This training session is funded under the 'Rights, Equality and Citizenship Programme 2014-2020' of the European Commission.

Equality, AI, algorithms and automated decisions

17 October 2022

ERA seminar *Applying EU Anti-Discrimination Law*

Utrecht University
MONTAIGNE CENTRE for Rule of Law and Administration of Justice
Janneke Gerards
Professor of fundamental rights law

Funded under the Rights, Equality and Citizenship Programme 2014-2020 of the European Commission

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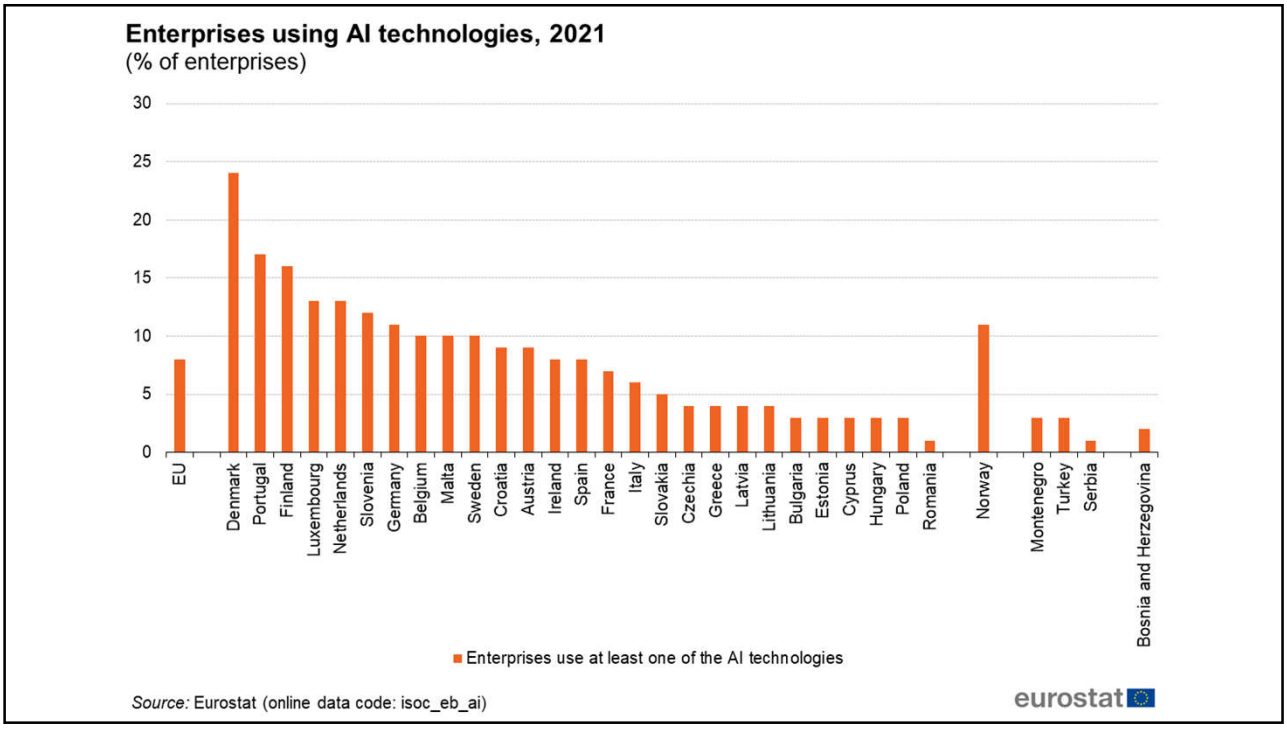

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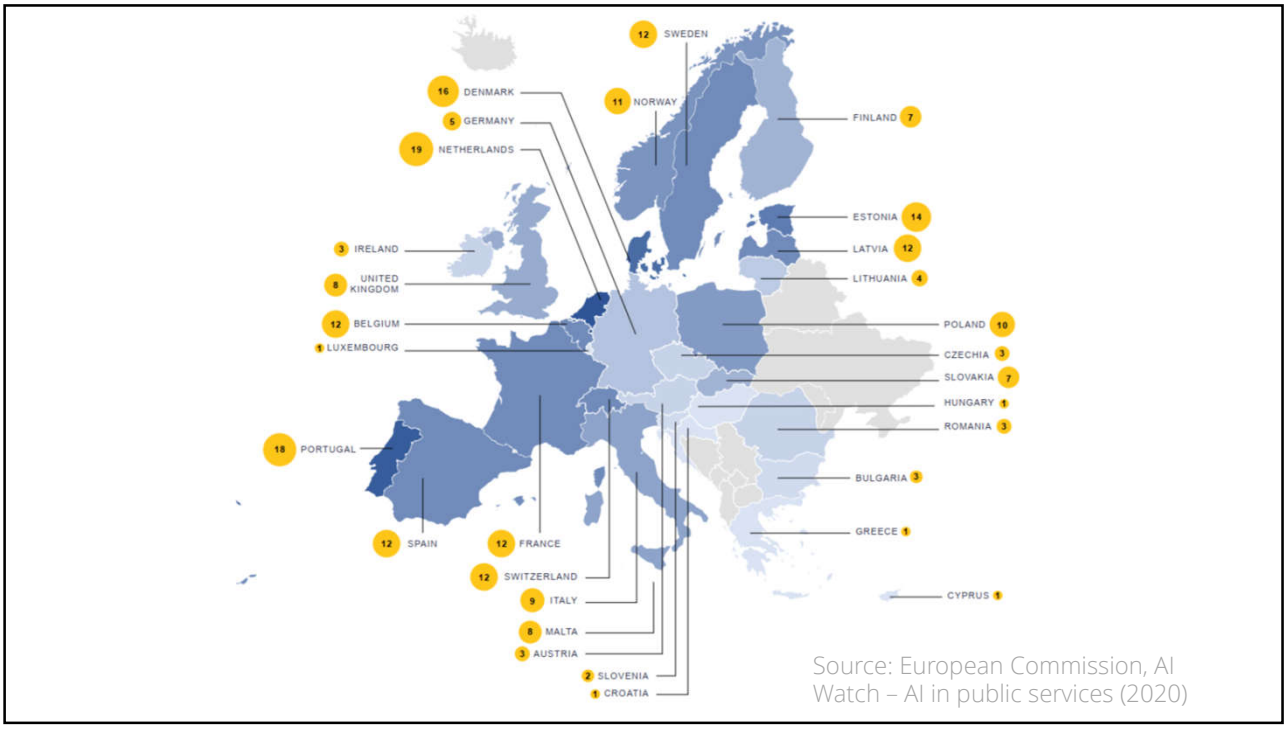
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16 DENMARK
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POLAND 10
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18 PORTUGAL
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2 SLOVENIA
1 CROATIA
Source: European Commission, AI Watch – AI in public services (2020)

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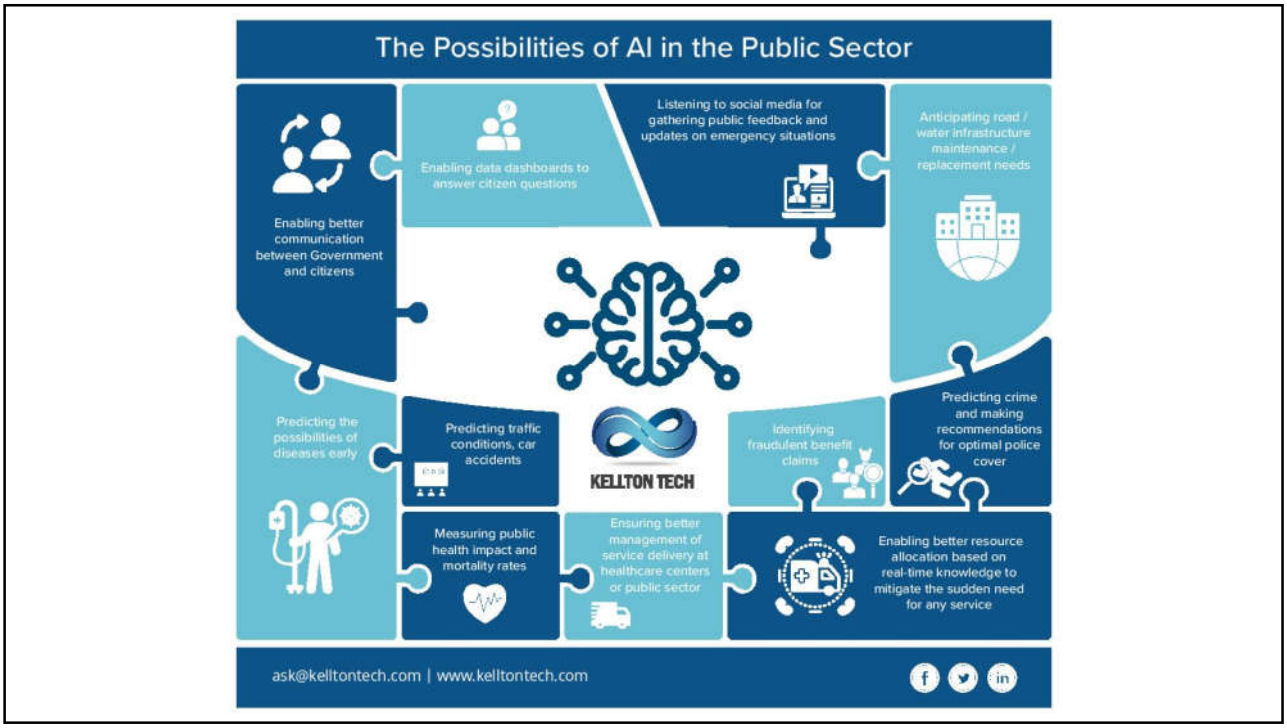
The Possibilities of AI in the Public Sector
Enabling better communication between Government and citizens
Enabling data dashboards to answer citizen questions
Listening to social media for gathering public feedback and updates on emergency situations
Anticipating road / water infrastructure maintenance / replacement needs
Predicting the possibilities of diseases early
Predicting traffic conditions, car accidents
KELLTON TECH
Identifying fraudulent benefit claims
Predicting crime and making recommendations for optimal police cover
Measuring public health impact and mortality rates
Ensuring better management of service delivery at healthcare centers or public sector
Enabling better resource allocation based on real-time knowledge to mitigate the sudden need for any service
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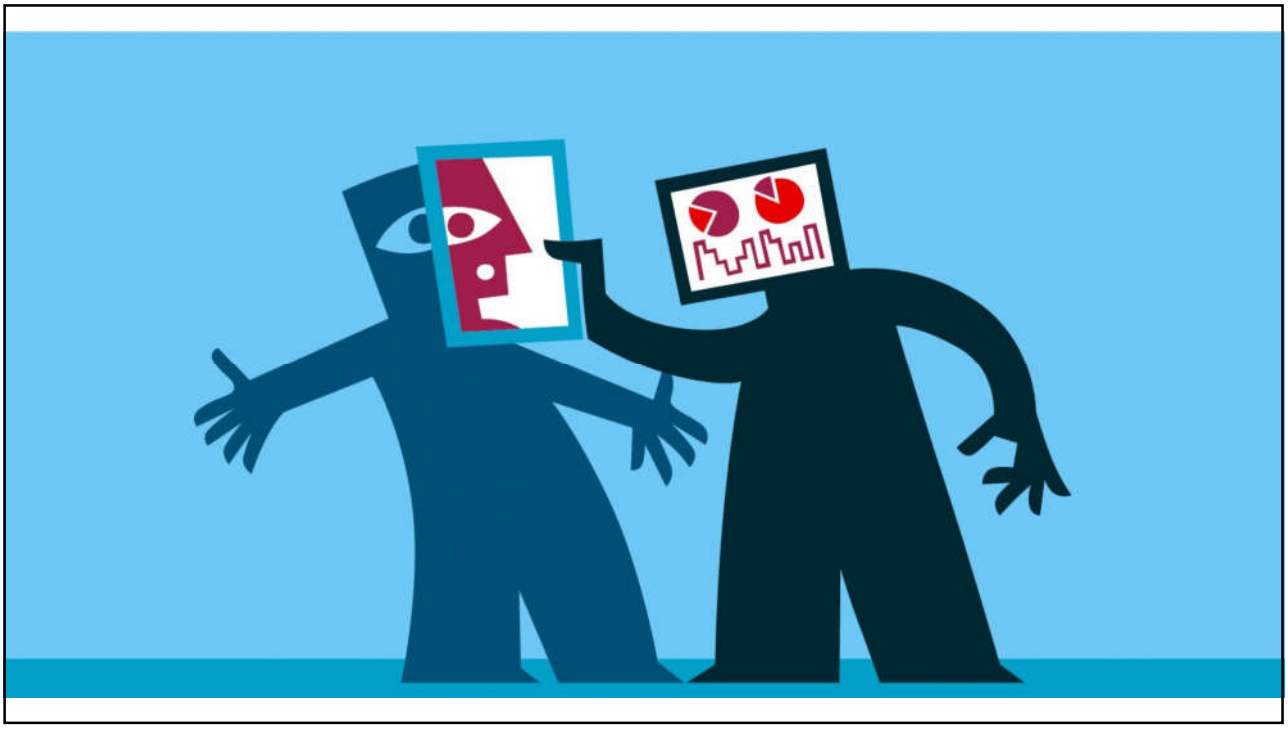

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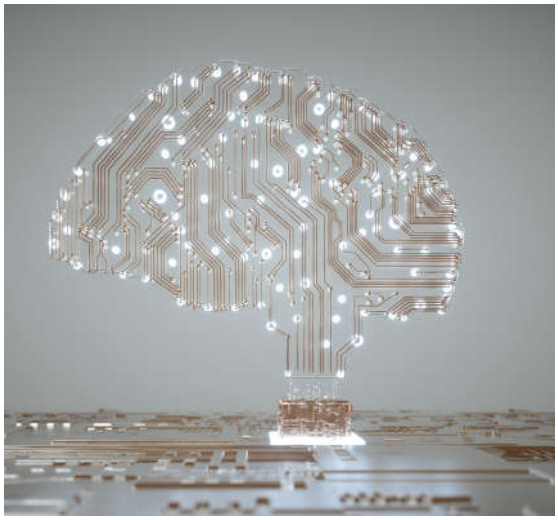

1. What are algorithms?

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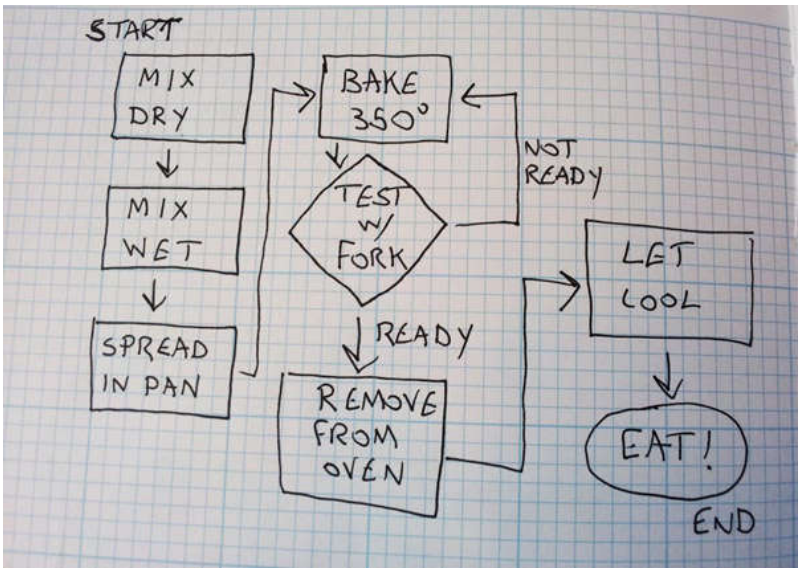
1. Rule-based algorithms



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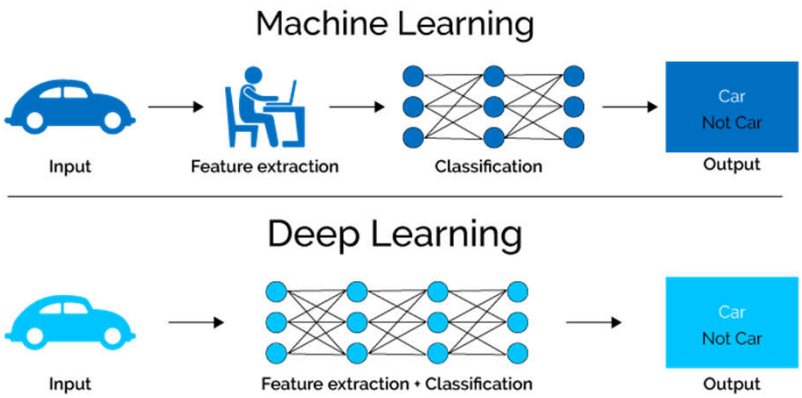
2. Case-based algorithms



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Person A training samples. Is this person A ?

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Algorithms and AI

Rule based algorithms | basis for almost all automated decision-making

'Case-based' algorithms | valuable for pattern recognition and making predictions

Artificial intelligence | independently learning algorithms (eg deep learning algorithms); can make more or less autonomous decisions

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2.
Why and how do algorithms constitute a risk of discrimination?

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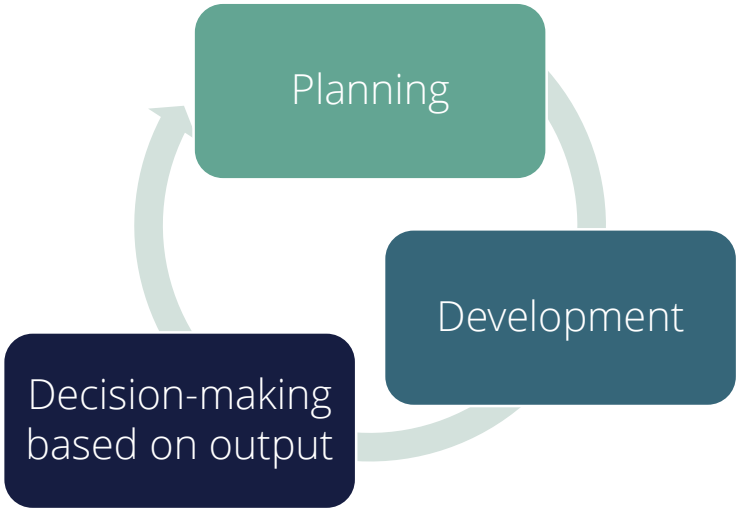
Why and how do these characteristics create a risk for discrimination?



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Why and how do these characteristics create a risk for discrimination?

Stereotypes, prejudice, bias

Patterns of historical discrimination

Structural inequalities

Data – design

Planning

Development

Decision-making based on output

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The human factor

The data factor

Correlations instead of causality

Black box

Speed and scale

Responsibility

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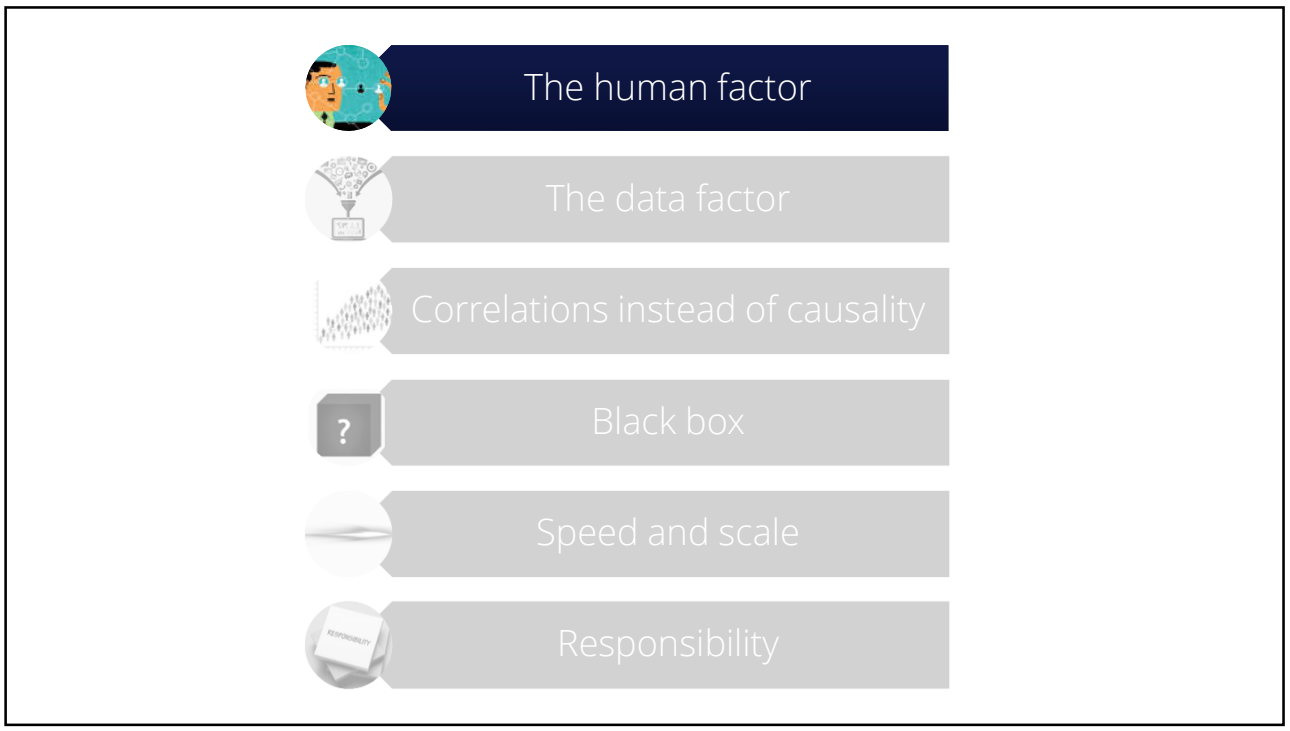
The human factor
The data factor
Correlations instead of causality
Black box
Speed and scale
Responsibility

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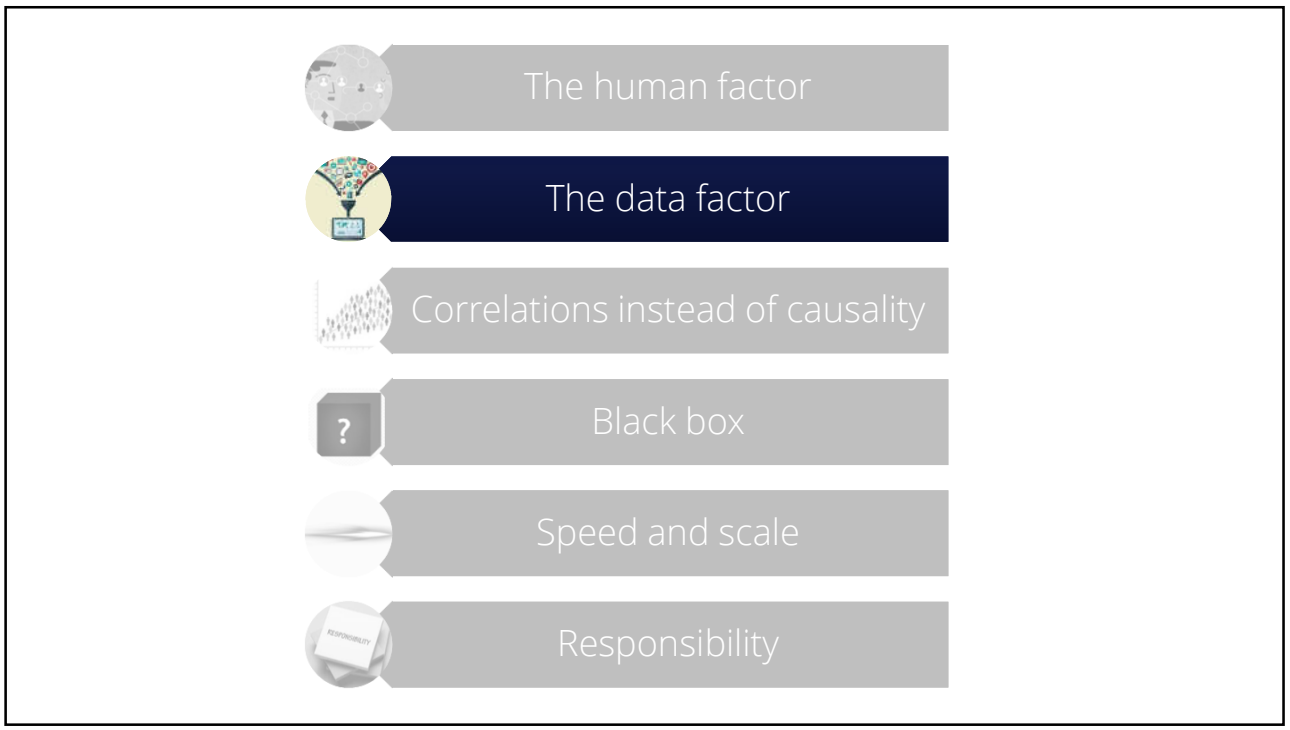
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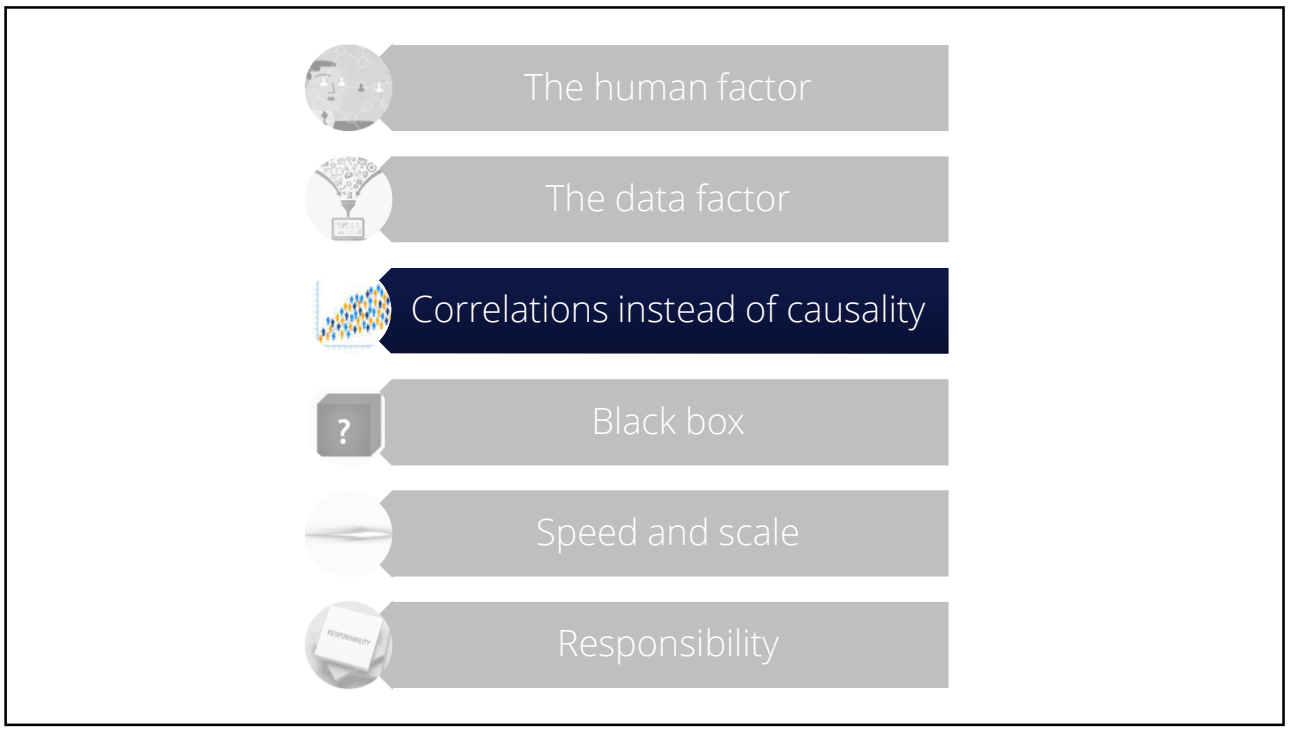
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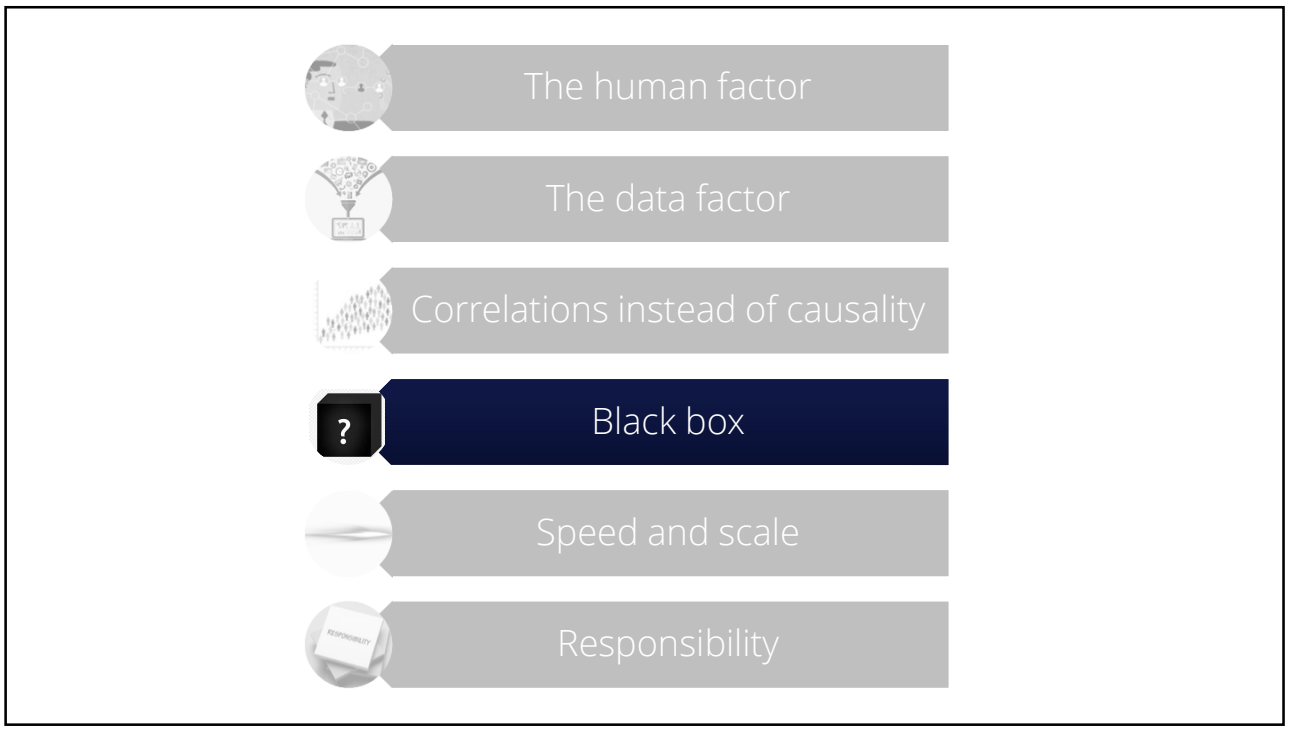
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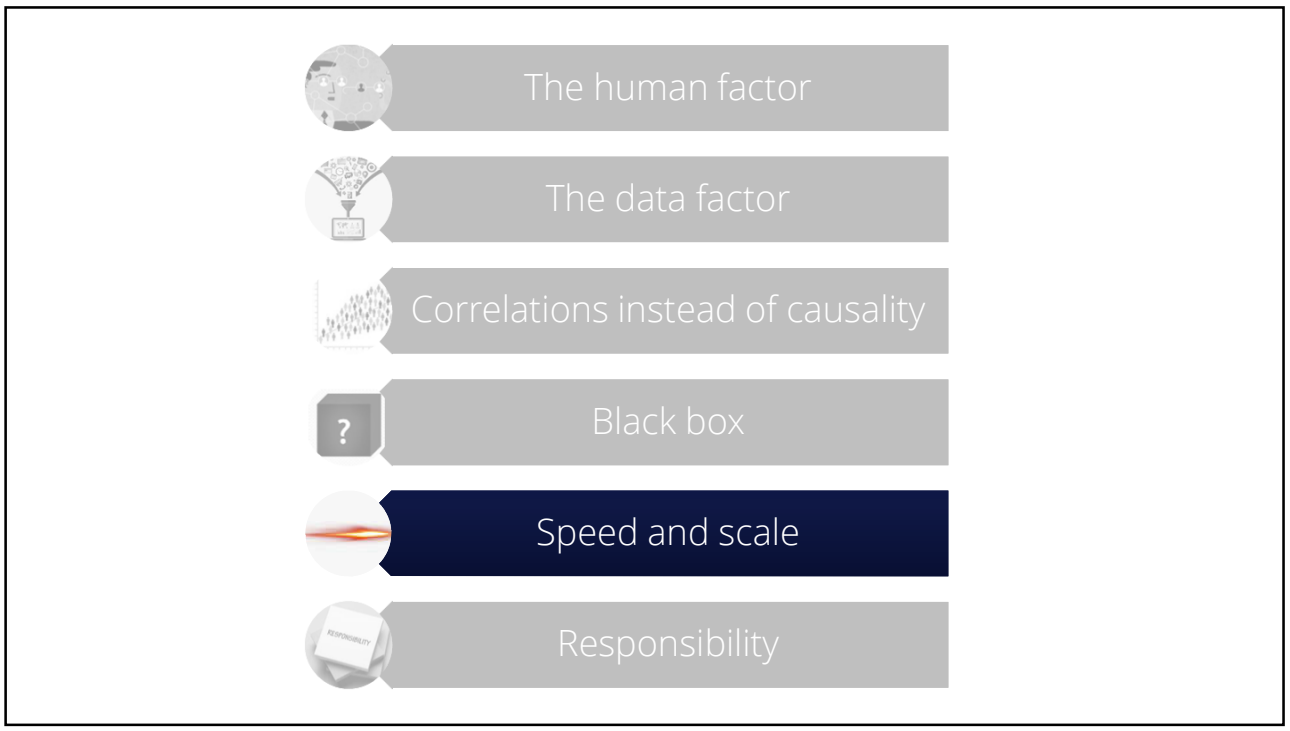
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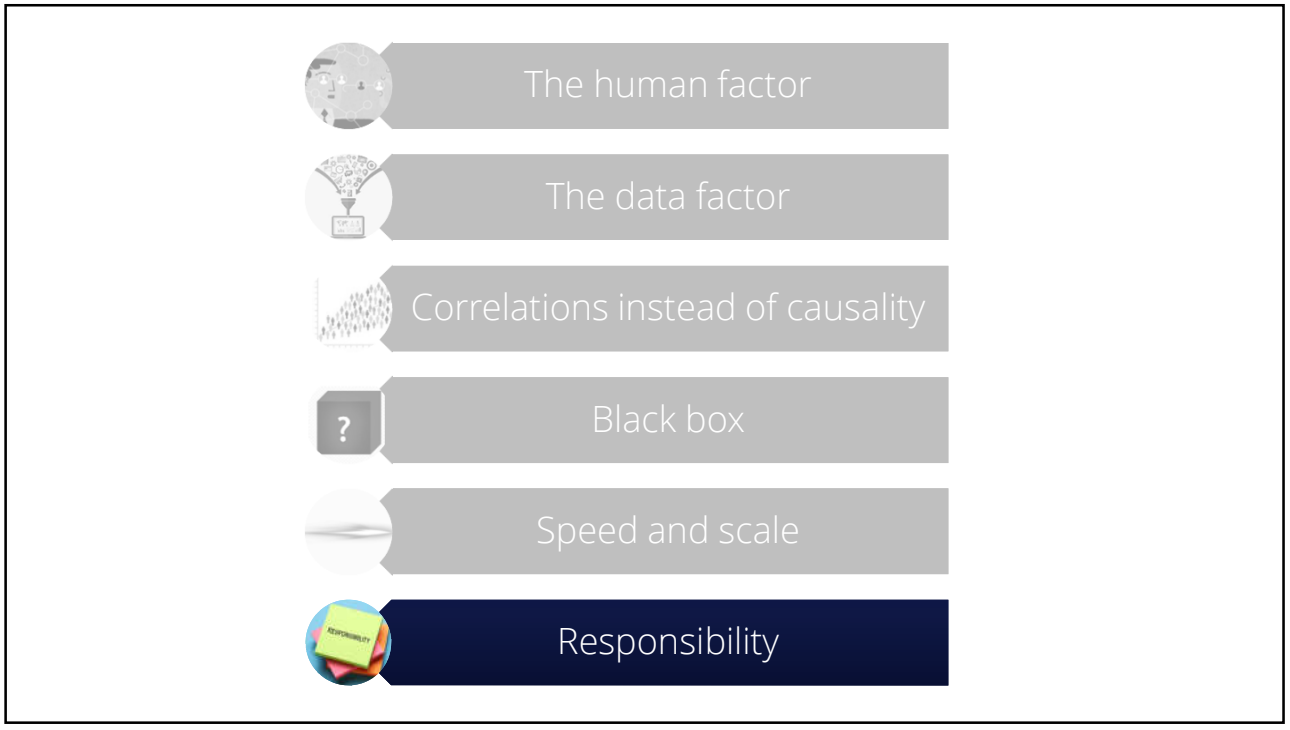
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3. Non-discrimination law: fit for purpose?

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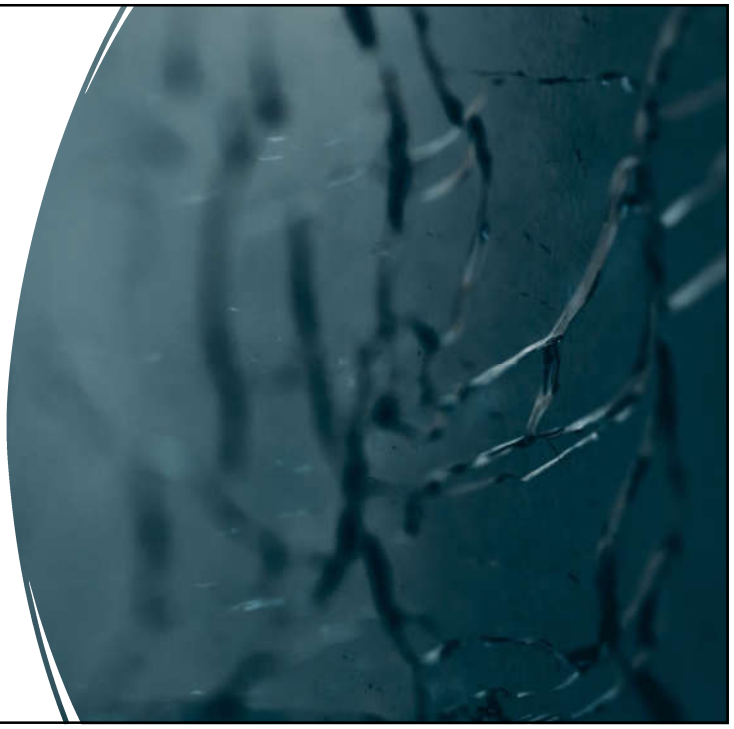
Gaps and difficulties

1. scope
2. conceptual mismatches
3. procedural issues



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1. Scope

- EU legislation mainly covers employment
- Not applicable to e.g. media, advertising, education
- Not applicable to e.g. platform workers

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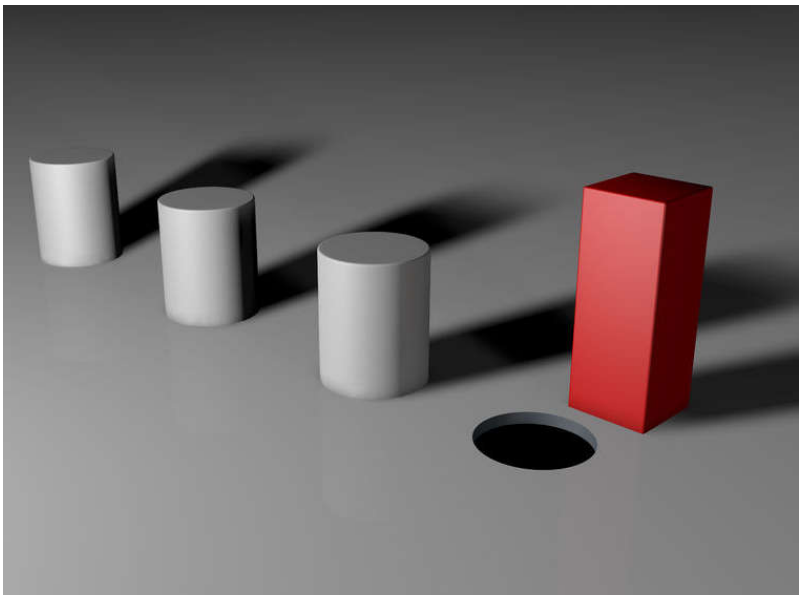

2. Conceptual mismatches

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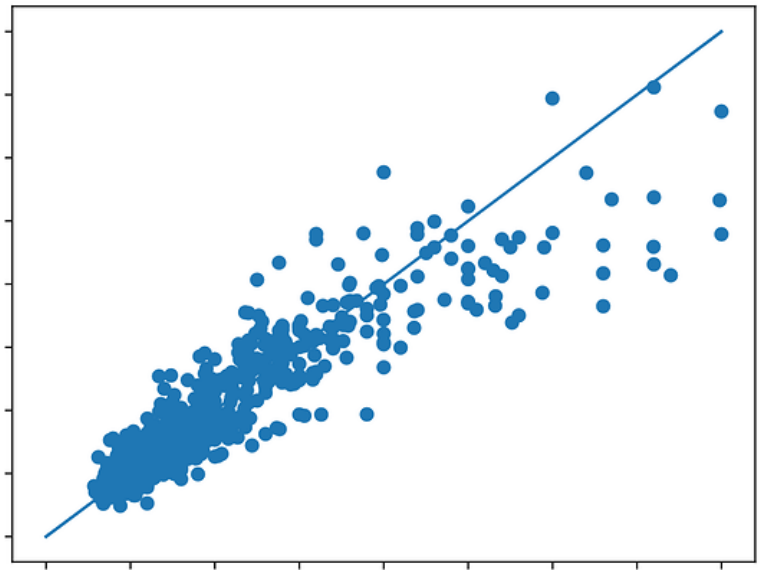
Correlations



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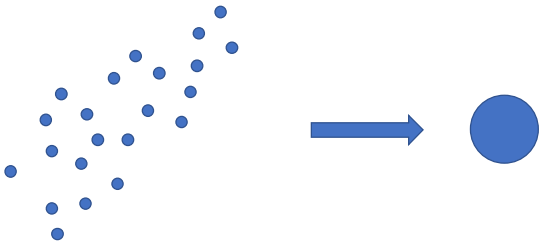
Direct discrimination based on gender, ethnicity, disability etc.

Algorithmic discrimination based on correlations and proxy grounds



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Indirect discrimination

Decision is not based on a protected ground (eg disability, gender, ethnicity), but has a disproportionally detrimental impact on a group characterised by such a ground

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Emergent discrimination

- New patterns of systemic discrimination due to social sorting
- E.g. socio-economic status, dominant body norms
- Not protected by EU law

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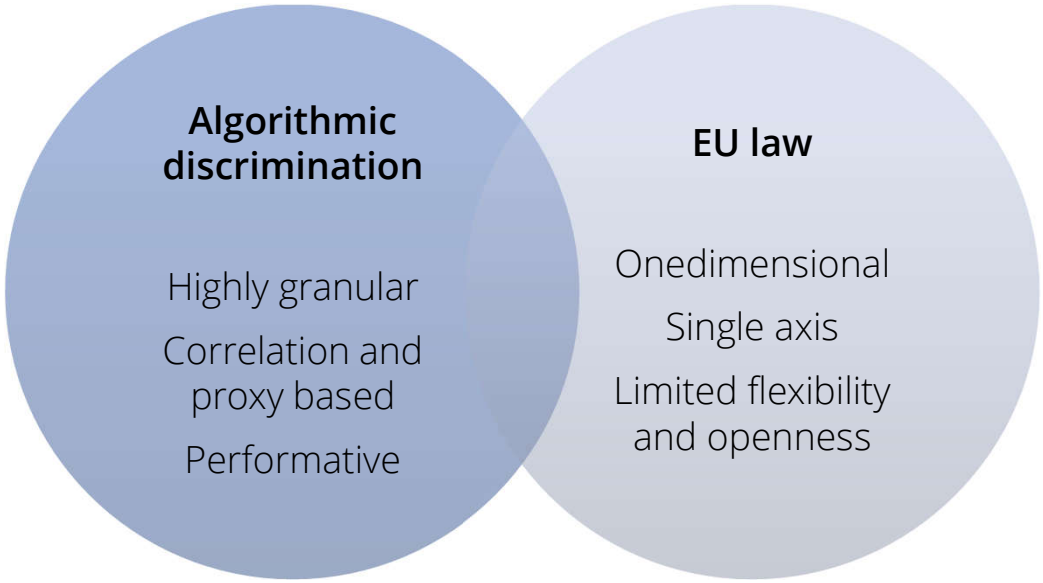

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3. Procedural issues – *ex post* individual rights-based system

- Problems of detection of discrimination
- Problems of proof
- Problems of allocating responsibility / liability
- Individual procedures costly and complex

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- Not all aspects of algorithmic discrimination are covered
- Conceptual mismatches
- Enforcement via individual rights strategy is ineffective

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4. Legal responses in 31 European States

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Limited formal **legislative** responses – EU law gaps can also be seen in EU Member States

Few **court cases** due to problems of individual rights-based stategies

Many **policy efforts**, but seldom binding or geared towards discrimination

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Good practices and opportunities

Creative use of existing instruments (e.g. GDPR)

Inter-/multidisciplinarity

Ex ante approaches

Dissemination of knowledge; training

Diversification of professional communities

Development and promotion of debiasing strategies

Monitoring and supervision rather than individual procedures

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PREVENT
REDRESS
OPEN
TRAIN
EXPLAIN
CONTROL
TEST

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Questions? Comments?

More questions or comments?
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