



Assessment Design in the AI-Era

Learning Impact, Engagement, Authenticity and
Academic Integrity

Disclaimer:

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“

An assessment becomes valuable when students authentically engage with it and academic staff are proud to mark it.

”

Outline

1. The Role of AI in Contemporary Assessments in Higher Education
2. An Institutional View of AI Integration in Assessments
3. Course (Subject) Re-Design:
An Action Research (Case Study) of An Organisational Theory Subject
4. Results and Outcomes
5. Reflections
6. Q&A
 - Knowledge-sharing



1. The Role of AI in Contemporary Assessments in Higher Education

- *The Boon and Bane of AI: The 'Curse' in 2022*
- *Academic Integrity and Assessments*

- Artificial Intelligence (AI): machine's capabilities akin to human's cognitive capability
- Generative AI: deep learning models that can process, 'learn' and re-generate or reproduce data when prompted
- November 2022: ChatGPT



Natural Language Processing (NLP)

Machine Learning

Data Analytics

Speech Recognition and Synthesis

Plagiarism Detection

Intelligent Tutoring System

AI-Driven Research Assistants

Interactive Learning Tools

ChatGPT

Figure 1. Some Examples of AI

Sources: Holmes & Tuomi, 2022; Zhang & Aslan 2021; KMPG, 2023.

Prevalence of AI Applications: Sectors and Industries

- Digital technologies, including AI, could be worth \$315 billion to the Australian economy by 2028 (CSIRO, 2023)
- Deloitte has found some 9.5% of large Australian firms (those with more than 200 staff members) are officially using AI, compared to 1.4% of all firms in Australia (Deloitte, 2023).
- Australia will require up to 161,000 new AI workers by 2030 (CSIRO, 2023)
- Europe: Four in ten (42%) enterprises have adopted at least one AI technology (EU, 2020)
- Vietnam:
 - 27% of organisations are fully prepared to deploy and leverage Artificial Intelligence (AI)-powered technologies (CISCO, 2023).
 - National Strategy on Research, Development, and Application of AI through 2030
 - AI-related R&D Training, Institutions and Personnel, Application and Deployment

1. The Role of AI in Contemporary Assessments in Higher Education

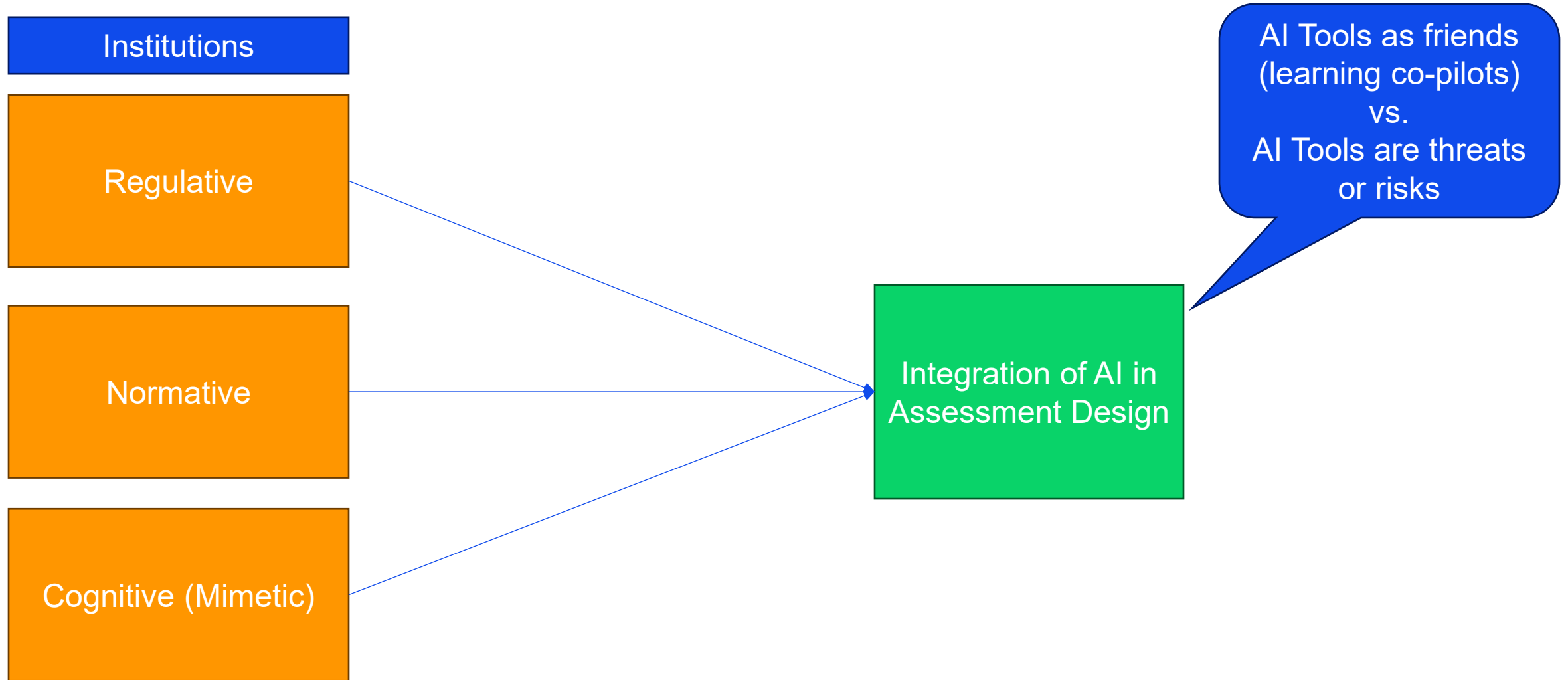
- *The Boon and Bane of AI: The 'Curse' in 2022*
- *Academic Integrity and Assessments*

- The Birth of ChatGPT in 2022
- “Who wrote this essay?”
- **Academic Integrity:** act with honesty, trust, fairness, respect and responsibility (TEQSA, 2022)
- How can we ensure the academic integrity of assessments?
- Assessments: process of measuring how well students know and what they can do; whether they have achieved the outcomes necessary to start their meaningful careers (Wiggins, 1998)

Assessments should be authentic:

- Realistic
- Requires judgement and innovation
- Requires ‘doing’ the subject
- Replicates or simulates the context (e.g. workplace, business)
- Measures one’s ability to use repertoire of knowledge to complete complex tasks
- Allows for practice and feedback
(Wiggins, 1998)

2. An Institutional View of AI-Integration in Assessments



Course Re-design in Response to AI: An Illustrative Example

Subject: **Understanding Organisations: Theory and Practice** (Undergraduate Subject)

Overview: Introduces business students to **organisational theories** to understand the dynamics within organisations and their interactions with the external environment (i.e. society and natural environment)

Learning objectives: *explain the nature and roles of organisations in business and management, using **different theoretical perspectives***

*apply different **theoretical frameworks** in addressing managerial issues that confront contemporary organisations*

*evaluate the uses and limitations of **organisational theories** and their implications in managerial and business practices*

*communicate individually and in a team, sound recommendations informed by relevant literature **on organisational theories that address organisational and managerial issues***

Delivery 12 weeks (1.5-hour lecture + 1.5-hour tutorial every week)

Course Re-design in Response to AI: An Illustrative Example



Course Re-design in Response to AI: An Illustrative Example

Assessments (Pre-AI)

- Individual Essay, 2,000 words – 30%
- Group Report and In-class Presentation, 2,500 words + 10 minute presentation – 30%
- Final Exam (Take-Home Exam Due to COVID pandemic) – Essay Type – 40%

Traditional Academic Integrity Challenges:

- Plagiarism
- Collusion
- Contract Cheating



ChatGPT



Course Re-design in Response to AI: An Illustrative Example

Action Research Question:

How can we design a suite of authentic assessments that assures academic integrity and leverages emerging technologies as learning co-pilots?

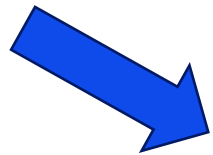
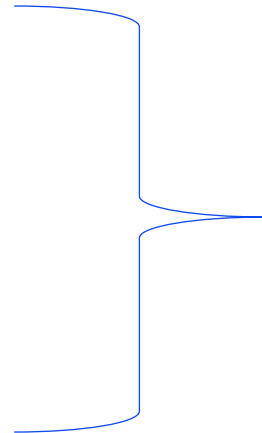
Objectives:

1. To design a set of assessments that authentically measures the achievement of the subject objectives
2. To design a set of assessments that enable students to leverage technologies such as AI that they are likely to use in professional practice
3. To ensure that risks to academic integrity are identified and managed in the delivery of assessments
4. To design assessments that are operationable and will generate T&L satisfaction (for both staff and students)

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Assessments (AI-Era)

- **Assessment 1: Group Project**

- A: Video Documentary (Group of 5) =30%
10-minute video + 10 minute in-class presentation with Q&A
- B. Briefing Paper (Individual) =20%
1,000 words

- **Assessment 2: Advocacy Folio (Individual)=50%**

- A. Poster – 1 page
- B. Business Report
2,000 words

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1,000 words

- **Assess 2: Advocacy Folio (Individual)**

- A. Poster – 1 page
- B. Business Report
2,000 words

- Each team chooses a theory, an organisation, and a social or environmental issue
 - e.g. scientific management at Acme Corporation, health and well-being of factory workers
- Video: how the theory was exemplified in the context and how the organisation can use the theory well to become a 'better' organisation
- Using AI: video creation, storyboarding, exploration of the theory, etc.

Course Re-design in Response to AI: An Illustrative Example

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- **Assess 2: Advocacy Folio (Individual)**

- A. Poster – 1 page
- B. Business Report
2,000 words

- Individual briefing on what the video was all about
- Critical analysis of their video
- Critical analysis of the use of AI in their project

[See Demo of the Video Documentary](#)

Course Re-design in Response to AI: An Illustrative Example

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1,000 words

- **Assess 2: Advocacy Folio (Individual)**

A. Poster – 1 page

B. Business Report

2,000 words

- Advocating for organisational change from a specific theoretical perspective
- Poster: addressing or challenging an issue affecting an organisation (e.g. diversity and inclusion at Coles Supermarket)
- Using a theory as the framework of the advocacy (e.g. Institutional theory)
- Use AI in developing the poster

See Demo of Advocacy Poster

Course Re-design in Response to AI: An Illustrative Example

Outcomes

1. Engagement with students: Assessment Clinic Sessions (consultations)
2. Students Taking Ownership of their Project

*Choice of issue and organisation that they are passionate about
e.g. hunger, poverty, homelessness, inclusion, climate change,
technological stress, employee rights and welfare*

3. Timely completion and submission
4. Zero incidence of breaches of academic integrity (e.g. plagiarism and abuse of AI)

What about contract cheating?



Course Re-design in Response to AI: An Illustrative Example

Outcomes

5. Authenticity (e.g. AoL)

- Understanding, application, creation, evaluation, and synthesis

6. More systematic marking – use of rubric is critical

- In-class marking of group-project with immediate feedback to students
- Advocacy Folio – more meaningful and less stressful to mark (novelty of ideas)

7. Focus on Quality Assessments vs. Quantity

8. Positive engagement with AI



Samples of Feedback from Students:

...the last thing anyone in this subject would want to do is another essay! The A/V documentary ... I very much enjoyed completing...

...the most engaging subject I ever had in my study (at uni)

...I never thought theories make sense to understand why supermarkets engage in price-gouging

...This is the first time a lecturer asked me to use ChatGPT in my project! Imagine that- an academic asking me to use AI! I was so conflicted at first, but I managed to resolve it as I completed my project.

... I shall return to Norway with fond memories of our project – filming our video in the middle of Sydney’s busy street!

...Little did I know that institutional theory has anything to do with sexual harassment in the workplace until our group explored this topic. More projects like this, please.

...I’ve never been so hands-on in my projects such this advocacy folio...

...need to allocate more marks on the creative side... (suggestion taken into consideration next offering)

Lessons Learned

1. Develop clear learning objectives set for the subject
 - ‘Scaffoldings’
 - Bloom’s Taxonomy: Strong focus on application and creation
2. Tight link between the learning objectives and the assessments
3. Embrace AI: *Gen AI is a friend*
 - Be clear with the policies, guidelines, and expectations = use of AI
 - Provide clear guidance = examples
4. Invest in rubric design
 - Sufficient details to inform academic progress
 - Operationability (workload of markers)
5. Conduct Assessment Clinic Sessions – in class
 - Never under-estimate progressive (formative) feedback



Lessons Learned

6. Be bold and audacious in re-designing assessments
 - Respond to changes in the business world
7. Enable students to develop transferable skills and capabilities
8. It cuts both ways!
 - “If you get bored marking an assessment, imagine how bored yet stressed the student was in writing that assessment!”
8. What is a perfect assessment in a theory-heavy subject?
 - There is NONE!



Q&A and Knowledge Sharing

- Feel free to:
 - Ask questions.
 - Share your ideas, experience, feedback or reflections



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