



Assessment 2 Information

Subject Code:	MBA509		
Subject Name:	Artificial Intelligence programming for business analytics		
Assessment Title:	Group Role Play		
Assessment Type:	Group in-class research and presentation		
Word Count:	5	Minutes	(+/-10%)
Weighting:	30%		
Total Marks:	30		
Submission:	Submission of research and presentation slides on MyKBS		
Due Date:	Week 10 in class		

Your Task

As a group, you are required to:

1. Research Neural Networks, LSTMs, Attention, and Perceiver AI.
2. Create a 5-slide pitch on how perceiver AI could be used to address problems in the global luxury brands industry.
3. Perform a 5-minute presentation to your peers.
4. Upload slides to MyKBS.

Background

Perceiver AI is a super neural network that can take as input the combinations of all kinds of unstructured data, such as audio, video, image, artificial vision, and human languages. Imagine that you are the head of an AI start-up that uses Perceiver AI that can create personalised recommendations and deliver them across any website/app as well as social media platforms.

You are presenting to business representatives of global luxury brands to **convey what opportunities this new technology (Perceiver AI) can create for the industry.**

Perceiver AI Resources

Refer to the below sources and/or your own research:

- <https://deepmind.com/research/publications/2021/Perceiver-General-Perception-with-Iterative-Attention>
- <https://deepmind.com/blog/article/building-architectures-that-can-handle-the-worlds-data>
- <https://www.zdnet.com/article/googles-supermodel-deepmind-perceiver-is-a-step-on-the-road-to-an-ai-machine-that-could-process-everything/>



Assessment Instructions

Section 1: Research (10 marks)

1. Describe Recurrent Neural Networks and how they facilitate learning (100 words) (2 marks).
2. Describe Long-Short-Term-Memory (LSTM) cells, especially how LSTMs advance the capabilities of Neural Networks (100 words) (2 marks).
3. Describe Transformer AI, focusing on attention mechanisms and how they advance the capabilities of Neural Networks (100 words) (2 marks).
4. Describe Perceiver AI and explain how it is an evolutionary step up from Transformer AI (100 words) (4 marks).

You can refer to resources above together with some of your group research. Submit your group's answers to the above questions on MyKBS Turnitin "Section 1" submission box.

Section 2: Application (10 marks)

Your group is presenting to representatives from a global marketing and advertising industry about the opportunities perceiver AI has for their industry. Give each group member a role e.g., CEO, Product Development Head, etc.

Consider the fact that this is a non-technical audience and prepare a 5-slide pitch deck to address the below:

1. Address the following **two** key problems (3 marks):
 1. Problem #1: describe how to use Perceiver AI to automatically detect, process and analyse content from websites. What kind of insights could be found?
 2. Problem #2: suggest or recommend ways to make the website compliant with laws and regulations.
2. Create a 5-slide pitch deck to pitch Perceiver AI as a solution for the problems you identified to a non-specialist business audience (7 marks).

Section 3: Live Group Presentation (10 marks)

1. Group presentation: your group is to present no more than 5 slides (use your group's pitch deck from Section 2) to representatives from the global marketing and advertising industry during the class.
2. Your group's presentation makes use of diagrams and pictures to help improve visual communication.
3. Communicate in an engaging and relevant way to a non-specialist business audience.
4. Persuade the audience that Perceiver AI is relevant to solving problems in their industry.

Ensure your presentation sticks to 5 slides and 5 minutes presentation.



Important Study Information

Academic Integrity Policy

KBS values **academic integrity**. All students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Academic Integrity and Conduct Policy.

What is academic integrity and misconduct?

What are the penalties for academic misconduct?

What are the late penalties?

How can I appeal my grade?

Click here for answers to these questions:

<http://www.kbs.edu.au/current-students/student-policies/>.

Word Limits for Written Assessments

Submissions that exceed the word limit by more than 10% will cease to be marked from the point at which that limit is exceeded.

Study Assistance

Students may seek study assistance from their local Academic Learning Advisor or refer to the resources on the MyKBS Academic Success Centre page. Click [here](#) for this information.



Assessment Marking Guide

MBA509 Assessment 3		Group Rubric /30		
Section 1: Research				
0-5		6-10		/10
The group has demonstrated limited achievement: Described some components of Neural Networks relevant to Transformer and Perceiver AI. Struggled to articulate how Neural Networks evolved into Transformer and Perceiver AI technology. Failed to address the question in a brief and targeted way.		The group has achieved all or most of: Described the components of Neural Networks that form Transformer and Perceiver AI and focused on key points to create a brief, targeted description. Synthesised the evolution of Neural Networks to describe the operation of Perceiver AI.		
Section 2: Application				
0-5		6-10		/10
The group has demonstrated limited achievement: Identified problems in the industry not entirely suited to an AI solution. Constructed five or more slides which do not entirely focus on information relevant to a non-technical business audience. Made a weak link between Perceiver AI and business solutions. Slide design fell short in demonstrating key professional elements: slides were cluttered with text and/or images, grammar and spelling errors distracted the reader, and visuals were used as unnecessary filler.		The group has achieved all or most of: Identified two relevant industry problems which could be addressed with Perceiver AI. Constructed five slides of easy-to-understand information conveying to a non-technical audience how Perceiver AI can address the two key problems. Focused on key information relevant to the audience. Slide design demonstrated key professional elements of being uncluttered and error free, with visuals used skillfully to convey information.		



Section 3: Presentation		
0-5	6-10	/10
<p>The group as demonstrated limited achievement:</p> <p>Delivery: Lacked persuasive delivery techniques required to persuade the audience about the applicability of Perceiver AI to business problems in their industry.</p> <p>Timing: The presentation time limit was too short or too long, indicating more preparation required.</p> <p>Speech: The information provided showed some relevance to a non-technical business audience, though may have included unnecessary jargon.</p> <p>It attempted to make or lacked logical and convincing connections between Perceiver AI and business solutions.</p> <p>Groupwork: Transition between speakers lacked preparation to create a smooth handover between members.</p> <p>The organisation attempted a logical flow, with an underdeveloped or missing introduction and conclusion to the presentation.</p>	<p>The group has achieved all or most of:</p> <p>Delivery: Used a tone and level of energy required to persuade the audience about the applicability of Perceiver AI to business problems in their industry.</p> <p>Timing: The presentation time limit was adhered to.</p> <p>Speech: The information provided was relevant to a non-technical business audience, avoiding unnecessary jargon.</p> <p>It made logical and convincing connections between Perceiver AI and business solutions.</p> <p>Groupwork: Transition between speakers demonstrated professional handover dialogue.</p> <p>The organisation between speakers and content flowed logically, with an introduction and conclusion used.</p>	