MGNT805

Managing Technology

Term 3 North Ryde 2019

Department of Management

Contents

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General Information

Unit convenor and teaching staff
Lecturer
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Tuesday, 2:00-3:00

Credit points
4

Prerequisites
Admission to MMgmt

Corequisites

Co-badged status

Unit description
Digital innovation is disrupting markets, organisations and management itself. It is an important means for creating value for customers and a necessary aspect of a modern manager's mindset. Managers have to be able to critically evaluate the nature and significance of digital technology to understand unfolding trends and avoid fads. Digital innovation also offers new techniques and tools for effective organizational management in dynamic environments. In this unit, students will develop the knowledge and skills required to manage technology and innovation. They will learn to reconceptualise how business is done with technology to promote sustainable business performance, research and design solutions to enhance decision making, and effectively lead and manage innovation.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

Critically reflect on the concept of digital disruption

Distinguish between a range of digital business models which sustain competitive advantage in products and services

Apply digital business models to new business settings

Justify decisions involving the strategic management of new digital projects

Diagnose, recommend and produce a plan for business digital transformation

Speak the language of developers and understand the basic mechanics of digital technologies used in business systems

Assessment Tasks

Name	Weighting	Hurdle	Due
Class participation	20%	No	Weekly
Seminar presentation	30%	No	TBA
Main assignment	50%	No	Week 10

Class participation

Due: **Weekly**
Weighting: **20%**

This is calculated weekly based on

- Contribution to class discussion
- Completion of pre-class exercises
- Participation in social learning activities such as the class Knowledge Base and TechTalk presentations

On successful completion you will be able to:
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Seminar presentation

Due: **TBA**
Weighting: **30%**

You will record, edit and produce a video presentation on a seminar topic. Topics will be allocated in week 1. The purpose is to extend classroom learning beyond the formal curriculum.

Deliverables

- 5 minute video – Presentation of a relevant business technology or technology management issue to be completed in advance

- 10 minute seminar – You will answer questions from the class about your video and topic.
- Collection of feedback - Evidence of class learning

Assessment rubric:

- Value to class learning (50%). Peer review assessment.
- Content (30%). Instructor assessment.
- Production value (20%). Instructor assessment.

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Main assignment

Due: **Week 10**
Weighting: **50%**

Proposal for a new digital innovation

You will develop a proposal for a new digital system, product or service for an organisation. The proposed innovation might be internal to the organisation (eg a new HR system), involve a value chain innovation (a B2B system), or could be customer-facing (a B2C system). The focus of the assignment is to make a compelling case for your management and development plan. It must either meet a current business objective, close a gap in service provision or build business capability with a new digital product. As such it is important to select an organisation where you have access to details about the organisation's current strategy, tech systems and market position to identify an appropriate innovation. It is expected the proposal will draw significantly from the curriculum of the unit, involving the full lifecycle of technological innovation.

Assignment deliverables

The assignment will be 5000 words, and must include the following components:

- Overview
- Business case
- Product design
- Development plan
- Implementation plan

By Week 5 you will have a draft of the Business case which you can present to the class, and by the end of Week 10 you will submit the assignment to iLearn.

Assessment rubric:

- Report formatting, graphics and structure (10%)

- Business case (20%)

- Product design (20%)

- Development plan (20%)

- Implementation plan (20%)

- Written expression, references, bibliography and appendix (10%)

50% of the marks for the assignment (i.e. 25 marks) will be assessed based on individual contribution. Students will be required to complete a Self and Peer Assessment form so that the contribution of individual members in a group can be identified and assessed. Further instructions will be provided on iLearn.

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Delivery and Resources

Required text

There is no required text.

Additional supplementary readings

Additional readings pertinent to each session will be uploaded accordingly on the iLearn page prior to the session. No learning material will be provided in hard copy format.

Further sources of information

Highly recommended journals

- Harvard business review

- MIT sloan review

- International Journal of Technology Management

Other related journals Useful academic databases (DB), search engines (SE), publishers

(PB)

- Emerald Insight (DB)
- Elsevier (DB)
- Scopus (SE)
- Web of science (SE)
- Wiley (PB)
- Springer (PB)

Useful industry databases

- IBISWorld
- Factiva
- EBSCO business searching interface

MGSM iLearn

The web page for this unit can be found at: https://ilearn.mq.edu.au/login/MGSM

Technology

Access to a personal computer is required to access resources and learning material from iLearn. Students are encouraged to bring a laptop or tablet to class.

Study requirements

It will be assumed that the assigned reading for each session has been done prior to class. Class time will be spent ensuring that you have understood this material and exploring new developments and extensions to the basic concepts.

Class case discussions and project preparations will be used as methods for active participatory learning. The grade you obtain for them together with the participation grade will measure the effectiveness of the learning process.

If you are unable to attend a class session or have to arrive late or leave early, please let me know before the session concerned as this will have an obvious impact on the planned syndicate work. If this situation occurs, you should also arrange with a fellow class member to collect any handouts and other information for you.

Unit Schedule

Note: See iLearn to view any updates to the unit schedule

Week	Topic	Description
1	Digital Disruption	The impact of the digital economy on business

Week	Topic	Description
2	Digital business models	How new business models create value
3	Information ecosystems and platforms	The economics of value chain networks and platforms
4	Personalised marketing and CRM	Online consumption and digital markets, ethics
5	Disruptive technologies	IoT, cloud computing, blockchain, machine learning, semantic analysis and artificial intelligence
6	Data management	Cloud computing, data security, RDB, MongoDB
7	Managing digital innovation	SDLC, design thinking, agile methodologies, team management
8	Digital project design	Frameworks, process modelling, client-server architecture, UX, web and mobile UI, transactions, encryption and certificates
9	Developing and implementing a digital innovation	Hosting, testing, budgeting
10	Digital project deployment and maintenance	Launch, traffic analytics, evaluation, continuous improvement

Learning and Teaching Activities

TechTalk workshops

Informal TechTalk workshops/demos will help students share their knowledge and broaden class understanding of digital technology: a) demonstrations of how basic internet technologies actually work. Topics might include TCP/IP, DNS, API, Cookies, CSS, HTML; b) mobile apps and e-commerce platforms; c) IoT technologies and tech gear. You should plan to present one 5 minute TechTalk during the term in which you will demo a technology to the class.

Knowledge base

Students are encouraged to contribute to the development of a shared KB to support class (social) learning.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure

- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/
offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy.
The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their
professional and personal judgment. They will have the ability to make informed choices and
decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Critically reflect on the concept of digital disruption

- Apply digital business models to new business settings

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- Speak the language of developers and understand the basic mechanics of digital
  technologies used in business systems

Assessment task

- Main assignment

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of
knowledge, scholarly understanding, and specific subject content knowledge in their chosen
fields.

This graduate capability is supported by:

Learning outcomes

- Distinguish between a range of digital business models which sustain competitive
  advantage in products and services

- Diagnose, recommend and produce a plan for business digital transformation

- Speak the language of developers and understand the basic mechanics of digital
  technologies used in business systems

Assessment tasks

- Seminar presentation
- Main assignment

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

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Assessment tasks

- Class participation
- Main assignment

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcome

- Diagnose, recommend and produce a plan for business digital transformation

Assessment task

- Main assignment

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically

supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Apply digital business models to new business settings
- Justify decisions involving the strategic management of new digital projects
- Diagnose, recommend and produce a plan for business digital transformation
- Speak the language of developers and understand the basic mechanics of digital technologies used in business systems

Assessment tasks

- Class participation
- Seminar presentation
- Main assignment

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

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Assessment tasks

- Class participation
- Seminar presentation
- Main assignment