

A photograph of three children playing soccer on a grassy field at sunset. The sun is low on the horizon, creating a warm, golden glow. A boy in a striped shirt is about to kick a soccer ball. A girl in a yellow shirt is running towards him. Another child is partially visible behind them. The sky is blue with some clouds.

Biases in technology: Adopting innovation without increasing inequalities

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Clear Horizon

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Data & Insights Lead at **Clear Horizon**

Demystifying complex data and digital solutions

Digital and data equality

Today – **“Tech innovation & inequalities”**

AES 2022 – “Applying Advanced Technologies to MEL”



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TECH INNOVATION & INEQUALITIES

Why caring

What inequalities?

How to minimise them?

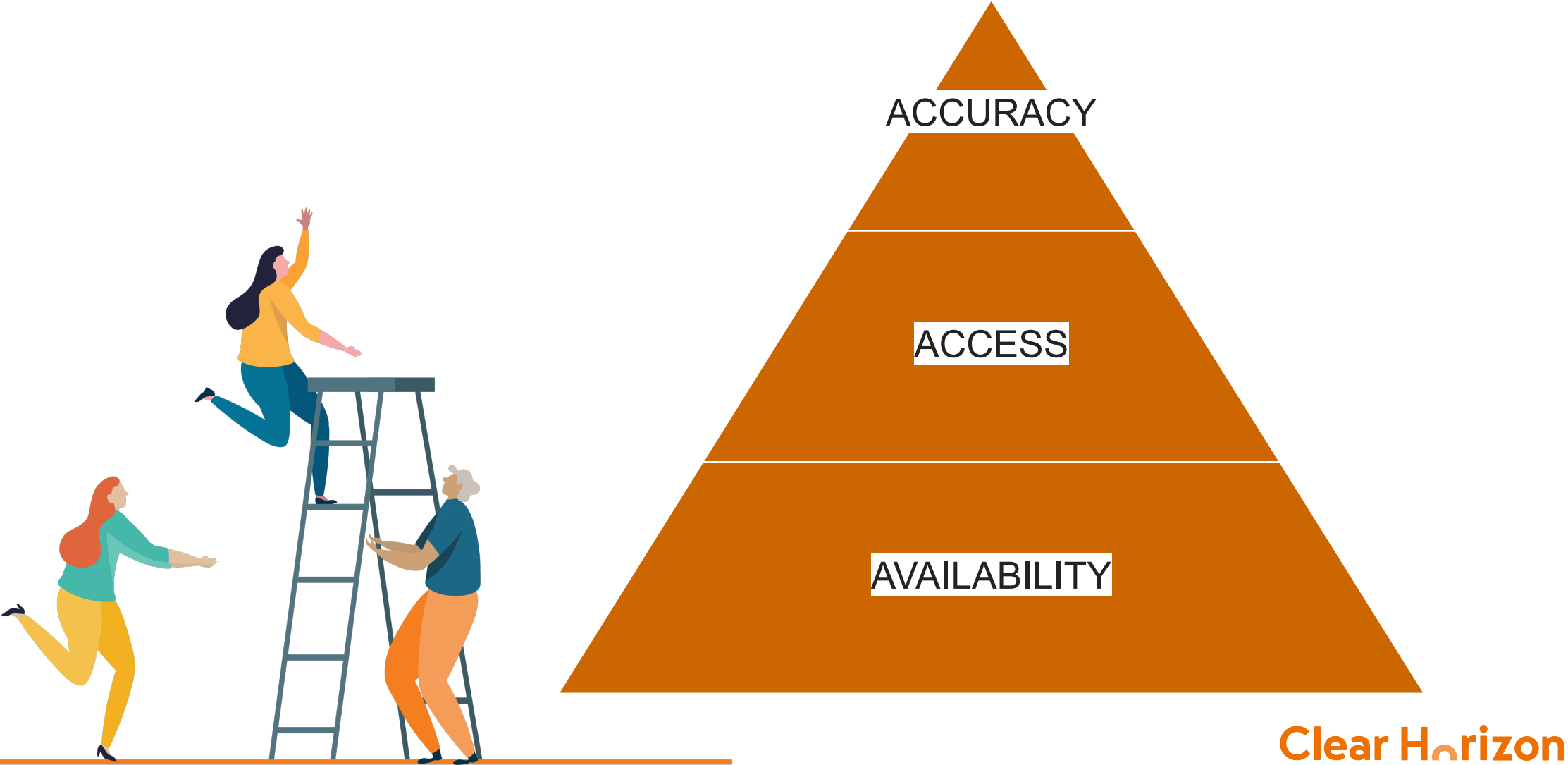
Conclusion

WHY

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WHAT

WHAT INEQUALITIES?



AVAILABILITY

*Limited availability of **fair** and **non-profit-driven** tech innovation.*

The CREATOR BIAS → Solving what you know

The FUNDING BIAS → Funding “profitable” solutions



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ACCESS



Inability to leverage the value of the solution to its fullest.

The SCALABILITY TRAP → Less common challenges are deprioritised

The CAPABILITIES GAP → Lack of skills or time to implement the solutions

The DIGITAL EXCLUSION → Groups don't have equal access to digital solutions

ACCURACY (& FAIRNESS)

Inaccurate and/or unfair representation of the world because of three layers:

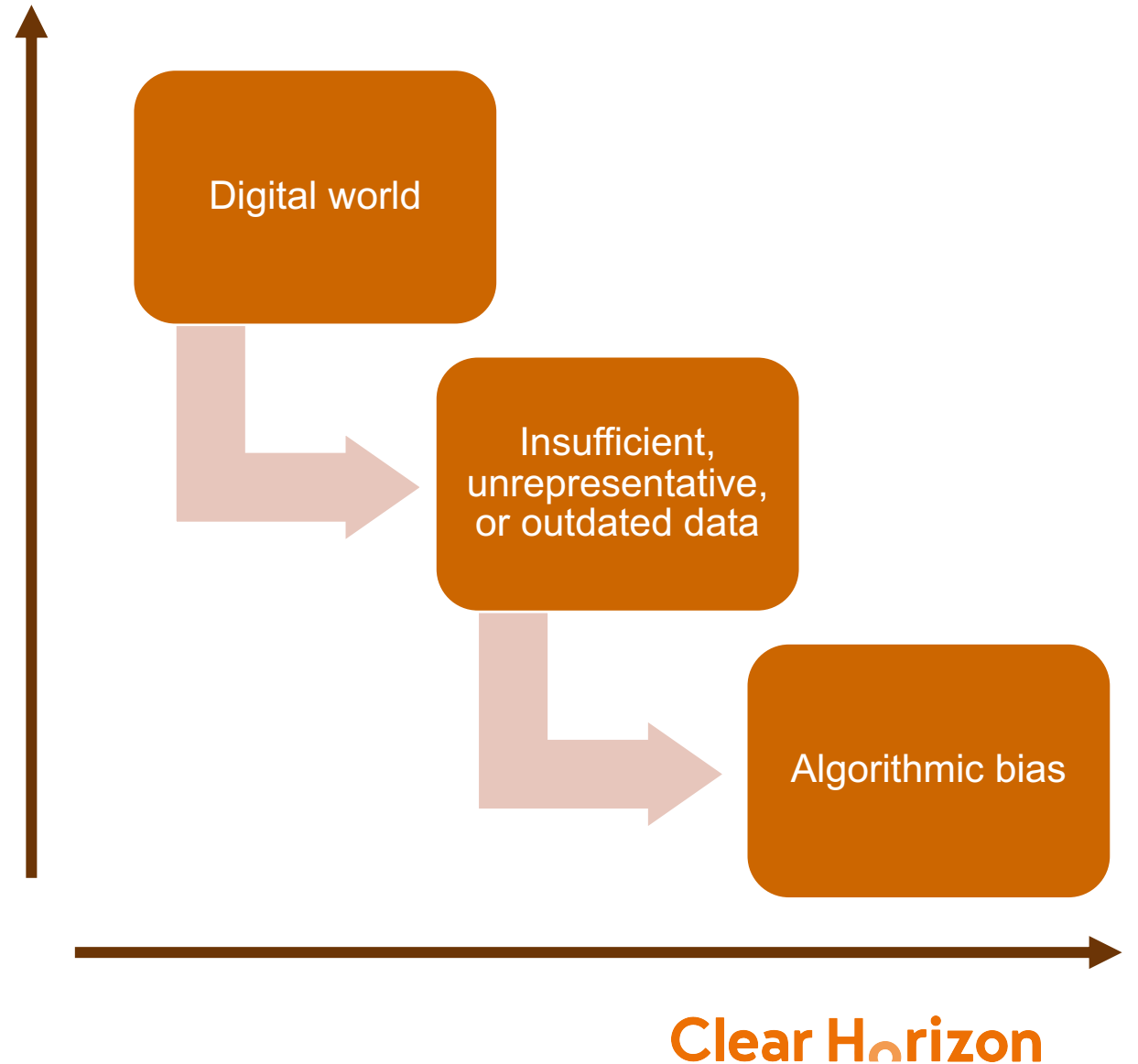
The (DIGITALLY AVAILABLE) WORLD

The COLLECTED DATA

The ALGORITHMIC BIAS



The Guardian
article



HOW

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LET'S DEVELOP OUR INNOVATIVE SOLUTION!

We need:

- Assessing **educational programs in rural areas**
- Both students and teachers to **provide data and explore the progress.**
- An **accessible platform** that can collect information, manage it, and process the insight in the **least biased** way.



AVAILABILITY

SHOW THE GAPS → Highlight what is missing

DO IT → Solve the problem you know (or find the people who can solve it **with** you)

JOIN (TECH) FORCES → Bring together available innovations to create the one you need



Our fictive platform:

Find low-cost and existing tools to build a Minimum Viable Product (MVP)

ACCESS

COLLABORATION → Bring the ones who will use the solution at the table

ITERATION → Keep it to the simplest version needed at each cycle

RETHINK FEEDBACK → How biased is your feedback method?

INVEST IN TRAINING → Innovative culture is an asset



Our fictive platform:

Will everyone be able to have the same opportunities to provide data?

More isolated homes?

Some students might not understand words in the same way?

ACCURACY

DEMYSTIFY THE BLACK BOX →

Understand the model

FINE-TUNING → Adapt the model

FEEDBACK (AGAIN) → Keep the door
open for reviews and iterations

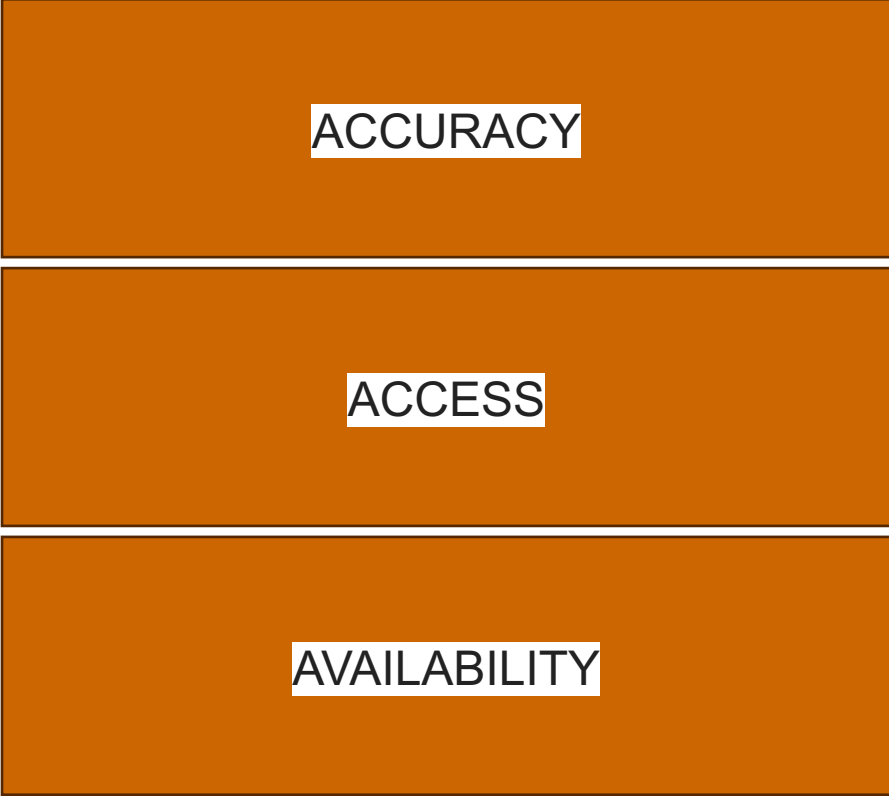


Our fictive platform:

Test outputs from different models with the people providing the data – do they agree with the process?
Document the methodology and models used

CONCLUSION

WHAT INEQUALITIES?



STAY CONNECTED & KEEP LEARNING



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