INFO5992 Understanding IT Innovations

Innovation Presentation

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THE UNIVERSITY OF SYDNEY

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UoS Outline

Week	Lecture Topics	Activity	Assessments
1. 5 Mar	UoS Introduction; Definition of IT Innovation; IT Innovation System; IT Innovation in Australia	Tute 1 – Welcome to your tutorial; Importance of innovation to a Country	Form Groups
2. 12 Mar	Introduction to Technological / IT innovation; Examples of IT innovation in industry sectors; Type and Source of Innovation	Tute 2 – Massive Open Online Courses – Enabling technologies and Peer-review	
3. 19 Mar	Dynamics of Technological / IT Innovation; Adoption of Technology; Dominant Design	Tute 3 – Dominant design in the Smartphone market	Individual Report Introduction
4. 26 Mar	Disruptive Innovation; Industry Value Chain; Value Network analysis	Tute 4 – Cognitive IT services and its value chain	Quiz intro
	Easter Break		
5. 9 Apr	Distributed innovation I: Open / Closed innovation; Platform innovation; Web APIs;	Tute 5 – Web API considerations	MCQ
6. 16 Apr	Distributed innovation II: Crowd innovations; Free and Open source software;	Tute 6 – Open source Geolocation and Maps	
7. 23 Apr	Distributed innovation III: User innovation; Platform	Tute 7 – Sharing Economy from a Distributed Innovation Context	Group presentation Introduction
8. 30 Apr	Innovation by Start-up companies and Opportunities	Tute 8 – Business Model Canvas	
9. 7 May	Organisational Culture; Structure supporting innovation	Tute 9 – Group Presentation preparations and feedback	MCQ Group Presentation submissions
10. 14 May	IT Innovation Management	Group Presentation	Report Submission
11. 21 May	Innovation ecosystem; Sydney's innovation ecosystem	Peer-Review Marking	
12. 28 May	Judging IT Innovations	Tute 10 – Developing a Judging criteria for IT Innovation project	
4. 30 Jun	UoS Review; UoS comments / questions	Tute 11 – Technology innovations in IT Management	Peer-review

Assessments

- **2 MCQs 5% each for a total of 10% (Week 5 and Week 9)**
  - Multiple choice questions
- **Innovation Report (Group + Individual) – 15% (Week 9)**
  - Critical report on a topic with IT innovation, with multiple case studies
- **Presentation (Group) : – IT Innovation Case Studies – 10% (Week 10+)**
  - Presentation of Innovation case studies and pitching a new idea!
- **Peer-Review Assessment of Presentations (individual) – 5% (Week 13)**
  - Attendance and participation in group presentations
- **Final Exam 60% (Exam Period)**
  - Final exam covering all material covered in lectures, guest lectures, assigned reading and class discussion

Innovation Report + Presentation

- Three related assessments
  - Report (group + individual) – The group will share the same Topic
  - Presentation (group) – the same group will present their findings
  - Peer Review (individual)

Innovation Report

Recap

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Innovation Report – Learning Objectives

- Research into emerging technology and applications / potential of Innovation concepts for various industries
- Learning to do critical analysis on a multiple innovation concepts with emerging technologies
- Analysing real-world IT companies using the technology for innovation among several industries

Report Structure

- [Group] Technology – discuss your group's chosen Technology
  - Present what the technology is, its market potential, and its current state of development
- [Group] Innovation Concepts
  - Discuss the factors influencing the Diffusion of technology (including factors that have influenced the adoption so far, rate of adoption, as well as factors that may influence future adoption);
  - Discuss key Distributed Innovation concepts (including crowdsourcing, open source, platform, Web API etc) adopted by the Technology
  - In the chosen Tech an existing or emerging Dominant category / Dominant designs?
  - Discuss whether the technology is Disruptive – is it Disrupting, has disrupted, or will disrupt your industry
  - Discuss the Value Chain from the Technology

Report Structure (Cont.)

- [Group] Technology – discuss your group's chosen Technology
- [Group] Innovation Concepts
- [Individual] Industry Application of the Technology
  - Select an industry (one) that has either been changed or likely to be changed with your chosen Tech. Take into account of available information for your industry, i.e., not too new where there is no evidence
  - Each group member to have a different industry
  - Detailed discussion of 2 real-world IT examples
  - The discussion should also compare and contrast the 2 **same** IT-related examples in relation to the topic
  - Discussion should focus on relating to the innovation concepts (can refer to the group's innovation concepts)

Group Presentation

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Innovation Presentation – Learning Objectives

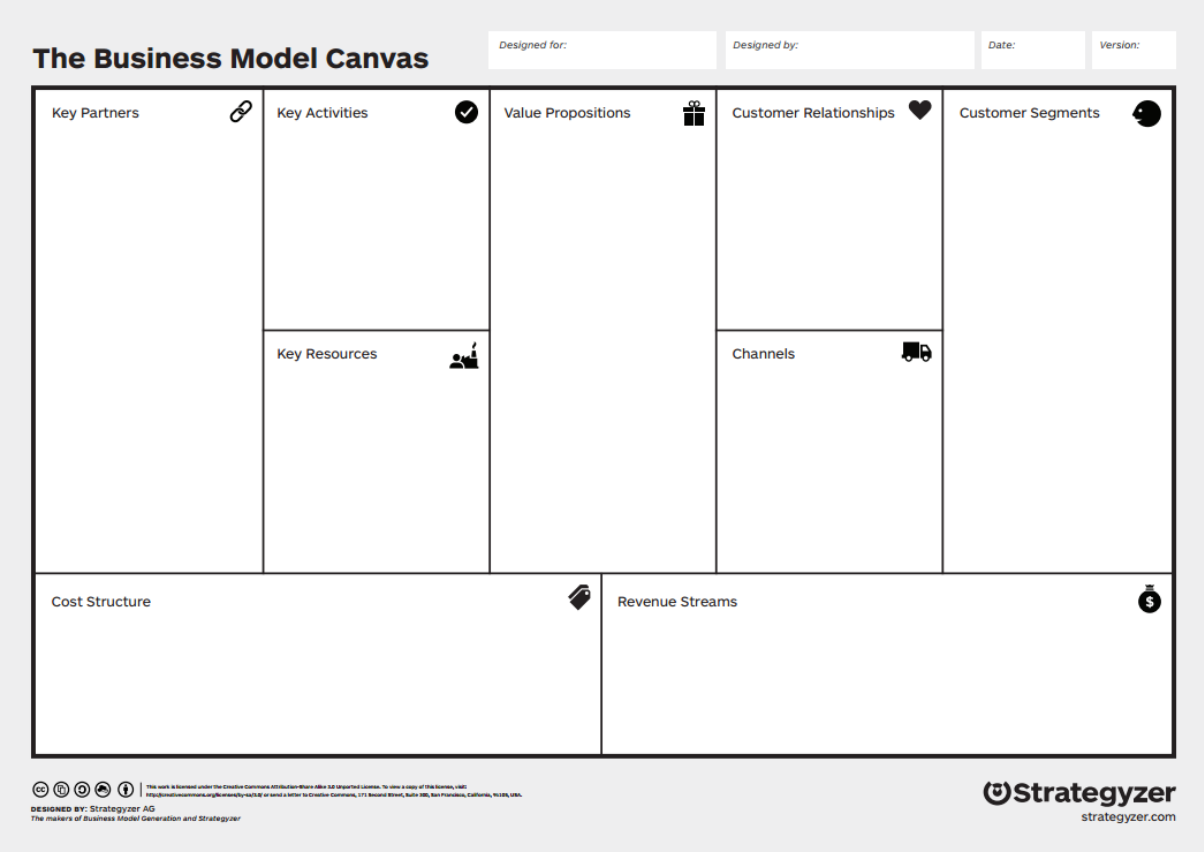
- To further develop the research done with your Innovation Report
  - In the innovation report, the discussion was about how the technology your group selected was used by the industry (current and emerging)
  - For the presentation, you are to pitch an idea of the SAME technology for ONE industry that is NOT YET, or AT AN EARLY STAGE of using the selected Technology
  - The Industry has to be NEW
  - You can think of a new company within the selected Industry
  - Pitching your Innovation with convincing Evidence!

Presentation Structure – Pitching your Innovation

- [Group] Technology – discuss your group's selected Technology
  - Present what the technology is, its market potential, and its current state of development
- [Group] Industry Application of the Technology (with Innovation Concepts)
  - Select one new Industry that was not part of your report
  - Discuss key Distributed Innovation concepts that the Technology can adapt for the chosen Industry (including crowdsourcing, open source, platform, Web API etc)
  - Does the chosen Tech has the properties to be emerging Dominant category / Dominant designs?
  - Discuss whether the technology has the properties to be Disruptive – is it Disrupting, has disrupted, or will disrupt your industry
  - Discuss the potential Value Chain from the Technology to the Industry
- [Group] Business Model Canvas – design one!

Group Presentation Guide – Business Model Canvas

– Week 8 Lecture and Tutorial



Group Presentation Guide – Delivery

- 15 minutes per class; We have in total 28 groups; 4 weeks
- All group members must participate in the **development** of, and in the **delivery** of the presentation
  - Many ways to split the group members e.g., based on innovation concepts; based on the BMC components
- There is no template – use a template of your own choice.
- Encourage you to create your own figures and tables (or even photos and videos). If you do, show that you created them (e.g. "created by Group 2 for INFO5992")

Group Presentation Guide – Delivery

- **Good references to support your points – follow the Reference Guide**
- **Need to see references to validate your points!**
- It is not good enough to talk about your own knowledge / experience only; also webpages / blogs are not ideal

- It is **not enough** to talk in general about the technology, its history and its use – you need to present critical **analysis of the technology and its adaptation to the chosen industry**

Group Presentation Guide

- https://www.ted.com/talks/david_s_rose_on_pitching_to_vcs
- http://blog.ted.com/10-tips-for-better-slide-decks/
- https://www.ted.com/participate/organize-a-local-tedx-event/tedx-organizer-guide/speakers-program/prepare-your-speaker/create-prepare-slides
- Use of Media where ever it value-add
- Examples using up-to-date sources: news, new articles, journals

Tutorial 9: Group Presentation preparations and feedback

- This is the tutorial before the Presentation – A mockup

- In this tutorial, each of the presentation groups will be asked to give an outline of their upcoming presentation and to provide feedback to other groups. Each group will be assigned approximately 10 minutes to share their outline / key contents, followed by a discussion and/or feedback and discussion to improve the presentation.
- The discussion points will be based on marking scheme, clarity of the presentation content to aid in understanding, and general comments on what is good and what can be improved.

Presentation Delivery and Submissions

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Group Presentation 'Rotations'

- Tutorials classes will do different things **Between weeks 9 to 13**

- Each Tutorial class will do the following
  - Preparation for the Presentation (week 9 – all tutorials)

  - Presentation
  - Presentation Peer Marking
  - Tutorial 10
  - Tutorial 11

Group Presentation 'Rotations'

Tutorial class number	Tutor's Name	Number of Groups
1	Ivan	3
2	Shilpa	5
3	Osmond	3
4	Tian	5
5	Kritika	4
6	Joon	4
7	Anuj	4

Group Presentation 'Rotations'

Weeks \ Tutorials	Tutorial classes 1 and 2	Tutorial classes 3&4	Tutorial classes 5&6	Tutorial class 7*
W10	Presentation	Peer marking	Tutorial 10	Tutorial 10
W11	Tutorial 10	Presentation	Tutorial 11	Peer Review
W12	Peer Review	Tutorial 10	Presentation	Tutorial 11
W13	Tutorial 11	Tutorial 11	Peer Review	Presentation

- For any 'overflow' presentations, it will be allocated to this presentation slot

Presentation Slides Submission

- **Submit your presentation slides by end of Sunday 13th May (11:59 pm)**

- The essay must be submitted electronically through Canvas and must be submitted in PDF format.
- Once you submit, you cannot change your contents!

Presentation Marking and Peer Review Marking

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Assessment Rubric

- Your Teaching team will mark the presentation
  - Lecturer – 50%
  - Two tutors (Averaged) – 30%
  - Peer-reviews (Averaged) – 20%

- For Peer-review
  - Your group can work collectively to write the reviews for the peer-review of the presentations.
  - However, the review will be individual, i.e., every member of the group will submit their own review (even if the presentations being marked is the same)

Assessment Rubric for Teaching Team

1. 10% Clear **description of the innovative technology**
2. 20% Introduction to the selected **Industry** using the defined technology
3. 40% An innovative adoption of Technology for a NEW component of an industry or a new industry – you are proposing a new INNOVATION company
    a. Demonstration of **the use of innovation concepts (the same ones in used in the innovation report)**
    b. A pitch for your idea to recruit students and staff to your company!
4. 10% Clever application of BMC to the chosen Tech / Industry pair
5. 10% Demonstrate **clarity in the presentation; timing; coherence** of presentation (e.g., it doesn't look like different people did separate parts and then stuck them together)
6. 10% Inclusion of References in the slides to back up the data

Assessment Rubric for Peer Review [Individual]

- 5 Criteria (Same as in the Teaching Team)
- 5 Point Spread (instead of % grading)
  - Excellent (5), Very Good (4), Good (3), Neutral (2), Not Clear (1)
  - For each scoring category, you must provide comments justifying your score
  - Your group's peer review will be assessed based on the quality and fairness of your comments, in correspondence to your score.
- Give points for each criteria
- Template will be available
- Your group will be allocated one tutorial class to review (~4; min 3 and max 5 presentations)

Examples

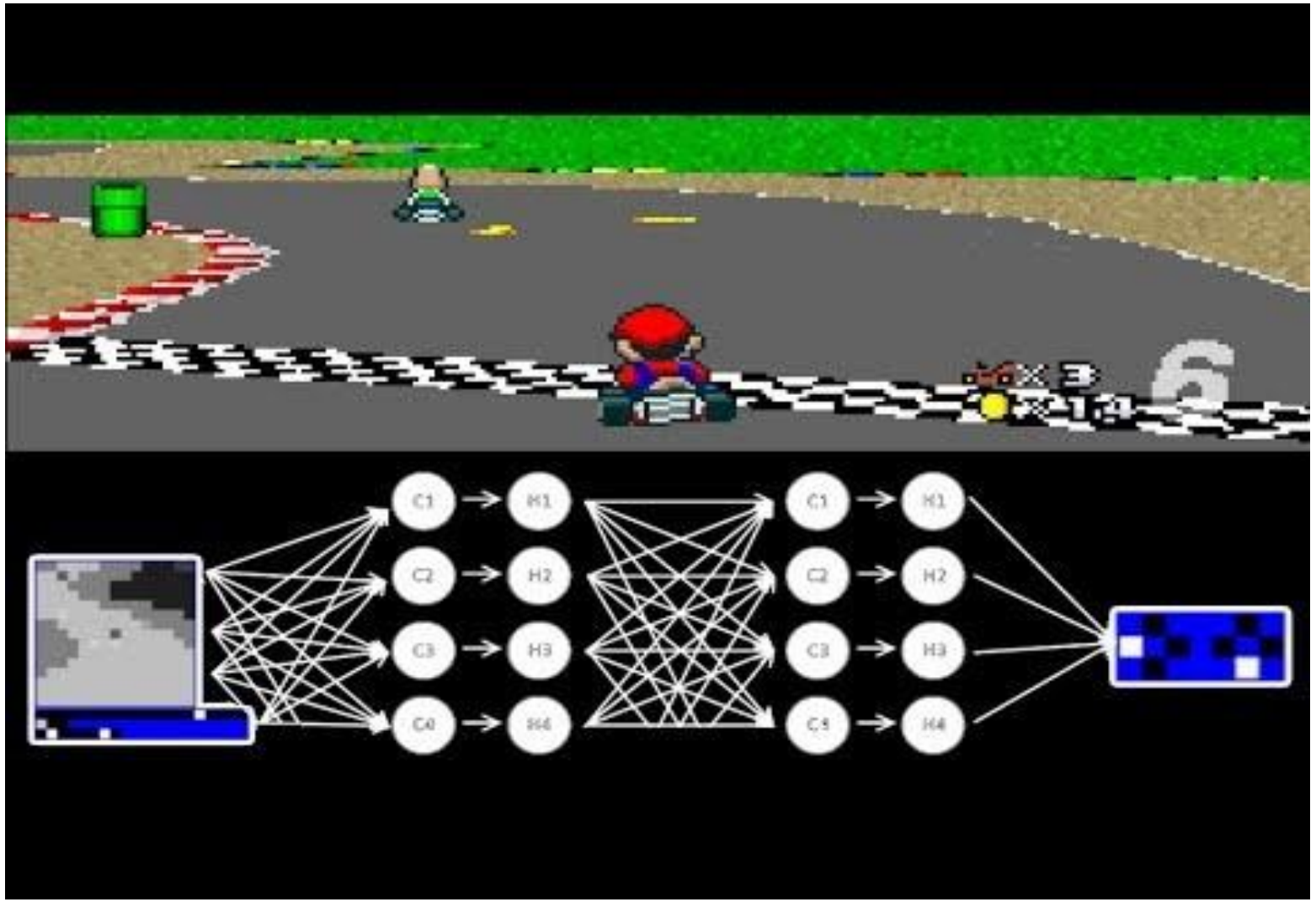
Putting it all together

https://youtu.be/hCWp0TC_qrM

https://www.youtube.com/watch?v=o0Ub6fattRc

AR & 360° Camera in Formula 1

- Introduction: AR & 360° Camera in Formula 1
- IoT/AR and 360° Camera
- Industry: Formula one racing
  - Improved broadcasting
  - Improved viewers' user experience
- Innovation:
  - Adoption - Use of sensors for informatics, and cameras for 360° scenary; early majority?
  - Dominant category / design – category – yes in regards to hardware and main features; design – in terms of software and applications, yes
  - Disruptive/sustaining? – Yes, new streaming service market. No, its improving upon existing broadcasting service.
  - Value Chain – The camera will create new value chain; The tech developed will potentially lead to many other adoption in other sports / industries
- BMC
- Summary



https://youtu.be/Ipi40cb_RsI

Machine learning in Gaming

- Topic: Machine learning in Gaming
- Industry: Gaming
  - Fun! & player analysis
  - Education and Training
- Technology: Machine learning, deep learning, CUDA and neural networks
- Innovation:
  - Adoption – early adopters, especially in retro-gaming context
  - Dominant design for machine learning – no
  - Disruptive – yes and no – new gaming sub industry?
  - Value Chain – new elements? New parties involved in value networks?
- BMC
- Summary

Finding the right References

References

- Find journal articles or high-quality online sources on the topic
- News / Magazine / Editorial articles can be used to support your topic, e.g., used as an example
- Consultancy reports e.g., HBR, McKinsey are OK, especially as they introduce newer topics / examples
- If in doubt about quality of reading, please check with your teaching team
- Note: Be careful in how you treat information from companies (such as press releases, product websites, whitepapers) as they may be biased!)

References

- University Library
  - https://library.sydney.edu.au/
- Google Scholar
  - https://scholar.google.com.au/
- Google
  - Be careful of identifying reliable sources

- ! Wikipedia – perhaps only for you to read and understand

Reference Management Software

- Make maintaining references and creating bibliographies easy
  - EndNote:
    - Free for Uni of Sydney staff and students
    - For Windows, Mac
    - Plug-in for MS Word
    - http://libguides.library.usyd.edu.au/endnote
  - Zotero:
    - Free, open source
    - For Windows, Mac, Linux, …
    - Plug-in for Firefox, MS Word, Open Office
    - http://www.zotero.org
  - Many others:
    - http://en.wikipedia.org/wiki/Comparison_of_reference_management_software

Other resources

- https://library.sydney.edu.au/help/online-training/elearning/

iResearch: information skills for life

iResearch Learning Objects Printable versions

- How to reference English | Chinese (PDF)
- Search smarter, search faster (PDF)
- Find that book! (PDF)
- Plagiariam and academic honesty English (html - All your own work - University site on plagiarism) | Chinese (PDF)
- Finding items on your reading list (PDF)
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