


Empowering Educators with GenAI: Supporting Future Student Learning

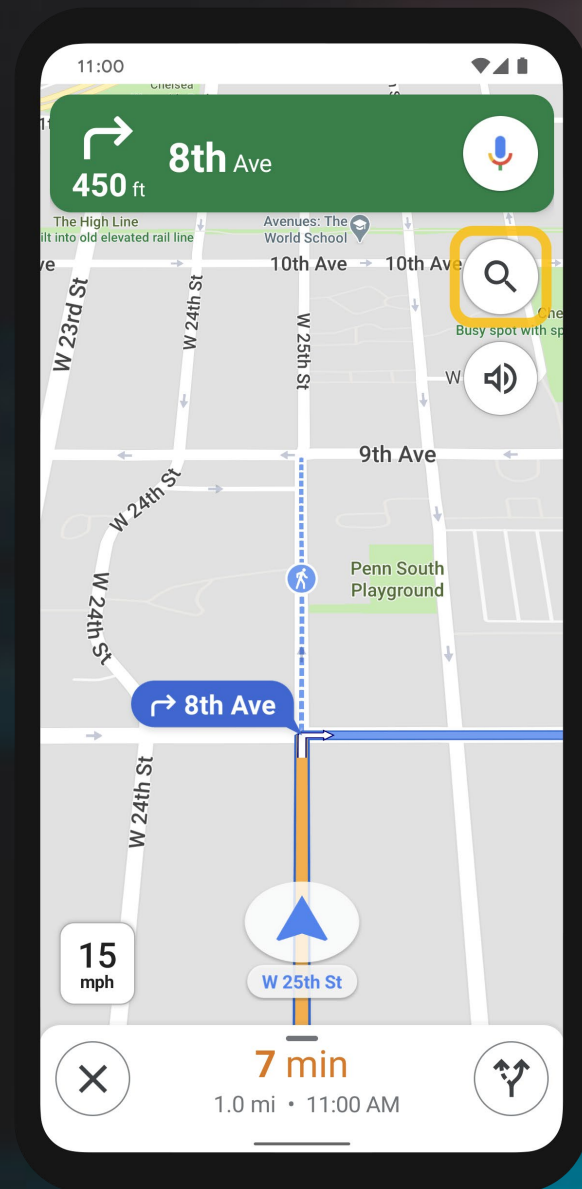
Luke Clift
Kardinia International College

ACKNOWLEDGEMENT OF COUNTRY

I acknowledge the traditional owners of the land, the Wurundjeri people of the Kulin Nation, and recognise all Aboriginal and Torres Strait Islander people's unique cultural and spiritual relationships to the land, waters and seas. 

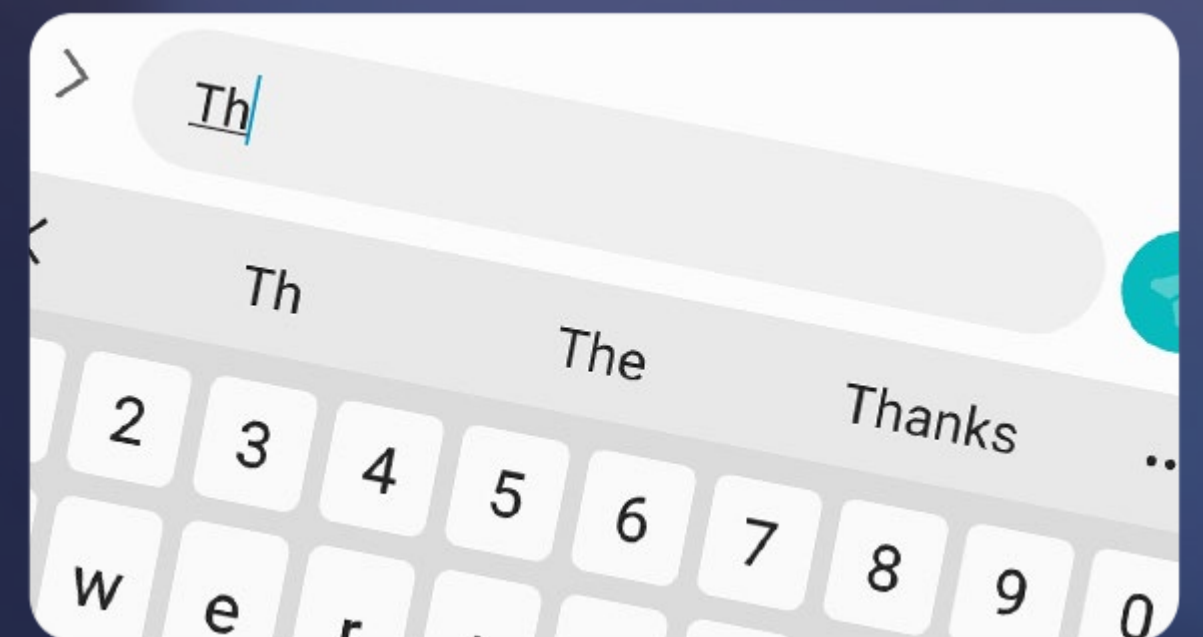
I pay my respects, to Elders: past, present and emerging.





What is GenAI?

GenAI is not 'Google'



How should we think of AI?



Who's Leading AI?



Sam Altman

Satya Nadella

Tim Cook

Dario Amodei

Mark Zuckerberg

Sundar Pichai

How do we use GenAI responsibly?

1 Policy or Guidelines?



2 Where is the info stored?



3 Training and Support



Lesson Planning: Get time back (and reduce cognitive load)

- **Problem**
Lesson planning is time-consuming
- **Solution**
ChatGTP or other program to help refine information and create resources. i.e. success criteria, key vocab, quizzes, worksheets, etc.
- **Teacher Role**
Drive the process. Guiding and refining.

● **Your Turn**
Schedule a lesson to plan for next week and challenge yourself to get it done in 30 minutes or less.

i need to summarise this text into 2-3 concise dot points that is student friendly language

The situation often arises in reducing balance loans that a potential borrower knows how much needs to be borrowed as well as the amount that can be repaid each month. The borrower then wants to know how long the loan needs to be to accommodate these conditions. The number of repayments, N , can be calculated using the Finance Solver on the CAS calculator.



7.3 Solving reducing balance loan pro...
Presentation



taking this attached presentation can you make 2-3 dot point success criteria in I can statements in student friendly language



can you create a summary of the presentation with key ideas and key vocabulary again in student friendly language

Pre/Post Lesson Reinforcement: Chatbots for Lesson Support

Problem

Cognitive overload when explaining new topics and challenges for 1:1 support.

Solution

Use Chatbot to help preload some of the key vocab and concepts

Teacher Role

Customising feedback/planning based on chatbot responses

Your Turn

Use the link below to have a go at Mizou from a student perspective



https://mizou.com/login-thread?ID=hp3TzYih_B20-rFXaBDL4J8nfAgtJSCxW1m7tEoAZTI-42495

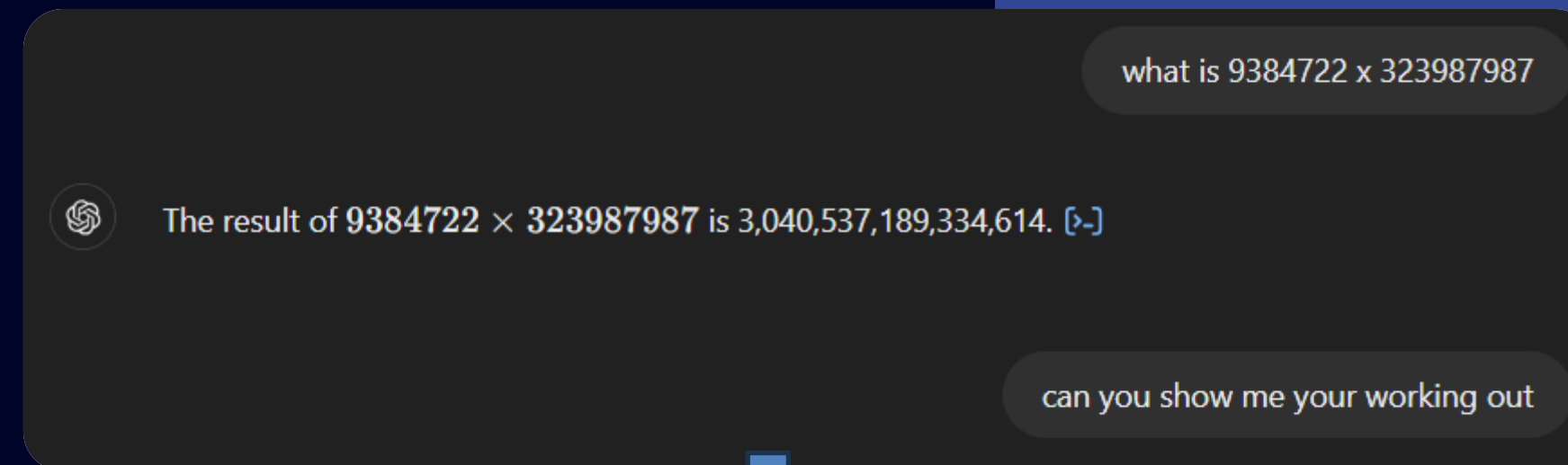
AI Hallucinations: Turn the errors to your advantage

● **Problem**
AI makes errors

● **Solution**
Turn mistakes into learning opportunities

● **Teacher Role**
Guiding students to correct errors

● **Your Turn**
Try to break the AI and spot the mistake, get the person next to you to spot the mistake.



Partial Results (each step of the multiplication):

1. $9384722 \times 7 = 647975974$
2. $9384722 \times 20 = 6,479,759,740$
3. $9384722 \times 200 = 226,791,590,900$
4. $9384722 \times 1000 = 1,295,951,948,000$
5. $9384722 \times 10000 = 25,919,038,960,000$
6. $9384722 \times 100000 = 97,196,396,100,000$
7. $9384722 \times 1000000 = 2,915,891,883,000,000$

Final Result (summing all partial results):

3040537189334614

Bringing it all together: Find knowledge gaps from whole class summaries

Problem

Time-consuming student
work summaries

Solution

AI-generated summaries

Teacher Role

Reviewing and filling
knowledge gaps

Your Turn

Where and how could you
use this in class to help
with checking for
understanding?

General Maths Year 11 Semester 1 Review

Univariate Data + ...

1.2 Types of Data + ...

Classification of Data

Categorical: Data that fits into categories. Examples: favourite colour, favourite sport, gender.

Numerical: Data that has been measured or counted. Examples: number of siblings, height of a person.

These are the two types of data. Remember that Numerical you can measure or count!

1.2 PowerPoint

The PowerPoint is a powerful tool that everyone has, and honestly everyone that has access to this has access to that so yeah.

Types of Data

The data is being displayed in a branching tree. It displays under the two main data types (Categorical and Numerical) branches such as Ordinal for Categorical and Discrete for Numerical. This image is very helpful.

General Summary of Data types

much like grass I haven't touched this in a while but I'll say what I remember.

There are 2 main classifications Categorical (things) and Numerical (numbers), which subdivide into 2 different categories

Nominal: this is data that has a name but doesn't have order, (the boy is disordered like half the teacher notes)

Ordinal: data that has an order but not numbers, like terrible, bad, meh, ok, good (I do this quickly throughout the day, but in the opposite order)

Discrete: basically counting stuff with numbers, this is math (the man who buys 467 watermelons uses this)

Continuous: basically measuring the data (the length we have to walk between the locker and class (alot))

Question about Numerical and Categorical data

1. Identify which of the following is not numerical data.

A. Number of students in a class
B. The amount of rainfall in a day
C. The number of seconds on a digital clock
D. The number of pages in a book

2. Identify which of the following is not categorical data.

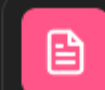
A. Preferred political party
B. Height of a person
C. Gender
D. Favourite colour

Information

1.2.2 Discrete and continuous data

Discrete data is data that can only take certain values. For example, if we counted the number of children per household in a particular suburb, the data obtained would always be whole numbers starting from 0. It is discrete because you can't have half a child.

Continuous data is data that can take any value between two values. If the heights of students in a school were plotted, then the data would consist of any value between the minimum and maximum heights. The values recorded would be restricted only by the precision of the measuring instrument used to record the data.



General Maths Year 11 Semester 1 Revi...
PDF



can you please compare the attached pdf against the below standards for a year 11 General Maths VCE class. Please let me know where the gaps are in the students knowledge from the attached pdf when comparing this to the standards. You should also include some ideas where students can focus their attention in revision for an upcoming exam on the topics from the standards below:

Investigating Data Distributions

Identified Gaps:

- Use of Logarithmic Scales:** There is no mention of using logarithmic (base 10) scales to display data ranging over several orders of magnitude and their interpretation in terms of powers of ten.
- Boxplots and Outliers:** While the five-number summary and boxplots are covered, the explanation on how to use the lower fence ($Q1 - 1.5 \times IQR$) and upper fence ($Q3 + 1.5 \times IQR$) to identify and display possible outliers is not detailed.

Revision Focus:

- Logarithmic Scales:** Students should practice creating and interpreting logarithmic scales.
- Boxplots and Outliers:** Emphasize on identifying outliers using the IQR method and understanding their impact on the data distribution.

Want more? Where to go?

VIRTUAL
TAKEHOME
BAG



Email

l.clift@kardinia.vic.edu.au

LinkedIn:



Q&A

The goal isn't to outsmart AI or to pretend it doesn't exist, but to harness its potential to enhance education while mitigating the downside. It also isn't the desired outcome to make it the driver of education and learning.

- Ethan Mollick

