

# 技術創新與平台策略

## Technology Innovation and Platform Strategy (Fall, 2024)

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### General Information

Date: September 9, 2024~ January 6, 2025

Time: Monday 9:10~12:00

Venue: 管 D118

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Office Hour: 管 C407 Tuesday 10:00~12:00 or by appointment

### Course Objective

在當代許多產業中，科技的變遷不僅加遽了廠商競爭的強度，並使廠商的競爭環境更加複雜，更導致產業疆界的模糊化，以致廠商的經營決策面臨很大的不確定性。本課程的第一個目的在於使學生了解以**技術**為主要競爭驅力之產業的特性和廠商的競爭策略，並將**產業分析之方法與工具**應用於科技產業中，使同學具備從事產業分析或策略性決策的基礎能力。

其次，隨著網際網路的運用日益廣泛，**平台模式**已在各行各業帶來革命性的變化，本課程的第二個目的在於使學員理解以**平台**概念為基礎的**商業模式**的基本原理。因此，本課程的內容涵蓋「**產業動態**」、「**技術策略**」、「**平台策略**」，以及「**商業模式設計**」等主題，我們期待透過相關基本理論和工具的介紹，以及課堂上相關案例的研討，使學員能深入理解商業模式的分析方法與發想新的商業模式。

### Course Organization and Requirements

本課程的設計以相關**期刊論文**、**主題文章**以及**企業個案**的討論為主，輔以產業與競爭分析的基礎概念、架構和工具的介紹，使學員在文獻和個案的閱讀與分析中，熟悉各種科技產業的重要特性以及產業分析的基本技巧，培養同學發掘關鍵問題並提出解決之道的能力、溝通表達與團體合作的能力、以及對於產業和一般管理知識的了解。

1. **課程參與**：除了教師口授之外，本課程的學習重心在於學員的參與、互動與實踐，因此，教師相當重視學員的『課堂參與及貢獻』以及『小組團隊的運作』。課堂上，我們鼓勵有建設性貢獻的主動發言及分享；此外，我們也相當重視學員身為團隊成員的表現與反思。
2. **小組學習**：全班以不超過 6 人為一組，分組完成文獻簡報、個案研討，及期末報告等任務。
  - ※ **文獻簡報**：本學期每一組必須負責「**一篇文獻**」的導讀工作。簡報電子檔須於報告的**前一天晚上 10 點以前** email 給老師和助教，並上傳至東華 e 學苑課程網頁，檔名格式為組別\_Reading#，如「**G1\_Reading1**」。各組簡報時間以 25 分鐘為限，並由班上同學針對該組簡報內容進行評

分。這部分占學期總成績 20%(同學評分占 15%; 老師評分占 5%)，各組可於簡報前和老師安排時間討論。

※ **個案研討 ( Case Study Write-ups, CSW )**: 本學期將研討 4 個個案。每一組都必須在當週上課時繳交書面報告，封面需有組員的**親筆簽名**，無簽名者以缺交紀錄。報告以 A4 紙張 4 頁為建議的上限 ( 不含封面、圖表與附註頁 )，電子檔須於上課前一天晚上 10 點以前 email 給老師，並上傳至東華 e 學苑課程網頁，檔名格式為組別\_CASE#，如「G1\_CASE1」，紙本則於上課時繳交，**逾時概不受理**。

※ **期末報告 ( Term Project Report, TPR )**: 各組於期末須完成一項專題報告。該專題報告可以是利用**價值主張圖(value proposition canvas)**和**商業模式圖(business model canvas)**來描繪、介紹具創意構想的新平台或 APP，或是比較性質相近的知名平台。針對期末報告，各組可利用 office hour 或另約時間與老師討論。

報告成績的衡量，包括書面報告與口頭簡報的成績，各占 50%，口頭簡報將由全體同學與老師共同評分。報告電子檔請於口頭報告前一晚上傳至課程網頁，檔名格式為組別\_TPR，如「G1\_TPR」；書面報告則於當日繳交。完整的書面報告格式為單行行距，字型大小為 12pt，以 A4 紙張 8 頁為上限 ( 不含圖表和資料來源清單 )。

3. 本課程酌收講義材料費及個案使用授權費，每人新台幣 400 元，多退少補。

## Grading Policy

- ☑ Class participation and contribution 15%
- ☑ Reading presentation 20%
- ☑ Case write-ups 40% (adjusted by peer-rating)
- ☑ Term project report and presentation 25% (adjusted by peer-rating)
- ※ If your absence reaches four times (including) above, your grade of this course will be below “C.”

## AI Policy

Students are expected to use generative AI to complete assignments. When using generative AI, students must include the complete conversation with the AI and its output. Failure to include the complete AI conversation will result in a 50% deduction of the assignment score. Due to the persistent issue of AI hallucinations, if students do not verify the accuracy of the AI-generated content and errors are discovered by the instructor or teaching assistant, the assignment score will be 0.

## Learning Materials

### ☑ Readings (for group presentation)

1. Adner, R., & Kapoor, R. 2016. Right tech, wrong time. *Harvard Business Review*, 94(11): 60-67. (對的技術趕上錯的時機)
2. McDonald, R., & Eisenhardt, K. M. 2020. The new-market conundrum. *Harvard Business Review*, 98(3): 74-83. (克服新市場難題)

3. Ihrig, M., & Macmillan, I. C. 2017. How to get ecosystem buy-in. *Harvard Business Review*, 95(2): 102-107. (你的創新 · 誰買帳?)
4. Blank, S. 2013. Why the lean start-up changes everything. *Harvard Business Review*, 91(5): 63-72. (精實創業改變全世界)
5. Eisenmann, T., Parker, G., & Van Alstyne, M. W. 2006. Strategies for two-sided markets. *Harvard Business Review*, 84(10): 92-101. (打造雙邊市場策略)
6. Heimans, J., & Timms, H. 2014. Understanding “new power”. *Harvard Business Review*, 92(12): 48-56. (駕馭「新力量」)
7. Edelman, B. 2015. How to launch your digital platform. *Harvard Business Review*, 93(4): 90-97. (成功推出數位平台)
8. Zhu, F. & Marco I. 2019. Why Some Platforms Thrive...and Others Don't. *Harvard Business Review*, 97(1): 118-125. (有些平台勝出 · 有些平台卻...)
9. Siggelkow, N., & Terwiesch, C. 2019. The age of continuous connection. *Harvard Business Review*, 97(3), 63-73. (打造連結的贏家策略 · 不斷線的顧客新關係)
10. Magids, S., Zorfas, A., & Leemon, D. 2015. The new science of customer emotions. *Harvard Business Review*, 76(11): 66-74. (理性大數據連結感性)
11. Edelman, D. & Singer, M. 2015. Competing on customer journeys. *Harvard Business Review*, 93(11): 88-95. (善用大數據翻轉銷售)
12. Kavadias, S., Ladas, K., & Loch, C. 2016. The transformative business model. *Harvard Business Review*, 94(10): 90-98. (變形金剛商業模式)

## ☑ References

### 專書

陳威如、王詩一，與余卓軒，2016，*決勝平台時代*，商周。

陳威如與余卓軒，2014，*平台革命*，商周。

Christensen, C. M., Anthony, S. D., & Roth, E. A. 2004. *Seeing What's Next: Using the Theories of Innovation to Predict Industry Change*. Boston: Harvard Business School Publishing. (中譯本：《創新者的修練》，李芳齡譯，民 94，天下。)

Christensen, C. M., & Raynor, M. E. 2003. *The Innovator's Solution: Creating and Sustaining Successful Growth*. Boston: Harvard Business School Press. (中譯本：《創新者的解答》，李芳齡、李田樹譯，民 93，天下。)

Christensen, C. M., Dillon, K., Hall, T., & Duncan, D. S. 2016. *Competing Against Luck: The Story of Innovation and Customer Choice*. Harper Business. (中譯本：《創新的用途理論》，洪慧芳譯，民 106，天下。)

Cusumano, M. A., Gawer, A., & Yoffie, D. B. 2019. *The business of platforms: Strategy in the age of digital competition, innovation, and power*. New York: Harper Business. (中譯本：《平台策略：在數位競爭、創新與影響力掛帥的時代勝出》，陳琇玲譯，民 109，商周。)

Gassmann, O., Frankenberger, K., & Csik, M. 2014. *The Business Model Navigator: 55 Models that Will Revolutionise Your Business*. Pearson UK. (中譯本：《航向成功企業的 55 種商業模式》，劉慧玉譯，民 106，橡實文化。)

Gutsche, J. 2015. *Better and Faster: The Proven Path to Unstoppable Ideas*. Random House Inc. (中譯本：《創新可以更好、更快、更有效》，吳書榆譯，民 105，時報。)

Osterwalder, A., & Pigneur, Y. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers,*

and Challengers. John Wiley & Sons. (中譯本：獲利世代：自己動手，畫出你的商業模式，民 101，早安財經。)

Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. 2016. Platform Revolution: How Networked Markets are Transforming the Economy--and How to Make Them Work for You. WW Norton & Company. (中譯本：平台經濟模式：從啟動、獲利到成長的全方位攻略，李芳齡譯，民 105，天下。)

Stephany, A. 2015. The Business of Sharing: Making It in the New Sharing Economy. Springer. (中譯本：共享經濟時代：從分享房屋、技能到時間，顛覆未來產業與生活的關鍵趨勢，郭恬君譯，民 104，商周。)

McAfee, A., & Brynjolfsson, E. 2017. Machine, Platform, Crowd: Harnessing Our Digital Future. WW Norton & Company. (中譯本：機器，平台，群眾：如何駕馭我們的數位未來，李芳齡譯，遠見天下文化。)

### 期刊文章

Boudreau, K. J., & Lakhani, K. R. 2013. Using the crowd as an innovation partner. *Harvard Business Review*, 91(4): 60-69. (創新伙伴滿天下)

Christensen, C. M., Raynor, M. E., & McDonald, R. 2015. What is disruptive innovation? *Harvard Business Review*, 93(12): 44-53. (什麼才是破壞式創新)

Downes, L. & Nunes, P. F. 2013. Big-bang disruption, *Harvard Business Review*, 91(3): 44-56. (大爆炸式創新)

Downes, L., & Nunes, P. 2018. Finding your company's second act. *Harvard Business Review*, 96(1): 98-107. (啟動第二波創新)

Elberse, A. 2008. Should you invest in the long tail? *Harvard Business Review*, 86(7/8): 88-96. (「長尾」真的有商機)

Furr, N., & Snow, D. 2015. The Prius approach. *Harvard Business Review*, 93(11): 102-107. (駕馭破壞式創新)

Govindarajan, V., & Venkatraman, V. 2024. Heavy machinery meets AI. *Harvard Business Review*, 103(3-4): 98-107. (當工業遇到 AI)

Hagi, A. & Yoffie, D. B. 2009. What's your Google strategy? *Harvard Business Review*, 87(4): 74-81. (你的 Google 策略是什麼)

Hagi, A., & Rothman, S. 2016. Network effects aren't enough. *Harvard Business Review*, 94(4): 64-71. (光有網路效應還不夠)

Hagi, A., & Wright, J. 2013. Do you really want to be an eBay? *Harvard Business Review*, 91(3): 102-108. (別急著當 eBay)

Jacobides, M. G. & MacDuffie, J. P. 2013. How to drive value your way, *Harvard Business Review*, 91(7-8): 92-100. (駕馭你的價值鏈)

Johnson, M. W., Christensen, C. M., & Kagermann, H. 2008, Reinventing your business model, *Harvard Business Review*, 86(12): 50-59. (商業模式再創新)

McCarthy, D. & Fader, P. 2020. How to value a company by analyzing its customers. *Harvard Business Review*, 98(1), 51-55. (顧客決定公司價值)

Van Alstyne, M. W., Parker, G. G., & Choudary, S. P. 2016. Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*, 94(4): 54-62. (平台經濟新遊戲規則)

## Schedule

| No. | Date  | Topic                              | Reading, Case, & Task                      |
|-----|-------|------------------------------------|--------------------------------------------|
| 1   | 9/9   | ◆ Course Orientation               | ⊕ Course contents & arrangement            |
| 2   | 9/16  | ◆ Industry & Technology            | ⊕ 確定小組成員                                   |
| 3   | 9/23  | ◆ Innovation & Value Appropriation | ⊕ <b>CSW 1: Applied Research Tech.</b>     |
| 4   | 9/30  | ◆ 自主學習 (停課)                        | ⊕ 10/26 專題講座 (憑學習單加分)                      |
| 5   | 10/7  | ◆ Disruptive Innovation (1)        | ⊕ <b>Reading 1 &amp; 2</b>                 |
| 6   | 10/14 | ◆ Disruptive Innovation (2)        | ⊕ <b>CSW 2: Tesla Motors</b>               |
| 7   | 10/21 | ◆ Standard (or format) Wars        | ⊕ <b>Reading 3 &amp; 4</b>                 |
| 8   | 10/28 | ◆ Machine, Platform, Crowd         | ⊕ <b>CSW 3: Uber</b>                       |
| 9   | 11/4  | ◆ Platform Strategy (1)            | ⊕ <b>Reading 5 &amp; 6</b>                 |
| 10  | 11/11 | ◆ Platform Strategy (2)            | ⊕ <b>CSW 4: Spotify</b>                    |
| 11  | 11/18 | ◆ Platform Ecosystem               | ⊕ <b>Reading 7 &amp; 8</b>                 |
| 12  | 11/25 | ◆ Business Model in Platform       | ⊕ <b>Reading 9 &amp; 10</b>                |
| 13  | 12/2  | ◆ Business Model Design            | ⊕ <b>Reading 11 &amp; 12</b>               |
| 14  | 12/9  | ◆ Business Model Design            |                                            |
| 15  | 12/16 | ◆ Term Project Presentation        |                                            |
| 16  | 12/23 | ◆ Term Project Presentation        |                                            |
| 17  | 12/30 | ◆ Term Project Presentation        | <i>Course Review &amp; Peer evaluation</i> |
| 18  | 1/6   | ◆ 彈性補充教學                           |                                            |

註：1. 以上內容如有任何調整將會在課堂上宣布；2. 補充的講義、討論資料、選讀文章等，將隨堂發放。

## Study Questions for Cases

- ☞ 為使學生縮短掌握個案重點的時間，下列問題是建議各組思考的方向，各小組也可以自行將問題合併或重組來作答，只要邏輯清楚即可。

### Case 1: Applied Research Technologies, Inc.

1. As Peter Vyas, how would you handle the expenditure request for the re-launch of the mini water oxidation system?
2. As Cynthia Jackson, would you approve the expenditure request if Vyas sends it up to you?
3. How effective has Vyas been as a front-line manager at ART? How effective has Jackson been as an ART division vice president?
4. How well has Vyas managed the global challenges this project involved?
5. How has ART been able to foster innovation and an entrepreneurial environment in the context of a large corporate entity?

### Case 2: Tesla

1. What is the strategy of Tesla Motors? How does its business model differ from that of the leading auto makers?
2. In the market for plug-in electric vehicles, how do the resources and capabilities of Tesla compare to those of the established auto makers?
3. Explain the rationale for Tesla's strategy. To what extent does this represent an optimal response to Tesla's strengths and weaknesses relative to the established auto makers?
4. Assess Tesla's decision to make available its patents to other companies.
5. At the end of 2015, Tesla's shares are trading at \$240, giving Tesla a market capitalization of \$30 billion (General Motors market cap was \$54 billion). Would you buy or short Tesla's shares?

### Case 3: Uber: Driving Global Disruption

1. How attractive was the taxi industry prior to the introduction of Uber?
2. What are the customer problems that Uber is trying to solve? How is Uber trying to solve these problems?
3. What is Uber's growth strategy?
4. What are the biggest impediments to Uber's growth? How is Uber trying to deal with these?

### Case 4: Spotify

1. Who are the major players in the music industry? Who is the strongest player?
2. What is Spotify's competitive advantage? Does Spotify have a positive future?
3. Does Spotify's competition do something Spotify can't do? How does Spotify manage to sustain its market share?
4. Can Spotify become profitable?
5. Will Spotify's "audio bet" be successful?