You Can Call me AI

Dr. Charles Knight – Senior Consultant (I for one welcome our new AI Overlords)

@charlesknight
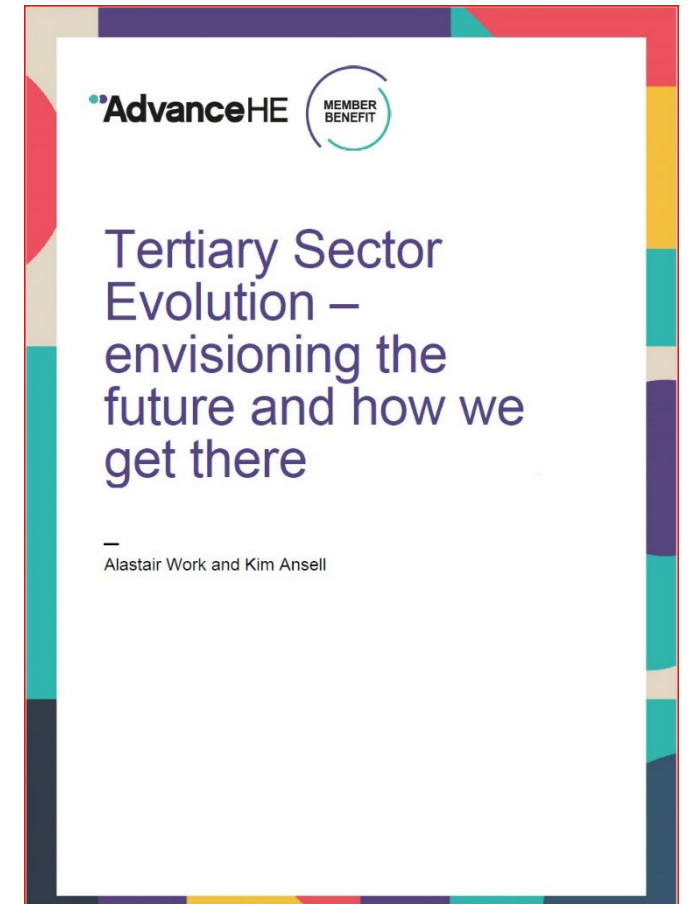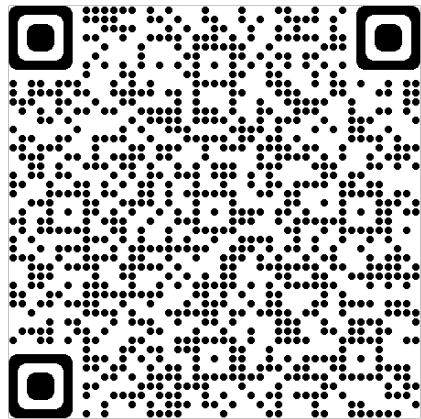
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A quick disclaimer

Forward looking statements should not be taken as a reflection of Advance HE policy or as an official viewpoint of the organisation.

I'll be wrong about most of this.

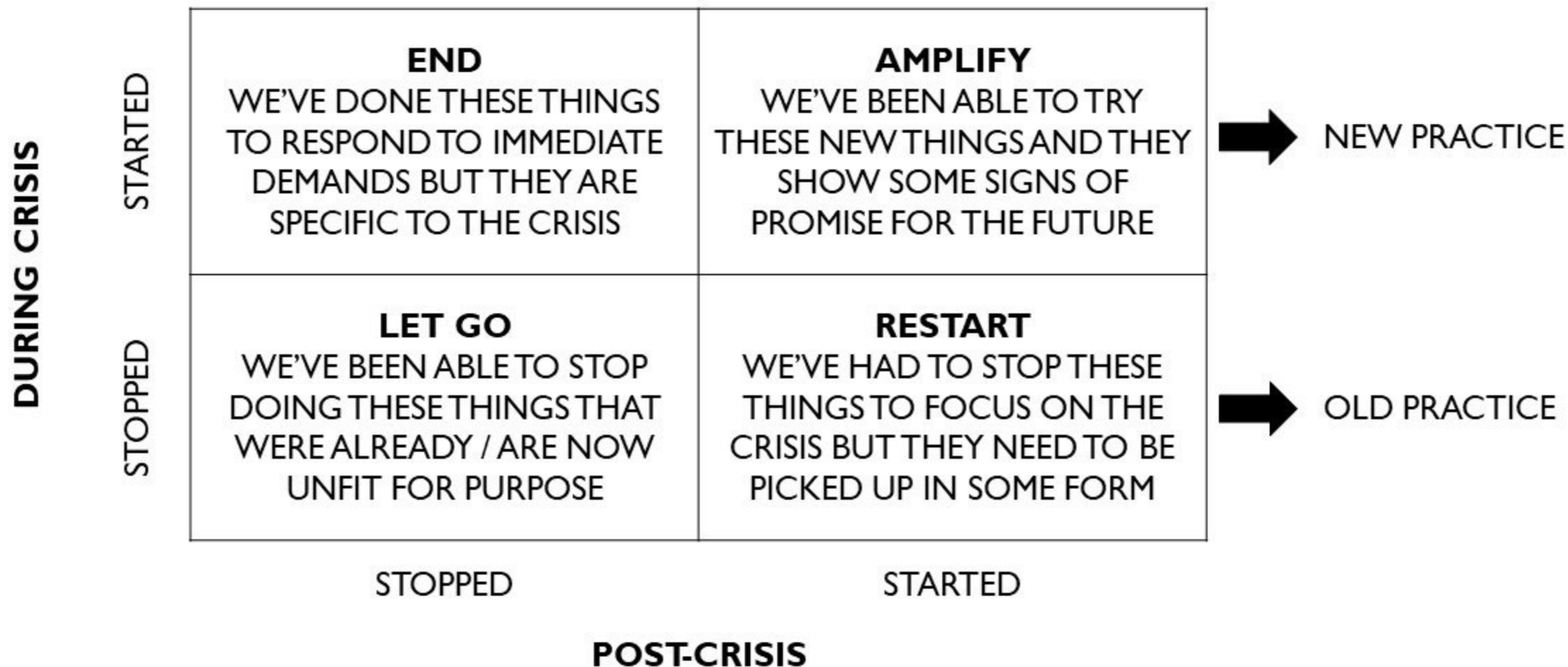AdvanceHE

The Future

- Govt Control and influence
- SWOT
- Aspirations
- How do we get there?

AdvanceHE MEMBER BENEFIT

Tertiary Sector Evolution – envisioning the future and how we get there

—
Alastair Work and Kim Ansell

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Understanding crisis-response measures

Collective Sense-making

RSA

DURING CRISIS

STARTED

END
WE'VE DONE THESE THINGS TO RESPOND TO IMMEDIATE DEMANDS BUT THEY ARE SPECIFIC TO THE CRISIS

AMPLIFY
WE'VE BEEN ABLE TO TRY THESE NEW THINGS AND THEY SHOW SOME SIGNS OF PROMISE FOR THE FUTURE

→ NEW PRACTICE

STOPPED

LET GO
WE'VE BEEN ABLE TO STOP DOING THESE THINGS THAT WERE ALREADY / ARE NOW UNFIT FOR PURPOSE

RESTART
WE'VE HAD TO STOP THESE THINGS TO FOCUS ON THE CRISIS BUT THEY NEED TO BE PICKED UP IN SOME FORM

→ OLD PRACTICE

STOPPED   STARTED

POST-CRISIS

RSA (2020) www.thersa.org

What is going on?

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MERs, SNC, B4, PROCEED....

UNIVERSITY GUIDE

Is a university degree still worth the cost?

The average student debt is about £50,000, so it's more important than ever to research the right institution and course

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Space and Place

Virtual Space no place

It's all about units?

Other things people want to talk to me about

- Contract cheating
- Student engagement
- Managing an excellent hybrid experience
- Booming International numbers and providing a good experience
- Govt regulation

But one thing in particular people want to talk to me about….

AI - How it works

in a couple of minutes and with very little technical detail. – please can I ask the computer scientists don't correct me as I go through as it will break my confidence - Ask for the chef special.

What is AI?

Opinion | We warned Google that people might believe AI was sentient. Now it's happening.

By Timnit Gebru and Margaret Mitchell

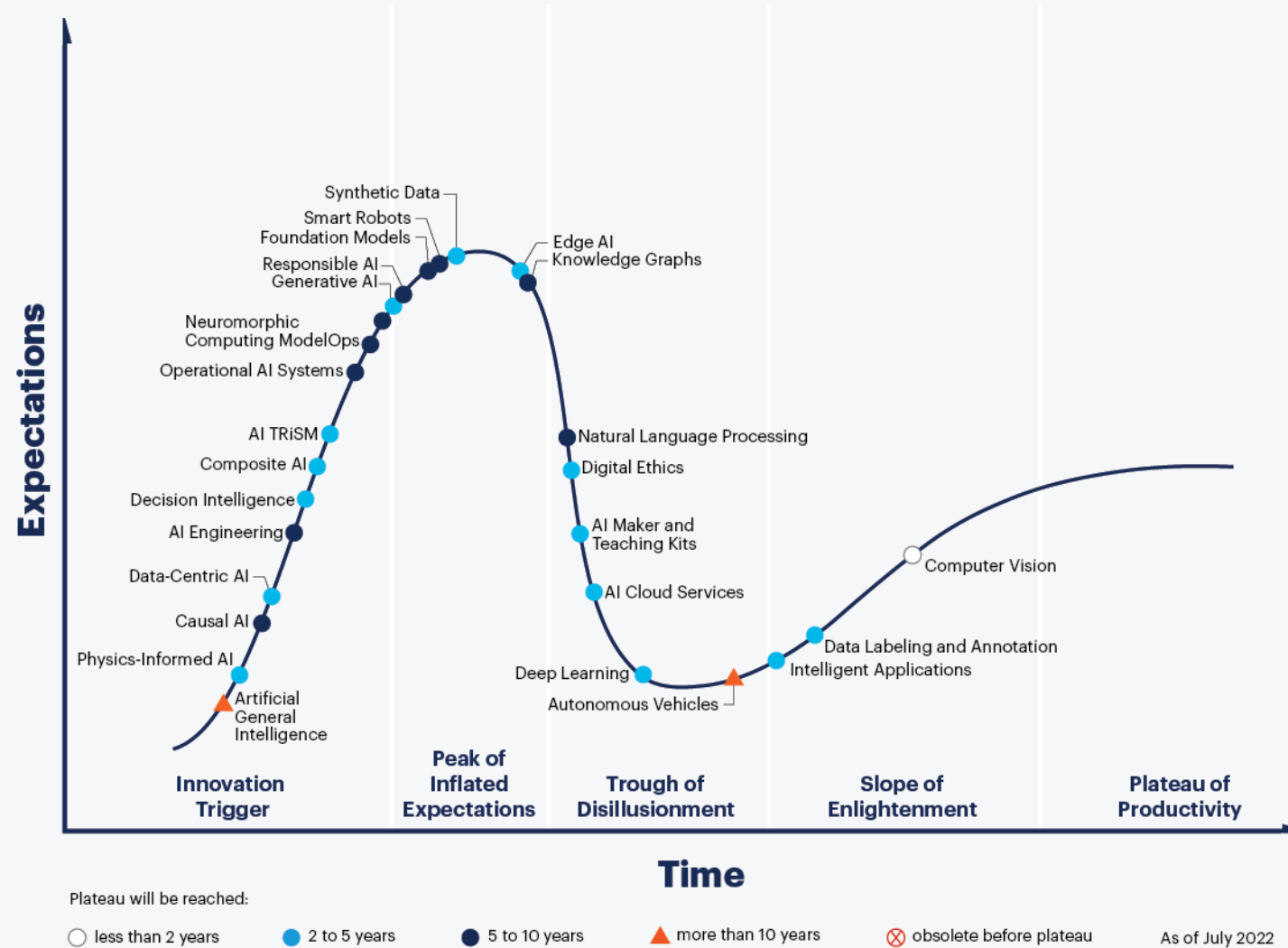Google engineer put on leave after saying AI chatbot has become sentient

Blake Lemoine says system has perception of, and ability to express thoughts and feelings equivalent to a human child

Business Ethics

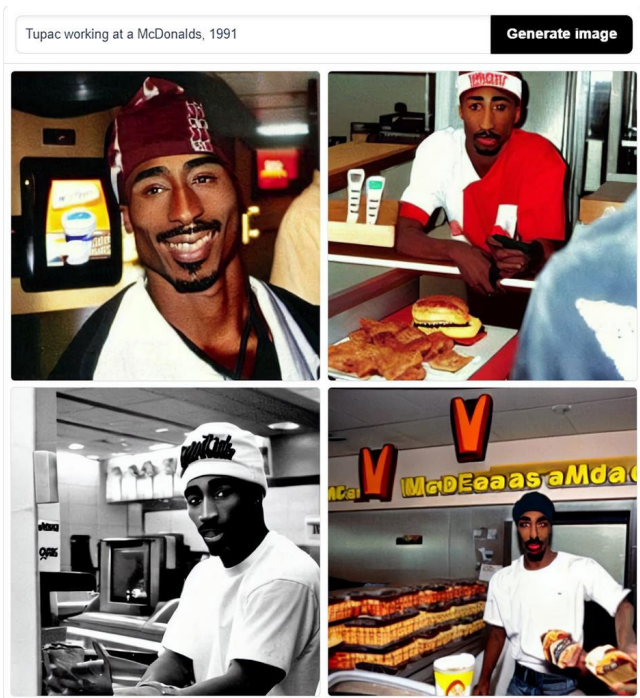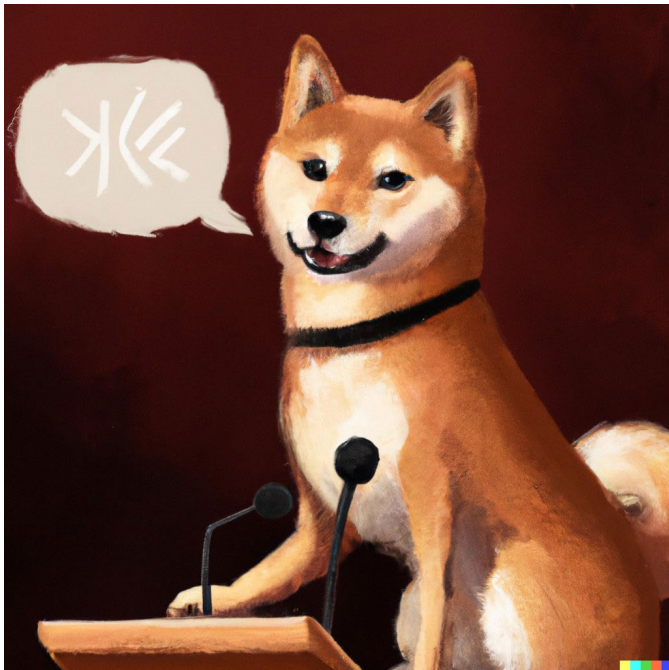# Why You Need an AI Ethics Committee

by Reid Blackman

Hype Cycle for Artificial Intelligence, 2022

Expectations

- Synthetic Data
- Smart Robots
- Foundation Models
- Edge AI
- Knowledge Graphs
- Responsible AI
- Generative AI
- Neuromorphic Computing ModelOps
- Operational AI Systems
- AI TRiSM
- Natural Language Processing
- Composite AI
- Digital Ethics
- Decision Intelligence
- AI Maker and Teaching Kits
- AI Engineering
- Data-Centric AI
- AI Cloud Services
- Causal AI
- Computer Vision
- Physics-Informed AI
- Deep Learning
- Data Labeling and Annotation
- Artificial General Intelligence
- Autonomous Vehicles
- Intelligent Applications

Innovation Trigger | **Peak of Inflated Expectations** | **Trough of Disillusionment** | **Slope of Enlightenment** | **Plateau of Productivity**

Time

Plateau will be reached:

○ less than 2 years   ● 2 to 5 years   ● 5 to 10 years   ▲ more than 10 years   ⊗ obsolete before plateau   As of July 2022

gartner.com

Gartner®

Tupac working at a McDonalds, 1991   Generate image

A specific type of AI

Google's LaMDA, short for Language Model for Dialogue Applications, is a system based on large language models (LLMs).

"LLMs generate seemingly coherent text that can lead people into perceiving a "mind" when what they're really seeing is pattern matching and string prediction." (Bender et al. 2021)

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What is AI?

> "Furthermore, the tendency of human interlocutors to impute meaning where there is none can mislead both NLP researchers and the general public into taking synthetic text as meaningful." (Bender et al. 2021)

> "[Stochastic parrots] stitch together and parrot back language based on what they've seen before, without connection to underlying meaning." (Gerbu and Mitchell 2022)

Asking the Wrong Questions

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Big Questions of the moment

Does AI *think*?

Is it any *good* at writing essays?

Will students use it to write essays?

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Actual questions

- ~~Does AI *think*?~~ Do humans see patterns? YES

- ~~Is it any good at writing essays?~~ Will this do? YES

- ~~Will students use this to write essays?~~ How many students are using it to write essays? NO IDEA!

Although informed by theory, I'm interested in the *practical* not *theoretical* ramifications of AIGC (AI Generated Content)

I largely ignore entirely *why* students might want to do this for time purposes

This represents a thought experiment – *How could AI break the integrity of the essay?*

Describe some common models of strategy management.

There are many models of Business Strategy. One of the most famous writers about strategy was Michael Porter. He provided many ideas such as Five Forces and the Resource-based view.

This is the idea that a company's competitive advantage comes from its unique resources and capabilities. This theory is based on the work of Michael Porter. The key idea of resource-based theory is that a company's competitive advantage comes from its unique resources and capabilities. This theory has important implications for business strategy. First, a company must identify its unique resources and capabilities and a company must develop a strategy to protect and exploit these. Moreover, a company must continuously invest in its unique resources and capabilities and must manage its resources and capabilities so that they are not copied by its competitors.

The resource-based theory of competitive advantage has been criticised for several reasons. First, it does not consider the role of luck in business success nor the role

Provide a critical analysis of Michel Foucault's core works

Discipline and punish is a work by michel foucault. It was first published in France in 1975, and it was translated into English in 1977. The book is an analysis of the historical development of disciplinary practices in Western societies. It argues that the power to discipline and punish is essential to the functioning of modern societies, and that this power is exercised in a variety of ways, through institutions such as the prison, the school, and the hospital.

In the book he talks about torture and how it was used to discipline people. He also talks about how the development of modern institutions has led to the increase in disciplinary practices. He was interested in the panopticon, which is a type of prison where the inmates can be watched at all times. He believed that this type of prison was more effective at disciplining people because the inmates never knew when they were being watched.

The book was very influential in the development of Foucault's thought, and it has been the subject of much scholarly debate. Critiques of this book include the charge that it is too pessimistic, and that it fails to take into account the resistance that people can and do offer to disciplinary practices. Peter Gay described discipline and punish as "the most brilliant book of our time".

Foucault also wrote "Security, Territory, Population" where he claimed that "The primary aim of a political society is to preserve and enhance the security of its
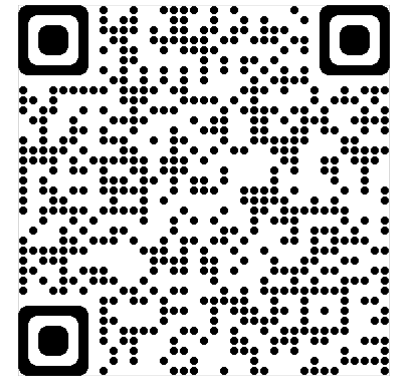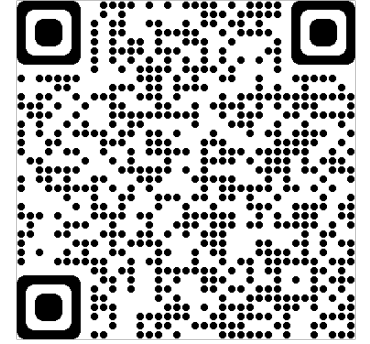
AI written in less than a minute

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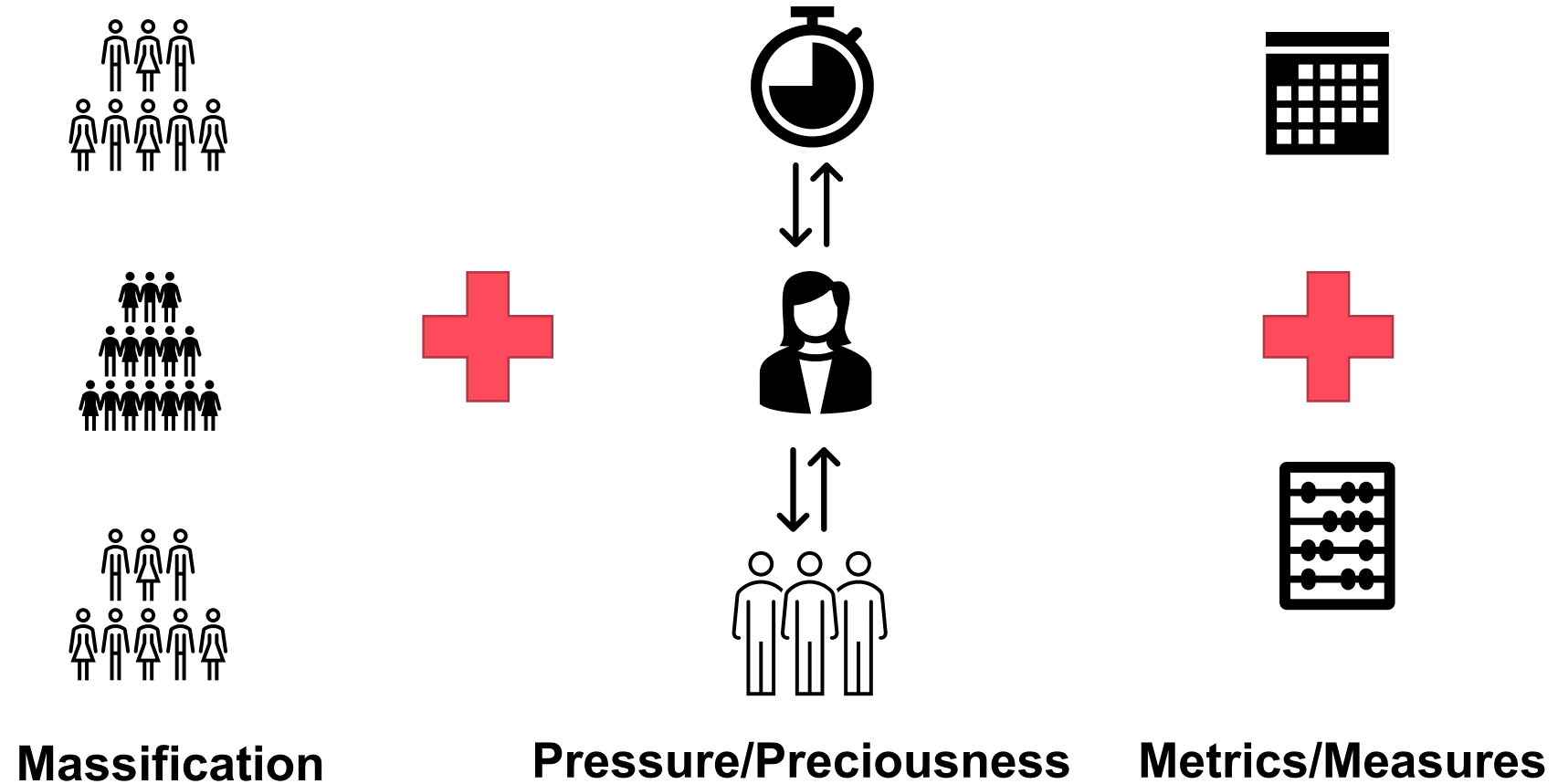
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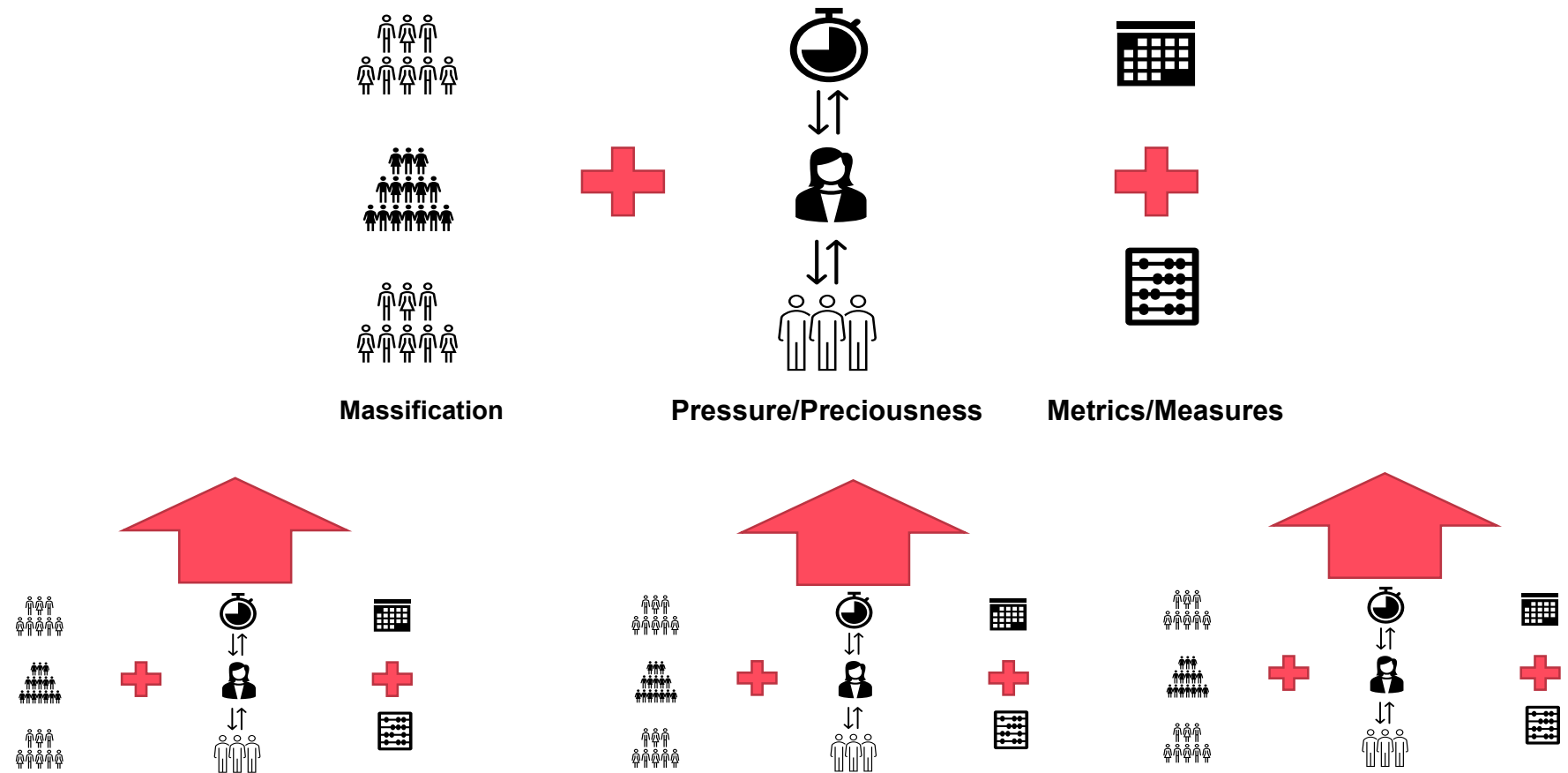
AI Attack at Mass

How could AI attack the essay?

Massification + **Pressure/Preciousness** + **Metrics/Measures**

How could AI attack the essay?

Massification   **Pressure/Preciousness**   **Metrics/Measures**

The Future

- Likely to see adaptation of AI *into* assessments?
- AI *marking* likely already happening
- Adaption by contract cheating companies?
- Hard turn back to in person exams?
- Ungrading?
- Technology arms race?
- The solution is largely economic

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What Next?

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Tony Moss @tonymossuk · Jun 18

Replying to @Charlesknight

I think reducing overall volumes of assessment is the way forward (for lots of reasons!). Introducing more creative and labour intensive assessments could work, if we were assessing less overall. Overassessment will of course also pressure more students towards misconduct...

💬　　🔁 1　　❤️ 7　　⬆️

MartinCompton @mart_compton · Jun 18

A colleague told me about the 'automatic' system Ukrainian students can have as option in UG progs. Or what about looking at how vivas and oral summatives are embedded at scale in other massified countries? Or look at how medical Ed already scales OSCEs

💬　　🔁　　❤️ 2　　⬆️

Dr Linda K. Kaye @LindaKKaye · 10h

Replying to @Charlesknight

I do essays that are based on students' experiences. In one case, a reflection of how theoretical principles of learning relate to their own studying and another is reflection based on microteaching sessions. AI more likely to struggle on those perhaps

💬 2　　🔁　　♡ 3　　⬆️

Dr Pam Birtill @diervilla · 10h

Replying to @Charlesknight

I think group work may help. Accountability to each other. And authentic assessment. Depending on the AI incorporation of very recent events for some subjects as the training set can be quite old

💬　　🔁　　♡ 1　　⬆️

Alan 'Dread Pirate' Hook @alan_hook · Jun 18

Replying to @Charlesknight

Have you seen any tests where real essay questions from modules in Humanities, Social Sciences etc are run through AI and then compared to the assessment criteria, blind or otherwise? Would be interested in productively using AI writing in assessment as reflective practice.

💬 1　　🔁　　♡ 3　　⬆️

Alan 'Dread Pirate' Hook @alan_hook · Jun 18

An assessment where students learn to form prompts to get first drafts, then are assessed on their track changes and comments on the flaws in the AI response would be an approach to embracing and respecting the talents of our new overlords (both AI and Student).

💬 1　　🔁 1　　❤️ 4　　⬆️

Value-for-money of your present course

	Good / Very Good	Poor / Very Poor
2013	50%	21%
2014	44%	26%
2015	40%	29%
2016	37%	32%
2017	35%	34%
2018	38%	32%
2019	41%	29%
2020	39%	31%
2021	27%	44%
2022	35%	32%

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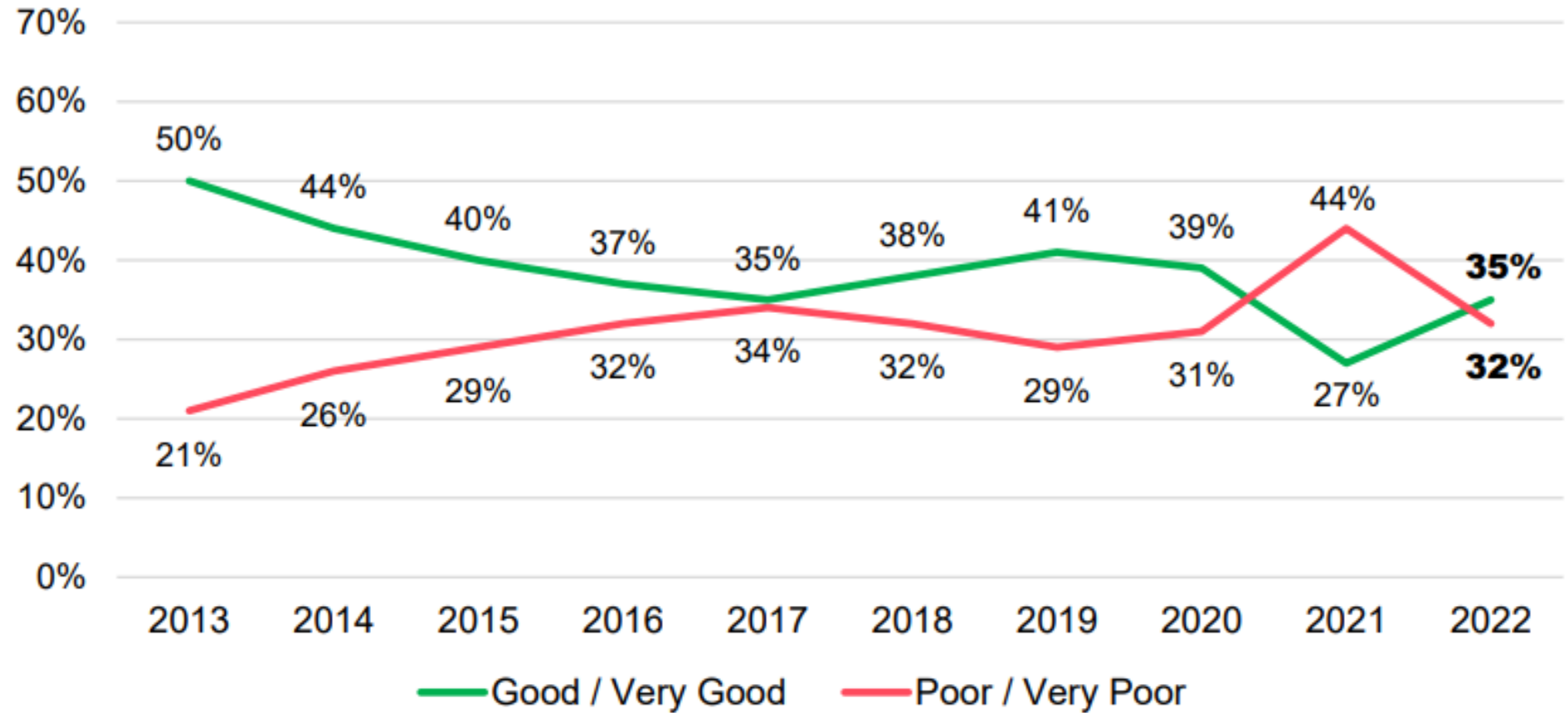
When saying you received poor value / very poor value, what were you thinking about?

| Category	2021	2022
Tuition fees	59%	56%
Teaching quality	36%	39%
The cost of living	32%	35%
Volume of in-person contact hours	47%	33%
Course content	25%	29%
Course organisation	27%	28%
Feedback received	27%	27%
Opportunity to access in-person teaching	42%	26%
One-to-one tuition time	30%	26%
Course facilities / resources	28%	21%
Volume of online contact hours	32%	20%
Career prospects	18%	20%
Accommodation quality	18%	19%
Work placements	18%	19%
Student support services	17%	15%
University buildings & campus	12%	14%
Class size	12%	11%
Sports & social facilities	12%	8%
Another reason	4%	3%

■2021 ■2022

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Inclusion

In our original survey of students, we defined "inclusion" as:

"the ways the constituent parts of a course (e.g. content, teaching style) create a space in which you (i.e. students) feel comfortable and confident to be yourself"

To what extent do you agree with this definition of inclusion?

Disagree
5%

Not sure
2%

Agree
42%
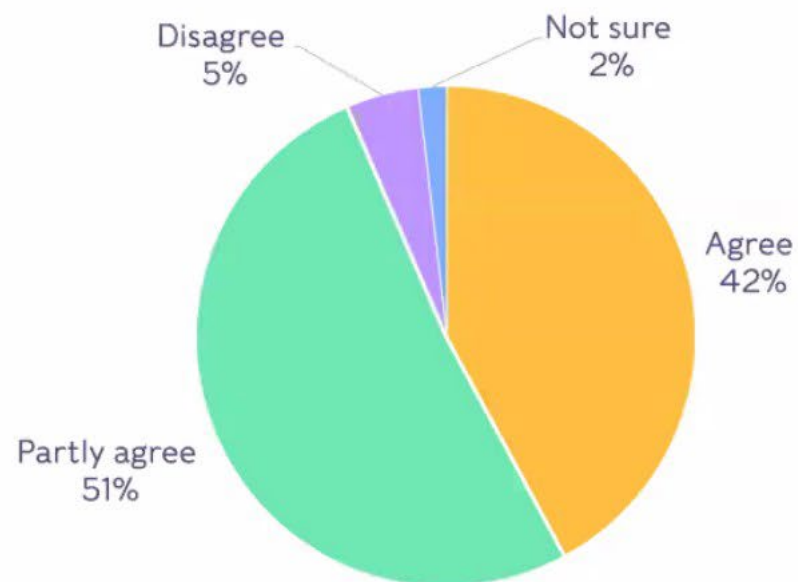
Partly agree
51%

Overall **93%** of respondents agreed with our definition of inclusion

Of those respondents, 51% only partly agreed

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Thinking about what was said this morning

VC Address

Professor Katie Normington Vice-Chancellor DMU

The creative act of pedagogy

Professor Susan Orr Pro Vice-Chancellor, Education DMU

Keynote: The creative act of pedagogy

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Your Mission and Vision – *nothing has changed*

Mission:

Discovering gateways of opportunity that empower students, staff and our community to create a fairer society

Vision:

Creating a community of participation, fairness and collective responsibility; transforming individual lives and championing a fair and sustainable society.

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Thank you.

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References

References/Links

Bender, E.M. *et al.* (2021) 'On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? ⬚ ', in *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*. *FAccT '21: 2021 ACM Conference on Fairness, Accountability, and Transparency*, Virtual Event Canada: ACM, pp. 610–623. doi:10.1145/3442188.3445922.

Brown, T.B. *et al.* (2020) 'Language Models are Few-Shot Learners'. arXiv. doi:10.48550/arXiv.2005.14165.

Gerbu, T. and Mitchell, M. (2022) 'Opinion | We warned Google that people might believe AI was sentient. Now it's happening.', *Washington Post*. Available at: https://www.washingtonpost.com/opinions/2022/06/17/google-ai-ethics-sentient-lemoine-warning/ (Accessed: 19 June 2022).

https://openai.com/ - Which I used the GPT-3 model to write essays

https://www.the-good-ai.com/ - Another tool that students tell me they are using

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