14. AUTOMATED DECISION MAKING

Elisa Spiller, Ph.D.
University of Padova | Dept. of Mathematics
Course of Law and Data 2021-2022

LEARNING OBJECTIVES

- Case Discussion: Loomis vs. Wisconsin

- Automated Decision Making Systems

- Individual Automated Decision Making Systems within the GDPR

LOOMIS vs. WISCONSIN

COMPAS CASE

Correctional
Offender
Management
Profiling for
Alternative
Sanctions

- COMPAS is a case management and decision support tool developed and owned by Northpointe (now Equivant) used by **U.S. courts** to assess the likelihood of a defendant becoming a recidivist.

- COMPAS uses **an algorithm to assess potential recidivism risk**. Northpointe created risk scales for general and violent recidivism, and for pretrial misconduct. According to the COMPAS Practitioner's Guide, **the scales were designed using behavioral and psychological constructs "of very high relevance to recidivism and criminal careers."**
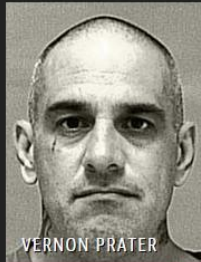
COMPAS CASE

	HUMANS	COMPAS
Accuracy (overall)	67.0%	65.2%
False positive (black defendants)	37.1%	40.4%
False positive (white defendants)	27.2%	25.4%
False negative (black defendants)	29.2%	30.9%
False negative (white defendants)	40.3%	47.9%

- In 2016, a **ProPublica investigation** found that "blacks are almost twice as likely as whites to be labeled a higher risk but not actually re-offend," whereas COMPAS "makes the opposite mistake among whites. They are much more likely than blacks to be labeled lower-risk but go on to commit other crimes."

- ProPublica also found that only 20 percent of people predicted to commit violent crimes actually went on to do so.

Two Petty Theft Arrests

VERNON PRATER — LOW RISK 3
BRISHA BORDEN — HIGH RISK 8

Borden was rated high risk for future crime after she and a friend took a kid's bike and scooter that were sitting outside. She did not reoffend.

Two Petty Theft Arrests

VERNON PRATER
Prior Offenses
2 armed robberies, 1 attempted armed robbery

Subsequent Offenses
1 grand theft

LOW RISK 3

BRISHA BORDEN
Prior Offenses
4 juvenile misdemeanors

Subsequent Offenses
None

HIGH RISK 8

Borden was rated high risk for future crime after she and a friend took a kid's bike and scooter that were sitting outside. She did not reoffend.

COMPAS CASE

Loomis v. Wisconsin (2016)

- The case challenged the State of Wisconsin's use of closed-source risk assessment software in the sentencing of Eric Loomis to six years in prison.

- The case alleged that using such software in sentencing violates the defendant's right to due process because it prevents the defendant from challenging the scientific validity and accuracy of such test.

- The case also alleged that the system in question (COMPAS) violates due process rights by taking gender and race into account.

- Hearing this case would have given the court "**the opportunity to rule on whether it violates due process to sentence someone based on a risk-assessment instrument whose workings are protected as a trade secret**."

PLEEDINGS
BEFORE THE WISCONSIN SUPREME COURT

- the right to be sentenced to a particular punishment on the basis of **accurate information** that was not available to them because **industrial property rights** covered it;

- the right to be sentenced to an individualized punishment; and

- the improper use of the gender datum in determining punishment.

CONCLUSIONS
OF THE COURT

- Risk scores cannot be used as determining factors in deciding whether the offender can be effectively and safely controlled within the social community (**non exclusivity**)

- The court stated that Loomis still could challenge the final risk calculation results. Although the operating processes remain secret, the COMPAS manual explains that the scores are mainly based on statistical data (**relevant information**)

- It has been determined that such software may be considered relevant factors in such matters as:

    - The imposition of alternative measures to incarceration for individuals at low risk of recidivism.

    - The assessment of whether an offender can be safely supervised within society, including through probation.

    - The imposition of terms and conditions for probation, supervision, and possible sanctions to violations of rules under alternative regimes to incarceration. (**contextual limitations**)

TAKE A WAY QUESTIONS

Automation… of what?

Who is liable?

How to prove it?

2. THE HERITAGE OF THE GDPR

IN THE GDPR

Article 22

Automated individual decision-making, including profiling

1. 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.

> right not to be subject

> decision based solely on automated processing,

- including profiling

> legal effects [or] similarly significantly affects

EXCEPTIONS IN THE GDPR

Article 22

Automated individual decision-making, including profiling

2. Paragraph 1 shall not apply if the decision:
   a) is necessary for entering into, or performance of, a contract between the data subject and a data controller;
   b) is authorised by Union or Member State law to which the controller is subject and which also lays down suitable measures to safeguard the data subject's rights and freedoms and legitimate interests; or
   c) is based on the data subject's explicit consent.

necessary within contracts

prescribed by law

- **suitable measures** to safeguard the data subject's rights and freedoms and legitimate interests

explicit consent

SUITABLE MEASURES IN GDPR

Article 22

Automated individual decision-making, including profiling

In the cases referred to in points (a) [i.e. **contracts**] and (c) [i.e. **consent**] of paragraph 2, the data controller shall implement **suitable measures** to safeguard the data subject's rights and freedoms and legitimate interests, ***at least*** the right to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision.

the right to obtain human intervention

the right to express his/her point of view

the right to contest the decision

how to?

STUITABLE MEASURES

Article 22

Automated individual decision-making, including profiling

In the cases referred to in points (a) [i.e. **contracts**] and (c) [i.e. **consent**] of paragraph 2, the data controller shall implement **suitable measures** to safeguard the data subject's rights and freedoms and legitimate interests, ***at least*** the right to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision.

> the right to obtain human intervention

> the right to express his/her point of view

> the right to contest the decision

Recital 71

In any case, such processing should be subject to suitable safeguards, which should include specific information to the data subject and the right to obtain human intervention, to express his or her point of view, to obtain an explanation of the decision reached after such assessment and to challenge the decision.

> the right to obtain specific information

> the right to obtain human intervention

> the right to express his/her point of view

> the right to obtain an explanation

> the right to contest the decision

3. THE PROMISES OF EU AI STRATEGY

THE TWO FACES OF THE SAME COIN

Safety and liability are the two side of the same coin: they apply at different moment and reinforce each other. While rule to ensure safety and protect fundamental rights will reduce risks, they do not eliminate those risks entirely. Where such a material risk materialized, damages may still occur

Safety

- the condition of being protected or protecting something/someone from something/someone that may likely cause danger, risk, or injury

Liability

- the state of being legally responsible for doing or not doing something and for the negative consequences that comes from a violation or negligent behaviour

COMPLEMENTARY APPROACH

AI REGULATION

Article 13
Transparency and provision of information to users

1.High-risk AI systems shall be designed and developed in such a way to ensure that their operation is sufficiently transparent to enable users to interpret the system's output and use it appropriately. An appropriate type and degree of transparency shall be ensured, with a view to achieving compliance with the relevant obligations of the user and of the provider

AI LIABILITY DIRECTIVE

Article 3

Disclosure of evidence and rebuttable presumption of non-compliance

1. Member States shall ensure that national courts are empowered, either upon the request of a potential claimant who has previously asked a provider, a person subject to the obligations of a provider pursuant to [Article 24 or Article 28(1) of the AI Act] or a user to disclose relevant evidence at its disposal about a specific high-risk AI system that is suspected of having caused damage, but was refused, or a claimant, to order the disclosure of such evidence from those persons.