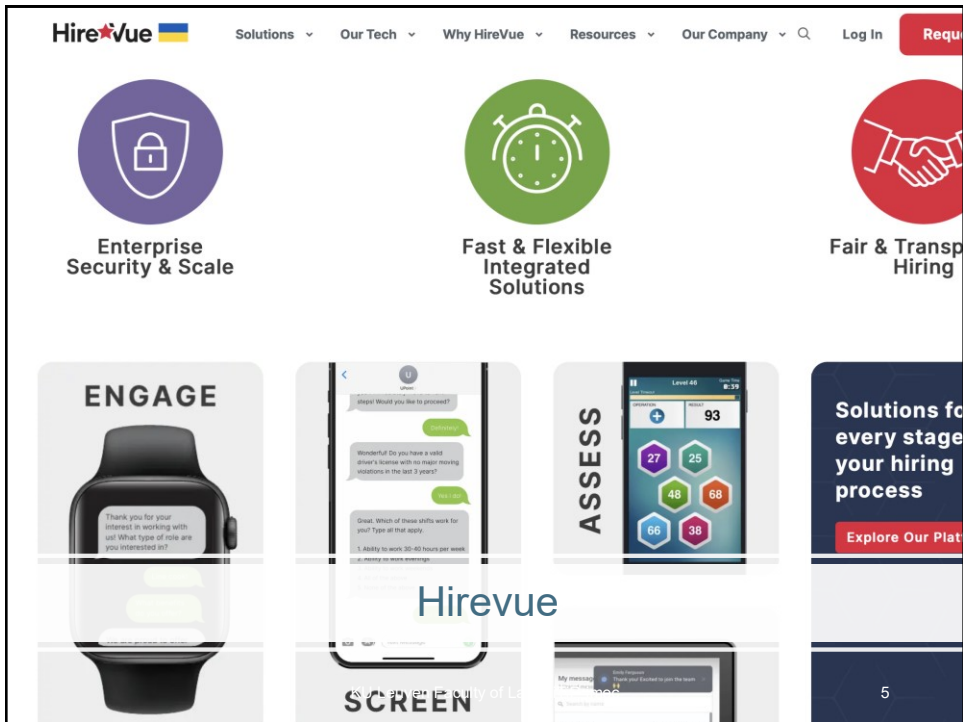
Hirevue

Hirevue

- FTC case, 2019
- HireVue developed pre-hiring assessment tools for online interviews: **facial recognition technology** & **biometric data.**
- Collection of data involved: **voice intonation, inflection and facial expressions.**
- This data was used to provide employers with 'insight into a range of cognitive skills, including numeracy, problem-solving and attention'.
- It defined the suitability of candidates to the job position.
- Voice intonation, inflections and facial emotions may vary according to different demographic groups.
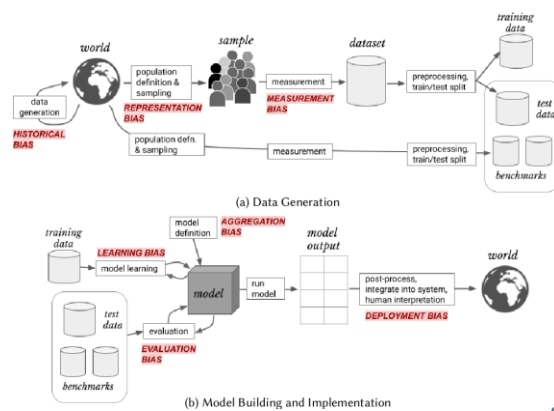
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Technical Reasons for AI Discrimination

Non-representative data

Historical bias

Proxy bias

Biased correlations

Measurement bias

Evaluation bias

Deployment bias

Source

Technical approaches to fix bias and imbalances

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Remedies: Technical Measures

In order to counter discrimination in AI systems, data science research has focused on designing algorithms that are <mark>fair and devoid of discrimination</mark> (Dwork et al., 2012; Hardt, 2016; Mehrabi, 2021).
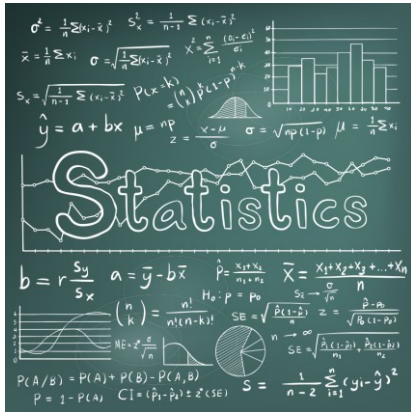
🤘 statistical parity,

🤘 causal modeling and

🤘 counterfactual fairness

They can take into account <mark>a protected aspect</mark> to counter the system unfairness.

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Statistical Parity

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Legal Narratives: Positive Action

"When algorithms developers expressly use a protected trait, such as the one of gender, to counter bias and illegal discrimination, they are in fact developing algorithmic affirmative action (Bent, 2020, p. 808)".

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Positive Action in the EU

1) Terminology 'Positive Action'

⋯→ It often refers to measures aiming to ensure ==substantive equality==.

⋯→ ==Inclusion of individuals== who have historically faced discrimination in socio-economic sectors, such as the employment one.

⋯→ It may encompass ==equality of opportunities== & ==equality of results. (Second not accepted)==

2) EU regulatory framework on positive action

⋯→ Treaty on the Functioning of the European Union – =='positive duty'== to promote equality between women and men (TFEU art. 8).

⋯→ 'with a view to ensuring full equality in practice between men and women in working life, the principle of equal treatment shall not prevent any MS from maintaining or adopting measures ==providing for specific advantages in order to make easier for the underrepresented sex to pursue a vocational activity or to prevent or compensate for disadvantages in professional careers.== (TFEU art. 157.4)

⋯→ Equality Directives ▢ provision on positive action

ECJ

- *Eckhard Kalanke v Freie Hansestadt Bremen (1995)*

→ The court ==ruled out strict quotas== – based only on the demographic trait – for employment appointment

ECJ

- George Badeck v Others (2000)

→ "in sectors in which women are underrepresented, they can be given priority ==to be called to interviews when== they are ==equally qualified== and satisfy all the conditions required in comparison with other male candidates.

→ Sex can work as tie-breaker

Takeaways

- ==Technical fairness measures== should not consider sex (or any protected aspect) as an isolated criterion for decision-making process involving recruitment of workers;
- Data related to ==merits== should be taken into account
- ==Sex as a tie-breaker== without taking into consideration data related to merits is considered equality of results = illegal positive action
- Are the ==current nondiscrimination legal concepts== a good fit for recent technology developments?

Thank you

Ana Maria Corrêa (PhD)
CiTiP, KU Leuven.
Belgium.
ana.correa@kuleuven.be

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