

Algorithms, artificial intelligence and automated decisions concerning workers and the risks of discrimination

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Human resources managers

- Gathering as much information on the worker as possible in order to improve decision-making (recruitment, promotion, dismissals, increase working hours, geographical mobility, payment of wage bonuses, etc.).
- Compiling as much information as possible in order to gain a thorough understanding of the worker's skills, knowledge, aptitudes, attitudes, etc. enabling the decisions that best suit the company's interests.
- Gathering as much information as possible on its employees in order to know whether they will be productive, how well they will fit into the company's environment or what will motivate them to stay or to work harder.

Collection of information

Gathering information by using the new technologies

- (Facebook, LinkedIn and, currently, online reputation)



Technology has potentially allowed companies to access a larger volume of data at an affordable cost



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Digital surveillance was long used in offices. But it feels different to many people when they're working from home. (Elise Amendola / Associated Press)

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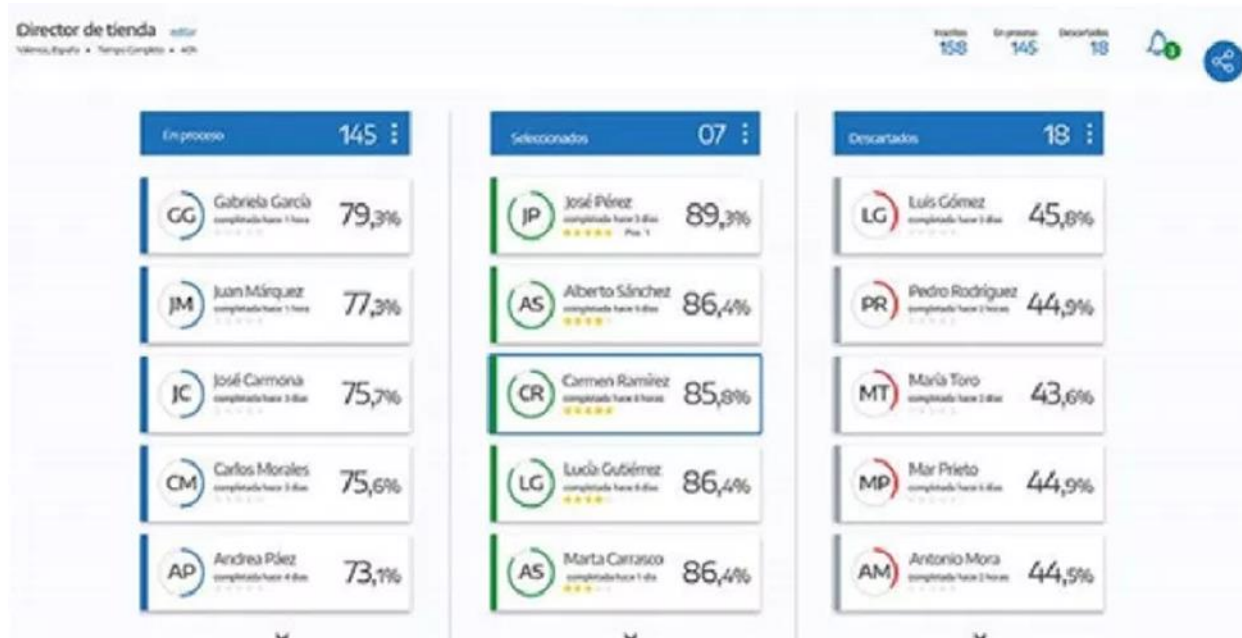
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- 72% of employers use it for teleworking
- Monitor connection times
- Activity during connection
- Record worker's screen
- Count mouse movements and keyboard clicks
- **Productivity index of the worker with all the information to compare with others**

Workers profiling and automated decision-making

Step Forward: Automatically gathering and processing the information



PROBLEM: Discrimination



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Jeffrey Dastin

8 MIN READ



SAN FRANCISCO (Reuters) - Amazon.com Inc's ([AMZN.O](#)) machine-learning specialists uncovered a big problem: their new recruiting engine did not like women.

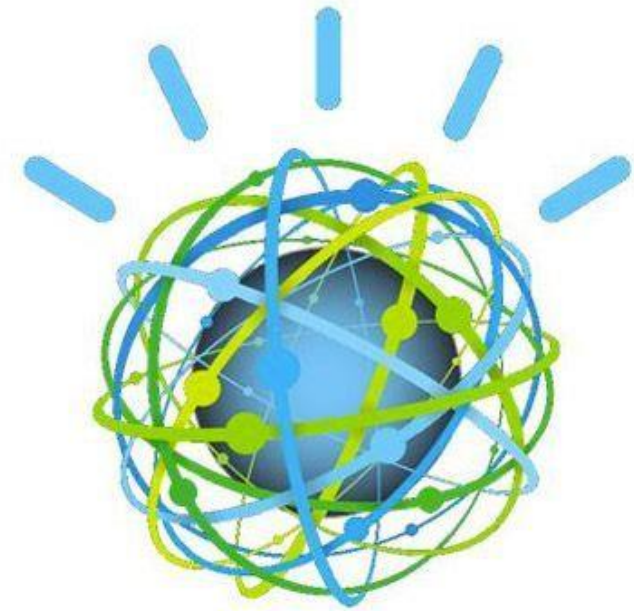
ALGORITHMIC BIASES

- 1) Technology seems capable of inferring certain personal features from other data. In other words, even if collecting data on trade union membership, religion, gender, sexual orientation or disability is forbidden, algorithms are able of obtaining this information indirectly through other data that do not refer to sensitive information.
- 2) The algorithm incorporates the factual reality as a learning factor when processing data, which means that the results obtained from these data will perpetuate existing biases in our society.
- 3) When an algorithm is in command, generally speaking, minorities will always be at a disadvantage. The science of statistics itself grants more value to decisions made with more available information. This means that there will be less information available concerning minorities (race, religion, sexual orientation, etc.), which will lead the algorithm to the understanding that making a decision in favour of a minority group is riskier than making one in favour of a majority group.

Assistant



Doctor (among others)



IBM Watson

Occupational Safety and Health issues



THE LAW

- GENERAL REGULATION OF DATA PROTECTION
- Art. 22
- The data subject shall have **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 similarly significantly affects him or her

Interpretation: what does it mean?

- **It is forbidden to make decisions based only on automated profiling or algorithm decision-making**
- Right “not to be subject” → it is forbidden to use
- “Based on *solely* automated processing” → need for a significant human intervention: **it does not suffice having a human validating the decisions made by the algorithm**
- Decisions that produce legal effects
 - → almost everything involving persons has legal effects including hiring, promotion, dismissal. E.g. Denial of employment is considered to be a legal effect as well as a denial of a loan from a bank.
 - → Still, they can be used in decisions concerning third algorithms or AIs.

The rationale behind the Law

- As we are not in a position to knowing if a algorithm is discriminatory we forbid its use for profiling and making decisions that impact on humans

The law has exceptions

If there is too much data, the use of algorithmic decisions are allowed.

This exception is an incentive to companies to gather even more data.

Spanish approach

- Workers' representative (worker concil, unions representatives) – right to be informed about the algorithm

▶ Thank you

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