



**HARVARD  
BUSINESS SCHOOL**

# Strategy and Technology

Syllabus for Spring 2021

**Professor Andy Wu**

*Strategy Unit*

*Harvard Business School*

*Harvard University*

MBA Elective Curriculum

Hybrid Planned



## OVERVIEW

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This course explores the unique aspects of creating effective strategies for technology-intensive businesses.

What strategies win in markets with network effects?  
How can technology be leveraged to build multisided platforms?  
How can firms create and capture the value from intellectual property?  
What are the unique challenges of governing technology-intensive firms?  
How can firms build and sustain value in new, emerging technologies?

The course provides a series of concepts and frameworks for students to directly apply to strategic problems they will encounter as managers and executives. The course places heavy emphasis on going from concepts and market analysis to the formulation of concrete strategies. The types of firms range from pre-revenue startups to large multinationals.

**INDUSTRY COVERAGE** Industries covered range widely, including: enterprise software, cloud services, e-commerce, social networking, video gaming, browsers, semiconductors, operating systems, PCs, media streaming, intellectual property, mobile communications, electronic ink, artificial intelligence, blockchain/cryptocurrency, internet of things, and wearable technology.

**CAREER FOCUS** The course should be of particular interest to those interested in managing a business for which technology is likely to play a major role, and to those interested in consulting, private equity, or venture capital. The course may also be valuable for students who do not necessarily plan to pursue a career specifically in technology. The concepts and frameworks covered apply well beyond technology industries, *e.g.*, network effects, competitive tactics, multisided platforms.

## COURSE TEAM

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### **Professor Andy Wu**

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## COURSE CONTENT AND ORGANIZATION

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The course utilizes lectures, case analyses, academic articles, and analyst reports. Roughly half of the sessions are traditional case discussions. We will also have several visitors from entrepreneurial and large companies. The course consists of six modules:

<b>NETWORK EFFECTS</b> 1	<b>MULTISIDED PLATFORMS</b> 2
Technology-intensive businesses have unique attributes, which make their products increasingly valuable if more consumers buy their product or if more complements become available. What are the implications for market tipping (winner-take-all/most), pricing, and growth strategies?	The most important competitive battles in technology are no longer between standalone products or services, but between platforms. Many of the most successful companies build multisided platforms (MSPs), which spawn ecosystems of users and suppliers of complementary products and services. Why and how do MSPs differ from “normal” firms? What strategies create successful MSPs?
<b>COMPETITIVE TACTICS</b> 3	<b>MANAGING INTELLECTUAL PROPERTY</b> 4
Many of the critical challenges in fast-moving technology businesses are tactical in nature: how and when do firms cooperate and compete with firms within their industry? How can entrepreneurial ventures rise up to compete with established incumbents? When and how can large firms impose their will against other players in their ecosystem, without running afoul of antitrust laws?	A defining characteristic of technology industries is the disproportionate share of value which resides in intellectual property (IP) assets. We will explore current challenges in patenting and copyright system. How do firms create IP? What business models allow firms to <i>appropriate</i> or <i>capture</i> value from their IP? When should firms license their technology or even make it open source, accessible to even competitors?
<b>LEADERSHIP AND GOVERNANCE</b> 5	<b>LOOK FORWARD, REASON BACK</b> 6
Great strategists in the technology world need to lead by betting on a vision for an uncertain future that brings about special governance problems, especially asymmetric information between management, boards of directors, and shareholder. This short module explores how to face these challenges in early stage tech firms as well as large, incumbent public companies.	Large-scale industry change happens faster in technology than in other markets. Cutting edge technologies have unique problems related to untested demand, uncertain performance, and the challenge of how firms can build and maintain their competitive edge in order to take advantage of new technological opportunities. This module explores how managers ‘look forward’ into highly uncertain environments, then ‘reason back’ to devise strategies for today.