# Artificial Intelligence in Prosecution

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# My Goals

- Give examples of where AI is already impacting the criminal justice system.
- Provide an overview of what AI is so that you can properly identify AI tools and ask questions about their use.
- Give a case example that demonstrates many of the ways AI is being or might be used in prosecution.

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# How AI is Affecting Prosecution

New ways to commit old crimes such as fraud

New tools for tedious or repeated tasks like drafting documents such as briefs

New ways to identify & investigate criminal activity such as facial recognition

New ways to review evidence such as automated video search

New tools for recommending action such as diversion eligibility assessments

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# What AI is doing

- AI is trained on historical data to find patterns & relationships
- It uses factors/features/variables in the data to find commonalities across cases
- If there are gaps in the data, then AI struggles to extrapolate to an unforeseen situation - “out of sample”

| Name | Letter |
|---|---|
| Ale | |
| Gio | |
| Olof | O |
| Ben | |

Easy

| Name | Letter |
|---|---|
| Ale | |
| Gio | |
| Olof | O |
|  | |

Hard

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# Types of AI Models

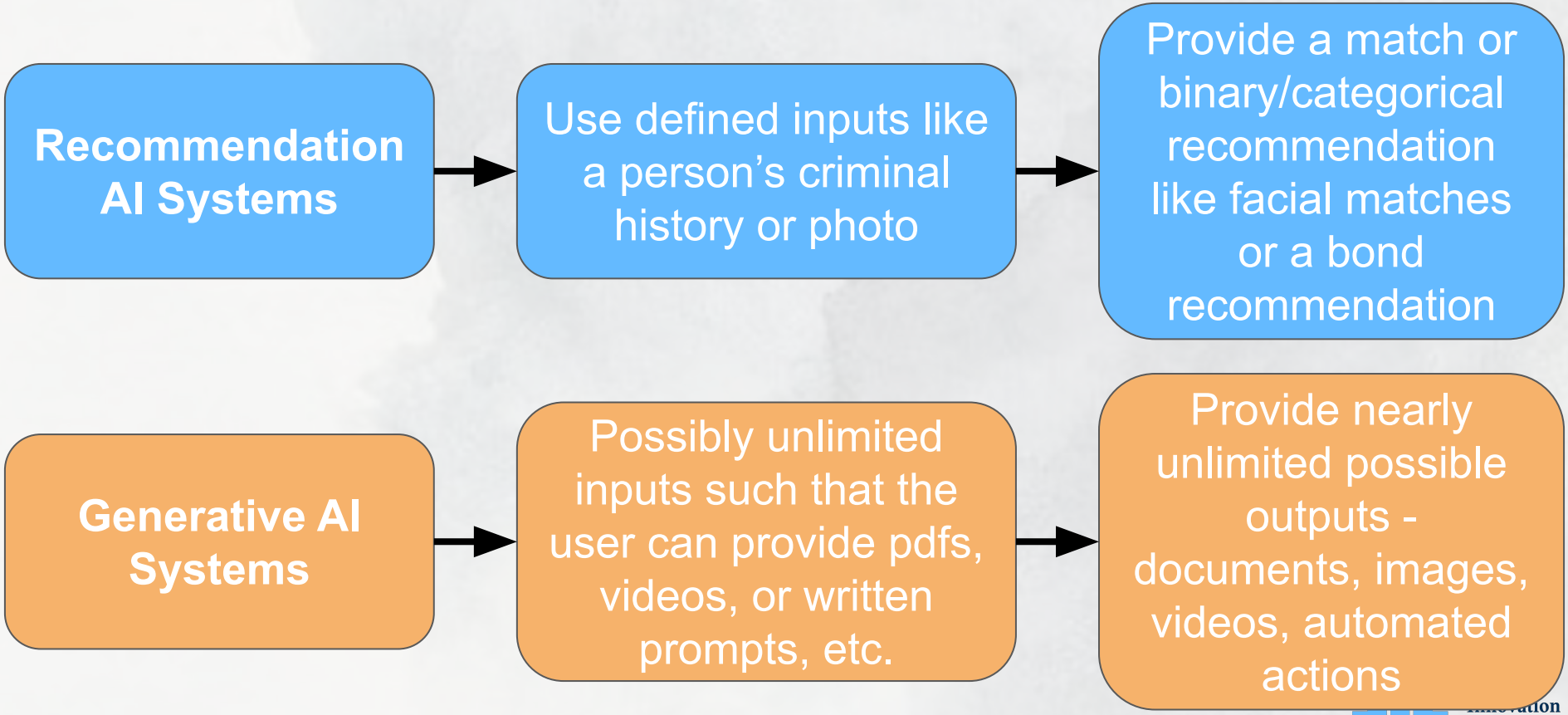
**Interpretable / "Glass Box" Models**

- The model "formula" uses known inputs for known output e.g. Y = mx + b
- The user then knows the "reasoning" behind the model - like knowing exactly why an officer made an arrest
- Can be just as effective as "black box"

**"Black Box" Models**

- The model "formula" is not known by the user
- Because how the model uses the data to reach its output is unknown, model validation is more challenging - like trying to assess if a stop was for a pretext or not e.g. what's the *true* reason is not known
- Can likely provide more flexible outputs

# Types of AI Systems



# What are recommendations doing?

- The training data consists of features and a "correct" answer
- The algorithm finds the strength of the links between the features and the answers
- The algorithm may be *interpretable* or a "black box" where the features used or their relationship "strength" are unknown

**Interpretable Example**
A pre-trial detention recommendation system uses historical data of people that FTA to identify factors associated with people that tend to FTA or commit offenses on release.

**Black Box Example**
A license plate reader uses historical data to "learn" how to interpret letters and numbers. It uses that to match images of license plates to a suspect vehicle license plate.

# What is generative AI doing?

- The training data consists of many examples, e.g. many text documents for text writing
- The algorithm finds the *probability* of the next object based on the frequency it "learns" from the examples

Example

A text generator is suggesting the phrase completion:

| | | |
|---|---|---|
| The suspect … | ran from the police. | 98% |
| | gave himself up to the police. | 1.9% |
| | gave herself up to the police. | 0.1% |

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# Case example

Scenario: Theft at a mall caught on video

An investigator in the DA's office:

- Uses an AI imaging tool (*already exists*) to "clarify" the image – finally the crime shows will be accurate
- Uses text generators to write subpoenas (*already exists*) for additional video from other mall stores
- Uses an AI video search tool (*already exists*) to identify when the suspect appears in each video file
- Uses face matching software (*already exists*) to match an image from the video to individuals based on DMV records to identify a suspect

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# Case example

Scenario: A suspect has been arrested using the information gained from the investigator

A prosecutor in the DA's office:

- Reviews police reports automatically redacted of race information (*already exists*)
- Receives an automatic recommendation from the a case management system for the individual's fit for diversion (*soon to exist*)
- Searches the police database for "similar" crimes to find thefts with a similar pattern and suspect (*already exists*)
- Uses a text generator to write a bond motion (*already exists*) by uploading police reports, including from additionally identified incidents

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# Case example

Scenario: Prosecutor and defense counsel engage

The prosecutor in the DA's office:

- Reviews their plea offer against a recommended plea offer based on historical office pleas (*soon to exist*)
- Uses an evidence redaction tool to blur faces and reduce videos for discovery (*already exists*)
- Compiles an evidence packet for defense counsel that searches the office's and the police's database to ensure all evidence is gathered for discovery (*already exists*)
- Uses a text generator to draft replies to any filed defense motions (*already exists*)

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# Companies/tools in this space

- Image generation
- Legal text generation
- Legal decision review
- Video redaction
- Evidence storage and search

TOPAZ LABS

casetext
Part of Thomson Reuters

LexisNexis

Microsoft

equivant
SUPERVISION

AXON

NICE

Patternizr

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# AI Concerns & Opportunities

- Remember, these models use historical data to find patterns and relationships.
- So the patterns and relationships models find are a reflection of human processes and choices. This includes policy choices of what is illegal and how we police and punish.
- Creating these models then based on this data is an opportunity to reflect on those choices, but also risks encoding prior choices into a model if not critically examined.

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# Thank you!

**Sources:**


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