Anatomy of Assessment

Embedding AI into assessment

Faculty: Business School

Module name: AI ventures

Programme name: Global Online MBA (with some computing students)

Level: Masters

Approximate number of students: Varies, approx. 70

Module ECTS: 20

Module type: Elective

Assessment overview

This case study involves a project based assessment where groups of MBA students are working together in teams to build the first part of a business plan for a start-up with the domain of Artificial Intelligence. During the 5 week module the students are scaffolded through a series of shorter written exercises that build towards their capstone submission. The use of AI is embedded into one of the written exercises where students are asked to critique an AI generated output of their business strategy.

Design decisions
Overview of the assessments on the module

The aim of the module is for students to explore applications of AI in finance, health and other markets and to build new business models, products or technical concepts. The final product of the module is a pitch of a new AI venture that they wish to launch in either a corporate setting or as an independent start-up.

The module is purely based on coursework which comprises of the following:
- The final report of 10-20 slides of a written submission and the final presentation on the group output (that resembles a Dragon's Den style verbal pitch
- Written individual assignment elaborated where students are asked to use AI to critically evaluate its output about the originality of their business idea.
- Peer evaluation and group project contribution that are graded
- Quizzes to ensure that students are doing the required work and engaging in class.
- Class participation

Rationale for the inclusion of an AI component

One of the coursework assessment, the individual written assignment, was redesigned in response to the rise of large language model systems like ChatGPT. Before the popularisation of Chat GPT the task read:

Following your problem identified in Written Assignment 1, please write a short essay of 200-500 words on the topic of "what is unique about your solution". As before, you may potentially (but are not required to) describe the same unique attributes that differentiate your solution from others that might exist, but you should provide your own individual perspective on the answers.

This task was changed once ChatGPT became widely used to include a deliberate use of an AI tool (students weren't exclusively restricted to using ChatGPT but ended up choosing it as their preferred tool):

Following your problem identified in Written Assignment 1, you will again be collaborating with your LLM-AI. You will be submitting 2 items in this written assignment:

Insights colour key

Educational Developer
Inclusivity
Learning Designer
Registry
Careers
AI

Interviewees: Professor David Shrier
Role: Professor of Practice

Embedding AI into assessment

1. Instruct your LLM-AI of choice to generate a 250-word explanation of what is unique about your AI solution. Your written assignment is to critique this output (250 words +/-). What was good about the result? What did not work well? What would you do differently?
2. Submit the venture description output that the LLM-AI itself generated. Please identify which LLM-AI you used.

Rationale for the group component
Group component is the fundamental learning design for this type of module. Most of the learning that students will gain from particularly an entrepreneurship and business plan focused class is peer learning. Therefore figuring out how to operate as part of a team where you have to take a complex task and subdivide it into smaller tasks, navigate domains of status and control, authority, expertise, ability to work with others is what's necessary to succeed in running a start-up. Watch this video discussing 'leadership and followership'.

Fit with other modules
This is an elective module that interacts seamlessly with another elective module - Entrepreneurial Journey. Students who take the AI ventures module can pick up their work on their business plans in Entrepreneurial Journey and extend it. They'll get a more rigorous and in depth look at the topic and also more rigorous and in depth set of feedback at end of term.

Practicalities
Preparing students for AI use
Prior to undertaking the assessment the students were shown how use a LLM. This was done through composing AI poetry in class, i.e. the students used AI to compose short poems about AI ventures that were then read in class. The reason for it was making sure that every student had an account set up to enter prompts and generate an output. Through this, students learnt how to use the tool in a non-threatening format.

Preparing students for group work
Students at the start are asked to sign an honour code of agreement where they agree to contribute to group work. Outside of that there is no preparatory work done to ensure students are well prepared to work in a group. This is because of the nature of the students who tend to have some working experience before going into the MBA and the nature of the programme that is group work heavy. Watch this video discussing inclusive group work.

Assigning groups
Groups are assigned according to interests. A Google sheet is created with students' ideas for businesses and others interested in a similar idea can sign up and form a team together. This helps to ensure students are driven by their interests and are passionate about the business, which assigning students to groups would not help to achieve.

Peer marking and feedback
Group contribution are peer marked. This way the group self regulates without the need to implement top-down interventions.

There is no formal preparation for peer feedback and peer marking, again due to the nature of the programme and the students.

Marking arrangements
Each component described in assessment overview has weighting attached to it and is formally marked. The distribution is as follows:

Final report and pitch	50%
Written individual assignment	10%
Peer evaluation and group project contribution	20%
Quizzes	10%
Class participation	10%

Provision of feedback
Feedback on the individual written assignment was provided in the form of a sentence or two. The students tended to fall into patterns of response so it was easier to generate feedback that can apply to more than one student. The individual answers were different, but they bucketed nicely into handful of categories - did the student understand that ChatGPT was repetitive and superficial? Did they just spot that it was superficial and not repetitive? Did they just spot that it was repetitive and not superficial? Did they fail

there was only one marker involved in marking a substantial amount of submissions, this approach to feedback allowed to lower the feedback burden yet for students to still get useful information they can apply in a timely manner. Watch this video on why students disengage with feedback.

Online adaptations

This assessment could easily be implemented both in an Online class setting or in person.

Advantages of assessment type

- The authenticity of the assessment has the potential to engage the students
- The connectivity between the modules allows students to develop ideas generated in this module further
- Having active investors providing feedback to students allows for a more diverse feedback and gives students a 'sanity check'. This different set of perspectives is important because venture capital as an asset class doesn't tend to have great returns as venture capitalists don't have consistency or commonality in their ability to pick good companies. A variety of feedback from people who are actively working in the field is crucial.
- Students are going to be using AI tools just like they use the scientific calculator. Rather than prohibit it, we as educators should embrace it, and we should figure out ways to turn it into a set of teachable moments. This means designing curricula that incorporate these tools and teach the students how to use them better.
- It is aligned well with professional practice. Students are going to have to work in a group no matter what they do. There are hardly any job descriptions that do not equivalent a group working collaborative element. Being able to work in a group helps students develop related transferable skills;

Limitations of assessment type

- Some of the students thought that they were only supposed to critique ChatGPT and they didn't connect the dots between how the individual exercises/ assignments were building towards their final assignment. The instruction around 'What would you do differently' had an implicit dependent clause that said, in order for this to be

useful in your final written submission which was missed by some students.
- In terms of group work, not having any insight into what is happening in group work can be an issue, however due to the nature of the students no monitoring mechanisms were adopted
- Working within the constraints of the time that is allocated for assessing can be difficult

Advice for implementation

- Make the language of the brief clear to ensure students understand what they are required to do and how the work done in one task informs their final submission. This is especially important if you're inducing a critical thinking model, make sure it is clear as to what you want your students to critically think about. Sometimes exemplars can be a good way of explaining expectations to students. Watch these video's on pros and cons and strategies for using exemplars.
- Include training on prompt engineering that should be included in preparation for the tasks. Teaching these skills will allow students to make good use of AI tools in the long run and help them develop AI literacy.
- As the number of AI tools is growing rapidly it is useful to look at the current set of tools available on the market and then recommend to your students a couple that you think are most suitable to help them navigate that part of the task. In doing so make sure that all students will have access to the suggested tools.
- There are different approaches to group allocation. What should be avoided is trying to group all students with specific learning needs together.
- For most students preparation for working in a group is key and it should include some discussion of how students with different learning needs might respond to group work. It is always useful to negotiate ground rules based on group participants' working patterns and preferences;
- When conducting oral assessments it is important to consider how question will be asked to ensure all students have an equal opportunity to answer them to their best advantage. This might involve strategies such as pausing to give students time to think or writing the question down so that it can be more easily processed.
- Ensure that assessment is designed in such a

way that reasonable adjustments can be made
and there is enough time to allow for mitigation if
necessary;

- When including peer feedback it is important to
ensure that students are in a position to provide
meaningful feedback to their peers and if grading
is involved, they fully understand assessment
criteria against which they are marking their
peers.
- Give consideration to how groups should be
created. There are different approaches that
could be followed, it is important to have a clear
rationale for why you think your chosen approach
works best given the circumstances.