

MSc in Computer Science, Trinity College Dublin

Module : CS7CS6 Research and Innovation Methods. Academic year 2024/25

1. You will be allocated into groups to work on the group aspects of this module.
2. Each group will be assigned an MSc dissertation report from a previous year. As a group, use the ideas and concepts from the dissertation, in conjunction with the innovation related course material, as the seed for an **innovative technology-based business model**.
3. Develop your business model using the **customer development methodology** and **capture a summary in a business model canvas**.
4. Prepare and submit to blackboard a **group innovation plan** which contains
 - a. A **brief description of your innovation idea** and how it **relates to your assigned dissertation** (max 1 page).
 - b. An **initial business model canvas (BMC)** covering at least the **value proposition** and **customer segment components**.
 - c. Supporting text to elaborate on the content included in your BMC including the value proposition, customer segments and any other BMC section you have completed.
 - d. An **ethics canvas** relating to your technology based business model.
 - e. A summary of **the hypotheses you plan to test**, how you are planning to test these hypotheses (though interviews etc)
 - f. A short summary of how you have organised your work as a group.
5. As a group and using feedback form templates provided contribute to a **critique of the dissertation** assigned to your group. Based on lecture notes, learning from the group assignment processes and marking scheme provided complete the critique feedback form to capture your groups' views on the dissertation and justification for these views.
6. Contribute to a **group presentation** on your business model development submitted as a 10 min max video. The audience for your video are potential investors. The video should cover
 - a. A summary of the final iteration of your business model, clearly explaining the customer segments, the pains/gains the value proposition addresses, as well as the likely channels, customer relations and revenue streams that contribute to the economic model for the business.
 - b. A summary of the hypotheses you tested in reaching this final iteration, how you tested those, the evidence you gathered and the pivots that resulted (including those from the ethics canvas analysis).
 - c. A description of challenges you faced.
 - d. Based on the evidence gathered, comment on the viability of your current business model and any future experimentation you would suggest to further test the model.
 - e. In your video, you should aim to be:
 - o **Clear** in the messaging, including on the testing of hypotheses
 - o **Convincing** and direct in the presentation of evidence gathered and the persevere/pivot decisions made.
 - o **Realistic** in your assessment of the viability of your current business model.
7. **Individually**, submit an **initial research plan*** related to your MSc research project and captured in a set of 9 slides providing the following information
 - a. research canvas (as per template given in class) supported by relevant references from your reference list.
 - b. motivation statement (approx. 150 words)
 - c. glossary of key terms in your canvas.
 - d. list of at least 7 references which support your research idea, method and motivation
 - e. research project Gantt chart to capture the timeline for your project.
 - f. using the template given in class, include a literature review protocol. The protocol should indicate how you will conduct your initial literature review. The evidence resulting from this literature review should provide support with placing your research in a context of your chosen research field.
 - g. an explanation of whether or not you require to get ethical approval for your research.
 - h. list technical and research skills you have or hope to develop to carry out your research project.
 - i. list 2 key pivots you made to your initial research plan based on discussion with a classmate.
8. **Individually**, select a dissertation of interest to you from <https://publications.scss.tcd.ie/theses/diss/dissertation-index.mcs.php#2024> MCS. Based on lecture notes and learning from the group assignment processes and marking scheme provided during class critique this dissertation. Complete the critique feedback form to capture your views on the dissertation and justification for these views.

* The initial research plan submission is designed to support you in the development of a research plan for your MSc research project. However, for purposes of this module it is not essential that the research plan submitted is related to your MSc research project. If you are not submitting an initial research plan related to your MSc research project, please discuss this with the module coordinator (gaye.stephens@tcd.ie).

Deadlines and Mark Breakdown:

Submission	Deadline	% of Marks
Group innovation plan	Friday 18th October 2024	10%
Group dissertation Critique	Friday 1st November 2024	10%
Group Innovation Presentation	Friday 29 th November 2024	30%
Individual dissertation critique	Friday 13 th December 2024	10%
Individual research plan	Friday 13 th December 2024	40%

Note:

One of the following lines should be included in all your submissions.

1. I did not make use of AI tools in the preparation of this submission.

OR

2. The use made of AI tools in the preparation of this document is outlined in an appendix to this submission, as the guidelines (see below)

Guidelines on use of AI in course work submissions:

If selecting option 2, then the appendix should include the following: (a) a description of precisely which AI tools were used (e.g. ChatGPT public/private subscription, DALL-E free version, DeepL translator tool, etc.); (b) a list of the sections in the document or parts of the underlying coursework code base in which AI tools were used (e.g., Introduction, Results etc.); (c) a brief but precise description of how the AI tools were used (e.g., to generate snippets of code, to generate ideas, turns of phrase, elements of text, long stretches of text, lines of argument, pieces of evidence, maps of conceptual territory, illustrations of key concepts, etc.); (d) a brief but precise account of why AI tools were used (e.g. to save time, to surmount writer's block, to stimulate thinking, to handle mounting stress, to clarify prose, to translate text, to experiment etc.).

If you are in doubt whether a certain use is allowed, please refer to College Plagiarism policy and/or discuss the issue with your module coordinator (gaye.stephens@tcd.ie).