



lists of instructions to determine how programs read, collect, process, and analyze data to generate output

What is an algorithm ?

systematic, repeatable errors in a computer system that result in unfair outcomes

What is algorithm bias ?

a barrier to understanding their functioning
change frequently according to input and output
a network of many interrelated programs and data inputs

Complexity of algorithms

Can reflect the bias of human designer
using human-selected criteria
reinforce stereotypes and preferences
bias as a result of design

Issues with methods used

defining 'fairness'
complexity (of understanding)
lack of transparency

Problems with further research

USA : No general legislation controlling algorithmic bias
Europe: General Data Protection Regulation
addresses algorithmic bias in profiling systems

Regulation

Books
Weapons of Maths Destruction (Cathy O'Neil)
AI : Dangers to Humanity (The AI Organisation)
Artificial Unintelligence: How Computers Misunderstand the World (Meridith Broussard)
Videos/Films
Weapons of Mass Surveillance
Artificial intelligence and algorithms: pros and cons (YouTube)
"The Secret Rules of Modern Living Algorithms" - (YouTube)

Find out more...

Uses of Algorithms

- Criminal justice
- Elections
- Hiring
- Facial Recognition
- Artificial Intelligence
- Surveillance

Types of bias

- Pre-existing
- Technical
- Emergent
- Correlations
- Unanticipated uses

Impacts

- Online Hate Speech
- Sexual Discrimination
- Race
- Gender
- Ethnicity
- Credit Determination
- Sexuality