

Start Using Justifications When Explaining AI Systems to Decision Subjects

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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.

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’

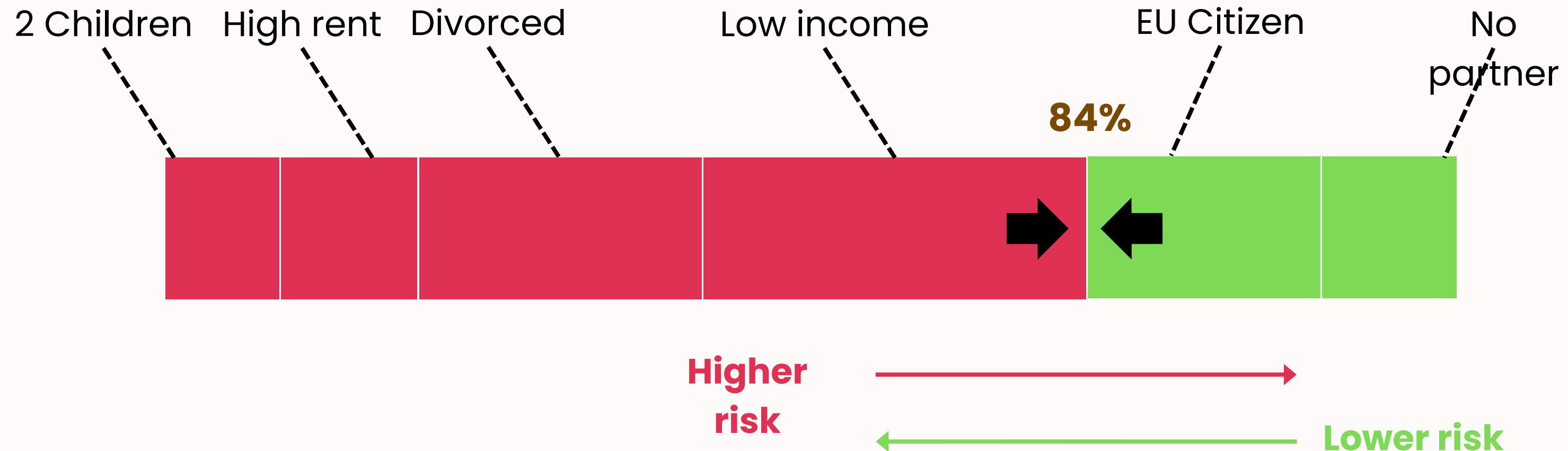
The Guardian 04/25

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



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**

Thank you!

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