



5 April 2023: 07:00AM UTC

Designs for our times: Adapting assessment in an AI context

Joint ASCILITE SIGs webinar

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<https://ascilite.org/get-involved/sigs/>

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SHAPING THE FUTURE OF TERTIARY EDUCATION



Thomas Cochrane,

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University of Melbourne (Australia).

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ChatGPT and Academic Integrity: Options for adapting assessment for Semester 1 2023

This Melbourne CSHE brief guide provides practical examples for how academic staff could reframe aspects of their assessment tasks in Semester 1 2023 to mitigate the risk of cheating and plagiarism

[Read more >](#)

Official Statements from The University of Melbourne



What are the limitations of ChatGPT?

ChatGPT has several limitations, as listed below:

- It is not creative in a human sense.
- It is not self-aware.
- It summarises information without providing references to sources or citations.
- It cannot judge when information is correct or not.
- It does not possess critical thinking skills.
- It has been trained using online content which only existed prior to 2022.
- It has biases inherent from its programmers and users.
- It cannot hold copyright or be assigned intellectual property.
- It is not able to make ethical decisions or value judgments.
- It is prone to 'hallucinations', meaning that it sometimes fabricates facts and makes errors in reasoning.

What are some options for reframing assessment in semester 1?

In this section we provide practical examples of how essays, online or open-book exams, and other types of assessment can be reframed to reduce the possibility of academic misconduct via ChatGPT. These examples, which focus on high quality assessment practices, have been distilled from a range of recent discussions based upon ChatGPT's limitations.

Strategies for reframing essays

- Develop essay prompts that ChatGPT will not easily be able to answer. For example, redesign essay topics or questions so that they ask students to:
 - engage in creative thinking, critical analysis, or problem solving;
 - write about ethical dilemmas or hypothetical situations;
 - draw on specific aspects of the syllabus or class content;
 - respond to an image-based prompt (e.g., an historical image, data visualisation);
 - refer to content that is not readily available online (e.g., personal experiences, objects in their local environment);
 - focus on current events or news stories (i.e., events that occurred during 2022 or 2023);
 - critically analyse academic articles that were published after 2021; or
 - make affective or value-based judgements

ChatGPT proofing

Ideas for tweaking assessment

Essays

Essays as Personal Narratives

narratives on applied and lived experiences of the application of the knowledge and meaning in the student's own context. Vickel

Add comment

Double down on correct citations and referencing

ChatGPT does not cite sources, and when asked to will return false results that may seem correct but will have incorrect DOIs or links to other articles that it has found in the same journal! Make correct citation and referencing a core element of your marking rubric!



Scan the code using the Padlet app on your phone or tablet.

hidden from the public. If I choose to share it they should be able to access it.

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on Google Classroom

Padlet

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ChatGPT proofing Assessment Design

Ideas for tweaking assessments to minimise ChatGPT plagiarism

Essays

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1

Exams

Focus upon questions that involve critical thinking

ChatGPT is great at summarising multiple sources, but not good at: value judgements, affective questions, critical evaluation, compare and contrast – in other words critical thinking. Craft your exam questions around these.

Add comment

Case/ Problem Based

(so specific that not picked up by ChatGPT) (TS)

Add comment

Backwards Engineer a problem

Again moving away from answers

Resources

ChatGPT and Academic Integrity: Options for adapting assessment in semester 1 2023

Artificial intelligence tools and technologies

Using artificial intelligence software in the preparation of material for assessment

Statement on the use of artificial intelligence software in the preparation of material for assessment

The process of preparing material for assessment is an important part of students' learning experience. It allows students to demonstrate their understanding of concepts and apply what they have learnt in different domains and settings. Assessment supports students in their development of analytical skills, evaluative judgement, communication skills, and presentation skills. These are essential capabilities for graduates.

[Links to UOM Website](https://melbourne-cshe.unimelb.edu.au)

melbourne-cshe.unimelb.edu...
AI, Assessment and Academic Integrity

Other

5 strategies for using ChatGPT

phys.org

Five ways teachers can integrate ChatGPT into their classrooms today

Add comment

All my classes suddenly became AI classes





Ruth Dimes,

Professional Teaching Fellow and Director Business Masters,
Business School.

University of Auckland (New Zealand)

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UNIVERSITY OF
AUCKLAND
Waipapa Taumata Rau
NEW ZEALAND

BUSINESS SCHOOL



Ruth Dimes

Director, Business Masters
Professional Teaching Fellow





The ChatGPT Guinea Pig Experience

University of Auckland Business Masters

Quarter 1, January 2023

Questions from students:

1. Can I use ChatGPT?
2. Can I use ChatGPT to improve my English?
3. Do I acknowledge use of ChatGPT? If so, how?
4. Will I be marked down if I use ChatGPT?
5. If lazy students use ChatGPT to get better grades, how can I do better than them?



The ChatGPT Guinea Pig Experience

Our initial response: 'Use it at your own risk'

1. You can use it, but you are still accountable.
2. Be aware of its risks and weaknesses.
3. Lecturers run all assignments and tests through ChatGPT and let students know they have done this.
4. Acknowledge use of ChatGPT? (several issues with this in practice).



Assessment for the future: Focus on 'human' skills

Opportunities:

- Encourage use of AI tools
- Design assignments for use in industry: prompt engineering, editing, critical thinking

Challenges:

- Keeping up to speed with rapid developments
- Authenticity/security of assessment: Open-book? Digital? On campus? Invigilated? External accreditation needed?



Mitra Jayazeri,
Lecturer, Mathematics and Statistics.
La Trobe University (Australia)

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TRANSFORMING ASSESSMENTS

MITRA JAZAYERI



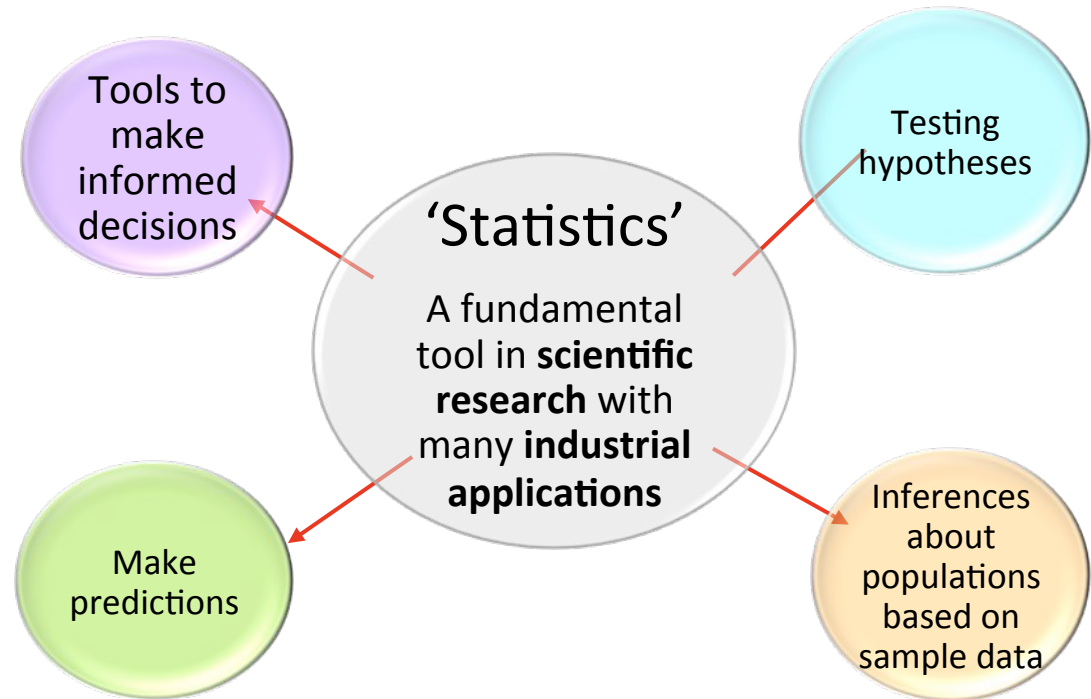
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I am a lecturer of statistics at La Trobe University in Melbourne, Australia.

- I have over 20 years of experience in teaching statistics to students with different academic backgrounds.
- I have a number of internationally published articles on the effects of blended teaching methods and interventions to reduce students' statistics anxiety.
- In 2022, I was awarded the UK Higher Education Academy Fellowship (FHEA) and have been the recipient of our school's commendation for teaching excellence award.



Will AI Assisted Generative Tools Be Useful in Teaching and Learning Statistics?



SCHOLARLY APPROACH

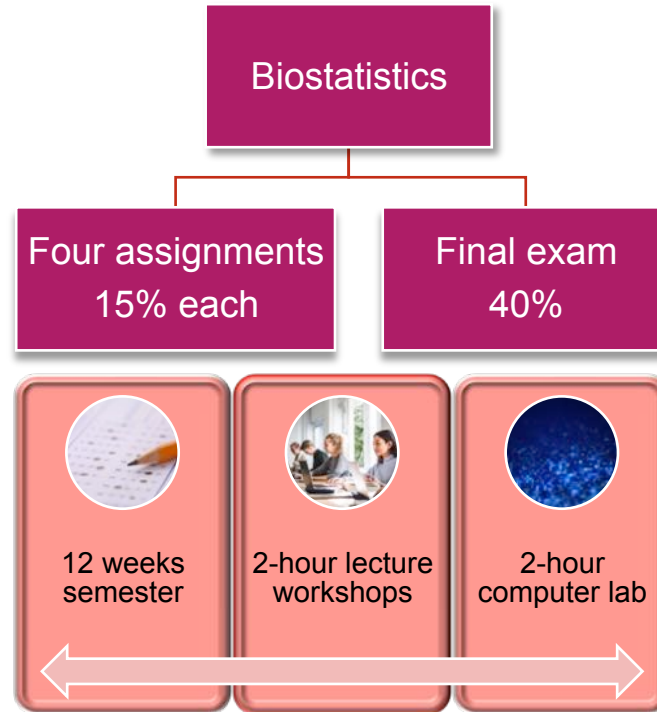
Inclusion of AI generated tools (Chat GPT) in our teaching and learning;

Using Chat GPT as a personal tutor!

How can we assess the student outcome when using Chat GPT?

Plagiarism detection software such as Turnitin will be used to stop cheating.

How to Evaluate and Assess Outcome – Thoughts for Transforming My Teaching Method and Assessment - Sem 1



Using Chat GPT positively:

1. To enhance student participation and engagement, for Weeks 2 and 4, I divided the weekly lecture slides into smaller sections and assigned each student to give a presentation on a specific section.
2. For Assignment 1, I included a question that required students to identify which topic was the most challenging for them over the past three weeks and how they used Chat GPT to better understand the material. Additionally, they were asked to specify the questions for which they used Chat GPT.
3. For Assignments 2-4 I added a section to the assignments, where students were required to record their solution while explaining the concept and steps, they took for one question.
4. By using this methods, we can capture both the learning objectives and the students' satisfaction.

CROSS-DISCIPLINE AND COLLABORATIVE RESEARCH

Associate Prof. Andriy Olenko

Dr. Xia Li (statistics consultant)

Mr. Dan Laurence (senior technology education designer)

Dr. Andrew Buldt (Health science lecturer)

Dr. Alysha De Livera (senior lecturer)

Mitra Jazayeri

Effect of AI-assisted Assessment (Chat GPT) on Student's Deep Learning - Sem 2

Our sample includes 1800 first-year health sciences students from the main campus and four regional campuses who are conducting a statistics project as one of their assessment tasks.

Some of our research questions:

What is the effect of using AI to learn statistical concepts on the ability to interpret and describe research outcomes compared to a group of students who did not use AI?

What impact will using AI have on students' independent learning capabilities?

What is the relationship between extrinsic/intrinsic motivation and enjoyment of using AI among students?



Richard Hall,
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La Trobe University (Australia)

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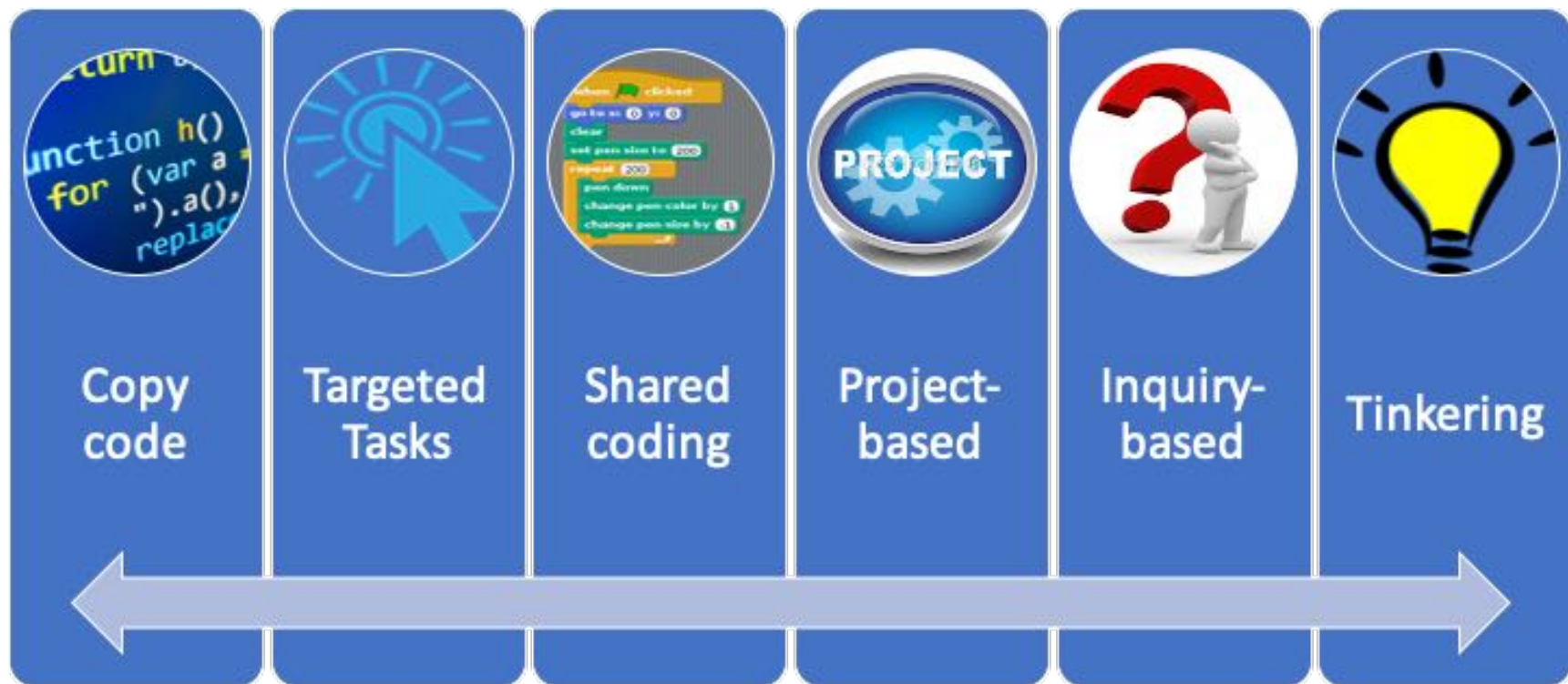
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Computer Science Student-Centered Instructional Continuum

Jane Waite
Queen Mary University of London, UK

Christine Liebe
Colorado School of Mines, USA

Self-assessment moment	Vignette
Getting a simple error	Jen is working on her programming assignment. She runs her code. An error pops up. She immediately realizes that she left out a parenthesis. She adds the parentheses and her code runs successfully. Jen thinks: "That was a stupid mistake. A good programmer wouldn't make small mistakes like this."
Starting over	Nadia is working on a hard homework problem. She plans out a solution. She writes a few lines of code. She realizes that her approach to the problem will not work. She decides to start over. Nadia feels frustrated that she wasted time. She erases all her code and starts again.
Not understanding an error message	Frank is working on a programming problem. He runs his code. An error pops up. Frank has no idea what the error message means. He is not sure what to try next. He thinks: "I'm doing so badly, I don't even know what this message means".
Stopping programming to plan	Diego starts working on a programming problem. He writes a few lines of code. He realizes that he is confused about what to do next. He pauses and plans his next steps. Diego wishes that he did not have to stop writing code to plan.
Getting help from others	Julie is working on her homework assignment. She gets stuck. Julie meets with an instructor to get help in order to finish the assignment.
Spending a long time on a problem	<h2 style="margin: 0;">Why do CS1 Students Think They're Bad at Programming? Investigating Self-Efficacy and Self-Assessments at Three Universities</h2> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Jamie Gorson Northwestern University Evanston, IL jgorson@u.northwestern.edu</p> </div> <div style="text-align: center;"> <p>Eleanor O'Rourke Northwestern University Evanston, IL eorourke@northwestern.edu</p> </div> </div>
Not knowing how to start	
Using resources to look up syntax	
Spending time planning at the beginning	
Spending a long time looking for a simple error	
Struggling to fix errors	
Not able to finish in time expected	
Does not understand the problem statement	Daniel is working on his programming homework. He runs his code and gets an error. He struggles to fix the error for a long time. When he runs the code, another error comes up. He struggles again. Eventually, he fixes it. Then, a different error comes up.
Not able to finish in time expected	Sirena is working on her programming assignment. She expects to finish it in one night. After a while, she decides to stop working because it got late. She feels upset that she was not able to finish it in one night.
Does not understand the problem statement	Fatima reads her programming homework assignment. She does not understand what the problem statement is asking her to do. She feels upset and frustrated because she can't even understand the question.

Table 1: The thirteen self-assessment moments and the vignettes that we included on the survey.

Staircase Visualizations

chat.openai.com/chat

+ New chat

Staircase Visualizations

what does this do
if i // 3:

The code `if i // 3:` is an if statement that checks if the integer division of `i` by 3 results in a non-zero value.

If `i` is divisible by 3 with no remainder, the result of `i // 3` will be a non-zero integer, which is interpreted as True in a boolean context. If `i` is not divisible by 3, the result of `i // 3` will be 0, which is interpreted as False in a boolean context.

Therefore, this code can be used to check if `i` is divisible by 3 without using the modulo operator (%), which would give the remainder of the division.

Clear conversations

Upgrade to Plus **NEW**

Dark mode

Updates & FAQ

Log out

Regenerate response

ChatGPT Feb 13 Version. Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

week3-live.ipynb - Colaboratory

colab.research.google.com/drive/1IrdRJoii2Ts7Uzt6E8vniCd8Q1mgTSUU#sc...

week3-live.ipynb

File Edit View Insert Runtime Tools Help [All changes saved](#)

Comment Share

+ Code + Text

```
[33] Python is fun and easy!  
Python is either hard or useful, or both!  
Python is not confusing!
```

```
for i in range(1, 21):  
    if i % 3 == 0 and i % 5 == 0:  
        print("FizzBuzz")  
    elif i % 3 == 0:  
        print('FIZZ')  
    elif i % 5 == 0:  
        print("BUZZ")  
    else:  
        print(i)
```

```
print(bool(x))
```

```
1  
2  
FIZZ  
4  
BUZZ  
FIZZ  
7  
8  
FIZZ  
BUZZ  
11  
FIZZ  
13  
14  
FizzBuzz  
FIZZ  
16  
17  
FIZZ  
19  
BUZZ
```

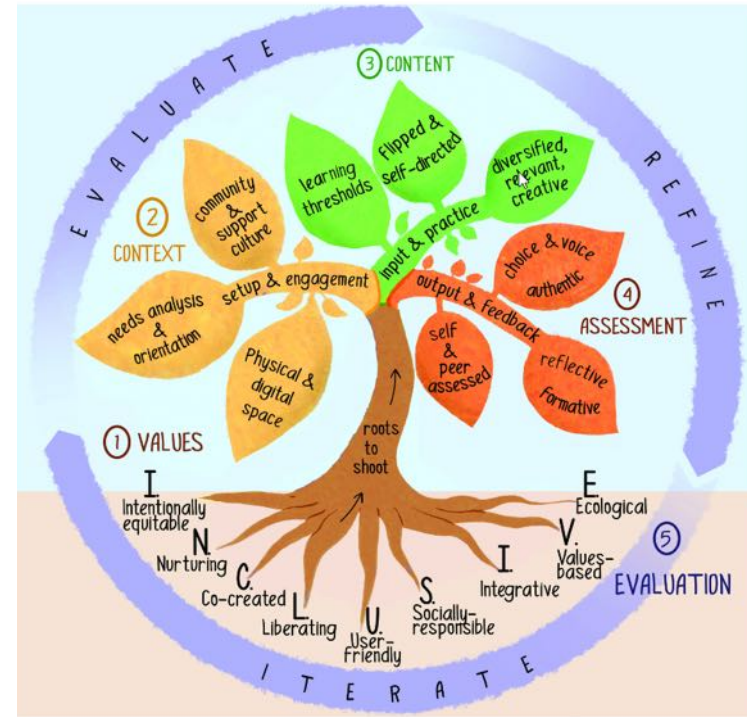
RAM Disk

Discussion and activities

Miro board activity:

<http://taw.fi/MIRO-DAIT>

[https://miro.com/app/board/uXjVMYBx9CQ=?share_link_id=498785237608]



Rossi, V. (2023). Inclusive Learning Design in Higher Education. Routledge, London



Webinar Session feedback

With thanks from your hosts

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Recording available

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Next session
3 May 2023
Details coming soon.



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