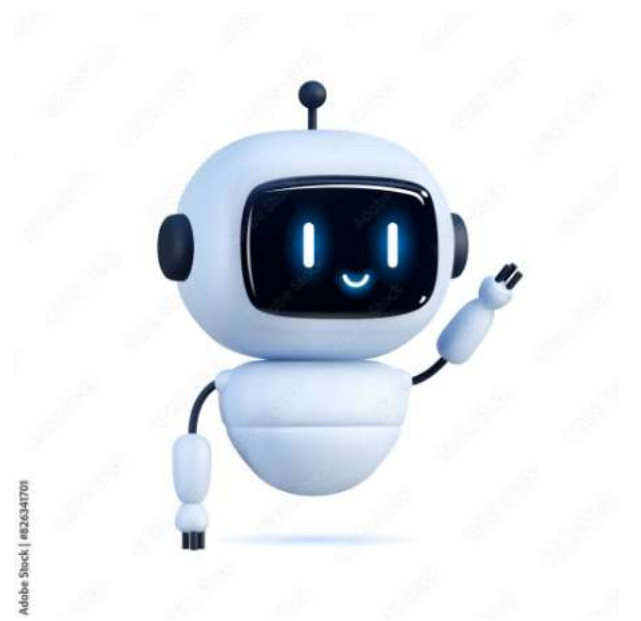


# Reflections and Considerations for Building Custom GPT Teaching and Learning Support Tools in the HE Context

Dr. Laura Costelloe, MIC Limerick

Presenting on behalf of Dr. Katherine Whitehurst, Dr Aoife Chawke, Tom Kinsella, Amy Mitchell and Dr. Jean Reale



## Plan A

# Our Pathfinder Project



Explore what materials, resources and development would be needed to create a Gen-AI powered agent – an ‘Assessment Design Guru’ – to support HE teachers

# Dual Process Approach

1.

Review of existing scholarly literature:

- The use of chatbots as pedagogical tools in HE
- Ethics of using chatbots in HE
- Accounting for accessibility in chatbot use in HE
- Prompt engineering with GPT builder technology

2.

Exploration of the feasibility of an ‘Assessment Design Guru’

- Informed by Prisma guidance.
- Limited to chatbot use and development in HE since 2022, with a particular focus on how GPT builders have been used to develop pedagogical skills.
- Used a range of search tools incl. Research Rabbit, Undermind, ChatGPT, Copilot, Google Scholar, ERIC, ProQuest, Scopus, Web of Science, ScienceDirect and ACM Digital Library.
- Note: Scholarship was dating quickly and Copilot and ChatGPT fabricated references.

## Literature Review Methodology



## Literature Review

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Part 1: Chatbots as a Professional Development Tool to Support Pedagogical Practice in HE [\[Click Here\]](#)

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Part 2: Ethics of Using Chatbots in Higher Education [\[Click Here\]](#)

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Part 3: Accounting for Accessibility in ChatBot Use in Higher Education [\[Click Here\]](#)

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Part 4: Prompt Engineering with GPT Builder Technology [\[Click Here\]](#)

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Illustrations developed by Orlagh O'Brien, Bo & Co Design

# Chatbots as a Professional Development Tool to Support Pedagogical Practice in HE - Recommendations

Domain Specific Accuracy

Supplementary supports

Ethical & Privacy Concerns

Balance Self-directed & Guided-learning

Support for Critical Evaluation & Dialogue

Further Research & Evaluation

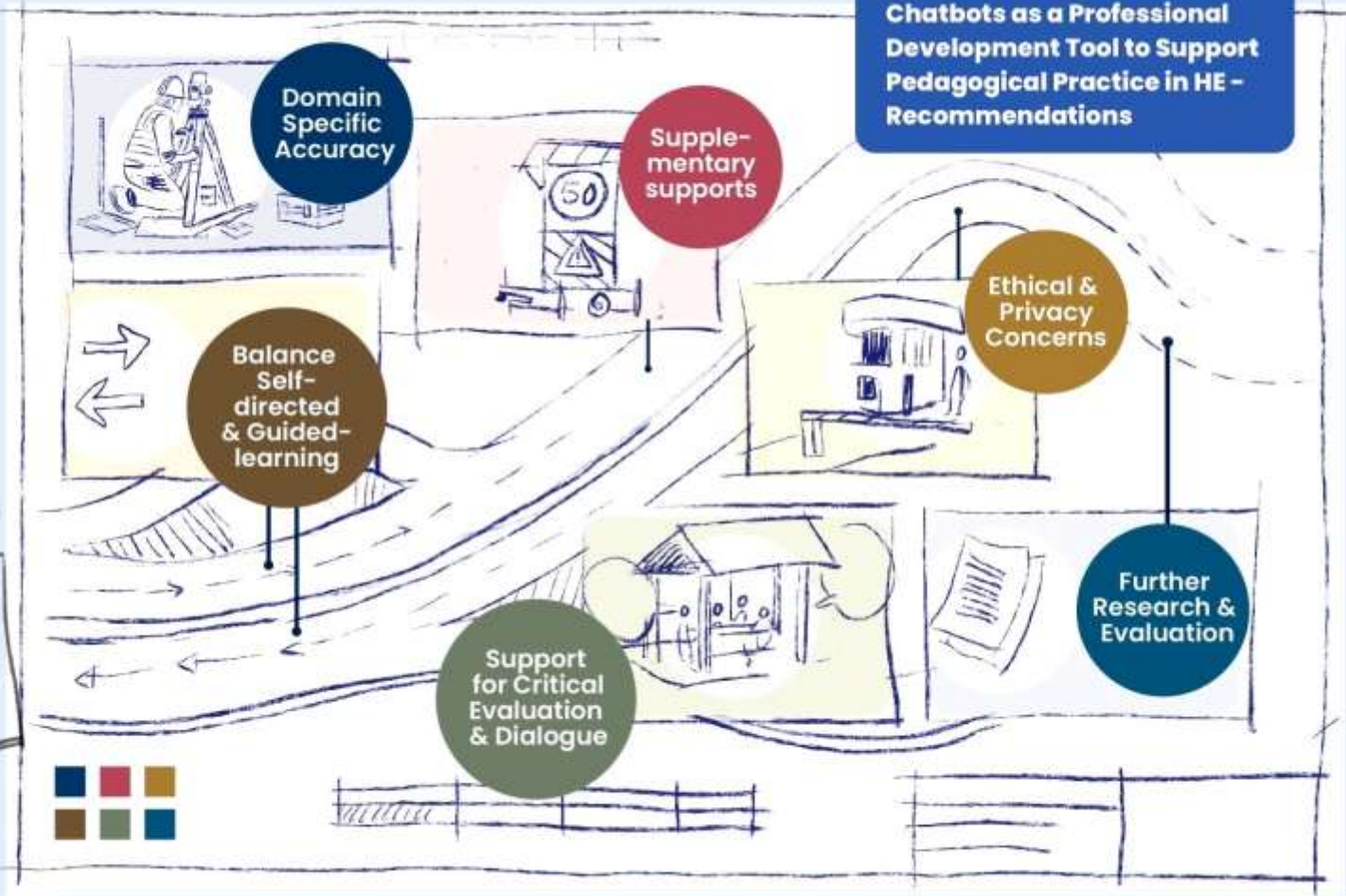


Illustration: Orlagh O'Brien



## Ethics of Using Chatbots in Higher Education - Recommendations

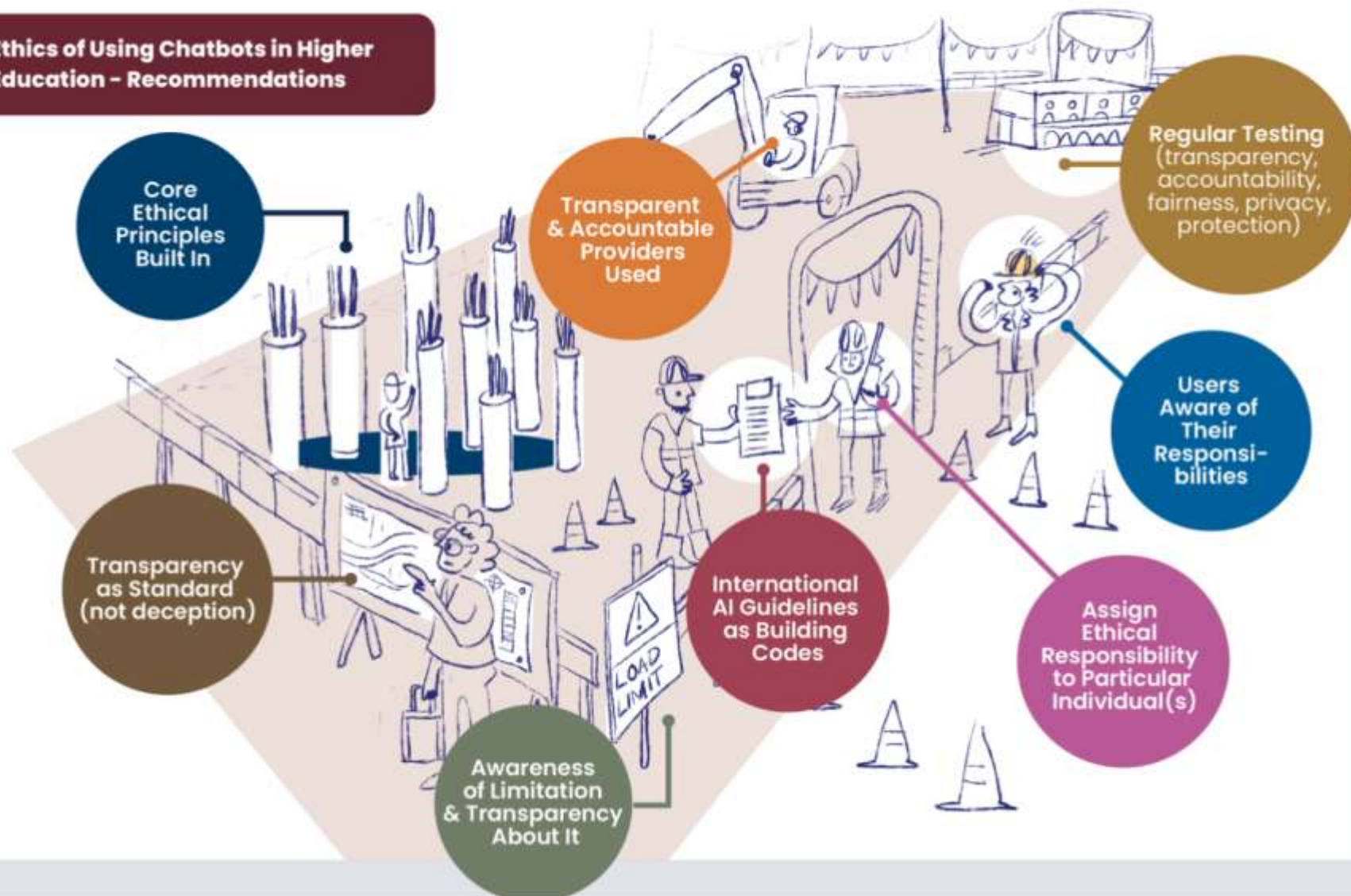


Illustration: Orlagh O'Brien



## Accounting for Accessibility in Chatbot Use in Higher Education – Recommendations

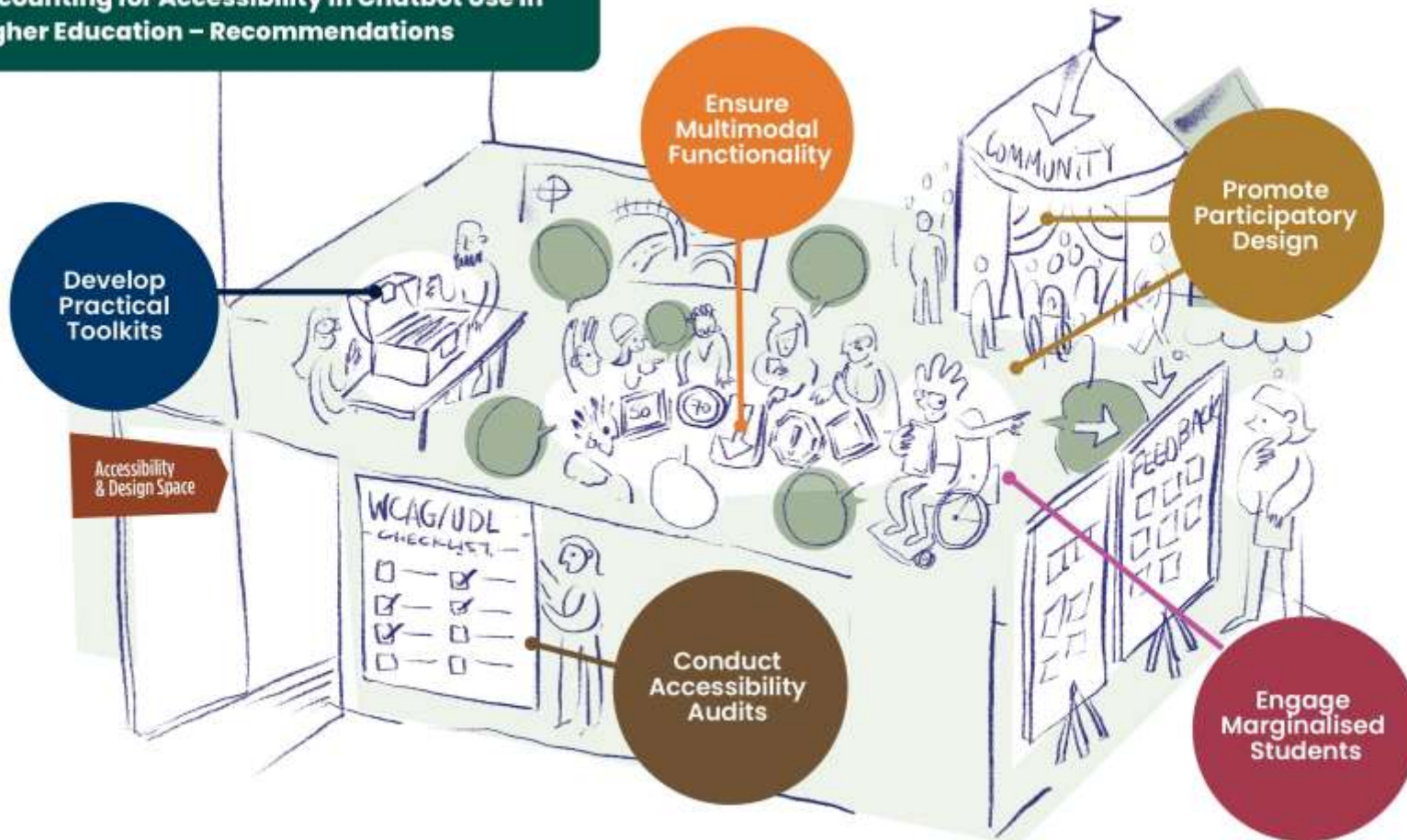


Illustration: Orlagh O'Brien



## Prompt Engineering with GPT Builder Technology Recommendations

In Training Documentation, Consider GDPR and Copyright

Don't Overload the Agent with Instructions

Have Clear Requirements

Consider Fit, Purpose, and Limitations - Plan for That

Be Transparent in Training/ Instructional Prompting

Establish Custom Agent Expertise - How and By Whom

In GDPR Documentation, Consider Defensive Prompting

Choose Platform with Strong Data Compliance

Ensure Users Understand Limitations AND that Human Oversight is Maintained



Discovered that – at the time – it wasn't possible to build an “Assessment Design Guru”:

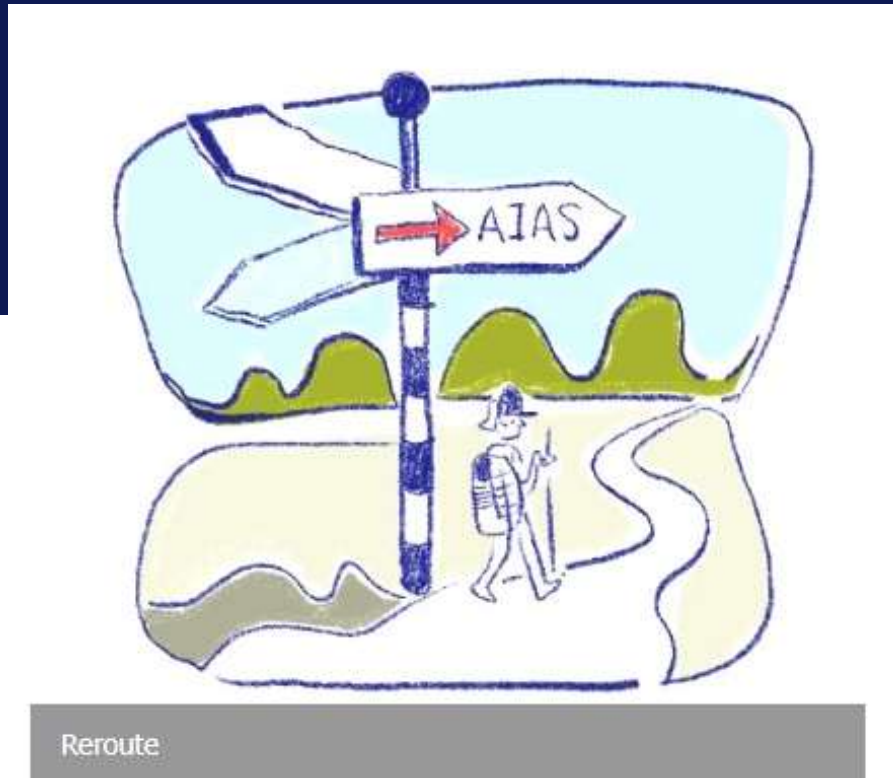
- Limited to MS Copilot as the only institutionally approved custom GPT builder available to us.
- Scale of custom training that would be needed to build our imagined guru outstripped the customising and processing potential of Copilot's GPT builder technology.



Diversion

Plan B

# Our Pathfinder Project



Developed a ‘Use Statement Agent’: customised statement with a permitted and unadvised GenAI use table, which can be edited and refined

Offer an alternative to AI Assessment Scale (AIAS) (Perkins et al, 2024)

















# Trials and Tribulations

**Input  
Overload**

**Great with  
can but what  
about can't?**

**Discipline  
Specific  
Concerns**

**But What  
About  
Literacy!**

Task/Activity	Permitted AI Use 	Unpermitted AI Use 
Understanding reflective frameworks	 Using AI to summarise different reflective models (e.g., Gibbs, Kolb)	 Using AI to choose or apply a framework on the student's behalf
Brainstorming ideas for diary entries	 Using AI to generate prompts or questions to guide reflection	 Using AI to write diary entries or reflections
Language refinement	 Using AI to improve grammar or clarity of student-written text	 Using AI to rewrite or rephrase entire diary entries without student input
Structuring the diary	 Using AI to suggest possible structures for reflective writing	 Using AI to generate the full structure or outline based on placement details
Career exploration	 Using AI to summarise general information about career paths in psychology	 Using AI to evaluate the student's personal career interests or make recommendations
Evaluating personal strengths and weaknesses	 Using AI to provide examples of how to approach self-evaluation	 Using AI to perform the evaluation or generate content based on student experiences
Placement experience reflection	 Using AI to suggest reflective questions to consider	 Using AI to generate reflections or insights based on the student's placement

This recommended table aims to provide clear guidelines on how Generative AI can be used to support learning without compromising the integrity of the learning outcomes. By following these guidelines, students should be able to effectively use Generative AI as a tool to enhance their learning experience while ensuring they meet the module's objectives. Though Generative AI can be used to support students in their studies, students' scholarly judgement should be prioritised over AI outputs.

# Trials and Tribulations

**But what  
about  
literacy?**

- 1) How can staff advise students in their use when they don't feel they have a full understanding of the technology
- 2) Some staff wish to discourage, rather than encourage use

- 1) Working with staff to identify use and limitations
- 2) Pairing bot with other resources
- 3) Encouraging discussion around AI Use
- 4) Taking into account discipline specific concerns

# Moving Forward

# Tips for Building



- 1) Consider how the interface and output will be made accessible
- 2) Work with intended end users during development phase
- 3) Consider GDPR
- 4) Consider ethical boundaries
- 5) Don't overload
- 6) Have clear requirements
- 7) Consider the role, functions and limitation of the tool and plan for that.
- 8) Make sure the end user understand the limitations but also the potential.

# Thank you!

Full report available at:  
[tinyurl.com/MICPathfinder](https://tinyurl.com/MICPathfinder)



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