MMU MULTIMEDIA UNIVERSITY	**LDCW6123 - FUNDAMENTALS OF DIGITAL COMPETENCE FOR PROGRAMMER**
	Group Project
	Trimester 2530
	Due date: 6 February 2026 (Friday) | 11.59pm

General information:

Group formation	Group members shall not exceed **6** students per group and must be from the same class section. Register the team members in online group registration form.	
Assessment	This group assignment contributes **40%** to the total coursework marks.	
Student Learning Time	This assignment shall take 18 hours to complete.	
Submission requirements	Submission	Submission by the group leader only. 1. Project report (pdf) containing: - ○ Coversheet ○ Members Declaration ○ Table of content (TOC): i. Part 1- Innovation Life Cycle Poster ii. Part 2 – Interactive system (C++) iii. Recorded video presentation (OneDrive link) 2. Recorded Video presentation in mpeg/mp4/mov format. Duration Max: 15min --- • **Only group leaders** will make the submission. You will follow your respective tutor submission procedure. • **Name your report as;** *Ldcw6123_project_section_group leader name(student id).pdf*
	Cover page	Please use the attached coversheet.
	Group member's declaration form	Please use the attached form.
	Assessment rubrics	Included for reference. You do not need to include the rubrics into the report.

Mapping of assignment learning outcomes to subject learning outcomes:

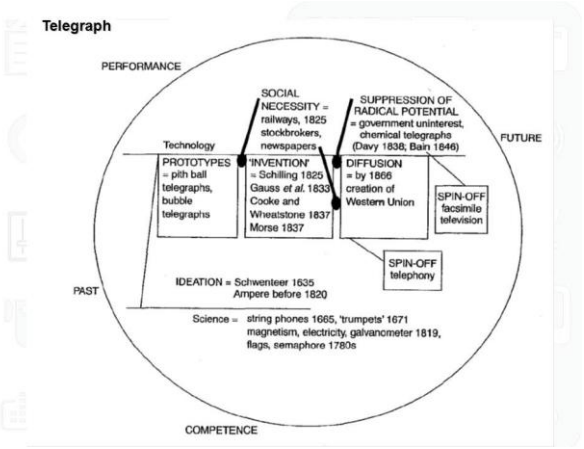
Project Learning Outcomes Upon completion of this project, students should be able to:		**Course Learning Outcomes** Upon completion of this subject, students should be able to:
1.	Develop a poster and program showcasing the technology from an innovation lifecycle.	CLO3: Build a basic interactive program with digital content.

Project Title: Innovation Technology Life Cycle Poster and Interactive Program

Group member: Min 4 – Max 6 student per group.

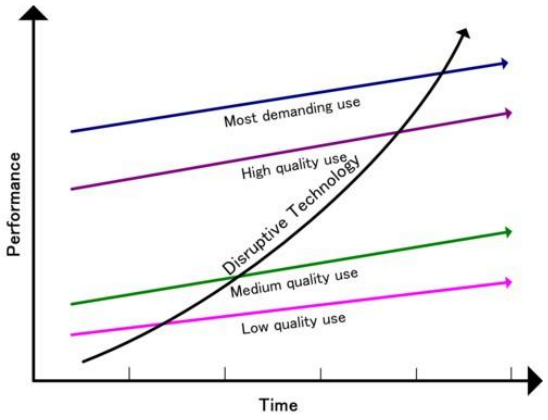
Instructions:
students will work together to design and develop part 1 and 2 of the project. Each group member will collaborate online to complete the projects.

PART 1 (INNOVATION TECHNOLOGY LIFE CYCLE POSTER) – 20%

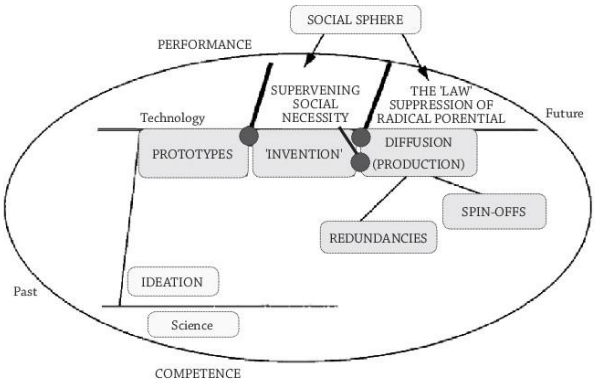


Choose a **specific scientific or technological innovation** and trace the development life cycle on a poster. Your chosen technology may be something local (like a Aerodyne Drones - Malaysian global leader in drone-based solutions for agriculture, inspection, and security) or international (e.g.: Netflix, TikTok Social Commerce). This poster should be presented as either an A3 poster made into a PDF, or as PowerPoint slides. The "innovation model" you choose will depend on the innovation you want to trace. If the innovation was "disruptive" you might choose **Clayton Christensen's model**. If the innovation ***met a pre-existing need in society*** (e.g., poster for the telegraph) you might choose **Brian Winston's model**. There is a template for both models provided along with this project assignment on eBwise.
Please check with your lecturer if you are unsure about the innovation/invention you have chosen.

Depending on the innovation you choose, and whether or not that product met a pre-existing social need or alternatively created/disrupted a market, you may choose one of the following models to apply. The steps to identify are different in each case: if you choose **Christensen's model** you will also need to show which market was 'disrupted'. If you choose **Winston's model** you will need to identify the social needs ("supervening social necessities") that aided invention and adoption.



Clayton Christenson's Disruptive cycle model - Innovation technology



Brian Winston's cycle model – Innovation technology

Once you have identified the different steps in the development of your innovation, you can create the flow chart in Canva/Adobe software or in PowerPoint, or in any software program you have at hand. You will not be marked on your "design" abilities, **but the flow of the innovation should be clear**. You will be assessed on your ability to identify the correct steps in the innovation life cycle, your understanding of the

history of your specific innovation, and the historical accuracy of those steps. Make sure you choose an innovation where you can determine the different steps. Include this poster in your PDF report submission.

Criteria:

(1) A clear schematic representation of the innovation life cycle
(2) Evidence of research – make your steps historically accurate
(3) Evidence that you understand the "innovation life cycle" you have chosen
(4) Evidence that you understand its social impact or the social necessity
(5) Place referencing (APA Style)

PART 2 (INTERACTIVE PROGRAM) – 20%

After completing Part 1, where you researched and discussed your chosen technology using either the Disruptive Innovation or Winston's cycle model, you will now proceed to Part 2 by designing a simple interactive program using any prefer computer language (e.g.: C++ or any).

General Steps

1. Connect with Your Part 1 Topic
   - Your chosen technology in Part 1 (e.g., Netflix, Uber, e-commerce platform) should be used as inspiration for your interactive program.

2. Decide the purpose of your program
   - Think of a real-world feature or function relevant to your technology. Examples:
   - **Netflix:** Movie finder or recommendation based on user preference.
   - **Ride-hailing:** Simple fare calculator.
   - **E-commerce**: Product suggestion or shopping cart summary.

3. Outline Inputs and Outputs
   - Plan what the user will enter (genre, distance, product type) and what the program will display (suggestion, calculation, confirmation).

4. Design Logic
   - Use if/else or switch statements to process user choices and produce results.

5. Document Development Progress with Git Log
   - As part of your submission, include a trace of your project's development history using Git.
   - Make regular commits at each stage (e.g., after outlining inputs/outputs, designing logic, coding features).
   - At the end, run `git log --online --graph` and include a screenshot or text output in your submission.

Example:

If you chose Netflix and the Disruptive Innovation model:

Title program: Movie Recommendation Assistant **Inputs:** Movie genre preference **Outputs:** A suggested movie title and a brief description

(1) Include a screenshot of the codes and GitLog
(2) Paste the link to the online compiler (code editor) and GitLog
(3) Include part 2 in the PDF report
(4) Record a group presentation video. Paste the link to your video in the PDF report.

Assessment Rubric

Part 1: Innovation Technology Life Cycle Poster (40 marks)

Criteria	Marks	Evaluation Criteria
Research & Background	10	• Clear, detailed explanation of the chosen technology; historical accuracy.
Model Explanation & Application	12	• Accurate description and application of innovation model to technology.
Mapping & Impact Analysis	10	• Logical flow showing how tech fits model stages; discusses impact/disruption.
Critical Thinking & Clarity	8	• **Critical thinking and insight:** Discussion includes thoughtful analysis, original ideas, and demonstrates deep understanding of the topic. (4m) • **Clarity and structure:** Points are clearly explained, well organized, and supported with relevant examples or evidence. (4m)
Total (40marks)		

Part 2: Interactive C++ Program (40 marks)

Criteria	Marks	Evaluation Criteria
Program Logic & Feature	10	• Core functionalities correct; input/output logic relevant to chosen technology.
Relevance/Integration	10	• Program relates meaningfully to Part 1 topic and model discussed.
Code Quality/Style	5	• Code is readable, well-named variables, commented, and easy to follow.
User Experience /Testing	5	• Clear prompts, error handling, tested for different user choices.
Git Log Trace	10	• Commits are made consistently throughout development, with meaningful messages that reflect code changes and progress. (5m) • Git log trace is clearly presented (via screenshot or output), showing effective use of version control and documenting the evolution of the project. (5m)
Total (40 marks)		

Video recording presentation and requirements/compliance (20 marks)

Criteria	Marks	Evaluation Criteria
Coverage, Communication & Visuals	10	• Explains the project and model, presents and demonstrates code in video, speaks confidently, and uses supporting visuals.
Compliance & Documentation	5	• Follows all submission instructions, includes all required documentation.
Originality & Integrity	5	• The work shows original thought, creativity, and is not copied from other sources. (3m) • Sources are properly cited, and the work is free from plagiarism or ethical violations. (2m)
Total (20 marks)		

Total Marks Calculation:

The total marks for this assignment will be calculated by adding up the marks awarded for both part and video/requirements based on the provided evaluation criteria**.** The final grade will reflect the cumulative score out of 100, based on the following breakdown:

To calculate the total marks for the assignment:

- Part 1: Score each part out of a total of ***40 marks.***
- Part 2: Score each part out of a total of ***40 marks.***
- Video recording presentation & requirements: Score each part out of a total of ***20 marks.***

Total Marks Possible: ***100 marks***

Reminders:

Plagiarism

- Plagiarism is a serious offence.
- Plagiarism includes the following behaviours (but not limited to):
  - copy another student's work.
  - fail to properly cite other people's work or give proper credit to the original source.
  - using photos, illustrations or online materials downloaded from websites without permission or consent of the original owner of the materials.
  - hire or ask another individual to complete the assignment for you.
  - copy too many words or ideas from one or two sources, that makes up a significant portion of your work, even with proper citations.
- The lecturer has the right not to accept submission of plagiarized or duplicated work.

Group work

- Each group member must actively participate in the completion of the assignment. Free riding is unethical and extremely unfair to fellow group members. **Free riders will be awarded zero mark**.
- Should any member be found not contributing to the assignment, the lecturer has the right to change the specific group's marks to individual marks.
- Each group member is expected to keep the contact numbers and e-mail addresses of the other members of the group.
- The group leader has the responsibility to ensure that all group members play a part in the completion of the assignment. The group leader is also responsible for ensuring that all members' names are written on the final submission.

- It is the responsibility of each group member to ensure that the final submission is complete and of an acceptable standard. Should any errors or omissions occur in the final submission, each group member is held accountable for negligence – in other words, failure to perform their responsibilities as expected.

Late submissions

- Late submissions will incur a penalty of 10% per day, up to a maximum of five days, after which the assignment will no longer be accepted.
- Additionally, if a second chance is granted, a further penalty of 10% will apply for one additional opportunity.
- Exceptions may be made for late submissions due to serious and valid circumstances (e.g., illness or family emergency), provided appropriate supporting evidence is submitted.

MULTIMEDIA UNIVERSITY

ASSESSMENT COVERSHEET

Trimester 2530

Attach this coversheet as the cover of your submission. All sections must be completed. **Section A: Submission Details**

Programme	:	_____
Course Code & Name	:	_____
Course Lecturer(s)	:	_____
Submission Title	:	_____
Deadline	:	Day _____ Month _____ Year _____ Time _____

Penalties : • Plagiarised work is an Academic Offence in University Rules & Regulations and will be penalised accordingly.

- Late submissions will incur a penalty of 10% per day, up to a maximum of five days, after which the assignment will no longer be accepted.

Section B: Academic Integrity

Tick (√) each box below if you agree:

☐	I have read and understood the policy on Plagiarism in University Rules & Regulations.
☐	This submission is my own, unless indicated with proper referencing.
☐	This submission has not been previously submitted or published. This submission follows the requirements stated in the course.

Section C: Submission Details

Student ID(s)	Student Name(s)	Designation
		(Group leader)

Declaration by group leader

I hereby declare that all group members' names are correctly included in the above section. I hold a copy of this assignment which I can produce if the original is lost or damaged. I certify that no part of this assignment has been copied from any other student's work or from any other source except where due acknowledgement is made in the assignment.

Group leader's signature: _____

Group leader's name : _____

Group leader's student ID: _____

Date : _____

Group member declaration

*(Each group member, including the **group leader**, must individually fill up and submit this form)*

For the purpose of completing this assignment, I have performed the following tasks (please list):

_____

_____

_____

_____

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_____

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_____

_____

I hereby declare that I have assessed this submission, and I take full responsibility should there be any inaccuracies, incompleteness, omissions, delays or non-submission.

Group member's signature: _____

Group member's name : _____

Group member's ID : _____

Date : _____

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