Start Using Justifications When Explaining AI Systems to Decision Subjects

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To the paper

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Position

People who are affected by automated decisions not only need explanations of how decisions are made, but also justifications of why they are legitimate.

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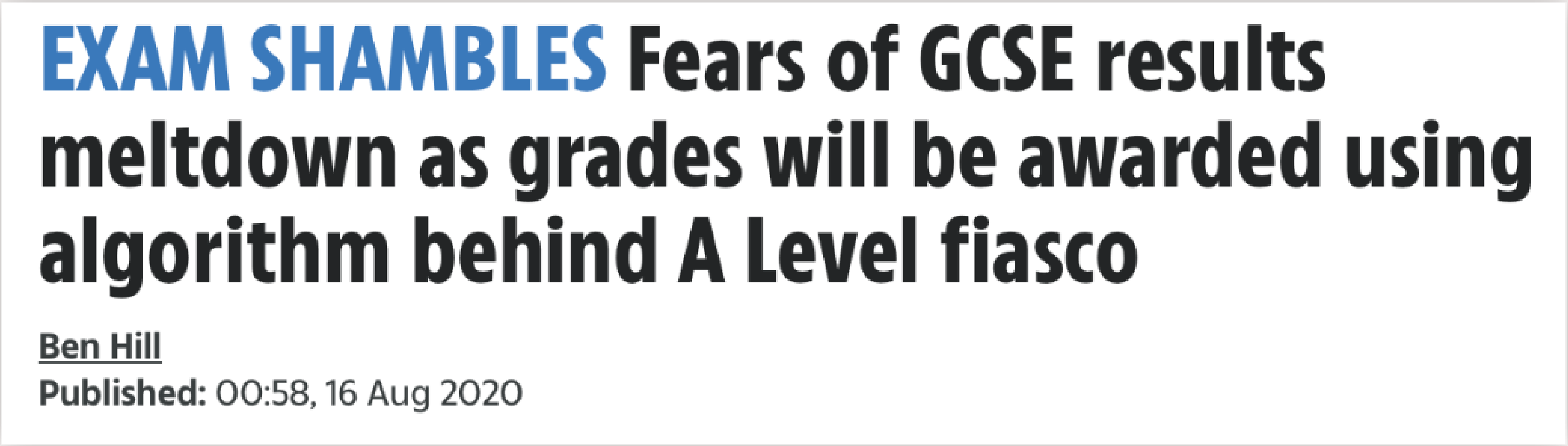
What are automated decisions?

- Made by systems that assist or replace human decision-making
- Increasingly embedded in institutional procedures
- Often operate as “black boxes”

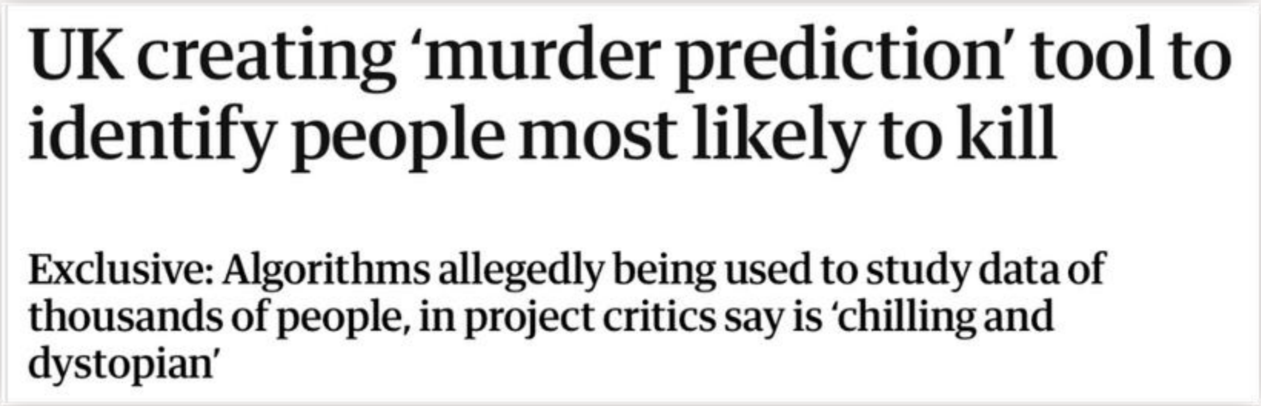


EXAM SHAMBLES **Fears of GCSE results meltdown as grades will be awarded using algorithm behind A Level fiasco**

Ben Hill

Published: 00:58, 16 Aug 2020

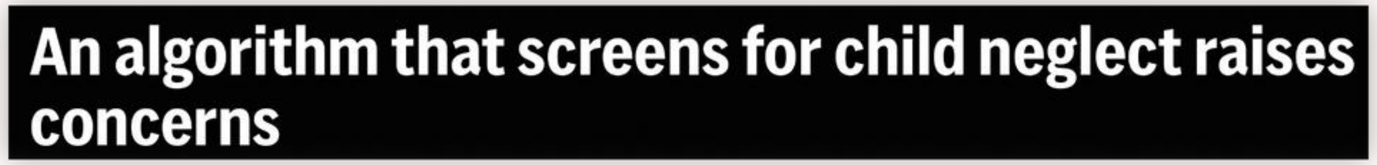
The Sun 08/20



UK creating ‘murder prediction’ tool to identify people most likely to kill

Exclusive: Algorithms allegedly being used to study data of thousands of people, in project critics say is ‘chilling and dystopian’

The Guardian 04/25

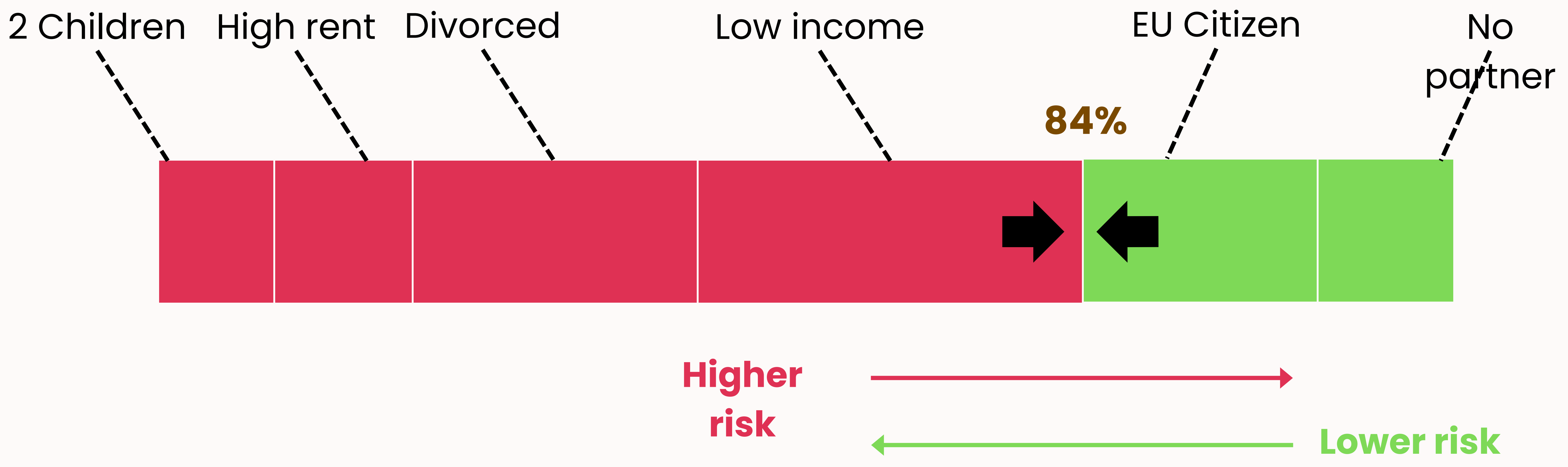


An algorithm that screens for child neglect raises concerns

AP 04/22

What explanations usually do

- *Help humans understand how a model reaches its outputs → **descriptive***
- **Best approximations**, not ground truth



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What explanations should also do

- *Justify the goals and values that guide design and deployment → **normative***
- **Every automated system embeds human intentions:**
  - automates **human-defined rules**, or
  - learns from **past human decisions**, or
  - optimises a **human-chosen target** using **human-chosen data**

These are explainable!

Why do we need justifications?

1. **To address decision subjects' epistemic needs**
2. **To assign accountability throughout system lifecycle**
3. **To support decision subjects in accepting or contesting decisions**

- ***What will happen to me now?***
- ***Is this fair?***
- ***How can I change this?***
- ***Who can I contact?***

Designing justifications

Justifications describe the goals and values that guide design and deployment of an automated system

Good justifications are

1. **Normative –** focus on values and intentions rather than mechanisms
2. **Argumentative –** provide multiple viewpoints
3. **Challengeable –** invite opposition
4. **Relational –** adjust to the knowledge of the recipient

Key takeaways

- **Decision subjects need justifications, not only descriptive explanations**
- **Justifications:**
  - **address decision subjects' epistemic needs**
  - **support accountability**
  - **support acceptance or contestation**
- **Good justifications are normative, argumentative, challengeable, relational**

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Thank you!

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