

## **Master of Information Technology**

#### **MIT111 ICT Systems, Ethics, and Operations**

#### **Assessment 2**

Due date:	Week 08, Friday, 3 <sup>rd</sup> May, 2024, 11:59 pm
Weighting:	40%
Length and Format:	A written document (LibreOffice Writer, Google Doc, Microsoft Word).
Assessment Details:	Assessment 2: Individual written report.  3000 word written essay about ethical decision making in a complex business environment.
Assessment addresses SLOs	C: Critically review various types of ethical theories including the ACS code of ethics within an IT environment.      D: Derive complex ethical decisions drawing upon various ethical theories within an IT environment.
Marking Criteria	Please refer to Marking Rubric on Canvas

### Requirements:

- Your task is to complete a technical report on available technologies, security solutions, and ethical considerations.
- This research report must include at least 15 references from conference papers, journal articles, textbooks, and white papers from the technology suppliers.
- · Do NOT give references from unscholarly sources. No google results, no wikipedia results, no 'random' unscientific web pages.

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#### Case Study – Ethics and Technology

Recent advances in computing systems have led to many applications that support humans through advanced technologies. One of the most exciting applications is a remote health monitoring system that provides care for patients at home. These applications typically use highly sensitive sensor devices to monitor the patients and transmit their health data securely to the hospital for monitoring by medical professionals. Such a system can help avoid expensive hospital costs and save a fortune for many.

You are a new technology manager at the WinMore Hospital (WMH), Canberra, Australia. WMH plans to roll out medical-support-at-home (MSAH) service in 2023. The plan was brought forward due to the shortage of doctors, which has put great pressure on hospital resources. The managers at WHM are thrilled that they can care for more patients at a reduced resource/cost.

#### Complete the following tasks:

- 1) Perform risk analysis of MSAH in consideration of the current threat landscape in health data management (e.g., is it secure to transmit the personal health data over the Internet? If not, why not?).
- 2) Describe and justify available security standards in health data monitoring.
- 3) Describe the ethical standards concerning the health data using external references and credible sources, including Australian government guidelines or International Ethics Standards.
  - a) Search and describe appropriate ethical standards and frameworks including the ACS code of ethics within an IT environment.to follow.
  - b) Are there conflicting standards across countries? If so, how do we overcome such challenges?
- 4) Consider and recommend future technologies.
  - a) How can we secure the smart sensors from being hijacked (into an army of botnets)?
  - b) Discuss the ethical concerns in the age of ubiquitous computing.
- 5) Write a summary and conclusion at the end of your research report.
- 6) Write an introduction at the beginning of your research report.
- 7) Complete the checklist on the next page.

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#### Checklist:

Check each of the Requirements on Canvas and on page of this document. Confirm that your report meets each of the requirements:

- The major focus of this assessment is ethics.
- This is a research report.
- This research report includes at least 15 references.
- All references are to conference papers, journal articles, textbooks, and white papers from the technology suppliers
- · There are no references from search results or sources found using Google
- · There are no references to Wikipedia pages
- There are no references to 'random' unscientific web pages.
- You have submitted your final draft to Canvas two days before the due date and checked the TurnItIn
  report to find instances where your report is the same as other sources. You have made changes
  where necessary before submitting your final report.
- You have written 'Final version, please mark' in the 'Comments' box on Canvas when you submit your final version.