Project assessment: Evaluate emerging technologies and practices

Criteria

Unit code, name and release number

ICTICT426 - Identify and evaluate emerging technologies and practices (1)

Qualification/Course code, name and release number

ICT40120 - Certificate IV in Information Technology (1)

Student details

Student number

Student name

Assessment declaration

- This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.

- No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.

- I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

Student signature and Date

Version: 1.0

Date created: 01 December 2019

Date modified: 01 December 2019

For queries, please contact:

Technology and Business Services SkillsPoint

Location: Ultimo

Assessment instructions

Table 1 Assessment instructions

Assessment details	Instructions
Assessment overview	The objective of this assessment is to assess your knowledge and performance to identify and evaluate emerging technologies and practices and assess their impact.
Assessment Event number	2 of 2
Instructions for this assessment	This is a project-based assessment and will be assessing you on your knowledge and performance of the unit. This assessment is in six parts, and **may be completed in groups of no more than 4**: 1. Research emerging technologies and practices 2. Obtain feedback on research 3. Finalise research presentation 4. Develop draft strategies 5. Obtain feedback on strategies 6. Finalise strategy report The assessment also contains: - Assessment Checklist - Observation Checklist 1 - Observation Checklist 2 - Assessment Feedback. **Check the Assessment and Observation checklists to ensure that you've covered all the required tasks.**

Assessment details	Instructions

Submission instructions	On completion of this assessment, you are required to upload it or hand it to your assessor for marking.
	
	Ensure you have written your name at the bottom of each page of your assessment.
	
	Submit the following documents for each part:
	
	• Part 1: Research emerging technologies and practices
	    ○ **PowerPoint presentation (present only no submission)**
	• Part 2: Obtain feedback on research
	• Part 3: Finalise research PowerPoint
	    ○ **Updated PowerPoint presentation**
	• Part 4: Develop draft strategies
	    ○ **Draft written strategy report (present only no submission)**
	• Part 5: Obtain feedback on strategies
	• Part 6: Finalise strategies.
	    ○ **Final written strategy report**
	
	NOTE THAT YOU WILL BE SUBMITTING ONLY 2 FILES:
	    ○ **Updated Research PowerPoint presentation (Part 3 above)**
	    ○ **Final written strategy report (Part 6 above)**
	
	It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment.

What do I need to do to achieve a satisfactory result?	To achieve a satisfactory result for this assessment all questions must be answered correctly and all items in the Assessment Checklist must be marked Satisfactory.

Assessment details	Instructions
Assessment conditions	Assessment conditions will replicate the workplace, where the conditions are typical of those in a studio working environment or workplace. Assessment may be undertaken in normal classroom conditions, which is assumed to be noisy and similar to workplace conditions, or within the workplace. This may include phones ringing, people talking and other interruptions.
What do I need to provide?	• USB drive or other storage method with enough free space to save work to.
What will the assessor provide?	• Access to class group
Due date and time allowed	**Due dates:** **Part 1 (present):** up until March 17 **Part 3 (upload):** March 24 **Part 4 (present):** up until March 31 **Part 6 (upload):** April 7 Indicative time to complete assessment (split amongst members): • Part 1 (prepare to present): Four hours • Part 2 (feedback): 15 minutes • Part 3 (finalise and submit PowerPoint): One hour • Part 4 (prepare strategy report): Three and a half hours • Part 5 (feedback): 15 minutes • Part 6 finalise and submit strategy report): One hour
Assessment location	Parts 2 and 5 will be completed in the classroom or on Teams. All other parts may be completed outside of the classroom. The student may access their referenced text, learning notes on Moodle and other resources.

Assessment details	Instructions
Supervision	Parts 1, 3, 4 and 6 are an unsupervised, take-home assessment. Your assessor may ask for additional evidence to verify the authenticity of your submission and confirm that the assessment task was completed by you.
Reasonable adjustment	If you have a permanent or temporary condition that may prevent you from successfully completing the assessment event(s) in the way described, you should talk to your assessor about 'reasonable adjustment'. This is the adjustment of the way you are assessed to take into account your condition, which must be approved BEFORE you attempt the assessment.
Assessment feedback, review or appeals	In accordance with the TAFE NSW policy *Manage Assessment Appeals,* all students have the right to appeal an assessment decision in relation to how the assessment was conducted and the outcome of the assessment. Appeals must be lodged within **14 working days** of the formal notification of the result of the assessment. If you would like to request a review of your results or if you have any concerns about your results, contact your Teacher or Head Teacher. If they are unavailable, contact the Student Administration Officer. Contact your Head Teacher for the assessment appeals procedures at your college/campus.

Specific task instructions

Scenario

You are part of a small independent game design studio, specialising in 2D games for mobile devices. You have had quite a successful niche in the market for some time, but there is considerably more competition than when you began. You are aware that the new devices coming onto the market within the next two years will all have significant abilities to incorporate Virtual Reality (VR) and Augmented Reality (AR) features, and you feel that it is time for your company to incorporate one or more Extended Realities (XR) into your main product offerings.

A new Managing Director has recently joined the studio and is keen to adopt a new direction for the studio, as they realise the competition is getting fierce in the 2D mobile market. The studio has also recently won a tender for a "Serious" gaming project, and the genre and approach is yet to be decided.

The current technologies and practices the studio uses includes the following:

- 2D Graphics and Animation software, in particular Photoshop, Illustrator, Toon Boom

- Unity for development and deployment

- Target devices have typically been Apple, mainly phones

- Graphics tablets and Apple computers are used for asset creation

- Staff include Graphic Designers, Animators and Programmers

- Music and SFX are licenced

- No version control for staff whilst developing games – spreadsheets are used

- Most staff members are located in the CBD head office in a fairly expensive traditional office space

The Managing Director would like to see changes implemented over the next 6-12 months.

Your supervisor has asked you to research and evaluate 3 emerging technologies and 3 emerging practices that would assist the organisation to achieve its goals, assess the potential impacts on the organisation, then develop a strategy to help them implement the technologies and practices.

Part 1: Research emerging technologies

Research 3 emerging technologies and 3 emerging practices in your industry that would assist the studio to modernise (relevant to the scenario). Make a presentation to the Managing Director detailing your research and impact assessment.

Address the following headings and content in your presentation:

Introduction

1. Outline the relevant background information, scope and the purpose of the presentation.

Discussion and findings

Select **three** particular hardware/software technology solutions and 3 practices from your research to evaluate and assess.

For each, perform the following:

2. Identify and evaluate its functions, features/attributes and potential application/s within the studio, including the advantages and disadvantages of adoption.

3. Assess its potential impact on the studio's current technology or practice, including the potential opportunities and threats. Perform a SWOT analysis for each of the 3 emerging technologies and 3 emerging practices

4. Your research sources must be from a range of reputable complex and technical information. List each source used and evaluate the reliability and relevance of the information against 2 or more of the following criteria:

   o The author (reputation, background)

   o The intended audience and purpose

   o The date of publication

   o Relevance to topic.

Part 2: Obtain feedback on research

Present an overview of your findings to your class using your PowerPoint (5-10 minutes)

- For face-to-face or connected learning students, your assessor will observe the presentation.

- For self-paced online students, make an appointment with your assessor for an online presentation.

When presenting, make sure that you use clear, simple language and plain English.

- Respond appropriately to questions from the class.

Part 3: Finalise research PowerPoint

1. Finalise your research PowerPoint by incorporating the relevant feedback you received from the class in your presentation (in Part 2). Upload the PowerPoint.

   o **Include a table that lists the contribution made by each member of your team. Without this table, no marks can be awarded.**

Part 4: Develop draft strategies

Develop the strategies for your studio to respond to the emerging technologies and practices that you discussed in your final research report (in Part 3).

Address the following headings and content in your strategy report (600-800 words):

Objectives

1. Outline the objectives of the studio in responding to your recommendations for each emerging technology and practice.

Strategies

2. Outline the strategies that the studio will need to implement to prepare for the potential impact of each emerging technology and practice, including:

   o the changes required to the studio's current technologies and practices to achieve the objectives

   o how to implement the changes required.

3. Identify some professional development opportunities that are available to upskill the studio's staff members, including yourself. Explain how they would assist in the implementation of the emerging technologies and practices.

4. Explain how you would adhere to any relevant legal and regulatory responsibilities in your job role when the emerging technologies and practices are implemented.

Recommendations

5. Outline your recommendations for the studio's response for each emerging technology and practice. Include your reasons and how the studio's objectives will be met.

6. Decide on the most appropriate direction for the studio to take, justifying your reasons.

Part 5: Obtain feedback on strategies

Discuss your strategies and recommendations with the class (5-10 minutes).

- For face-to-face and connected students, your assessor will observe the discussion and complete Observation Checklist 2.

- For self-paced online students, make an appointment with your assessor for an online meeting.

- When discussing, make sure that you use clear, simple language and plain English.

- You may choose to present the information in a brief PowerPoint presentation or just have a discussion, however you must ensure that you focus on the key points.

Ask for feedback on your strategy and recommendations for the studio's response.

Part 6: Finalise strategies

1. Finalise your strategy report by incorporating the relevant feedback you received from the class in your presentation (in Part 5).

   o **Include a table that lists the contribution made by each member of your team. Without this table, no marks can be awarded.**

Assessment Checklist

The following checklist will be used by your assessor to mark your performance against the assessment criteria of your submitted project. Use this checklist to understand what skills and/or knowledge you need to demonstrate in your submission. All the criteria described in the Assessment Checklist must be met. The assessor may ask questions while the submission is taking place or if appropriate directly after the task has been submitted.

Table 2: Assessment Checklist

TASK/STEP #	Instructions	S	U/S	Assessor Comments
Part 1.1	Outlines background, scope and purpose of report			
Part 1.2	Identifies and evaluates purpose, functions, features/attributes and potential application/s of three emerging technologies and three practices to determine advantages and disadvantages			
Part 1.3	Assesses potential impact on current technologies and practices, including potential opportunities and threats			
Part 1.4	Accesses and identifies reputable sources of information, including those containing complex and technical information			
Part 1.4	Evaluates the reliability and relevance of information sources used			
Part 3.1	Incorporates feedback on impact assessment into research report			
Part 4.1	Outlines the objectives of the organisational response			

TASK/STEP #	Instructions	S	U/S	Assessor Comments
Part 4.2	Develops strategies to respond to the emerging technologies and practices, including required changes, how to address impact, opportunities and threats, and implementation planning methods			
Part 4.3	Makes recommendations for organisational response			
Part 6.1	Incorporates feedback into strategy report			

Observation Checklist 1

The Observation Checklist will be used by your assessor to mark your performance in Part 2 of this assessment. Use this Checklist to understand what skills you need to demonstrate in the presentation. The Checklist lists the assessment criteria used to determine whether you have successfully completed this assessment event. All the criteria must be met. Your demonstration will be used as part of the overall evidence requirements of the unit. The assessor may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

Table 3 Observation Checklist

Task #	Task/Activity Performed	S	U/S	Assessor Comments (Describe the student's ability in demonstrating the required skills and knowledge)
1	Uses clear, easy to understand language and plain English			
2	Discusses ideas and complex information on technology issues and developments			
3	Seeks and obtains feedback on impact assessment			
4	Responds appropriately to additional questions			

Observation Checklist 2

The Observation Checklist will be used by your assessor to mark your performance in Part 5 of this assessment. Use this Checklist to understand what skills you need to demonstrate in the role play. The Checklist lists the assessment criteria used to determine whether you have successfully completed this assessment event. All the criteria must be met. Your demonstration will be used as part of the overall evidence requirements of the unit. The assessor may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

Table 4 Observation Checklist

Task #	Task/Activity Performed	S	U/S	Assessor Comments (Describe the student's ability in demonstrating the required skills and knowledge)
1	Uses clear, easy to understand language and plain English			
2	Seeks and obtains feedback on strategy and recommendations for the organisational response			

Assessment Feedback

*NOTE: This section **must** have the assessor signature and student signature to complete the feedback.*

Assessment outcome

☐ Satisfactory

☐ Unsatisfactory

Assessor feedback

☐ Has the Assessment Declaration been signed and dated by the student?

☐ Are you assured that the evidence presented for assessment is the student's own work?

☐ Was the assessment event successfully completed?

☐ If no, was the resubmission/re-assessment successfully completed?

☐ Was reasonable adjustment in place for this assessment event?

If yes, ensure it is detailed on the assessment document.

Comments:

Assessor name, signature and date:

Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

Student name, signature and date

NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.