

Artificial intelligence and gender equality

Sylvaine Laulom



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

1

Algorithm-based discrimination at work

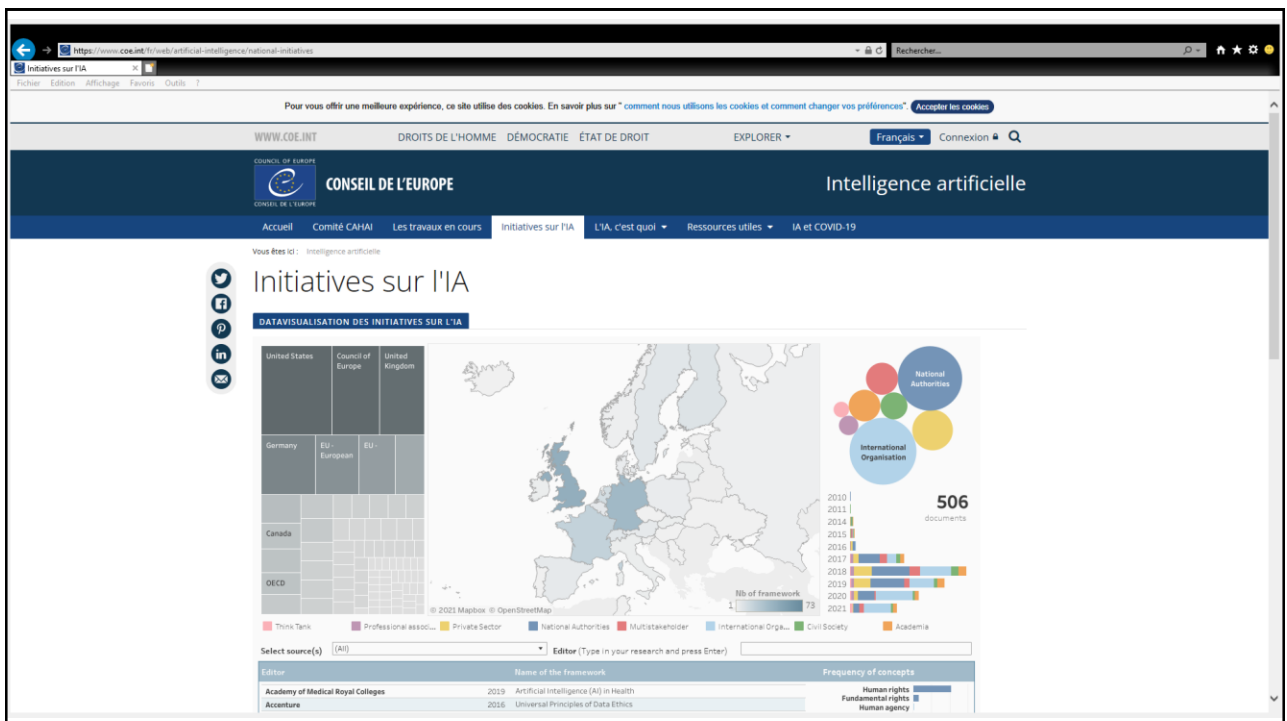
- Should we be afraid of algorithms and more generally of Artificial Intelligence?
- What discrimination can be generated by an algorithm?
 - Do they have any specific features?
- What are the legal tools to fight against these discriminations?
 - Are the current tools suitable and sufficient?

2

As a preamble

- Can an algorithm be discriminatory?
- There is already a large body of literature documenting the risk of discrimination by algorithms, often in the more general context of debates around artificial intelligence
- Since the end of the 2010s, the initiatives of various international organisations have multiplied

3



4

- Sources: <https://www.coe.int/fr/web/artificial-intelligence/national-initiatives>
- <https://www.coe.int/fr/web/artificial-intelligence/work-in-progress>

5

I. What discrimination?

- To answer this question, it is necessary to determine what uses algorithms have in labour relations
- What is an algorithm?

6

Some definitions

- "Strictly speaking, an algorithm is the description of a finite and unambiguous sequence of steps (or instructions) to obtain a result from elements provided as input. For example, a cooking recipe is an algorithm for obtaining a dish from ingredients" (CNIL Report, Dec. 2017, https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf)
- "A finite sequence of formal rules (logical operations, instructions) to obtain a result from input material. This sequence can be the object of an automated execution process and can be based on models designed through machine learning" (Glossary of artificial intelligence, Council of Europe, (<https://www.coe.int/fr/web/artificial-intelligence/glossary>)

7

- The use of algorithms as an aid to decision making is not new, what is new is the amount of information that can now be processed and the speed of processing
- The increasing complexity of algorithms generates categorisations of algorithms
- What algorithms in labour relations? What is the reality of their use?

8

What are the consequences of using AI?

- At the macro level, the development of AI may lead to an evolution of work itself.
 - What will work be like tomorrow? How to accompany workers?
 - Doesn't AI have the potential to reinforce structural inequalities in the labour market?
- New forms of work organisation with the development of work platforms (which does not necessarily lead to a change in the work itself)
- What about algorithmic management of labour relations in companies?
 - A transformation of recruitment procedures? Career management?

9

The discriminatory risk produced by the algorithm

- The algorithm cannot function without information: the quality of the information depends on the quality of the algorithmic responses
- Designers' biases
- Non-representative information bases (problem of small panels in companies)
- The risk of discrimination generated by the use of proxies
 - See the decision of the Court of Justice Test Achat, 1 March 2011, C-236/09 (Opinion of the Advocate General: § 66: "It will be agreed that it is particularly easy to stipulate a distinction based on sex in insurance products. On the other hand, it is much more difficult to correctly assess and evaluate economic and social factors and the life habits of insured persons, and it is all the more difficult to monitor them as these factors may change over time. Practical difficulties alone cannot, however, justify the use of gender as a criterion of distinction by companies for reasons of convenience").

10

II. Existing instruments

- European non-discrimination law
- Directive 2006/54 of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation
- Directive 2000/43 of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin
- Directive 2000/78 of 27 November 2000 establishing a general framework for equal treatment in employment and occupation

11

European non-discrimination law

- Prohibition of direct discrimination
- Prohibition of indirect discrimination: if the result produced by the algorithm is discriminatory, the algorithm should be reviewed
- System of proof of discrimination

12

II. The existing instruments: The RGPD

- Regulation, 2016/679 of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data

Point 75 of the preamble: "Risks to the rights and freedoms of natural persons, of varying degrees of probability and severity, may arise from the processing of personal data which is likely to result in physical or material damage or moral harm, in particular where the processing may result in discrimination, identity theft or impersonation, financial loss, damage to reputation, loss of confidentiality of data protected by professional secrecy, unauthorised reversal of the pseudonymisation process or any other significant economic or social damage; where data subjects could be deprived of their rights and freedoms or prevented from exercising control over their personal data; where the processing concerns personal data revealing racial or ethnic origin, political opinions, religion or philosophical beliefs, trade-union membership, genetic data, data concerning health or data concerning sex life, or data relating to criminal convictions and offences or to related security measures where personal aspects are evaluated, in particular in the context of the analysis or prediction of factors relating to work performance, economic situation, health, personal preferences or interests, reliability or behaviour, location or movements, with a view to creating or using individual profiles; where the processing involves personal data relating to vulnerable natural persons, in particular children; or where the processing involves a large volume of personal data and affects a large number of data subjects.

13

The RGPD

- A number of principles apply:
 - The purpose principle limits how data can be used or re-used
 - Minimisation principle limits collection to only those data strictly necessary to achieve the purpose
 - Individuals must retain control over their data
 - Specific provisions on sensitive data (Article 9: "The processing of personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs or trade-union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning the sex life or sexual orientation of a natural person, are prohibited").
 - Principle of transparency, information
 - Article 22: the person has the "right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or significantly affects him or her in a similar way".

14

