

Three lenses, seven intelligences: A practical framework for AI in your school

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EDUCATE
VENTURES RESEARCH

For all your AI needs: we help you realise the
opportunity of AI



**Machine Learning and
Human Intelligence**

The future of education for the 21st century

Rosemary Luckin

ROSE LUCKIN • KARINE GEORGE
MUTLU CUKUROVA



FOR
SCHOOL
TEACHERS

AI for EVERYTHING Series

CRC Press
Taylor & Francis Group

From the keynote

Key Question

Are we preparing learners to thrive *with* AI, or are we inadvertently creating dependency *on* AI?

1

AI tools:

Using AI in education to tackle some of the big educational challenges

2

Increasing human intelligence:

Changing education so that we focus on human intelligence and prepare people for an AI world

3

Learning about AI:

Educating people about AI so that they can use it safely and effectively

Artificial intelligence in education

1

AI tools:

Using AI in education to tackle some of the big educational challenges

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Artificial intelligence in education

What is Human Intelligence?



Super Intelligence is possible and necessary for human society

We need to increase the sophistication of our human intelligence through developing advanced meta intelligence.

And we must beware of overreliance on AI.



Human and Artificial Machine
Intelligence are different



Humans and Machines learn differently

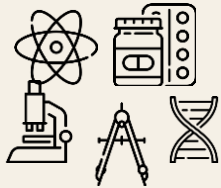




3. Social intelligence

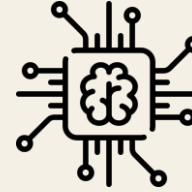


2. Meta-knowing intelligence



1. Interdisciplinary academic intelligence

4. Meta-cognitive intelligence



5. Meta-subjective intelligence

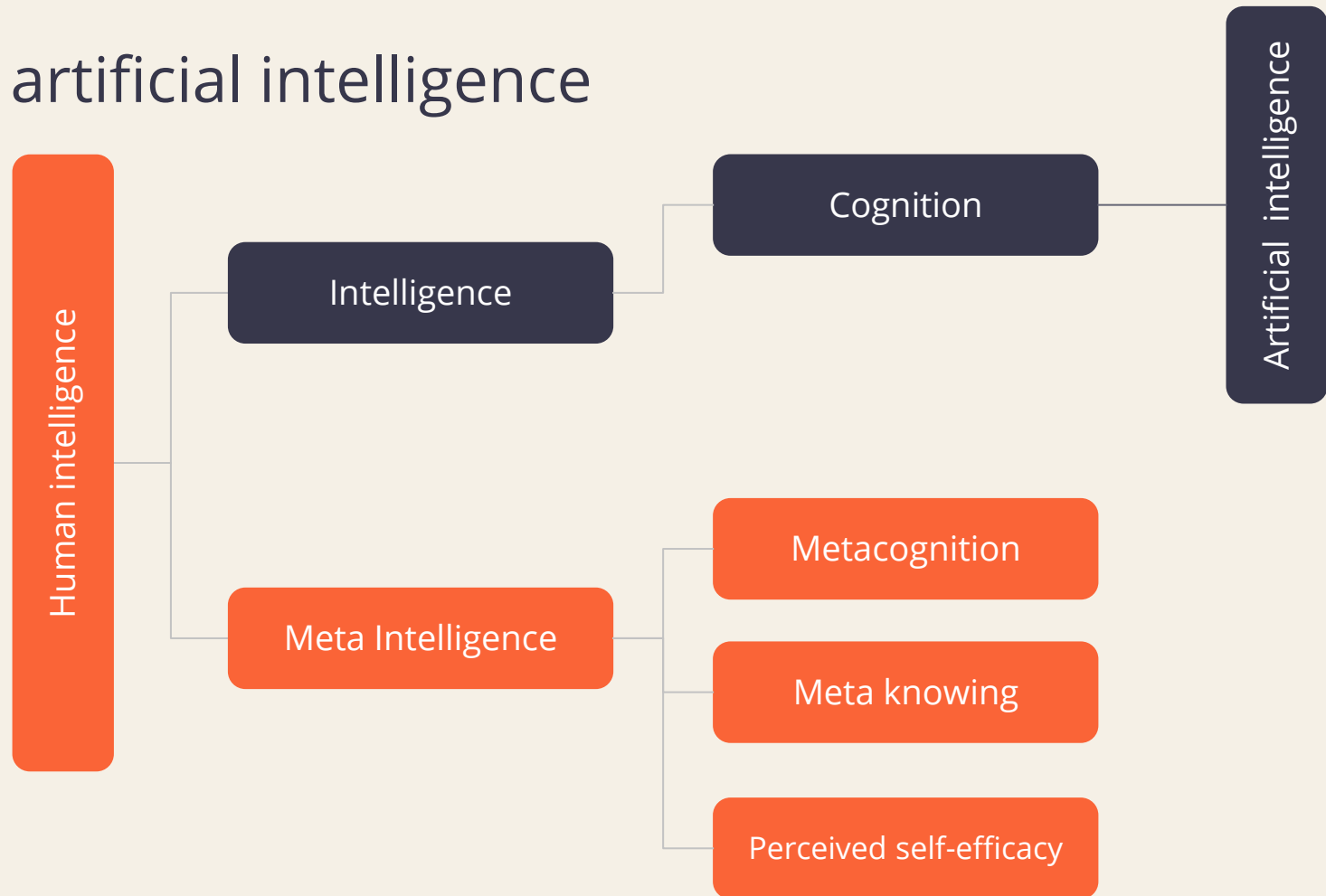


6. Meta-contextual intelligence



7. Perceived self-efficacy

Human vs artificial intelligence



Enhancing Human Intelligence through AI

Purpose driven AI

What outcome do you want to achieve?

Discussion

What is the PURPOSE you want
your use of AI to achieve –
what change should it enable?

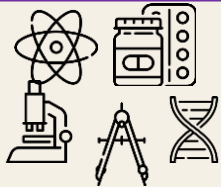




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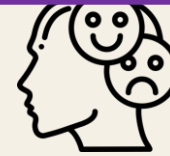
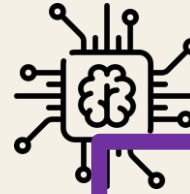


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4D AI STRATEGY FRAMEWORK

GOVERNANCE & ETHICS:

WHAT ARE THE PARAMETERS IN WHICH AI
WILL BE EXPLORED, TESTED, AND
IMPLEMENTED?

ITERATIVE UNIT APPLICATIONS:

WHERE WILL AI BE APPLIED? FOR
EXAMPLE: 24/7 TEACHING SUPPORT,
ADMINISTRATION...

***THE VISION: THE AMBITION FOR AI
WITHIN THE ORGANISATION***

TECHNOLOGY & DATA:

CAN THE ORGANISATION SUPPORT THE
TOOLS AND PROCESSES OF AI AND
EDTECH?

STAFF CAPABILITY:

WHAT ARE THE IMPLICATIONS OF THE AI
STRATEGY FOR ALL STAFF WHEREVER
THEY WORK?

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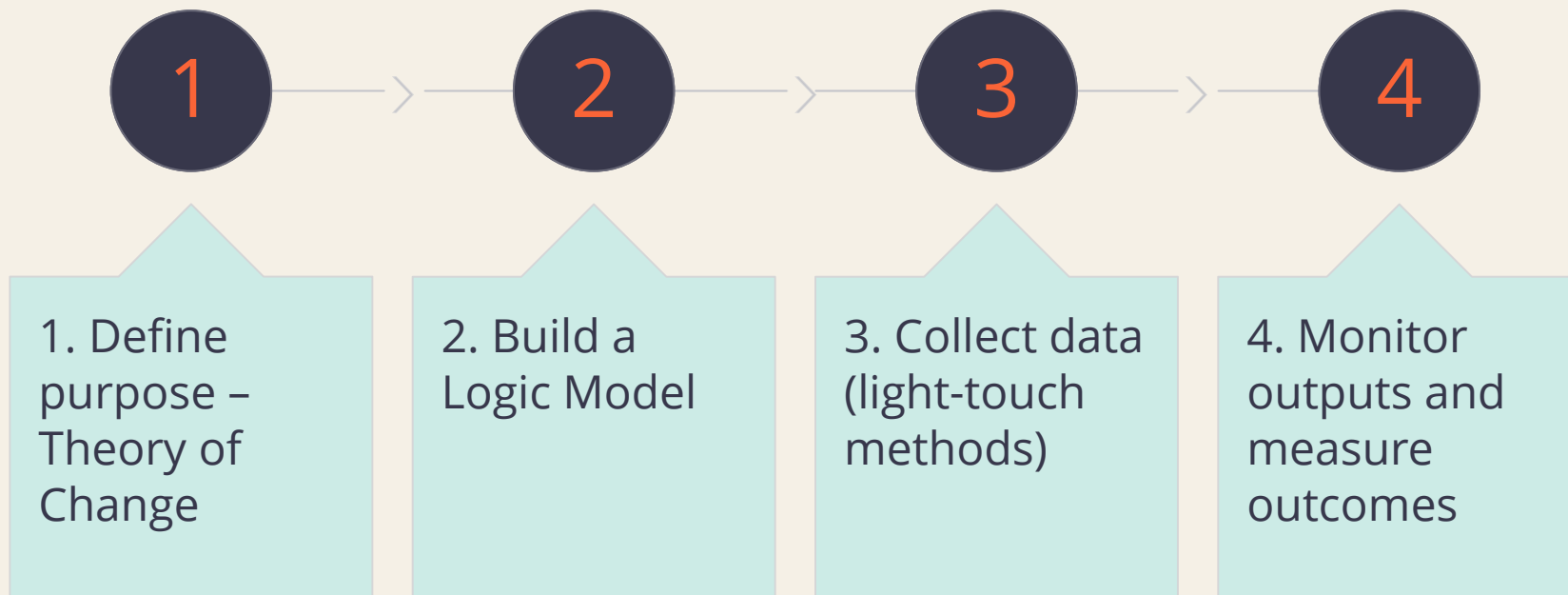
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Steps to Build Your Own Impact Evidence



Tools to help you on your way

AI Use Case

Description: What is the purpose of the AI and what are the intended impacts of its application?

	Who will benefit and how?
1	
2	
3	
4	

	What are the practical steps needed to implement this AI successfully?
1	
2	
3	
4	

	What are the ethical implications of this AI and how can they be mitigated?
1	
2	
3	
4	

	What are the potential challenges?
1	
2	
3	
4	

	What are the technical and cost implications of implementing this AI?
1	
2	
3	
4	

	What are the staff training implications for implementing this AI effectively?
1	
2	
3	
4	

Target users



User needs

The logic model serves as the foundation for the evaluation approach, helping map the pathway from inputs to long-term impact.

By defining the potential impact and showing how specific elements will work together, in sequence, toward a final goal, the logic model offers a useful roadmap for demonstrating impact.



Resources/
Input



Activities



Outputs



Outcomes



Impact

Your Planned AI Use Case

Your Intended Results

The Logic Model

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Impact



1. Answer the question: **What impact do you want your students (and staff) to experience if you achieve your desired results?**

Target users



User needs



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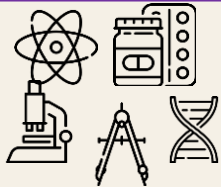
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3. Social intelligence

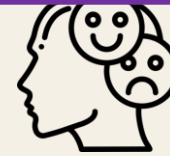
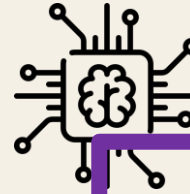


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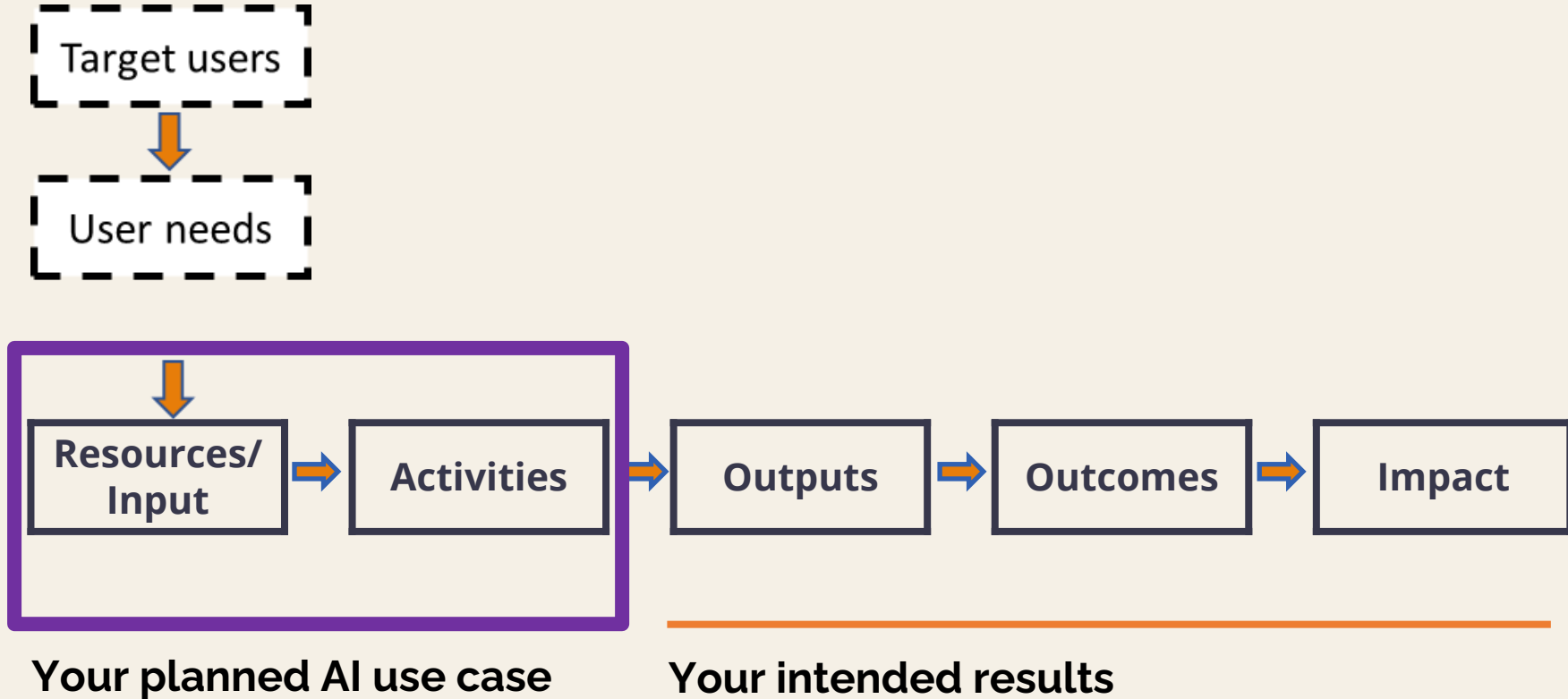
7. Perceived self-efficacy



Resources and Activities



1. Answer the question: **What activities do you want your students (and staff) to engage in to achieve your desired results? And what resources will they need?**



The Logic Model

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What do you
provide to
the learners
and staff
who will use
the AI?

Describe
how the
students
(and staff)
will
experience
or engage
with the AI

**Resources/
Input**



Activities

Your planned AI use case

Outputs



1. Answer the question: **What will be produced when students (and/or staff) complete the activities?**

What do you provide to the learners who will use the AI?

Describe how the students (and staff) will experience or engage with the AI.

If your activities work, what do you **think** should happen (versus what actually happens...)?

Resources/
Input



Activities



Outputs

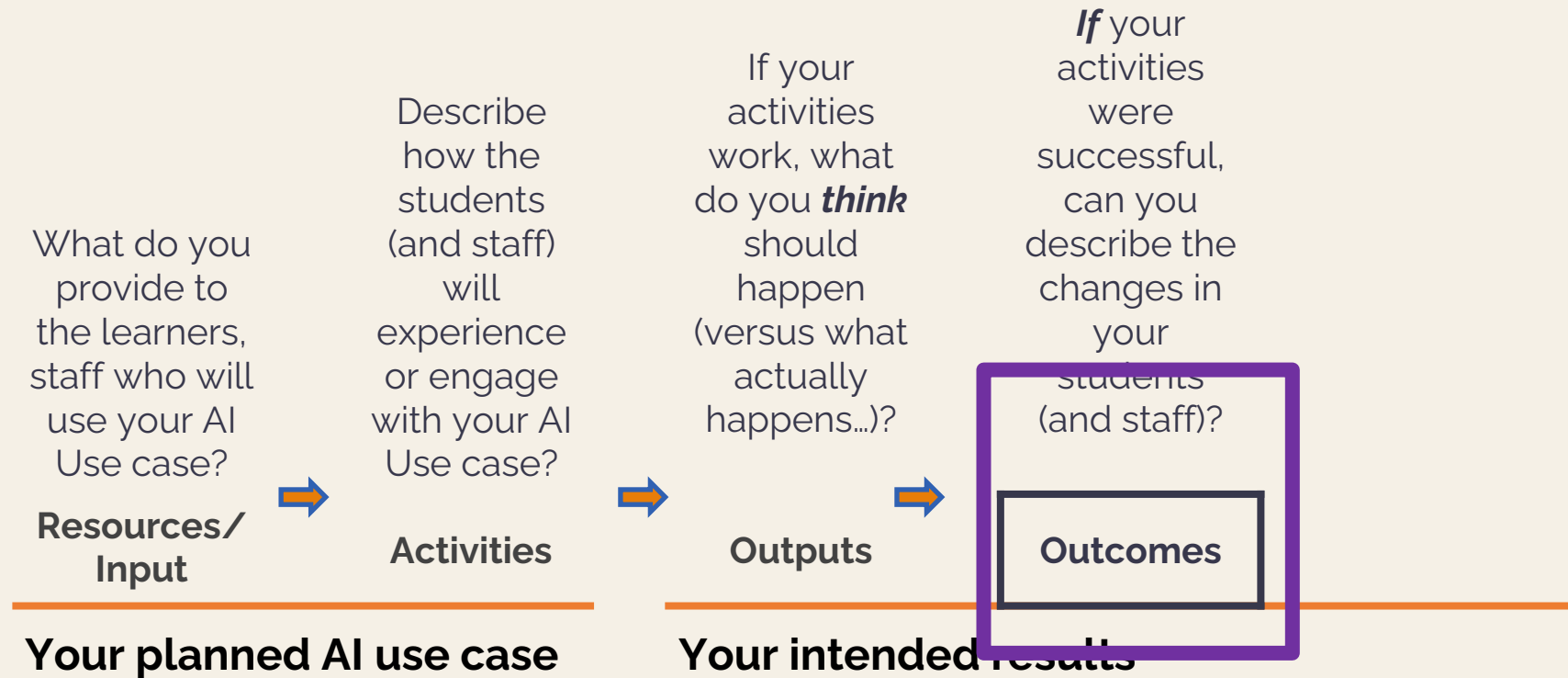
Your planned AI use case

Your intended results

Outcomes



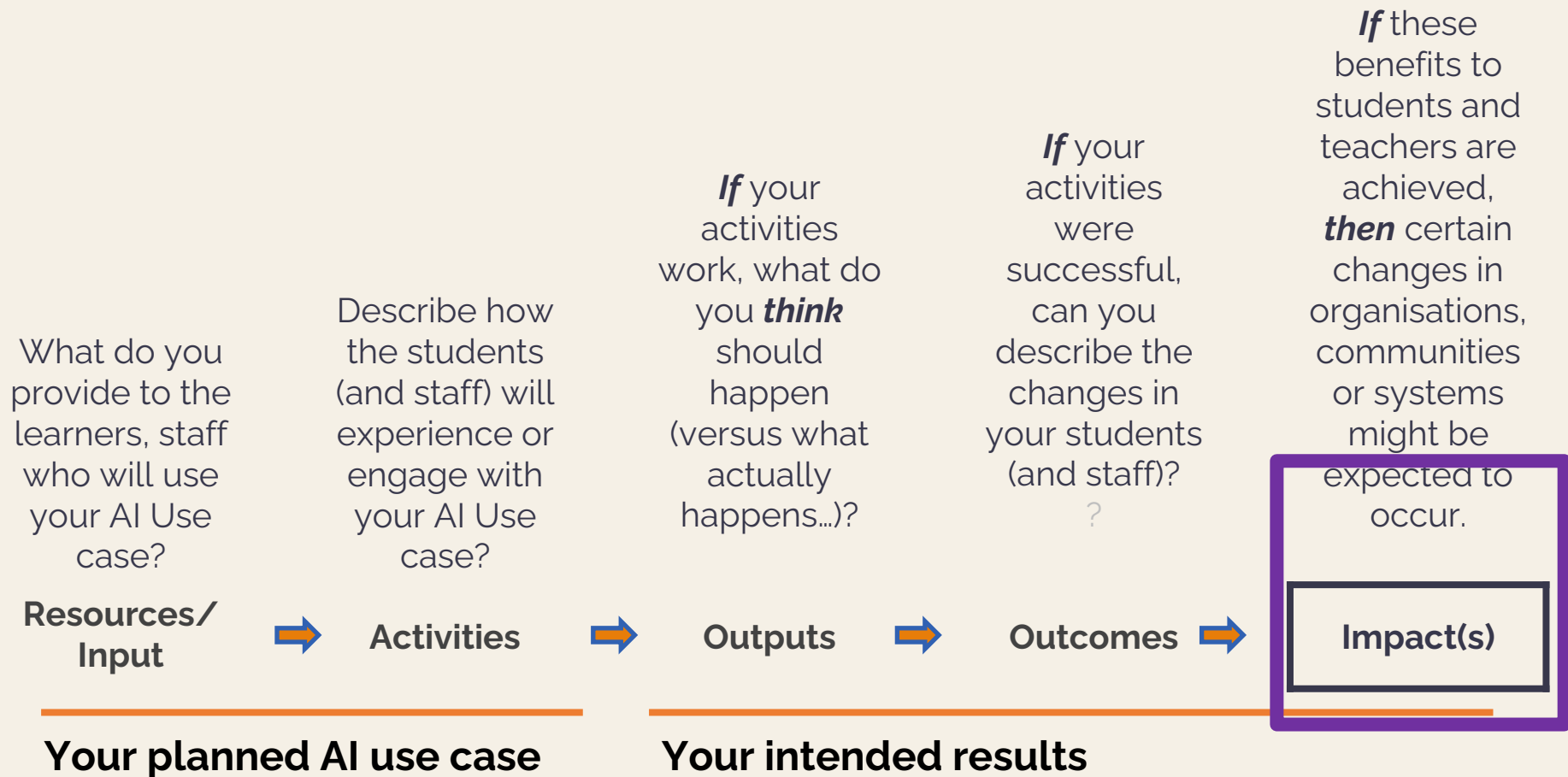
1. What Outcomes would **you expect** as a result of the use of **your AI Use Case** over time?



Impact



1. Answer the question: **What impact will your students (and staff) to experience if you achieve your desired results?**





Resources/
Input



Activities



Outputs

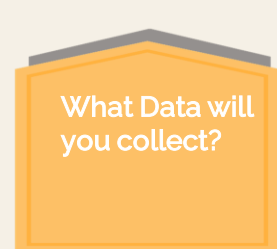
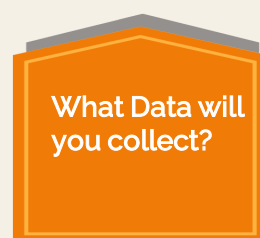
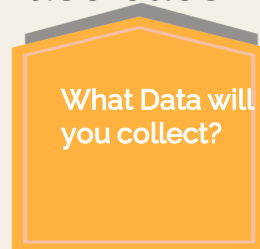
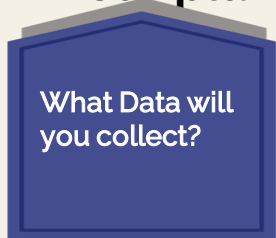


Outcomes



Impact(s)

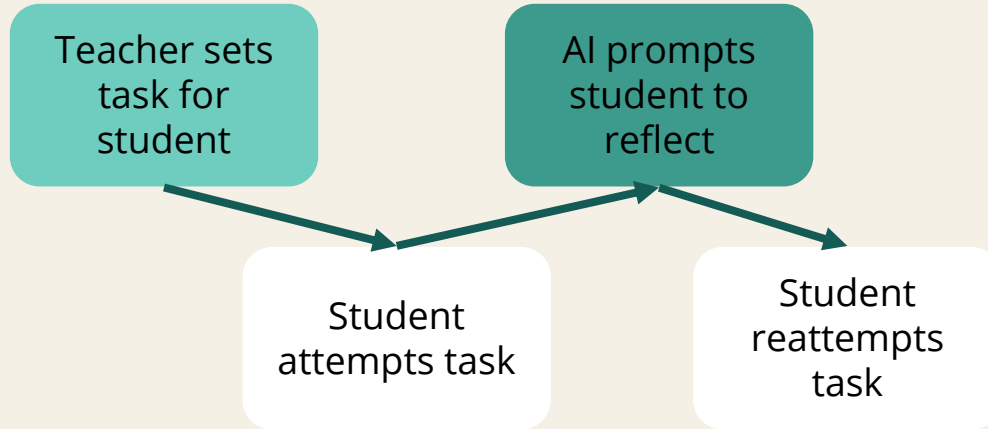
Your planned AI use case



Your intended results

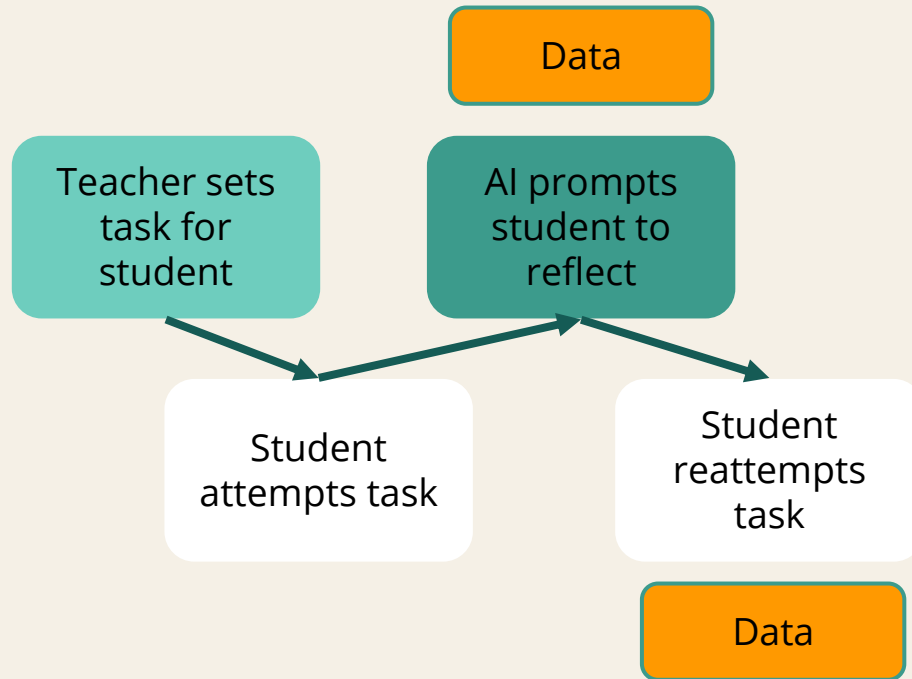
Example

Metacognitive processes: nurturing students



This process is likely to **nurture** a student's ability to reflect

Metacognitive processes: supporting teachers



Whilst this process is happening we can **capture data to create signals** which will can be used to scaffold and celebrate soft outcomes

Closing thoughts

Learn fast, act more slowly

What this means in practice for your school:

LEARN

Stay informed, AI is evolving fast. Invest in your own and your leadership team's understanding

EXPERIMENT

Pilot AI in low-stakes contexts first. Gather real evidence from your schools before Trust-wide rollout

REFLECT

Build reflection cycles into your AI adoption. What worked? What were the unintended consequences?

SAFEGUARD

Prioritise pupil safety, data protection and ethical use at every stage, these come before efficiency gains

INVEST

Invest in human intelligence first. AI should amplify great teaching, not substitute for it

ACT

Then act, purposefully, strategically, at pace that allows quality assurance and staff confidence to build together

Engaging staff who may not have used AI

- The barrier is rarely resistance, it is confidence and knowledge
- Start with a pedagogical challenge, not AI: 'How can AI help students reflect on their learning?' staff connect to the purpose first
- Build AI literacy in layers: basic concepts → ethical considerations → practical tools relevant to their role
- Use relatable analogies: AI transforms information layer by layer, just as baking transforms ingredients (Victoria Sandwich model!)
- Provide structured action research opportunities, staff learn best by doing, reflecting and iterating
- Pause, Prepare, Partner: pause to audit needs, prepare the conditions, partner with colleagues across the Trust
- Celebrate early wins, share case studies of staff using AI to reduce workload (admin, marking, planning)
- Critical principle: nobody should be left behind, the Headteacher's job is to set the vision and bring everyone along

Please reach out for more
information
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THE SKINNY

on AI for Education

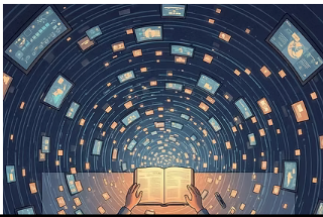
Issue 25, February 2026

Welcome to *The Skinny on AI for Education* newsletter. Discover the latest insights at the intersection of AI and education from Professor Rose Luckin and the EVR Team. From personalised learning to smart classrooms, we decode AI's impact on education. We analyse the news, track developments in AI technology, watch what is happening with regulation and policy and discuss what all of it means for Education. Stay informed, navigate responsibly, and shape the future of learning with *The Skinny*.

Headlines

- [The Cognitive Paradox: design AI use around cognitive objectives, not convenience or speed](#)
- [AI News Summary](#)
 - [AI in Education](#)
 - [AI Ethics and Societal Impact](#)
 - [AI Employment and the Workforce](#)
 - [AI Development and Industry](#)
 - [AI Regulation and Legal Issues](#)
 - [AI Market and Investment](#)
- [Further reading: find out more from these resources](#)

The Cognitive Paradox: design AI use around cognitive objectives, not convenience or speed



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WEEKLY BRIEFING #1 • WEEK OF 3 MARCH 2026

AI Landscape

Through Three Lenses

THE NUMBER THAT MATTERS

68%

of US teachers have received no AI training at all. Fewer than 1 in 3 got guidance on effective use.

Gallup 2025

68%

AI as Tool

What educators can use

- AI tutoring needs guardrails that scaffold, not replace
[Anthropic Research](#)
- A £100 device changes institutional AI access
[FT Lex](#)
- Agentic AI needs governance before deployment
[AWS / FT](#)

AI as Catalyst

What humans need to develop

- The Jevons Paradox comes for cognitive work
[Harvard Business Review](#)
- Cognitive debt is real and measurable
[Kosmyna et al. / MIT](#)
- AI matching gold-medal olympiad performance
[Google DeepMind](#)

AI as Subject

What people need to understand

- The people building AI safety are leaving
[FT / NYT](#)
- AI chatbots causing 'romantic delusions'
[FT 'Artificial Intimacy'](#)
- EdTech faces existential repricing
[Goldman Sachs / Bloomberg](#)

Thank you

SOURCES

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- Studiosity–YouGov (2026). Global Student Wellbeing Survey: Caught in the Crossfire. n=10,330 across eight countries.
- Wonkhe (2026). Trained to Stop Learning: How Students Are Experiencing Assessment and Learning in an Age of AI. Secret Life of Students 2026. Wonkhe Ltd.
- Bastani, H. et al. (2025). Generative AI and learning. Proceedings of the National Academy of Sciences, 122(26).
- Stadler, M., Bannert, M. and Sailer, M. (2024). Cognitive ease at a cost: LLMs reduce mental effort but compromise depth in student scientific inquiry. Computers in Human Behavior, 160, 108386.
- Kosmyna, N. et al. (2025). Your brain on ChatGPT: accumulation of cognitive debt when using an AI assistant for essay writing. arXiv:2506.08872.
- Ganguli, D. et al. (2026). Anthropic Claude User Survey: Hopes and Concerns About AI. Anthropic Societal Impacts.

FURTHER READING

- Luckin, R., "Machine Learning and Human Intelligence" (UCL IOE Press)
- Luckin, R. et al., "AI for School Teachers" (Routledge)
- Lee et al., "The Impact of Generative AI on Critical Thinking" (MS Research / CMU, 2025)
- Royal Society, "Children and AI" insights (2026)

Feedback



Any questions?

Cambridge Schools Conference, July 2026
Future-ready: preparing learners to thrive

Thank you!

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Future-ready: preparing learners to thrive