



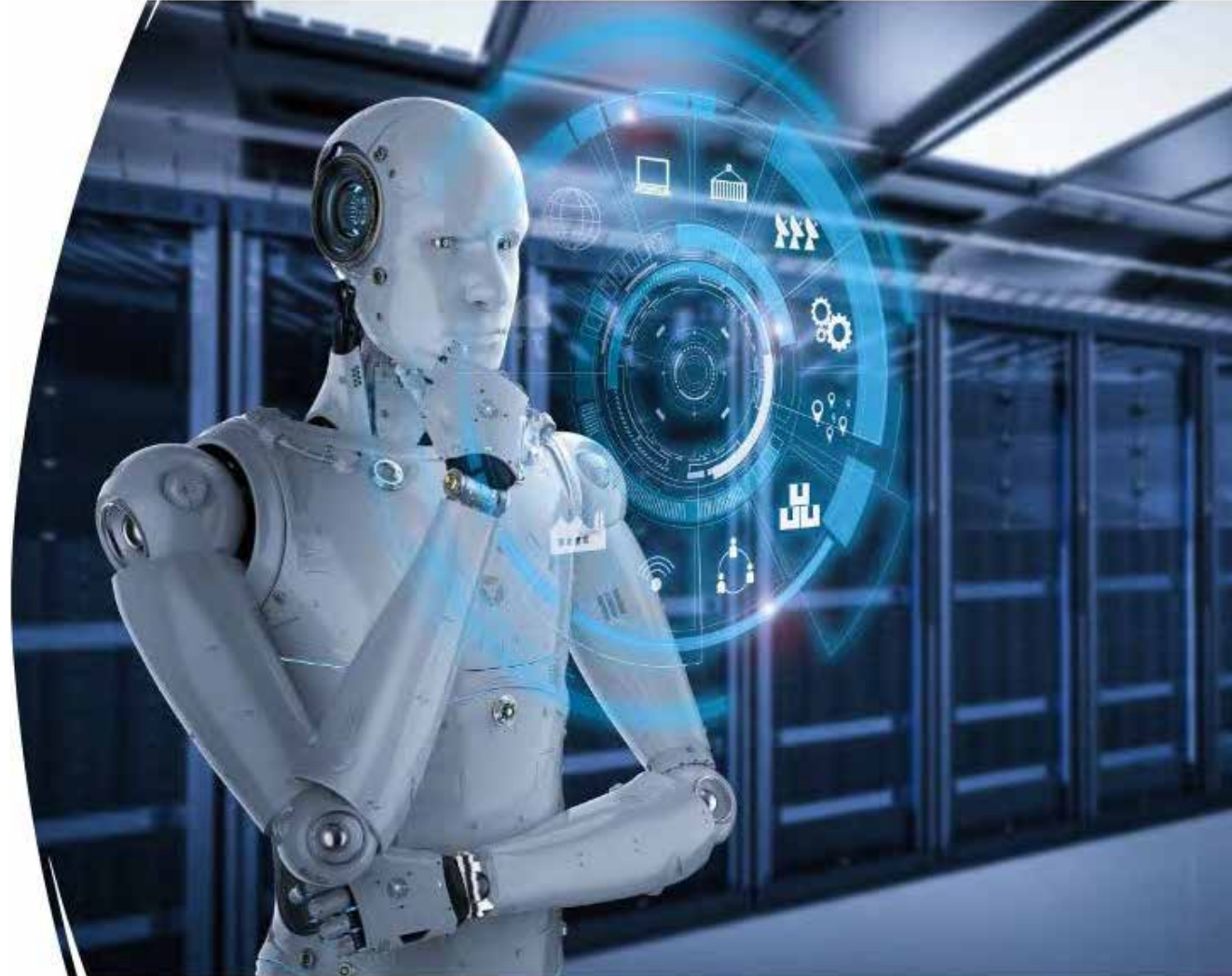
AI and VET: Changing how and what we teach

Claire Field
October 2023



3 key issues

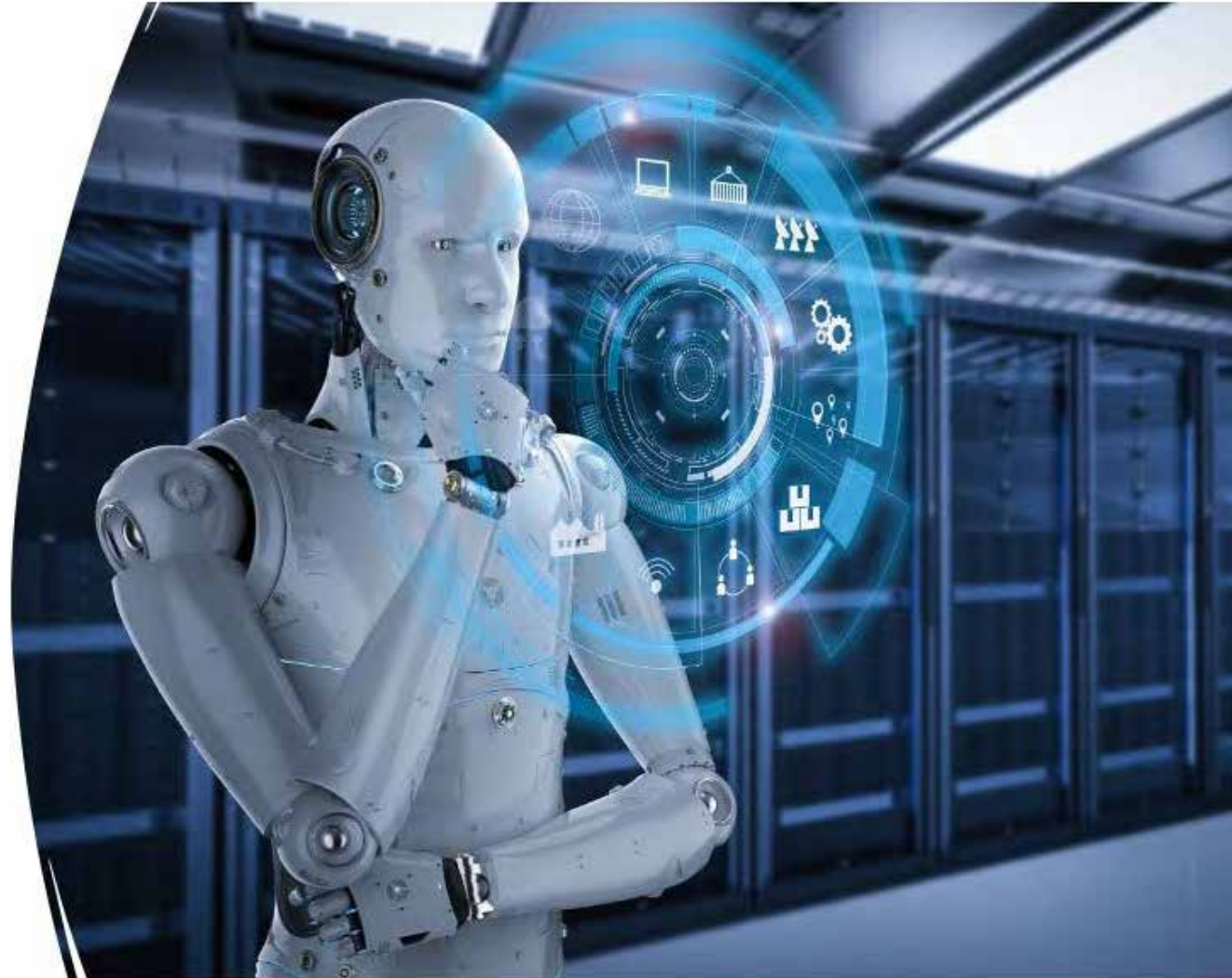
1. What is Generative AI?
2. How is it changing teaching and assessment?
3. Why do we need to change what we teach?





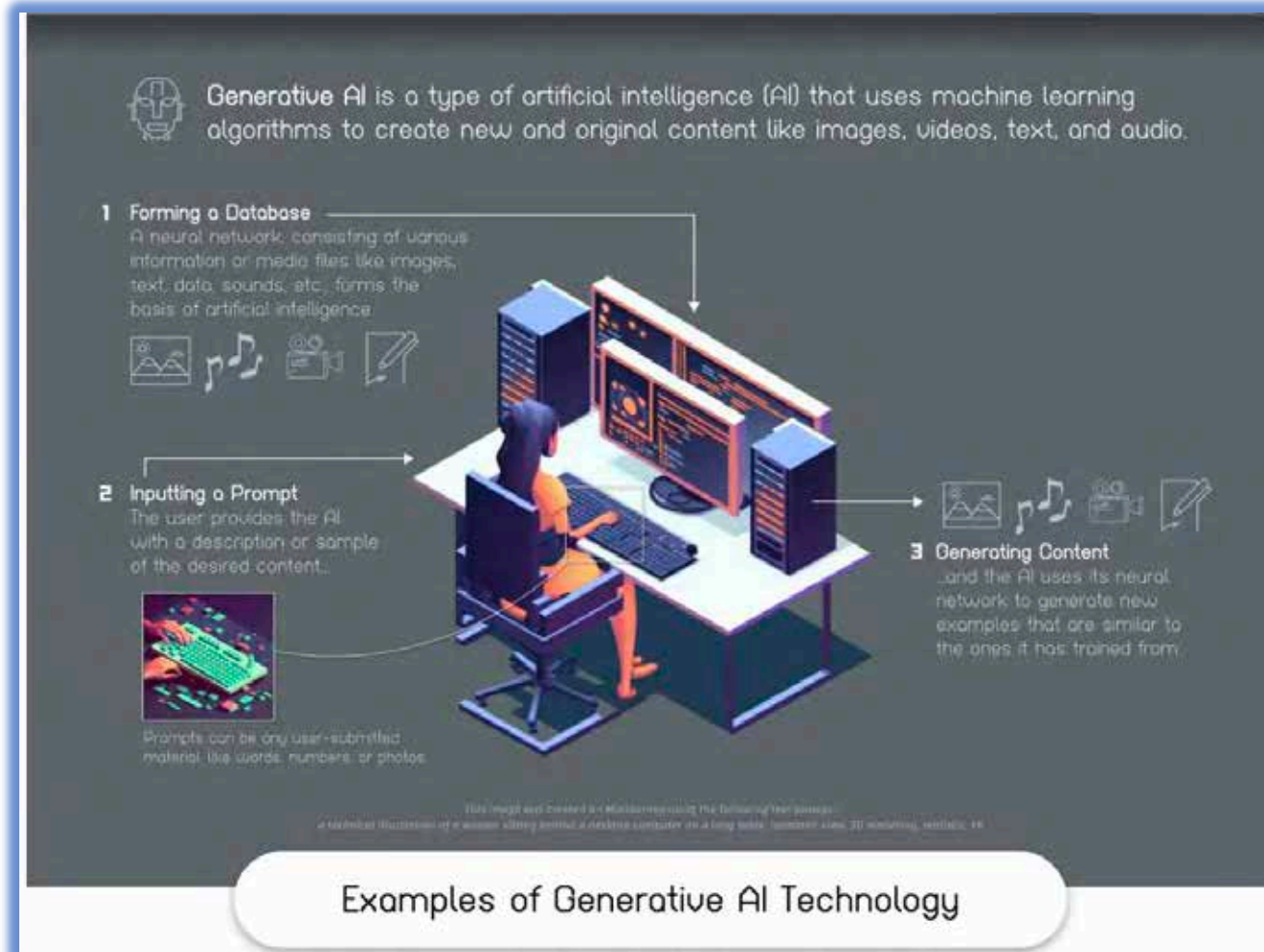
3 key issues

1. **What is Generative AI?**
2. How is it changing teaching and assessment?
3. Why do we need to change what we teach?





Generative AI – what is it?



ChatGPT

What is it?

- a large language model (LLM) created by analysing BILLIONS of sentences of text from the internet
- “machines that have ingested an internet’s worth of data, weighed up the relationships between things, and are able to generate content that appears to be new and original”
- the auto-complete function in your email or SMS offers you suggestions based on the last word you typed
- ChatGPT draws on all the BILLIONS of sentences it’s been trained on, filters them and produces coherent responses to what you type

ChatGPT



What are some issues that may impact team performance and outcomes



Some issues that may impact team performance and outcomes include:



- Lack of clear goals and expectations
- Poor communication and lack of trust among team members
- Insufficient resources or support from management
- Inadequate training or development opportunities
- Conflicting work styles or personalities
- Resistance to change or difficulty with decision making
- Poor leadership or lack of direction
- High turnover or absenteeism
- Inadequate recognition or reward for good performance
- Limited diversity and lack of representation of different perspectives
- Poor work-life balance or high stress levels.

ChatGPT



Danny Richman ✓
@DannyRichman

I mentor a young lad with poor literacy skills who is starting a landscaping business. He struggles to communicate with clients in a professional manner.

Original Text:

Sally I am starts work at yours monday from dave

Business version:

Dear Sally,

I hope this email finds you well. I am writing to let you know that I will be starting work with you on Monday. I am really looking forward to getting started.

If you have any questions or need any help with anything, please don't hesitate to get in touch.

Best wishes,
Dave

Gmail account to which he
ds with the text to send to

ve

let you know that I will be starting work with
getting started.

i anything, please don't hesitate to get in

man · Dec 1, 2022

15 minutes to create. No coding
T3>Gmail

23

178

6,168



Images

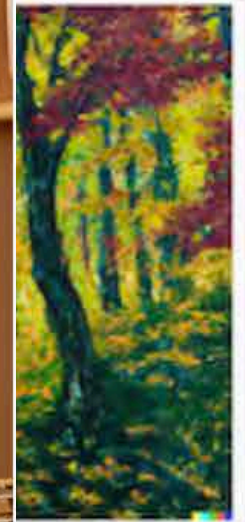


CLAIRE FIELD
& ASSOCIATES

Higher Education - International Education -
Vocational Education and Training

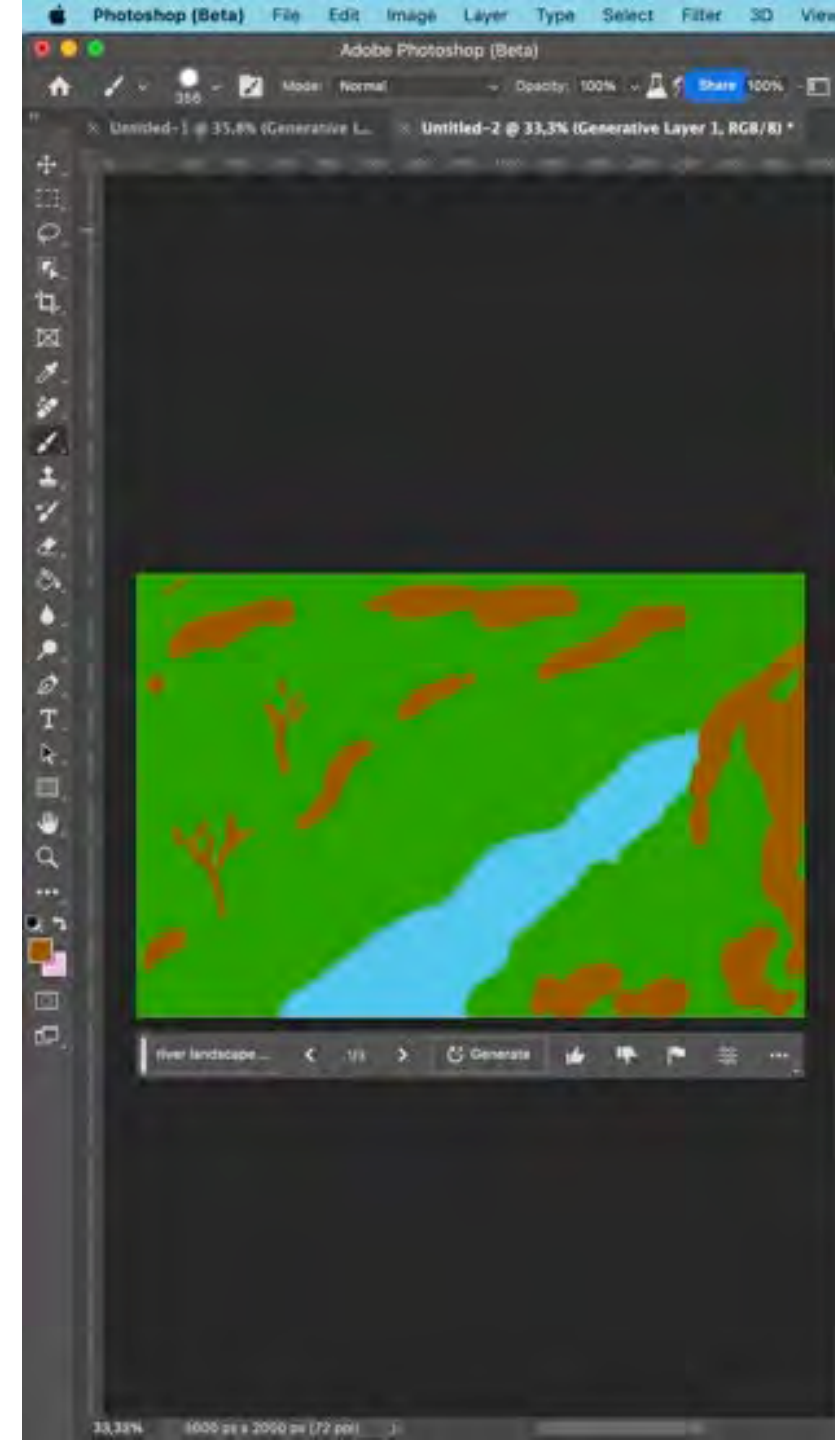


I made this v
moose throu



ling a

Photoshop AI



Google



Zain Kahn ✓
@heykahn

...

This isn't a drone video.

It's not even a real video.

This video was generated by an AI model from Google using only still images.

Pretty soon we'll be able to take images on our phone and turn them into videos.



Google DeepMind



CLAIRE FIELD
& ASSOCIATES

Higher Education - International Education -
Vocational Education and Training

Google Research and DeepMind develop AI medical chatbot



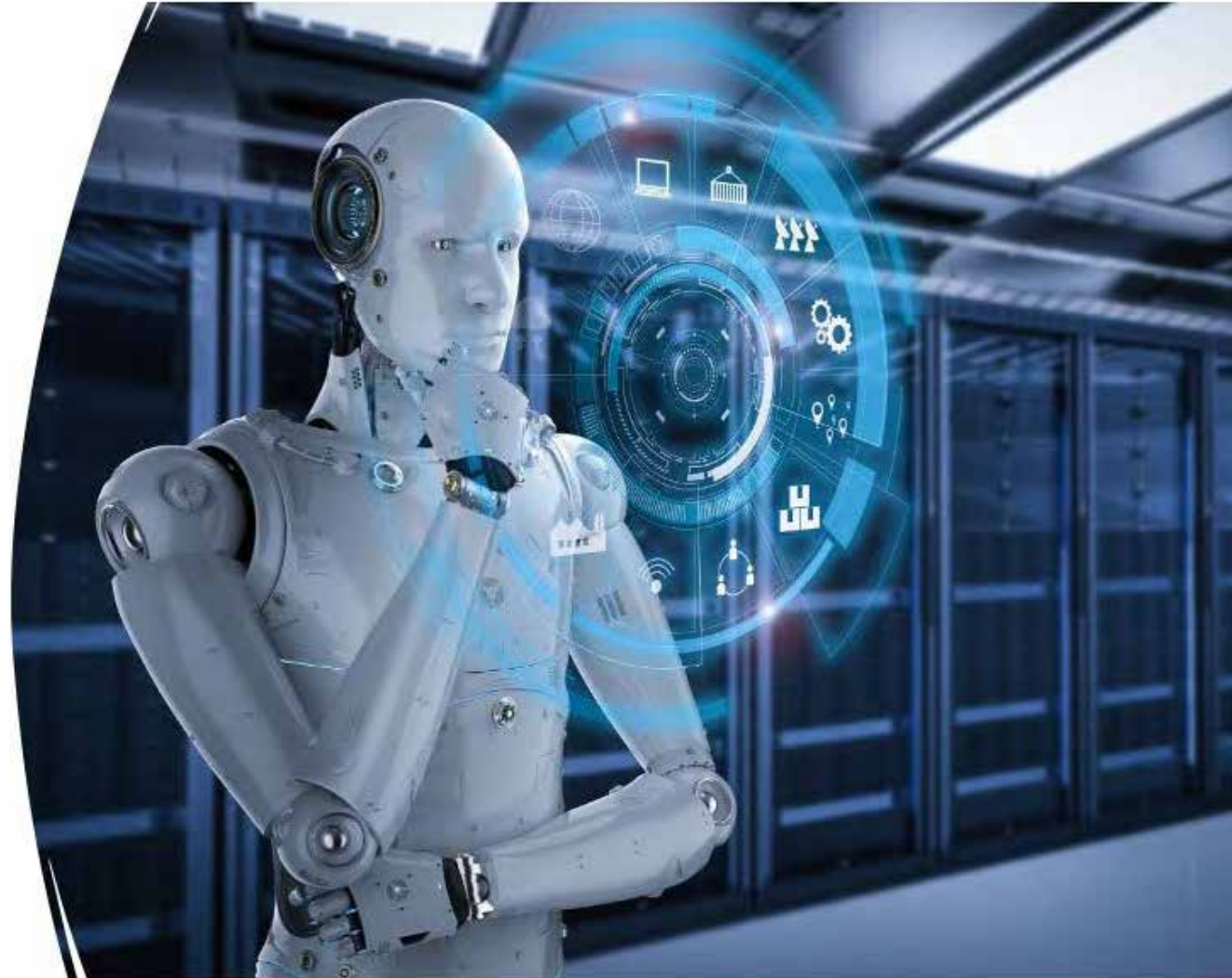
Google Research and DeepMind have developed a large language model for the medical community, which could generate safe and helpful answers using datasets covering professional medical exams, research and consumer queries.

<https://www.digitalhealth.net/2023/01/google-research-and-deepmind-develop-ai-medical-chatbot/#>



3 key issues

1. What is Generative AI?
2. **How is it changing teaching and assessment?**
3. Why do we need to change what we teach?

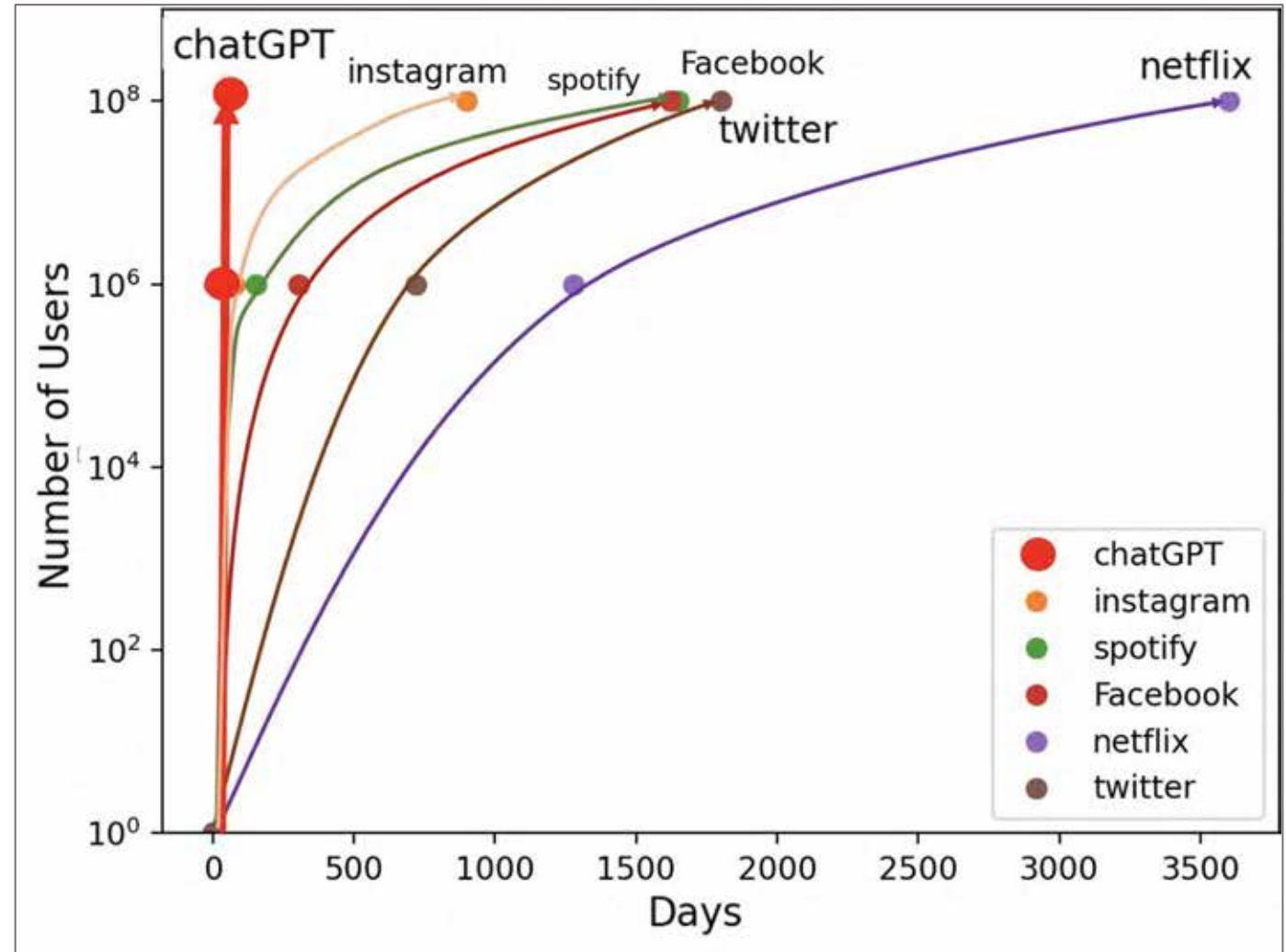




A challenge for educators

AI's adoption
through ChatGPT
is on a steeper
curve than many
social media and
video platforms

Number of days to
1 million & 100 million users



Schools and Higher Education

Schools

- Australian Framework for Generative Artificial Intelligence (AI) in Schools agreed and shortly to be released
- Draft consultation paper issued in early July, consultation through to mid-August

<https://education.nsw.gov.au/about-us/strategies-and-reports/draft-national-ai-in-schools-framework>

Higher education

- TEQSA and Deakin University – 5 webinars
- “AI: a regulatory perspective”
- Advice for students
- 9 articles from institutions on academic integrity and AI
- 2 articles on incorporating AI in the classroom
- And more...

<https://www.teqsa.gov.au/guides-resources/higher-education-good-practice-hub/artificial-intelligence>



And in VET?

ASQA's Risk Priorities 2023-24

Academic Integrity

ASQA continues to collaborate with TEQSA, developing opportunities for information and intelligence sharing and greater integration of the tertiary sector. ASQA's latest Environmental Scan (e-scan) has identified the high risk associated with academic cheating and the growing sophistication of cheating services, such as the use of artificial intelligence. TEQSA has recently published some excellent information aimed at [protecting academic integrity](#). ASQA and the SLG sub-group on Academic Integrity plan to develop and test specific educative tools, processes and resources that will help inform the sector of this risk.

Academic integrity

Academic cheating, including instances of provider enabled cheating, threatens the academic integrity of the VET sector. Open-source intelligence shows that students have growing opportunity to access sophisticated commercial cheating services.



ASQA is working with the sector to raise awareness and ensure providers safeguard the integrity of VET qualifications and sector reputation. ASQA will not tolerate provider behaviours that are complicit in enabling academic cheating or exploiting the vulnerabilities of student particular cohorts. We expect providers to have systems of governance for academic integrity and will respond to intelligence and complaints identified in this area, including through monitoring and compliance activities which focus on providers compliance with standards around assessment (including authenticity).

Scan key points

- Students who obtain qualifications via academic cheating don't possess the essential skills for the qualification they hold and may be a risk to themselves, others in the workplace, and the wider community.
- Academic cheating has likely become common in parallel to increased online delivery.
- Growth in demand for contract cheating services by students is a threat to Australia's VET reputation.

What does it mean for VET?

BSB - Business Services

3,337 RTOs with BSB units on scope

BSBXTW301 - Work in a team

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements and performance criteria of this unit.

- organisational requirements relevant to working in a workplace team:
 - workplace policies
 - codes of conduct
 - organisational reputation and culture
- typical compositions of workplace teams, and the roles and responsibilities of team members within organisations
- techniques for giving and receiving feedback in a constructive manner
- methods to support team members
- key principles of cross-cultural communication and communication with individuals with special needs or disabilities
- methods and tools to work with others remotely:
 - collaboration via phone or mobile
 - collaboration via video conference
 - collaboration via other digital tools or software
- issues that may impact team performance and outcomes
- techniques to collaborate effectively with those working remotely.



What are some issues that may impact team performance and outcomes



Some issues that may impact team performance and outcomes include:



- Lack of clear goals and expectations
- Poor communication and lack of trust among team members
- Insufficient resources or support from management
- Inadequate training or development opportunities
- Conflicting work styles or personalities
- Resistance to change or difficulty with decision making
- Poor leadership or lack of direction
- High turnover or absenteeism
- Inadequate recognition or reward for good performance
- Limited diversity and lack of representation of different perspectives
- Poor work-life balance or high stress levels.

What does it mean for VET?

ICT – Information and Communications Technology

ICTPRG435 - Write scripts for software applications

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Specify software application requirements	1.1 Identify required software application outcomes 1.2 Discuss expectations of final software application with required personnel
2. Determine script requirements	2.1 Identify main characteristics of scripting languages 2.2 Identify integrated development environment (IDE) 2.3 Identify protocols and object model used in chosen scripting language
3. Design and build scripts	3.1 Create pseudo code and describe logic required in script 3.2 Review pseudo code and amend missing logic and errors 3.3 Translate pseudo code into scripts, incorporating use of basic language elements 3.4 Incorporate item manipulation using chosen scripting language
4. Finalise scripts	4.1 Create internal documentation in script according to organisational procedures 4.2 Review, debug and document script according to organisational procedures 4.3 Finalise, save and confirm work with required personnel



Create pseudo code and describe logic required in script



Here is an example of pseudo code for a script that finds the largest number in a list of integers:



python

Copy code

```
# define a function that takes in a list of integers
def find_largest_number(numbers):
    # initialize a variable to store the largest number
    largest = None

    # iterate over the list of integers
    for num in numbers:
        # if the current number is greater than the previous largest number
        if largest is None or num > largest:
            # set the current number as the new largest number
            largest = num

    # return the largest number
    return largest
```

The script defines a function called `find_largest_number()` that takes in a list of integers as an argument. It then initializes a variable called `largest` to `None`.

The script then iterates over the list of integers using a for loop. For each iteration, it compares the current number in the list to the previous largest number. If the current number is greater than the previous largest number or if `largest` is `None`, the script sets the current number as the new largest number.

Finally, the script returns the largest number.

This script uses the following logic:

1. The function is defined with a variable which is a list of integers
2. A variable `largest` is initialized to None
3. A for loop is used to iterate over the list of integers
4. In each iteration of the for loop, a check is made to see if the current number is greater than the previous largest number or if `largest` is None
5. If the check is true, the current number is set as the new largest number
6. The function then returns the largest number

GPT-4v



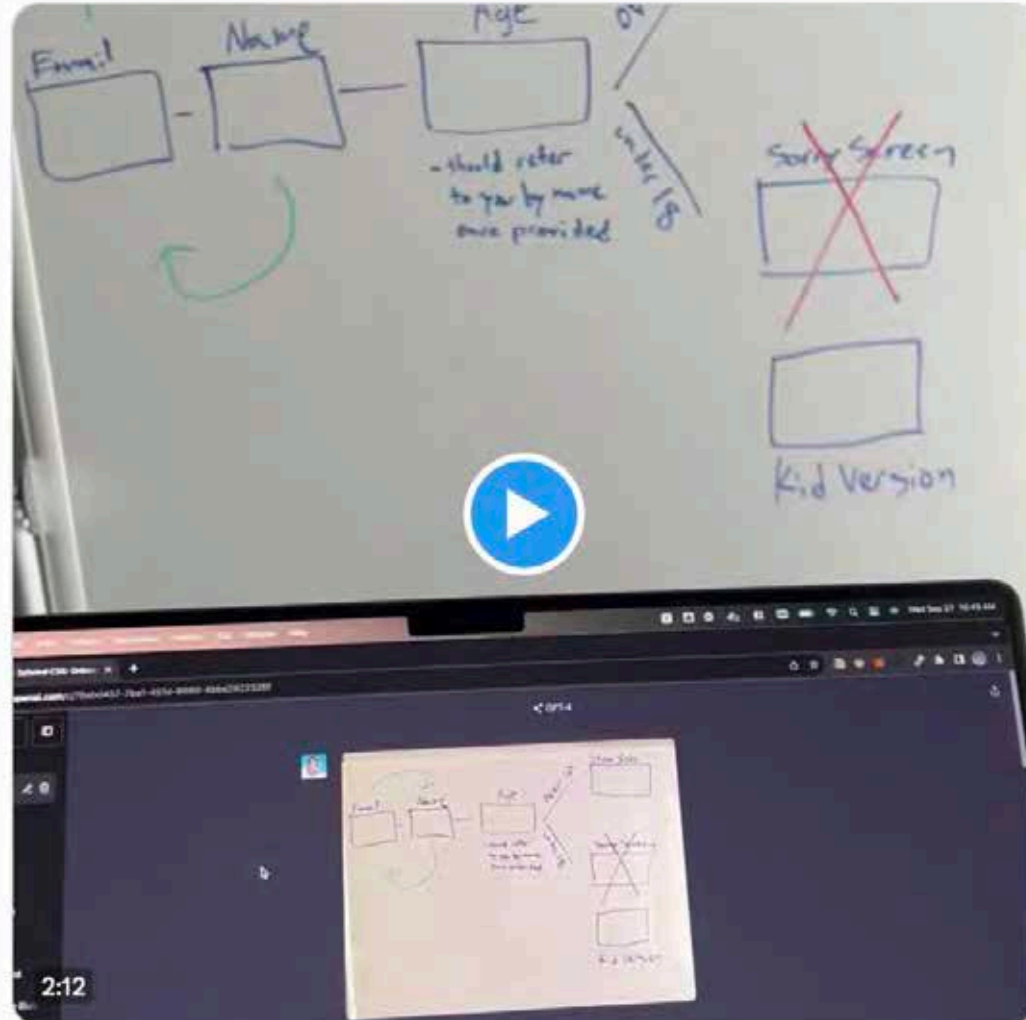
McKay Wrigley ✓
@mckaywrigley

Subscribe



You can give ChatGPT a picture of your team's whiteboarding session and have it write the code for you.

This is absolutely insane.



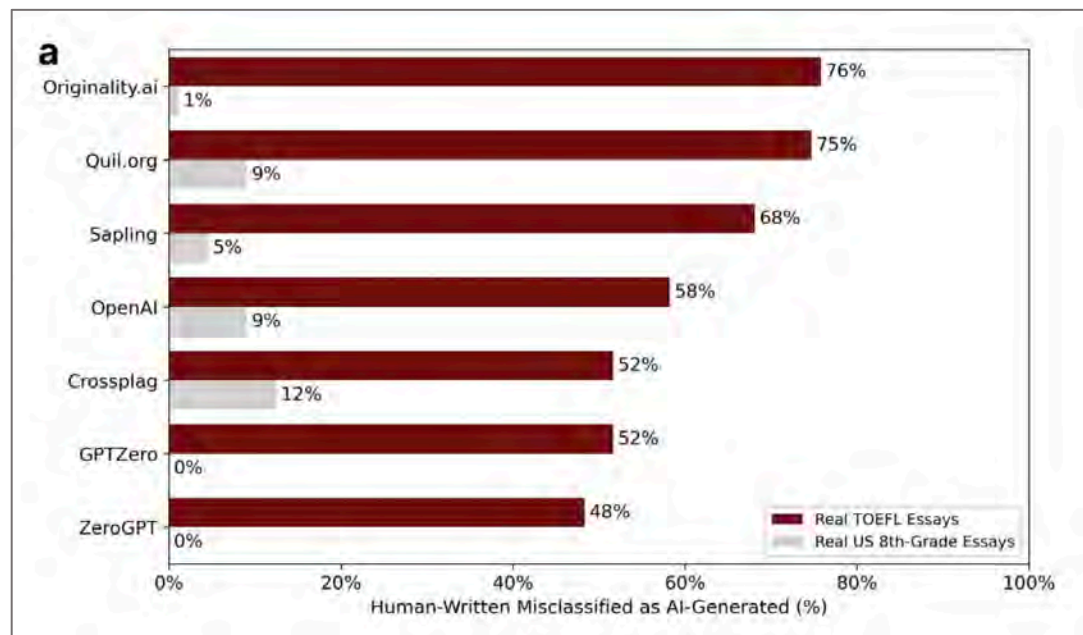
ChatGPT assessment issues

What's needed?

- no more written essays
- no more powerpoint presentations
- no more summaries, proposals, plans or alternative written responses as assessment tasks
- more authentic assessment
- not pencil and paper tests
- think carefully about data privacy and ethical issues in using AI 'detection' services
- if you're incorporating ChatGPT into your teaching and learning practices – will it remain freely available/what are the equity issues?

AI “detection”

Staggering levels of bias



<https://www.aiweirdness.com/dont-use-ai-detectors-for-anything-important/>

“...any false positive is a problem when the consequences of falsely accusing a student of cheating can be devastating. But it's even worse when students who are already at a disadvantage are much more likely to be repeatedly singled out.”

ChatGPT – privacy

Samsung



<https://www.techradar.com/news/samsung-workers-leaked-company-secrets-by-using-chatgpt>

“The company allowed engineers at its semiconductor arm to use the AI writer to help fix problems with their source code. But in doing so, the workers inputted confidential data, such as the source code itself for a new program, internal meeting notes data relating to their hardware.

The upshot is that in just under a month, there were three recorded incidences of employees leaking sensitive information via ChatGPT. Since ChatGPT retains user input data to further train itself, these trade secrets from Samsung are now effectively in the hands of OpenAI, the company behind the AI service.”



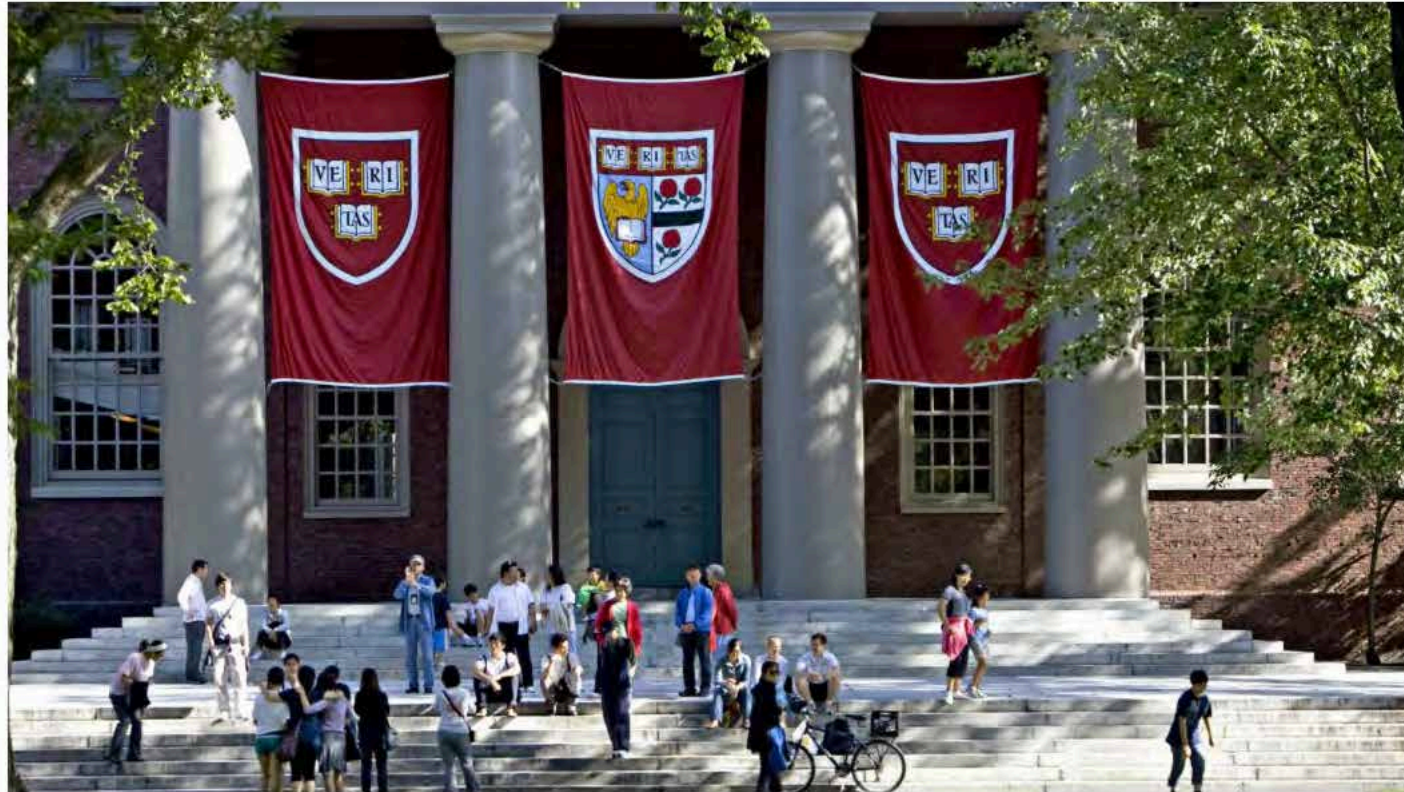
Chatbots – build your own?

Harvard's New Computer Science Teacher Is a Chatbot

The university is encouraging students to use 'CS50 bot' as their 24/7 learning assistant.



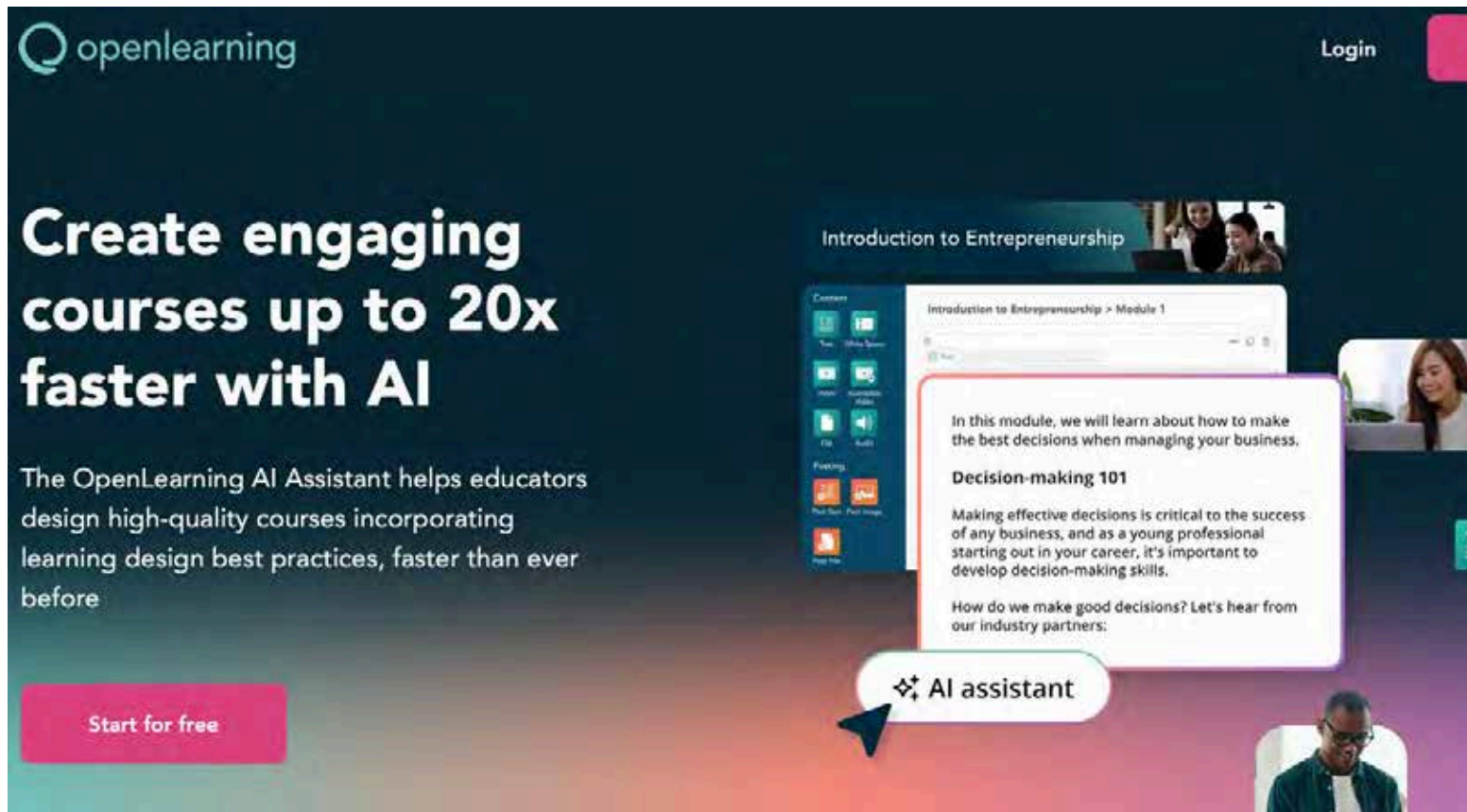
by Emily Dreibelbis Jun 23, 2023



AI helping teachers

- Writing quiz questions and feedback for students
- Designing a draft marking rubric
- Composing exemplars for critique
- Generating discussion prompts for use in class
- Writing lesson plans

<https://educational-innovation.sydney.edu.au/teaching@sydney/how-ai-can-be-used-meaningfully-by-teachers-and-students-in-2023/>



The graphic is a promotional image for the OpenLearning AI Assistant. It features a dark blue background with the OpenLearning logo in the top left. The main headline reads 'Create engaging courses up to 20x faster with AI'. Below this, a sub-headline states 'The OpenLearning AI Assistant helps educators design high-quality courses incorporating learning design best practices, faster than ever before'. A prominent pink button at the bottom left says 'Start for free'. On the right side, there is a screenshot of the OpenLearning interface showing a course titled 'Introduction to Entrepreneurship'. A white callout box with a pink border, labeled 'AI assistant' with a star icon, points to the interface. The callout contains the following text: 'In this module, we will learn about how to make the best decisions when managing your business. **Decision-making 101** Making effective decisions is critical to the success of any business, and as a young professional starting out in your career, it's important to develop decision-making skills. How do we make good decisions? Let's hear from our industry partners:'. The background also includes several small circular images of diverse people.

<https://solutions.openlearning.com/ai-assistant>

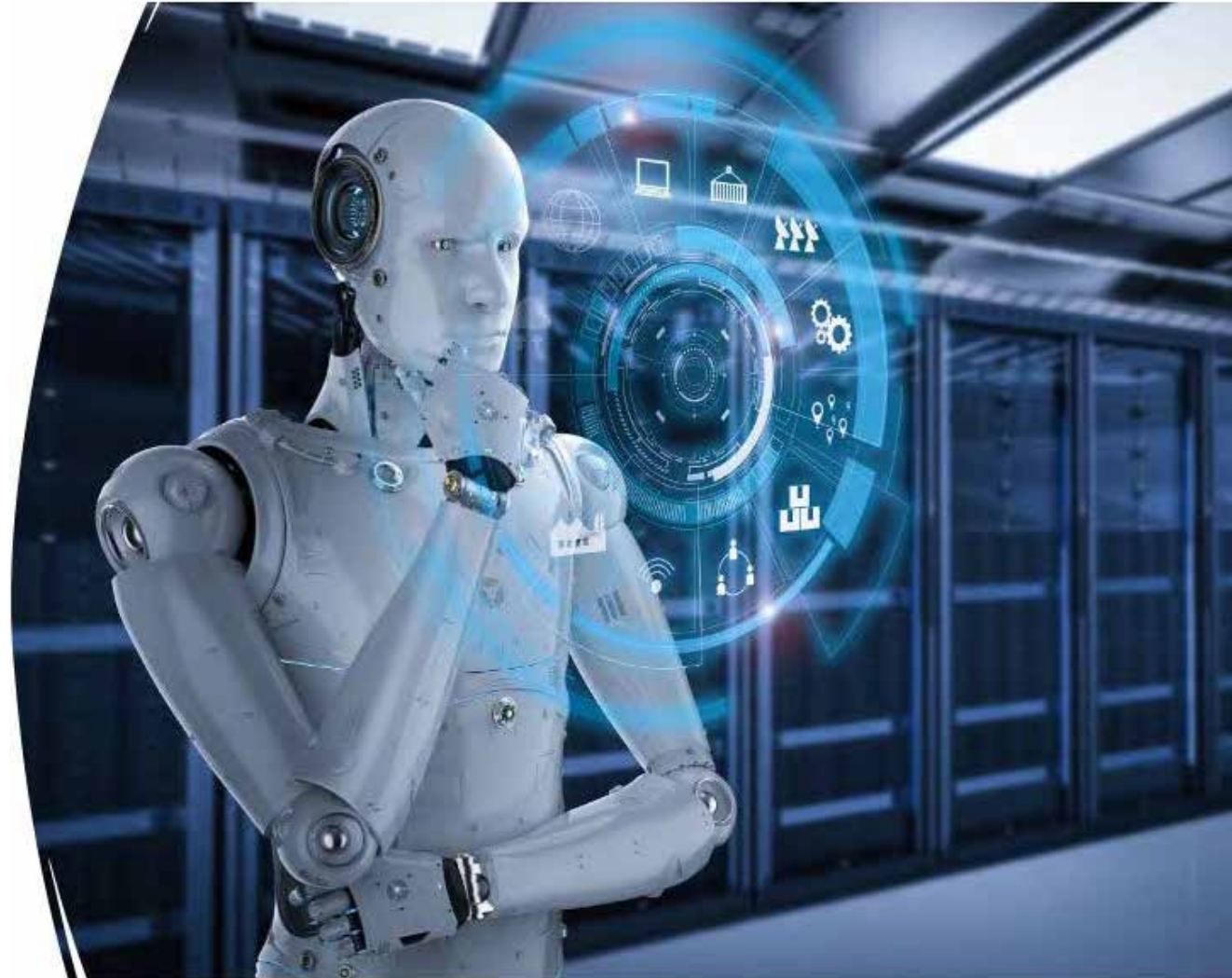
Student use cases

1. **AI as feedback generator** - AI-generated feedback can't replicate the teacher's knowledge of their students, but it is quick & scalable and can help students consider their work from an outside perspective. Students can evaluate the feedback, decide what to incorporate, and continue to iterate their drafts
2. **AI as personal tutor** – allow students to use AI as a tutor when they're confused or would otherwise look something up on the internet
3. **AI as team coach** – an LLM can help students write a “team charter” for how they will work together, and/or act as a team member
4. **AI as learner** – students can partner with AI individually through a structured prompt exercise. Students take on the role of teacher, the AI acts as the learner. Students show their critique of the AI's output and displaying their understanding of the concept



3 key issues

1. What is Generative AI?
2. How is it changing teaching and assessment?
3. **Why do we need to change what we teach?**





Broader VET issues

AI/ChatGPT changing jobs

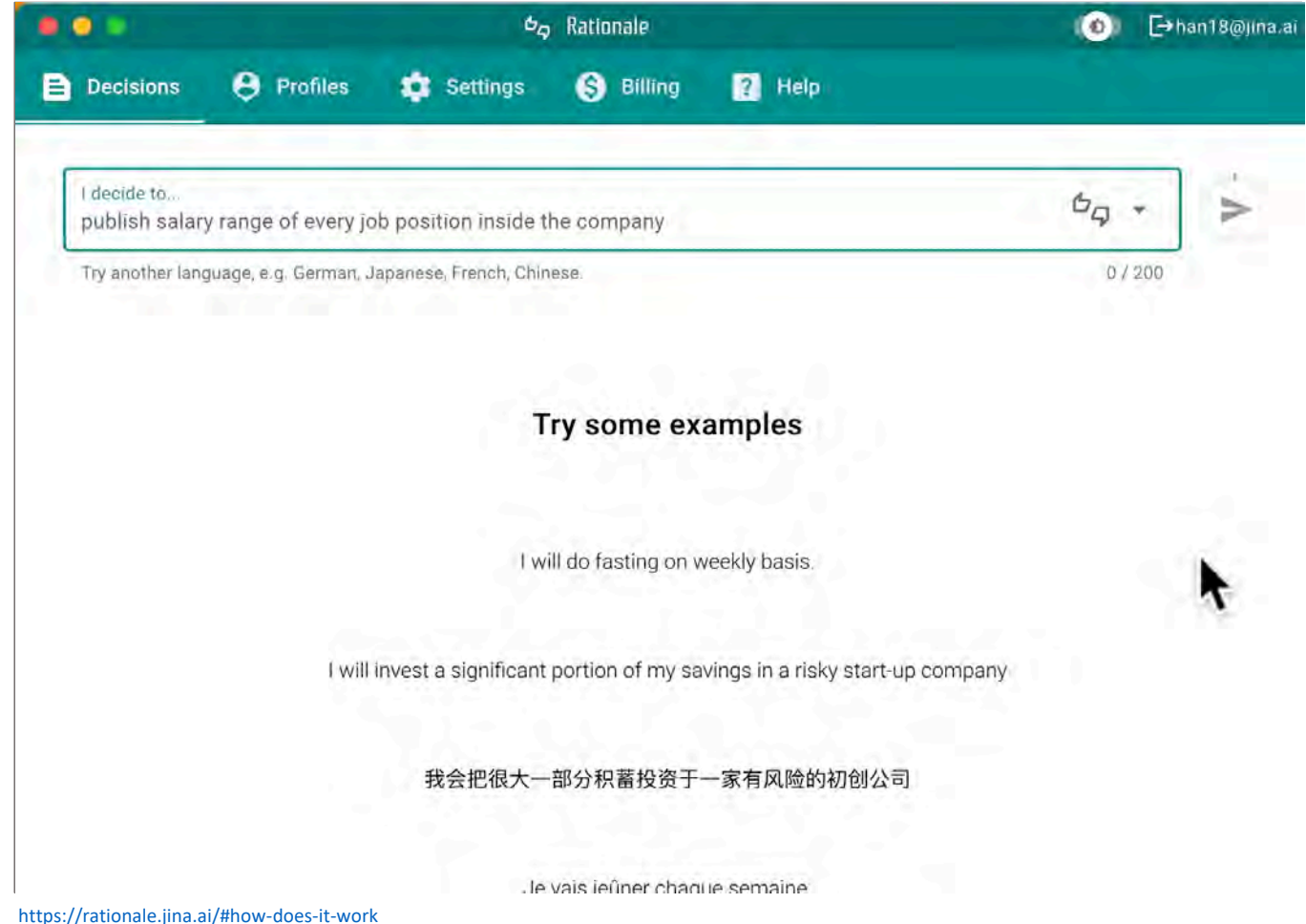
- architects, furniture and interior designers
- business & government data collection & processing
- coding
- customer service agents
- developing fitness plans
- editing
- game creation
- journalism
- language translation
- lawyers/paralegals
- marketing, digital marketing
- online coaching
- teaching (developing lesson plans)
- writing novels



Business Services

Planning & decision making


- Articulate, debate and present ideas
- Assess marketing opportunities
- Apply critical thinking to work practices
- Plan procurement
- Manage business risk
- Evaluate and report collected information
- Make procurement decisions
- Plan and implement strategic sourcing
- Manage business operational plans
- Drive sales results
- Develop and implement business plans
- Develop and implement an e-commerce strategy



Business Services

Policies and procedures

- Support human resources functions and processes
- Coordinate separation and termination processes
- Implement and monitor WHS policies, procedures and programs
- Implement and monitor environmentally sustainable work practices
- Implement and monitor procurement process
- Apply project quality management techniques
- Apply project procurement procedures
- Apply government processes
- Apply project lifecycle management processes
- Work within compliance frameworks
- Assist with workplace compliance with WHS laws



Documentation done while you work

Dubble watches how you work and translates your actions into written step-by-step guides, videos and screenshots - so you don't have to.

ADD TO CHROME (OH, AND IT'S FREEEEE)

<https://dubble.so>



Business Services

Marketing and Communications

- Conduct e-marketing communications
- Develop social media engagement plans
- Analyse data
- Develop a social media strategy
- Write persuasive copy
- Create and optimise digital media

✓ **Content creation** for blog posts, social media updates, and other types of content. With a topic or keyword, the chatbot can suggest headlines, opening sentences, and even entire paragraphs for use in marketing materials.

✓ **Audience research** assists digital marketers in better understanding their target audience. ChatGPT can identify standard customer segments' shared characteristics, behaviors, and preferences by analyzing large amounts of data.

✓ **Customer engagement** via social media or other platforms. Chatbots, such as ChatGPT, can be programmed to answer common questions, provide customer support, and even recommend products.

✓ **Data analysis enables digital marketers** to examine large amounts of data in order to identify trends, patterns, and insights. Marketers use large data sets to make data-driven decisions about their campaigns and strategies.

✓ **Personalized customer interactions.** ChatGPT can provide recommendations for products or content that are tailored to individual interests and needs by analyzing customer data. ChatGPT can help enterprises in creating one-of-a-kind experiences for new audiences, increasing engagement and fostering trust.

✓ **SEO optimization)** improves search engine results, which drive traffic to its site, by analyzing search queries and identifying relevant keywords.

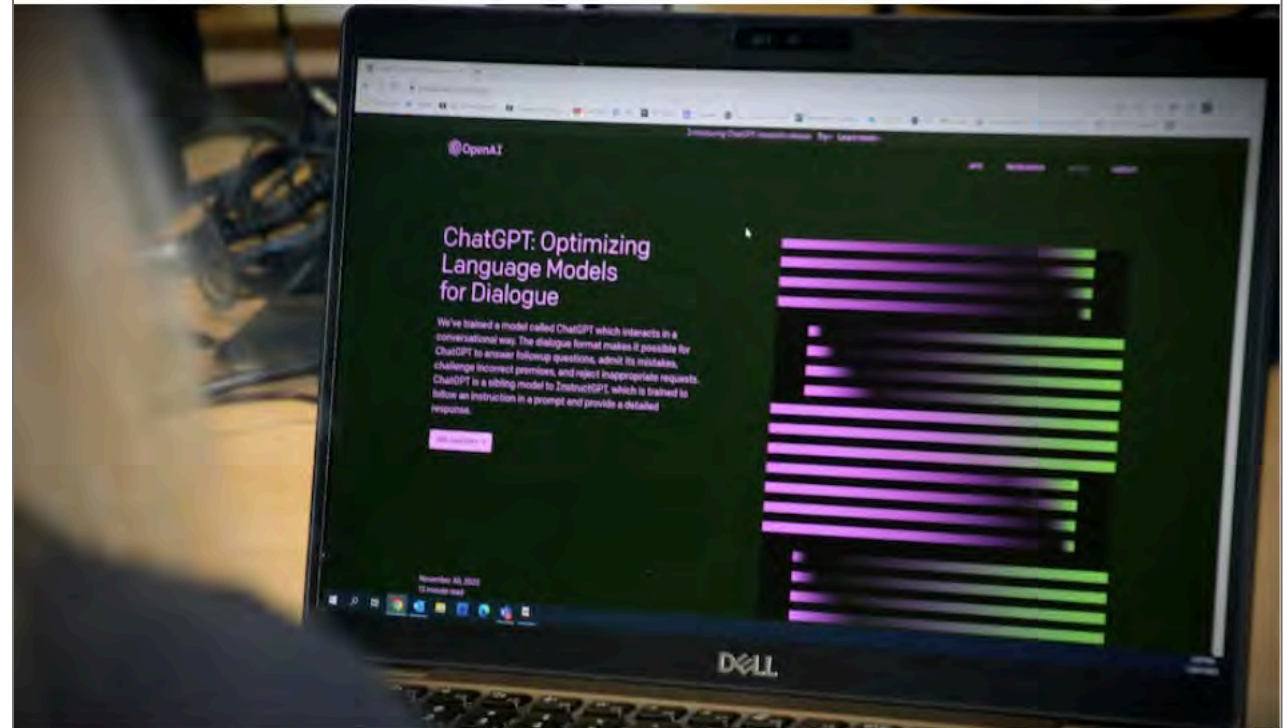
Business Services

Legal and Paralegal Services

- Apply principles of evidence law in matters under litigation
- Write complex documents
- Apply legal principles in contract law matters
- Conduct simple legal research
- Analyse and present research information
- Apply legal principles in criminal law matters
- Communicate with influence
- Apply business risk management processes

Lawyers in the United States blame ChatGPT for tricking them into citing fake court cases

Posted Fri 9 Jun 2023 at 3:42pm



A lawyer that used ChatGPT cited several cases that were not real or involved airlines that did not exist. (ABC News: Gian De Poloni)



Professional Writing & Editing

Cert IV Accredited course plus BSB package

- Write persuasive copy
- Develop PR documents
- Create electronic presentations
- Design and produce complex text documents
- Use digital technologies to collaborate in a work environment
- Write simple documents
- Write complex documents
- Marketing and Communication Skill Set
- Communications and PR Foundations Skill Set

'Top 10' according to ChatGPT

What are the top 10 best holiday destinations in Australia?

1. Gold Coast - Sunny beaches, theme parks, and nightlife.
2. Cairns - Gateway to the Great Barrier Reef, tropical rainforests and more.
3. Byron Bay - A coastal town with bohemian vibe, beaches, and surf culture.
4. Melbourne - Great food, fashion, and arts scene.
5. Tasmania - Perfect for nature lovers, with rugged coastlines, mountains, and wildlife.
6. Sydney - Opera House, Harbour Bridge and great ocean beaches.
7. Broome & Kimberley - Remote, rugged, beautiful.
8. The Barossa Valley - Australia's historic wine region and gourmet food destination.
9. The Blue Mountains - Food, wine, scenic views of mountains, waterfalls, and forests.
10. The Great Ocean Road - Awesome coastal drive to engaging coastal towns, beaches and views of the Twelve Apostles and

Sentinel-Times

TUESDAY, JUNE 20, 2023

COVERING SOUTH GIPPSLAND AND BASS COAST

PRICE \$2.00



HERE TO HELP

Wonthaggi Neighbourhood House committee member Grant Watson and Manager Leslie Adams run their food relief program every weekday to help the community with the cost-of-living crisis. See more on page 9.

Mayor Hersey to take on Broadbent



The Sentinel-Times ran a "listicle" written in June by artificial intelligence. (Supplied: Sentinel Times)

A final observation

 **Peter Yang**  @petergyang · Sep 28

I will never get a parking ticket again.



It's Wednesday at 4 pm. Can I park at this spot right now? Tell me in 1 line.



Yes, you can park for up to 1 hour starting at 4 pm.

Stay in touch

1. **Connect on LinkedIn (scan QR code)**
2. **Weekly news articles**
<https://clairefield.com.au/news/>
3. **Free podcast**
<https://whatnowwhatnext.buzzsprout.com>

