

AI In Innovation

Week 2 – SEMINAR. ETHICS & IMPACT



REMINDER

The purpose of seminars

- To apply the concepts from the lecture to real organisations, rather than just discussing them in the abstract.
- To practise working as a team, in the same way you will need to for your Evidence Deck.
- To get hands-on feedback and support from your trainers while you work, not just at the end.
- To build up material, week by week, that directly supports your assessed Evidence Deck, worth 40% of your overall grade.

A note on language:

- If you are in a group with multiple nationalities, use English
- All written work must be in English
- All responses to questions, presentations etc must be giving in English



Making the most of seminars:

- Interact and engage - with each other, with your teams, and with your tutors!
- Speak up - you consolidate your knowledge when you use your voice
- Ask for help - the instructors are all experts - use them!
- 'Sandbox' environment - failure is expected,

What you will work on today

- Research and present a counter argument to the lecture content (which implied that AI was, at best was, at best compromised)
- Understand how to use nuance and context in your analysis of AI
- Using your case study to map negative product, manufacture and design effects of AI
- Using your case study to deep dive into specific and generic concerns relating to AI implementation and implementation and adoption
- A run through of a sample evidence deck - really useful for later in the semester!

Timings

5–30m

AI ethics: the counter argument

30–60m

Case study brainstorm

60–70m

Break

70–105m

Case study deep dive

105–115m

Focus on assessment: introduction to the evidence deck

115–120m

Wrap up

PART 1

AI ethics: the counter argument

Two things can be true at once

In the lecture, we covered a wide range of ethical concerns relating to AI.

However, AI also has real benefits. It's important to reality that something can be good and bad at the

Nuance

A subtle distinction in meaning or judgement.
Recognising that something can have several shades of truth, rather than one single verdict.

Context

The circumstances or setting surrounding a fact or fact or action. The same use of AI can be reasonable or harmful, depending on the situation it sits within.

>>> Unit Assessment tip (for when the time comes!): the more you take into consideration context, and the more nuanced your analysis and recommendations, the higher your mark will be! >>>

Build the counter argument

In your teams, create **one slide** (PowerPoint, Canva or Google Slides) that responds to the statement:

“AI only has negative ethical implications.”

Your slide should include:

- Some of the amazing things AI can do, focusing on **PRODUCTS** (think about different industries e.g. healthcare, transportation, law, real estate).
- Ways that design and innovation can counter some of AI's negative effects, from a **MANUFACTURE** and **DESIGN** perspective.
- A note on the importance of nuance and context.

Suggestions:

- Split your team in two, one half on the amazing **PRODUCTS** AI can create and the other on overcoming **DESIGN** and **MANUFACTURE** challenges
- Divide your slide the same way; work together in one shared file which we will take a look at in the seminar!
- Make sure to save your work on your Teams workspace (it might be useful later on!)

Design, manufacture and products

1

Its design

The model itself: what it optimises for, what data it learns from, whose values it encodes.



2

Its manufacture

The physical and economic process of building it: compute, energy, water, land, labour.



3

Its products

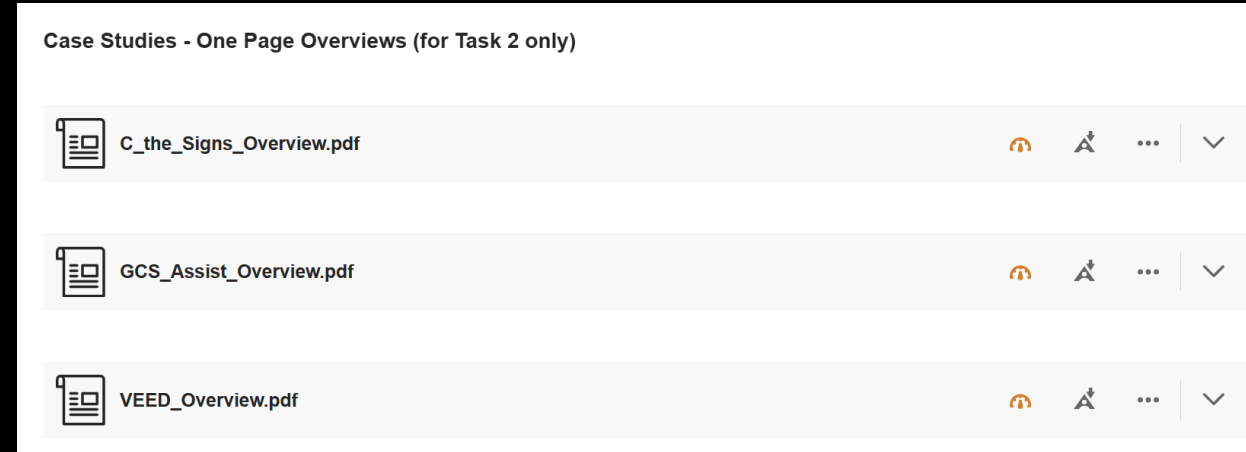
What gets built on top of it: agents, chatbots, image and video generators, and how people use them.

SECTION 2

Case study: brainstorm

Your task - part 1

- On Blackboard, you will find one-page overviews of the three case studies we are working on this term.
- **This is different from the full case study documents, which are also on Blackboard.**
- Download the one-page overview for the case study your team has been assigned. If you are not sure which one, ask a member of the teaching team.



https://www.ole.bris.ac.uk/ultra/courses/_270028_1/document/_10740496_1?view=content&state=view

Whiteboard brainstorm

1. Spend 5 minutes reading your case study overview.
2. Draw a table on your (physical!) whiteboard like the one shown, then populate it using post-it notes.
3. No laptops or AI for this exercise, just your brains.
4. Take a photo of your finished whiteboard and save it to your Teams folder.

	Positive impacts	Negative impacts
Design		
Manufacture		
Product		

Suggestions:

Get creative and think about short and long term impacts, and consider unintended consequences, for example 'if AI is implemented in my organisation, this might lead to X, which could result in Y positive or negative impact.'

https://www.ole.bris.ac.uk/ultra/courses/_270028_1/document/_10740496_1?view=content&state=view

Break

10 MINUTES

SECTION 3

Case study deep dive

Seminar, Team & Case Study Allocations - reminder

		<u>CASE STUDY</u>	<u>GROUP TUTOR</u>			<u>CASE STUDY</u>	<u>GROUP TUTOR</u>
A	1	VEED	LAURA	D	1	C THE SIGNS	LAURA
A	2	C THE SIGNS	LAURA	D	2	GCS	LAURA
A	3	GCS	LAURA	D	3	VEED	LAURA
A	4	VEED	ROB	D	4	C THE SIGNS	ROB
A	5	C THE SIGNS	ROB	D	5	GCS	ROB
A	6	GCS	ROB	D	6	VEED	ROB
A	7	VEED	ROB	E	1	C THE SIGNS	STEPHEN
B	1	VEED	STEPHEN	E	2	GCS	STEPHEN
B	2	C THE SIGNS	STEPHEN	E	3	VEED	STEPHEN
B	3	GCS	STEPHEN	E	4	C THE SIGNS	NENIE
B	4	VEED	NENIE	E	5	GCS	NENIE
B	5	C THE SIGNS	NENIE	E	6	VEED	NENIE
B	6	GCS	NENIE	F	1	C THE SIGNS	FRANCIS
B	7	VEED	NENIE	F	2	GCS	FRANCIS
C	1	VEED	FRANCIS	F	3	VEED	FRANCIS
C	2	C THE SIGNS	FRANCIS	F	4	C THE SIGNS	HOLLYE
C	3	GCS	FRANCIS	F	5	GCS	HOLLYE
C	4	VEED	HOLLYE	F	6	VEED	HOLLYE
C	5	C THE SIGNS	HOLLYE				
C	6	GCS	HOLLYE				
R	1	VEED	HOLLYE				

Case Studies – reminder

	Government Communication Service (GCS)	C the Signs	VEED
Function	Implementing AI assistance tool across GCS	Cancer symptom tracking	AI-led video production
Industry	Government	Health	Media & Creative Industries
Stage of AI evolution	Legacy	Digital-first (not AI)	AI-first
Size	1,400 employees	30 employees	150 employees

Part 1 - LLMs and the PICKSE framework

1. On Blackboard, find and download the full overview of your case study.
2. As a team, use **two different** LLMs. Attach the case study to each and apply the **P**ersona, **I**ntention, **C**riteria and **S**tructure of the PICKSE framework to identify potential ethical challenges and negative impacts of implementing AI across your case study. Ask each LLM for a minimum of 10 areas of concern.
3. Compare the two outputs, note where they overlap, and combine them into a simple spreadsheet with your list of ethical concerns in column A.
4. Once you are done, take a short pause.



Prompt Engineering 101

The 'PICKSE' framework

Persona: [The role, expertise or specific job title the AI must adopt]

Intention: [PROVIDE BACKGROUND TO YOUR GOALS]

Criteria: [DEFINE SUCCESS AND IDEAL OUTPUTS]

Knowledge: [SPECIFY WHICH SOURCES IT SHOULD USE]

Structure: [EXPLAIN THE FORMAT YOU REQUIRE]

Examples: [INCLUDE EXAMPLES OF SIMILAR OUTPUT]

Part 2 - Classify your concerns

Part 3, continued

1. Take your list of ethical concerns and build a table with these column headings: Product related, Design related, Manufacture related, related, Generic, Specific.
2. Mark each concern Y in every column that applies. For example, bias in training data leading to a cancer misdiagnosis would score Y under Design and Y under Specific.
3. Save your work to your team's shared drive.

DEFINITIONS:

Specific:

a concern particular to this company, sector or business type.

Generic:

a concern for all business or enterprise users of AI.

Ethical Concern	Product	Design	Manufacture	Specific	Generic
Concern A	Y			Y	
Concern B			Y		Y
Concern C		Y			Y
Concern D		Y		Y	

SECTION 4

Focus on assessment

Why this matters for your grade

40%

of your overall grade comes from the Evidence Deck

The work you complete today, and in every seminar this term, feeds directly into your Evidence Deck. Evidence Deck.

Outside of lectures and seminars, you will work with your team to build out the Evidence Deck, using the case study analysis, whiteboards and spreadsheets you are producing in these sessions.

About This Evidence Deck

This slide deck gives you an example outline of the structure and content we would expect from your evidence deck submission for assessment.

It includes questions to prompt you for content, examples and ideas to help support your submission.

N.b. this is just a TEMPLATE example, and we expect you to create your own version of this – using your own brand, colour palette, typography -, and you can present relevant information relating to your project in whichever way you feel is best.

You can find resources to help with the design and branding of this deck on slide 3.

Go to Blackboard for more info

[Link](#)

Useful Resources

Here are some FREE tools to help design your evidence deck

Draft your evidence deck with AI

- <https://gamma.app/ai-powerpoint>

Find royalty-free stock Images

- Pexels
- Unsplash

Create images using AI

- Playground AI
- Dall-E
- Leonardo.AI

Create diagrams and illustrations using AI

- <https://www.napkin.ai/>

Define your team's colour palette

- Colors.co

Find useful icons

- <https://thenounproject.com>

Design a team logo

- <https://www.namecheap.com/logo-maker/>

AI Innovation Goal

We will cover this in
Week 5

Describe your AI innovation: what will it be/do?

Target audience: whose goals are you supporting?

Our project aims to harness AI to _____ for _____ so that

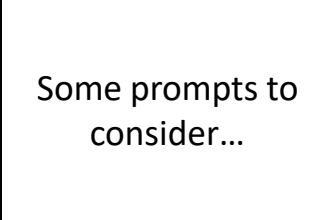
they can _____ .

Ultimate impact: what benefits will your innovation achieve for them?

AI Innovation Landscape: Opportunities

Describe the AI innovation opportunities in your client's sector.

- How is AI being used in this sector?
- What are the AI adoption trends?
- What factors (political, social, economic, technological, legislative, environmental) are driving these trends?
- What positive impact/ outcomes is AI helping to achieve?
- Who are 3-5 of the key organisations innovating with AI in this sector?



Some prompts to consider...



We will cover this
content in weeks 1 and
3

AI Innovation Landscape: Opportunities

Outline potential areas for AI in your client's sector.

	1. Cheaper	2. Better	3. New
Repetitive, low value tasks			
Skill Bottlenecks			
Navigating Ambiguity			

We will cover this
content in weeks 1 and
3

AI Innovation Landscape: Constraints

Describe the AI innovation constraints & ethical impacts in your client's sector.

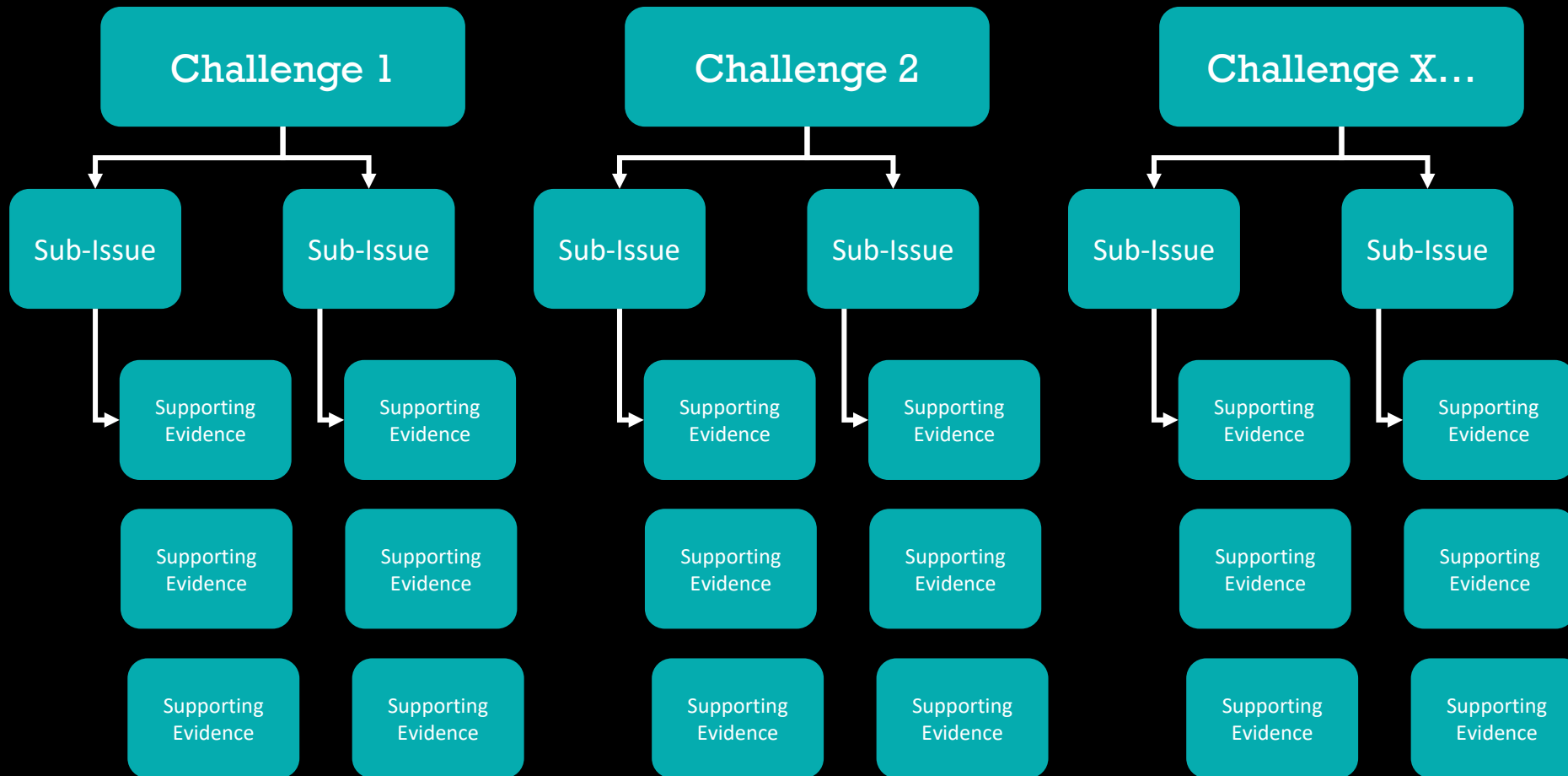
- *What social, ethical or environmental externalities should be considered?*
- *What laws/standards govern this use of AI (e.g., data protection, IP/copyright, safety/assurance, medical device regulation)?*
- *What are the key risks and failure modes (bias, hallucinations, safety, misuse) and how will we mitigate them?*
- *What data constraints exist (quality, consent, bias, access, retention, storage)?*
- *What security constraints apply (sensitive data, audit logging, incident response)?*
- *What organisational constraints exist (skills, change management, governance, human-in-the-loop/oversight, accountability/liability)?*
- *What transparency, explainability, and accessibility requirements must be met for affected users/citizens?*

Some prompts to consider...

We will cover this content in week 2

Understand The Client's Challenges

We will cover this
content in weeks
3,4 & 5



Generate evidence and data to understand each challenge your client faces from your persona interviews and other source material we'll share in week 4. The goal is to help prioritise which challenge to focus on and why

Define your assumptions

We will cover this content
in week 4

Assumption Category	List the assumptions you need to test about your innovation here <i>(refer to the persona template on the next slide for inspiration)</i>
Desirability (the problem and user): Do our end users really want/need this? How likely will they be to use it in the way we want them to? Will users be able to use it in the way we need them to?	
Feasibility (the practicalities): Can we realistically build this (thinking about tech timescales, regulation, legal and compliance implications, budget, etc.), with our available resources?	
Viability (the business model): Will this create enough value that someone will pay? Is the customer different from the end user? Will it generate sufficient commercial impact?	
Effectiveness (the outcomes): What outcome(s) are we aiming to achieve, what makes us think we'll achieve them, and how/when should we measure them?	

Share your insights

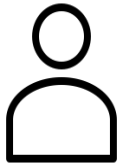
We will cover this content
in weeks 4-5

Assumption Category	Share Key Insights from your User Discovery Process
Desirability (the problem and user): Do our end users really want/need this? How likely will they be to use it in the way we want them to? Will users be able to use it in the way we need them to?	
Feasibility (the practicalities): Can we realistically build this (thinking about tech timescales, regulation, legal and compliance implications, budget, etc.), with our available resources?	
Viability (the business model): Will this create enough value that someone will pay? Is the customer different from the end user? Will it generate sufficient commercial impact?	
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User Persona – Your Client

We will cover this content in week 5

Describe the persona of client CEO who has requested your help with AI innovation



Name:
Age:
Location:
Job Title:
Salary:

Pain Points

What challenges are they facing in reaching their outcome?

Goals

What outcome(s) are they trying to achieve?

Current solutions

What solutions are they already trying? What are the limitations / issues with these solutions?

Success Metrics

How they measure success in their role

Reasons for 'Yes'

What factors would make them say 'YES' to adopting/ investing in AI innovation?

Quote

"I wish I had..../ I'm always looking for.../ I'm annoyed by.../ I dream of..."

Root Cause

What are the underlying causes of their challenges?

Motivations

What motivates them to achieve their goals? (e.g. price, speed, convenience, ease of use)

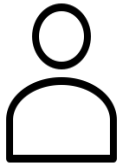
Reasons for 'No'

What factors would make them say 'NO' to adopting/ investing in AI innovation?

User Persona – Client's End User

We will cover this content in week 5

Describe the persona of the end user who will be impacted by your AI innovation



Name:
Age:
Location:
Job Title:
Salary:

Pain Points

What challenges are they facing in reaching their outcome?

Goals

What outcome(s) are they trying to achieve?

Current solutions

What solutions are they already trying? What are the limitations / issues with these solutions?

Success Metrics

How they measure success in their role

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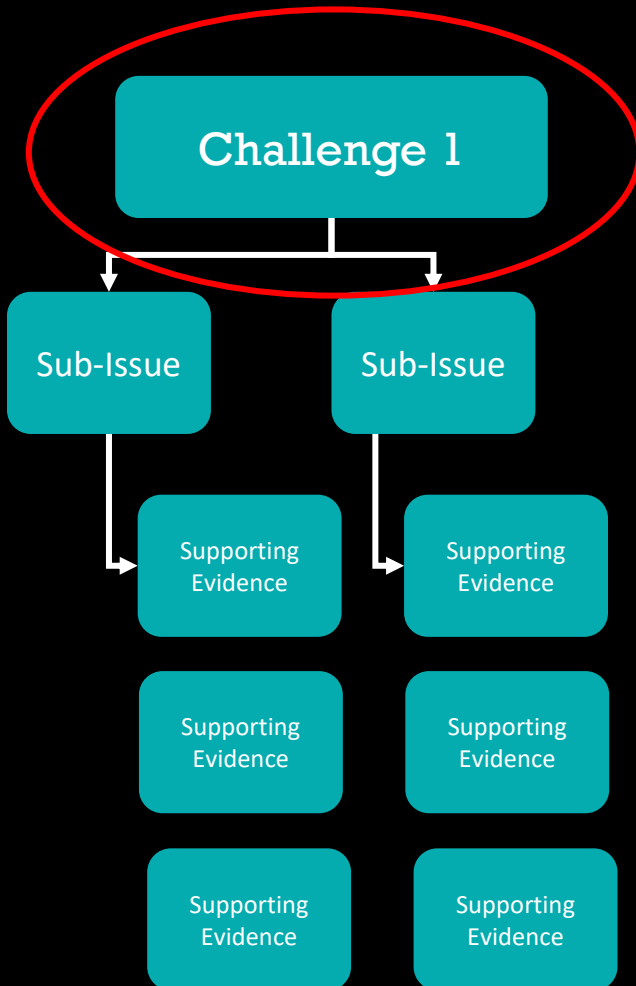
Reasons for 'No'

What factors would make them say 'NO' to adopting/ investing in AI innovation?

Focus: Choosing A Specific Challenge

Which of your clients' challenges will you focus on – and why? Why is this challenge the most suitable to tackle?

We will cover this content in week 5



Problem Statement

Define a specific problem statement that you are solving – and for which end user (is it the CEO or their end user?)

	Target user
Who: <i>Who is your target user/ audience?</i>	I am a...
What: <i>What is the outcome they're trying to achieve?</i>	who's trying to...
Barriers: <i>What are the barriers that stand in their way?</i>	but is hindered by...
Cause: <i>What is the root cause of the problem?</i>	because...
Impact: <i>What are the negative side effects?</i>	Which leads to...
Constraints: <i>What are the constraints & considerations relating to AI innovation? (e.g. ethical, environmental, social, regulatory)</i>	They must also consider...

Ideation: Mapping User Needs to Solutions

This is your group's task
in week 6 (Consolidation
Week)



User Needs	Potential Solutions
Write a list of your user's most urgent needs	Map their individual needs to specific features that could solve that need

Value Proposition

We will cover this content in week 7

Explain how your innovation solves the problem statement you define earlier, and how it's differentiated from existing alternatives

	Value Proposition
AI Innovation: <i>product/service/intervention/solution description</i>	Our AI innovation is...
Benefits & Impact: <i>evidence-backed benefits; impact- and/or cost-related</i>	whose benefits include...
Differentiation: <i>differentiation/competitive advantage</i>	Our users trust us above other solutions because...
Implementation: <i>How you'll ensure smooth AI adoption</i>	We ensure seamless AI adoption through...

We will cover this
content in week 2

Ethical Impact Mapping

Externality Type	Potential Benefits	Risks / Harms	Unintended Consequences
Economic (e.g. productivity gains, job displacement, market concentration)			
Social (e.g. privacy, digital divide, manipulation)			
Environmental (e.g. energy consumption, carbon footprint, resource use)			

Build: How Your AI Innovation Works

Explain how your AI innovation works. Bring your innovation to life with, for example, wireframes, screenshots, demo videos, prototypes.

Remember: your innovation could take a whole range of different forms: e.g. it could be an AI product (e.g. a customGPT, a Claude artefact, an agent process map, vibe-coded website), OR a means of implementing AI e.g. an implementation plan, a growth strategy, AI usage toolkit, explainer video.

We will cover this content
in week 8

Distribute: How We Reach Our Users

Explain how you use creative media to reach and influence your users to engage with your AI innovation. Use this slide to share video, images or agentic processes you used to ensure your AI innovation reached your target users.

Testing: What We Learnt from Users

We will cover this content in week 9

Explain what you learnt from testing your innovation

What I liked

Capture what your user/ test subjects liked

What I'd Change

Capture what they'd like to see changed

Questions I have

What did they ask about? Was anything unclear to them?

New Ideas

How would they improve your innovation?

Change: How We Implement Our AI

We will cover this content in week 10

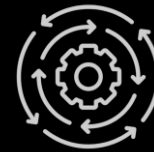
Explain how you effectively implemented your innovation and affected behaviour change across the Adopt, Sustain & Optimise stages

Reasons for 'Yes'

What factors would make them say 'YES' to adopting/ investing in AI innovation?



Adopt



Sustain



Optimise

Reasons for 'No'

What factors would make them say 'NO' to adopting/ investing in AI innovation?

Refer to your user personas for this information

This will be a result of your learning insights throughout the module

Reflections: Key Learning Outcomes

Share your most significant breakthrough moments. What did you discover were the most important factors that impacted your AI innovation? When were your assumptions challenged? What were the unexpected outcomes of engaging with AI?

- Key learning/ reflection 1
- Key learning/ reflection 2
- Key learning/ reflection 3
- Key learning/ reflection X...

This will be a result of your learning insights throughout the module

References

Share any key sources or credits relating to your evidence (where relevant)

SECTION 5

Wrapping up

Before next week

- Make sure you have saved all the work you've done today - done today - it will really help you later in the semester! semester!
- Book office hours and take advantage of them. Your tutors
Your tutors are always happy to talk about the module, the module, the assessment, the Evidence Deck, or careers in careers in general.
- Take a look at the additional resources and materials, which you can find on Blackboard.
- Find time to meet and start to explore your case study, in the context of the evidence deck
- Finally, get outside and explore Bristol.

