



ISOM 3000E

DIGITAL BUSINESS STRATEGY: HARNESSING PLATFORM, CROWD, AND MACHINE

SUMMER 2020

Course Instructor	Dr. Yongsuk (“Yong”) KIM Dept. of Information Systems, Business Statistics, and Operations Management (ISOM)
Class Times	July 7 – 30 (Tue/Thr/Sat) 14:00-17:20 (Zoom)
Office Hours	Immediately after class or by appointment (Zoom)
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Course Overview and Objectives

This course is designed for students who want a broad understanding of the opportunities and challenges presented by the modern digital revolution undergoing our time. The three key words that sum up the modern digital revolution are online/digital platforms, AI-driven machines, and crowds. Platforms are transforming technology, banking, logistics, media industries to name a few. A platform brings in distinct groups of ecosystem partners who is to join the platform network under the condition that doing so creates value for them. Information and communication technologies (ICT) and artificial intelligence (AI) enable and drive digital platforms, creating and nurturing networks and facilitating value-creating matches and interactions. Instead of remaining as passive consumers, crowds actively participate in platforms as providers of contents, products, services, and social currency. The three elements are so intertwined that one can't be comprehended without the others.

Digital platform business entails a set of unique challenges that traditional product business does not face. For example, platforms inevitably run into the so-called “chicken-or-egg” problem –a situation in which no ecosystem partner wants to join the network first in the absence of other partners with whom they want to interact. Platforms often give away content and services for free instead of profiting from them. Platforms create value using resources they don't own or control (the resources are mostly from crowds) and, as a result, they can grow much faster than traditional businesses.

In this course, students will survey a full of examples of digital platforms powered by technology and crowds. We will learn about the fundamental principles at work behind the platform innovation and disruption of today and tomorrow. Students will learn through lectures, case discussion, simulation game, quizzes, and a group project.

About the Instructor

Dr. Yongsuk Kim received his doctoral degree at the McCombs School of Business at the University of Texas at Austin. He also holds a master's degree in Human Computer Interaction (HCI) from the University of Michigan at Ann Arbor. Prior to graduate studies, he worked at IBM Business Consulting Services. In his research, he investigates enterprise social network and online communities from the knowledge management perspective. He also studies IT-enabled open innovation such as user innovation community and crowdfunding.

Course Materials

- Course materials will be available on Canvas
- Recommended books
 - *Machine, Platform, Crowd* by Erik Brynjolfsson, Andrew McAfee
 - *Platform Revolution* by Parker, Van Alstyne, and Choudary
 - *Business of Platforms* by Cusumano, Gawer, and Yoffie
 - *Matchmakers* by Evans and Schmalensee

Course Requirements and Grading

Grading

Percent	Requirement	Note
6%	Class Attendance	Throughout the semester
3%	Class Participation	Throughout the semester
1%	Simulation Performance	We will have a simulation day (S8). Pairs of teams will be randomly drawn to compete against each other. If your team wins against the other team, you will earn 1 point, otherwise 0.
10%	Quiz	Throughout the semester
10%	Individual short write-up	By S6
35%	Final Group Project <ul style="list-style-type: none"> • Group Formation..... • Presentation OR Final Report..... 	By S3 On S10
35%	Individual Term Paper	Topics will be released on S11

Class Attendance (6%) and Participation (3%)

Although the course will be offered online, we will still meet “virtually” in real-time. I will come to class—on time—and I expect you to do the same. The TA will check your attendance regularly (i.e., by checking your log-in records or asking you to type your student ID in the chat window at some point during the class.) Every time you miss the class, you will lose 1 point AFTER your first absence (i.e., you will not lose a point for missing the class once).

Zoom allows you to actively participate in class—by “raising” hands to express your opinions, or answering questions and asking questions in a Zoom Chat window. I encourage you to be active in class. Alternatively, you can use Canvas>Discussions to ask/answer questions and share relevant news and contents to be deemed participatory.

As a start, once your access to Canvas is permitted, introduce yourself to the class on the discussion board. Look for the discussion thread titled “Please introduce yourself to us!”). Please answer the following questions.

1. *Name (First Name Last Name)*
2. *Preferred name*
3. *Major(s) and school year (also school/country - if you are an exchange student)*
4. *Things you love to do*
5. *One truth and one lie (or vice versa) about you (don't tell us which is which!)*
6. *Technologies or products/platforms you are interested in*
7. *Anything else to say?*

Please finish introducing yourself as soon as possible by S2 (see the course outline below on the last page)

Quiz (10%)

At the end of lecture, I will give you a quiz (two questions per session) on Canvas. One question carries 1 point. If you provide an incorrect answer, you will earn 0.5 point, instead. If you miss the quiz, you will earn none. If you miss the quiz, you can contact the TA ON THE SAME DAY for make-up, but you will earn 0.5 point for your correct answer (and none for an incorrect answer). There will be 5 quizzes in total.

Individual Short Write-up (10%)

There is one individual write-up assignment. The assignment will be **up to 1.5 page in length (single-spaced)** and due at the beginning of class in S6 (via Canvas). The question will be announced in the first class. In your write-up, please address the questions with your brief but well-thought-out answers. Use bullet points if needed.

Final Group Project (35%)

Group size should be 5 students per group (to be confirmed depending on the size of the class). Appoint one member of your group as your project leader. Project leader should coordinate project activities and make sure that the project goes well according to the plan. All members in the group are expected to work equally on the assignment. The contribution of individual group members will be assessed via peer evaluation. Project leader should inform me if the group faces a serious freeriding problem and is unable to solve it.

Form your group prior to the third class (S3). Your group can choose to (a) present live via Zoom (no report to submit), (b) pre-record your presentation and submit it (no report to submit), OR (c) submit a report (but no presentation to do). The report should be a double-spaced, 12 pts, up to 15 pages including tables and references. No particular guideline on the report format.

Your group must pick an interesting platform that is in the *early growth* stage.

Your group assignment is to

- 1) Give an overview of the platform business
 - a. The role of the platform
 - b. Participants, interactions (core and extended), and value units
- 2) **As is:** Analyze the platform according to the following topics we learn in class
 - a. Network effects
 - b. Architecture: Pull, Facilitate, and Match mechanisms
 - i. Pull: How does (or should) the platform overcome the chicken-or-egg problem? whom to pull and why? Pull whom in which order?
 - ii. Facilitate: what are the services and tools designed to support interactions?
 - iii. Match: What is the curation mechanism & how does the platform control the quality of users/interactions?
 - c. Monetization: How does the platform make money?
- 3) **To be:** Make recommendations
 - a. Pull
 - b. Facilitate
 - c. Match
 - d. Monetization

Individual Term Paper (35%)

In the last session (S11), the topics of your individual term paper will be released. You will be given a limited time to complete your paper. The paper will consist of multiple open ended questions. **You are not allowed to communicate with any student in the class while working on the paper via a communication tool such as WhatsApp, WeChat, etc. Your papers will be scanned to check the possibility of plagiarism.**

If you miss the deadline due to extraordinary circumstances such as unexpected hospitalization or loss of a family member, please let me know as soon as you can and contact me with a doctor’s note and/or verifiable, reliable, and valid evidence. Only under such extraordinary circumstances, an oral examination will be arranged for you. In other cases, there will be no make-up. **Time conflicts with job interviews, other tests, travel plans, etc. will not be considered.**

Course Outline (subject to change)

Week	Session	Topic
W1	S1	Product vs. Platform Transaction Platform vs. Innovation Platform
	S2	Network Effects and Platform architecture
	S3	Pulling Crowd <i>Chicken or egg? 7 ways to launch a successful digital platform</i>
W2	S4	Business Model and Monetization <i>How to capture the value created by network effects</i>
	S5	Disintermediation
	S6	Match and Facilitate interactions <i>The case of Wattpad</i> <i>Big data, machine learning, recommendations, and reviews</i>
W3	S7	Platform Competition and Winner-take-all Market <i>Market drivers that reduce or enhance the power of network effects and the impact of digital technologies on the platform market drivers</i>
	S8	Platform Competition Simulation Game <i>Pairs of teams will compete against each other on the simulation day. Each team will be the owner of one of two competing platforms. Each team will be responsible for designing the platform’s strategies. The simulation game involves making decisions on behalf of a platform, users, and app developers.</i> Strategies for “old dogs” (If time allows) <i>How should traditional product companies respond to the disruption caused by platforms?</i>
	S9	Platform governance and social challenges <i>Policies to ensure quality and instill trust</i>
W4	S10	Presentations
	S11	Individual Term Paper (Take-Home)