Digital Trialling Framework: monitoring policy trials in near-real time for timely data-driven decisions

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Outline

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- What data do we have?

- Challenges and opportunities

- Evaluating a trial: traditional approach

- Can we monitor and evaluate a trial differently?

- What we've done

- What we've learned

What data do we have?

- Large amount of data

- Huge volumes of complex data & interactions

- Continuously updated service

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Challenges …

- Highly skilled data scientists, data engineers, developers, etc. needed

- Data structured with the end user and operations in mind

- Data support service in real time

- Complexity of the data

… and opportunities

- Real time information is available

- It is updated frequently

- The information is detailed

Evaluating a trial: traditional style

- Traditional policy making has seen evaluation as an ex-post activity

- Evaluation in modern policy making is much more than traditional ex-post evaluation

- Piloting can play a key role in the evaluation process

- Long time lag between a start and evaluation results

Why new ways of evaluation are needed

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- Timely

- Agile

- Fast and dynamic world

Can we monitor and evaluate a trial differently?

We can try and develop a robust mechanism collecting data, transforming them into features, and providing information about trial's performance:

- in real-time

- or at least near-real-time

- allowing agile business decisions prior to the final evaluation

Why it's challenging

We need to *digitally* know who is on a trial and who is in a control group

We need to make sure that the distribution between the two groups is not biased

We need to make sure that we get and monitor the *correct* (!) features:

- working with customers to identify success criteria for a trial
- finding the right information to create features reflecting the evaluation criteria
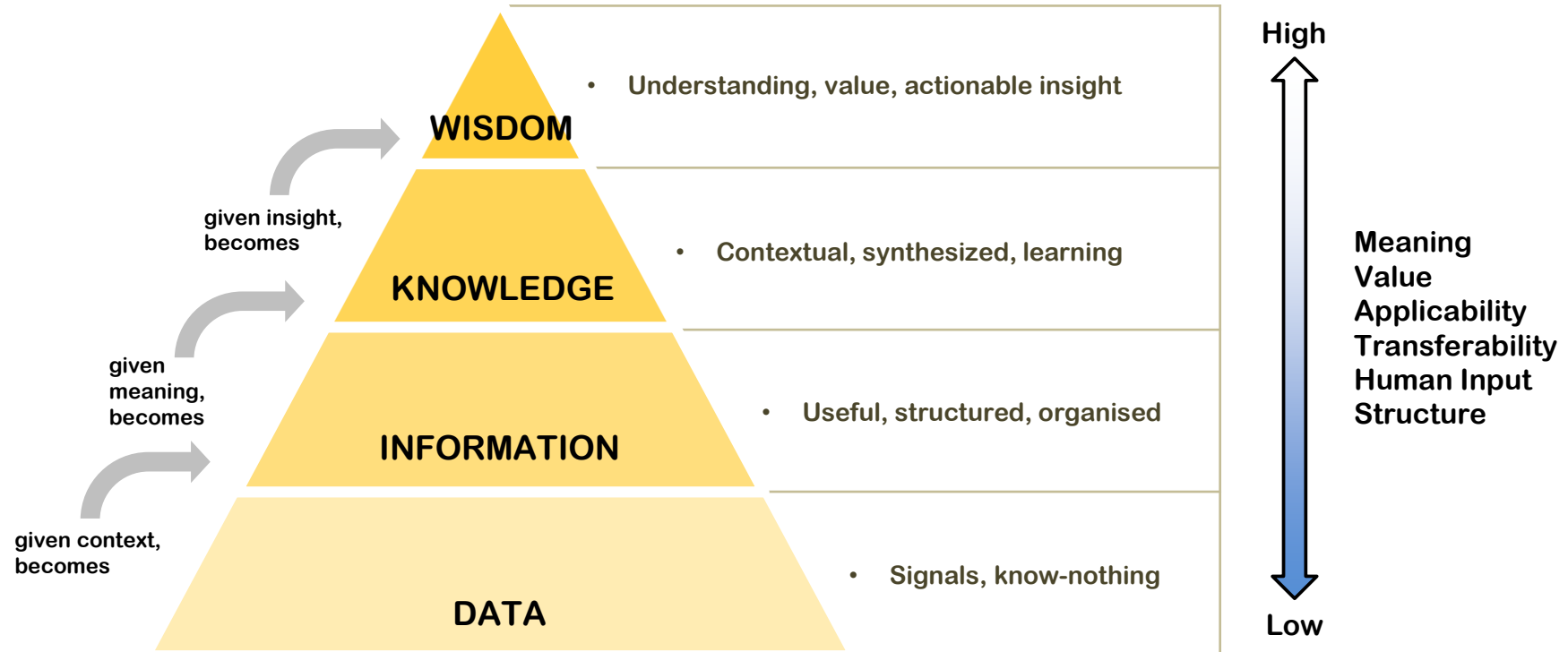
What we have done?

A robust *semi*-automated, repeatable data pipeline that produces a canonical dataset on demand containing the agreed features

A Trial Monitoring Tool that visualises the critical behaviours and success measures

Still a proof of concept...

Data vs information

What we have learned

- Collaboration with the stakeholders to understand their needs

- We need to invest [a lot of] time to understand the data due to its complexity! But it pays off.

- The new agile way of monitoring trials is the future!