Georgia Tech Ernest Scheller Jr. College of Business

MGT 6056: Electronic Commerce
Spring 2017, T, TH, Room 223
Session A/EMA: 1:35pm–2:55pm

Prof. D. J. Wu, Ph.D.
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Course Syllabus

January		February		March		April	
T 1/10	EC Overview Internet Business Models	TH 2/2	*Airbnb* *Uber* ***Due: Group Homework***	TH 3/2	*Robert Frohwein* *Kabbage.com* Platform Lending	T 4/4	Long Tail Business Models *Netflix* *Kindle*
TH 1/12	Social Commerce Network Game Freemium Business Models	T 2/7	*OpenTable* Catch Up Session	T 3/7	Cloud-Enabled Business Models: *SAP* *Salesforce* Mid-Course Feedback	TH 4/6	EC Big Data Analytics (Fishing game) EC Competition ***Due: Webvan***
T 1/17	*Daniel Drechsel* *HireIQ* EC Strategy	TH 2/9	*Chris Klaus* *Kaneva.com*	TH 3/9	*Bengt Horsma* *FinTech Etc* EC Payments	T 4/11	*Tony Gallippi* *BitPay, Inc.* Bitcoin Global EC Payments
TH 1/19	Platform Business Models Platform Game	T 2/14	**TAKE-HOME EXAM I** ***Due: 2/20/2017***	T 3/14	*Bill Wade* *Company.com* B2B Social Commerce	TH 4/13	EC Logistics Crowdphysics Show & Tell
T 1/24	Platform Business Models Platform Game	TH 2/16	*Larry Carter* *AT&T Mobility* *iPhone* M-Commerce	TH 3/16	*Allen Nance* *Techsquare Labs*	T 4/18	Show & Tell
TH 1/26	*Skype* *Dropbox*	T 2/21	*Joe Kleinwaechter* *Worldpay* Open Innovation & Biz Model Design	T 3/28	**TAKE-HOME EXAM II** ***Due: 4/3/2017***	TH 4/20	Show & Tell
T 1/31	*Mark Wasiele* *CyberLaunch VC*	TH 2/23	Open Business Models *HealthTap* *TopCoder*	TH 3/30	*Bob Cross* *Revenueanalytics* EC Analytics	T 4/25	Show & Tell Course Summary In-Class CIOS Course Survey
		T 2/28	Open Innovation ***Due: Innocentive***				

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COURSE DESCRIPTION

Electronic Commerce (EC) is the process of buying, selling, transferring, or exchanging goods, services, information, ideas, or relationships via computer networks, mostly the Internet and Intranets. In this course, we adopt a boarder definition of EC (often referred to as Electronic Business) that covers activities throughout a firm's value chain, such as searching for customers and suppliers, serving customers, collaborating with business partners, and conducting electronic transactions among trade parties. In short, *EC is any transaction that involves the use of computer networks.*

This course examines in greater depth a number of business, managerial and economic issues related to electronic commerce and electronic business. Building on the functional core area courses such as Information Technology (IT) management, operations, strategy, economics and marketing, this course strives to focus specifically on *business model analysis and design* in the context of electronic commerce, particularly EC startups.

Whereas technology, especially state-of-the-art IT, remains on the central stage of the course, *the course itself is not about EC technology per se.* Rather it capstones technological courses by exploring how IT gets down to electronic commerce. Treating *IT as a general purpose technology***,** we achieve this course objective by *designing the entire course in a business model generation/search framework.*

Advanced courses inside of IT such as technical ITM courses or outside of technology such as competitive strategy, managerial economics, supply chain management, and marketing are extremely helpful. However, a thorough knowledge of MGT 6503 – Managing Information Resources or the equivalent would suffice prior requirements for this course.

The course is most useful to students who are considering careers in or related to all aspects of electronic commerce, such as EC startups, IT management, management consulting, technology-oriented investment banking, venture capital, entrepreneur, IT-related careers in information intensive industries, or transformation of traditional industries using IT. In addition, *this course counts for those interested in getting the Management of Technology (MOT) certificate, or the Entrepreneurship certificate* (these certificates are undoubtedly valuable for your professional career).

The course achieves effective learning by interacting with industry leaders using their live cases, via hands-on (lab and field) experiments and field trip experiences, and by integrating cutting edge research with education. Success of the course depends on student co-investment and co-innovation throughout.

Our course project is for each team to do the digital business model analysis, design and search of your own EC startup. Alternatively, each team may research, write and present a new EC startup case (not covered in class). You need Dr. Wu's approval for your final course project selection, and Dr. will be very pleased to help each team. Course project details will be posted on T-square.

COURSE PREREQUISITE

MGT 6503: Managing Information Resources **or equivalent**.

REQUIRED COURSE MATERIALS

1. Three mini-books (B1, B2, B3). (To save cost, we unbundle one to three minis.)

- Order the first book here (B1): http://www.amazon.com/gp/product/B019L6KK30?*Version*=1&*entries*=0

- Order the second book here (B2): http://www.amazon.com/gp/product/B019ME2NE0?*Version*=1&*entries*=0

- Order the third book (B3) online from Harvard Business Publishing Company: http://cb.hbsp.harvard.edu/cbmp/access/57387935. You need to register as an authorized student on the site before you can login and purchase.

B1 introduces the structure of business models by first providing a framework for business model analysis and design and then applying it to four companies, Uber, OpenTable, Apple and HealthTap. B2 focuses on the effects of the Internet and cloud computing on the business models of technology and media companies, cloud computing, Salesforce, Netflix, Kindle, and Webvan. B3 extends the framework to other EC cases, Dropbox, AirbnB, TopCoder, InnoCentive, and SAP. A note on funding digital innovation startups is also included in B3.

2. A set of supplementary course materials (syllabus, updated/additional course materials such as lecturing slides, assignments, case study questions, exam questions, additional readings, etc.), course project instructions are available from the T-Square site (https://t-square.gatech.edu/portal). Please DO NOT redistribute any material you downloaded from T-Square without written permissions of their respective copyright owners.

OPTIONAL READINGS

- *Business Model Generation* by Alexander Osterwalder and Yves Pigneur.

- *Value Proposition Design*: How to Create Products and Services Customers Want (Strategyzer) by Alexander Osterwalder et al.
- *Platform Revolution*: How Networked Markets Are Transforming the Economy--and How to Make Them Work for You by by Geoffrey G. Parker, Marshall W. Van Alstyne, Sangeet Paul Choudary.
- *Free*: The Future of a Radical Price by Chris Anderson
- *The Long Tail*: Why the Future of Business is Selling Less of More by Chris Anderson
- *Zero to One*: Notes on Startups, or How to Build the Future by Peter Thiel.
- *The Lean Startup* by Eric Ries.
- *The Four Steps to the Epiphany* by Steven G. Blank. www.steveblank.com.
- *Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant* by W. Chan Kim and Renee Mauborgne. http://www.blueoceanstrategy.com/.
- *Crossing the Chasm* by Geoffrey A. Moore.
- *The Tipping Point* by Malcolm Gladwell.

GRADING

There are 1,000 points available for this course. The distribution is as follows:

Class Participation	
Individual	150
Digital Market Simulation Game (Team)	50
Fishing Game (Team)	50
Mini-Case Presentation (Team)	150
Take Home Exam I	100
Take Home Exam II	100
Group Assignments	
Homework	50
Innocentive Case Report	50
Webvan Case Report	100
Group Course Project	
Presentation	100
Report	100
TOTAL	1,000

Provided that you do not miss more than two classes, the grading scale for the final course grade will be as follows:

A: 900 - 1000
B: 800 - 899
C: 700 - 799
D: 600 - 699
F: below 600

Students are anticipated to participate in the course survey to help future students. We will do the CIOS course survey during the last class of this course. Mid-course student feedbacks will be surveyed and used to help further improve this course for the second-half of the course. Dr. Wu welcomes suggestions and feedbacks anytime. Please feel free to email me or see me in my office.

In-Class Participation. This class should be a common learning experience. Therefore, you need to take ownership and initiative for the success of this class. It is absolutely crucial that you arrive for each class fully prepared to lead the discussion. You should be able to demonstrate an understanding of the relevant issues and problems in the assigned readings.

You must do the assigned readings prior to class. Just scanning the material is clearly not enough. You need to critically reflect on the readings. In preparation for case discussions, you need to thoroughly work through the case discussion questions, which will lay the foundation for the in-class discussion.

One course innovation is to learn and interact with industry leaders via "live" cases. Please visit the website of the speaker's company to familiar yourself with the background of the company and the speaker. Prepare to ask at least one question for the speaker in class.

We will use a sign-up sheet each class to track class attendance/participation. If you forget to sign-up for a particular class, please let me or our TA know before the next class. If you miss class without instructor permission, you will get zero participation points for this class. Each student may have two excused class absences (EAs) without losing class participation points. EAs will be recorded during the semester but we will credit back your EA points at the end of the semester when calculating your final grade. If you miss more than two classes (EAs included), your overall course grade may be affected adversely. On the other hand, attendance alone does not entitle you to receive full credit for in-class participation. Disruptive behavior will result in point deductions. Disruptive behavior includes things such as violating the no-laptop policy (more below), talking in class, getting up to walk around, ringing cell phones, or any other behavior that would disturb your classmates. Thus, attendance is a necessary condition to obtain participation points, but not sufficient. You must (pro-)actively participate to get participation points. Focus on quality contributions and not quantity.

No Laptop Policy. Except for the game sessions when you are required to bring laptops to play the games in class, please silence your cell phones and other mobile devices, turn off laptops and other such equipment during class sessions, as it is most productive for us to be *offline and not connected* during class times. The "abuse" of laptops during class was particularly rampant during guest speaker classes and the end-of-semester student class presentations, showing utter disrespect for industry leaders and fellow students and work. No laptops except for the game sessions. Violating the no-laptop policy is considered one form of the disruptive behavior and may affect adversely your in-class participating points.

Exams. Exams will cover all reading assignments and materials covered (including guest lectures) in class. There will two take-home exams during the semester. Exams are open book and open notes.

Teams. Case reports, group homework, mini-case presentation(s), and course project and presentation will be done in the same team with a maximum size of FOUR. You can freely compose your own team. Please *form your team ASAP but no later than January 12.* A fair contribution to each submission of every team member is the team's collective responsibility. *Optional peer reviews from other members of your team will be conducted at the end of this course.* Consistent peer reviews from other members of your team, if submitted and verified, may affect your group project points adversely.

Case Reports. You are required to submit reports for 2 cases (Innocentive and Webvan). Case questions will be distributed on T-Square. Case reports are suggested to limit to 4 single spaced pages (Times New Roman, font 12), but feel free to use additional pages if your team wants to. Bullet point format is adequate and preferred; you do not have to write essays. The report should answer the case questions, but you can point out other interesting issues not covered by the questions. Turn in your case reports electronically on T-Square. One and only one softcopy is required for each group. *Please list all members contributed to the case analysis.*

Your case reports will be graded based on the following three criteria:

(a) The **quality of research** you have done to find support for your viewpoints – anyone can have an opinion, you need to back it up with research on the web, the library sites and other sources.
(b) The **logical development** of your arguments – are your arguments carefully and logically developed or do they appear ad-hoc and not well thought through?
(c) **Presentation** – how well you organize your reports. Does the grader/reader have to read every word and decipher the key points hidden somewhere, or does your presentation facilitate the reader's understanding of the arguments made.

Group Course Project Deliverables: Report and Presentation. Your group report will be graded using the same three criteria as your case reports (listed above). Group reports are due on April 25 (last day of class). Turn in your group report electronically on T-Square.

Group Presentations. Each group is required to give two professional presentations: One mini-case presentation during the semester and the other in final project presentation. Professional appearance and attire for the presentation are expected. Presentations will be evaluated based on completeness, substance, depth of analysis, style, and handling of questions. *Peer evaluations will be used for your final presentations.* Turn in your group presentation slides electronically on T-Square 24 hours before your presentation (you can update your slides until our last class).

The Georgia Tech Honor Code. The Georgia Tech Honor code applies to all aspects of the course. Plagiarism or unauthorized collaborations for individual exams will be reported to the Dean of Students office. Please pay attention to following statements, which are quotes or adoptions directly from Georgia Tech's faculty guidelines ("checklist") for syllabus.

> *Plagiarizing is defined by Webster's as "to steal and pass off (the ideas or words of another) as one's own use (another's production) without crediting the source." If caught plagiarizing, you will be dealt with according to the GT Academic Honor Code.*
>
> *"Unauthorized use of any previous semester course materials, such as tests, quizzes, homework, projects, and any other coursework, is prohibited in this course. Using these materials will be considered a direct violation of academic policy and will be dealt with according to the GT Academic Honor Code."*

Thank you for respecting the Georgia Tech Honor code. Georgia Tech will further develop its reputation as a place for high standards and academic integrity. If you have any questions involving these or any other Academic Honor Code issues, please consult me or *www.honor.gatech.edu*.

GT Verification of Participation. This is a process whereby instructional faculty report to the Registrar's Office and the Office of Scholarships and Financial Aid whether they have students enrolled in their classes who are not engaged with the course. We must comply with it because it is a Federal Title IV requirement. The rule requires students who are receiving Federal Title IV financial aid to be participating in all courses (credit hours) for which they have been funded. For more information, see http://www.registrar.gatech.edu/faculty/vparticipation.php.

TENTATIVE SCHEDULE (may be adjusted based on guest speakers' schedules)

Class (Date)	Topic(s)	Readings Available from course books or T-Square (TS) or hot links below	Due
1 (1/10)	EC Course Overview: Goals and Expectations Internet Business Models Metcalfe's Law Network Effects	Syllabus. (Distributed in class. Also available from T-Square). Mendelson, H. 2017. Business models: An introduction. (B1) The Business Model Canvas http://www.businessmodelgeneration.com http://bmdesigner.com Shapiro, C. and H. R. Varian. 1999. *Information Rules*, Chapter 1. (TS) Optional. Brynjolfsson, E. and A. McAfee. 2014. *The Second Machine Age*, Chapters 1&2. (TS) Optional. Andreessen M. 2011. Why software is eating the world. (TS)	
2 (1/12)	Social Commerce Network Game Freemium Business Models Seeding Strategies	Anderson, C. 2009. The economics of giving it away. The Wall Street Journal. February 2. (TS). Wu, D.J. 2017. Seeding and pricing strategies under network effects. Social Commerce Teaching Note, Georgia Tech Scheller College of Business. (TS). Optional. Niculescu, M. and D.J. Wu. 2014. Economics of free under perpetual licensing: Implications for the software industry. *Information Systems Research*, Vol. 25, No. 1, pp. 173–199. (TS). Optional. Dou, Y., M. Niculescu, and D.J. Wu. 2013. Engineering optimal network effects via social media features and seeding in markets for digital goods and services. *Information Systems Research*, Vol. 24, No. 1, pp. 164-185. (TS).	***Team Formulation***
3 (1/17)	EC Strategy	*Daniel Drechsel* *CEO and President* ***HireIQ***	

4 (1/19)	Platform Business Models Platform Competition Game B2B Electronic Markets	*http://www.tradewindbusiness.com* https://en.wikipedia.org/wiki/Two-sided_market Eisenmann, T., G. Parker and M. Van Alstyne. 2006. Strategies for two-sided markets. *Harvard Business Review*, Vol. 84, No. 10 (October), pp. 92-101. (B3) Optional. Kleindorfer, P. and D. J. Wu. 2003. Integrating long- and short-term contracting via business-to-business exchanges for capital-intensive industries. *Management Science*, Vol. 49, No. 11, 1597–1615. (TS)	
5 (1/24)	Platform Business Models Platform Competition Game	Van Alstyne, M., G. Parker, S. Choudary. 2016. Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*, No. 4 (April). (B3) Optional. Dou, Y. and D. J. Wu. 2016. Dynamic Platform Competition: Optimal Pricing and Piggybacking Under Network Effects. Available at SSRN: https://ssrn.com/abstract=2842901. (TS)	
6 (1/26)	Freemium in Action ***Skype*** ***Dropbox***	Langley, T. and H. Mendelson. 2006. Skype technologies, S.A. Stanford GSB Case EC-37. (TS) Eisenmann, T., M. Pao, and L. Barley. 2014. Dropbox: "It just works". Harvard Business School Case 9-811-065. (B3)	
7 (1/31)	Startup Accelerators ***CyberLaunch***	*Mark Wasiele* *CyberLaunch VC* Lakhani, K., M. Norris, and A. Otazo, 2014. A note on funding digital innovation startups. HBS Teaching Note. (B3)	
8 (2/2)	Platform in Action Sharing Economy ***Airbnb*** ***Uber***	Edelman, B. and M. Luca. 2012 Airbnb (A). Harvard Business School Case 9- 912-019. (B3) Mendelson, H. 2017. Uber. (B1) https://www.airbnb.com/about/about-us http://en.wikipedia.org/wiki/Airbnb https://www.uber.com/about http://en.wikipedia.org/wiki/Uber_(company)	***Due: Group Homework***
9 (2/7)	Platform and Network Effects in Action ***Opentable***	Mendelson, H. 2014. OpenTable. (B1) http://www.opentable.com/info/aboutus.aspx	
10 (2/9)	Creating Startups Startup Metrics Startup Funding	*Chris Klaus* *Co-Founder and Partner* *CyberLaunch VC* *Co-Founder and CEO* ***Kaneva.com***	
11 (2/14)	**EXAM I (TAKE HOME)**	TAKE HOME EXAM I (Open Book, Open Notes). No class. **Due: 2/20/2017**	***Exam I Due: 2/20/2017***

12 (2/16)	Mobile Commerce ***iPhone***	*Larry Carter* *Former SVP, AT&T Mobility* Mendelson, H. 2017. The iPhone and the smartphone wars. (B1)	
13 (2/21)	Open Innovation Business Model Design	*Joe Kleinwaechter* *Vice President, Innovation and Design* *Worldpay*	
14 (2/23)	Open Business Models Crowd Computing ***HealthTap*** ***TopCoder***	Lakhani, K., D. Garvin, and E. Lonstein. 2012. TopCoder (A): Developing software through crowdsourcing. Harvard Business School Case 9-610-032. (B3) Mendelson, H. 2017. HealthTap. (B1)	
15 (2/28)	Open Business Models ***Innocentive.com***	Lakhani, K. 2009. InnoCentive.Com (A). Harvard Business School Case 9-608-170. (B3) Optional. Niculescu, F., D. J. Wu and L. Xu, 2016. Strategic intellectual property sharing: Competition on an open technology platform under network effects. Available at SSRN: https://ssrn.com/abstract=2839120. (TS)	***Due: InnoCentive***
16 (3/2)	Startup Field Trip Platform Lending	*Robert Frohwein* *Co-Founder and CEO* ***Kabbage.com*** *We will have our class at Kabbage.com, located at 730 Peachtree Street, Suite 1100. The executives will do a live case discussion with us on their E-Commerce startup adventure and address any questions you may have.* *Please go directly to Kabbage.com and arrive at the lobby of the building before class. Prof. Wu will wait for you at the Lobby, and then take you upstairs to suite 1100.*	
17 (3/7)	Cloud Business Models ***SAP*** ***Salesforce***	Mendelson, H. 2017. Cloud computing: A quick introduction. (B2) Lakhani, K., M. Iansiti, and N. Fisher, 2014. SAP 2014: Reaching for the Cloud. HBS Case. (B3) Mendelson, H. 2017. Salesforce.com. (B2)	Mid-Course Feedback
18 (3/9)	EC Payments	*Bengt Horsma* *FinTech Etc*	
19 (3/14)	B2B Social Commerce EC Business Model Search	*Bill Wade* *Company.com*	

20 (3/16)	EC Field Trip	*Allen Nance* *Co-Founder, TechSquare Labs* *We will have our class at TechSquare Labs, located at 859 Spring Street. Allen will do a live case discussion with us on EC startup creation and address any questions you may have.* *Please go directly to TechSquare Labs.*	
3/21 3/23	Spring break. No classes.		
21 (3/28)	**EXAM II** **(TAKE HOME)**	TAKE HOME EXAM II (Open Book, Open Notes). No class. **Due: 4/3/2017**	***Exam II Due:*** ***4/3/2017***
22 (3/30)	EC Analytics	*Bob Cross* *Chairman and CEO* ***Revenue Analytics, Inc.***	
23 (4/4)	Long Tail Business Models ***Netflix*** ***Kindle***	Mendelson, H. 2017. Netflix. (B2) Mendelson, H. 2017. Kindle: Reinventing the book. (B2) Anderson, C. 2004. The long tail. Wired. October. Brynjolfsson, B., J. Hu, and M. Smith. 2006. From niches to riches: Anatomy of the long tail. MIT Sloan Management Review, Summer. (TS)	
24 (4/6)	EC Big Data Analytics ***Webvan***	Fishing Game Play http://www.tradewindbusiness.com Mendelson, H. 2001. Webvan: The new and improved milkman. (B2)	***Due:*** ***Webvan***
25 (4/11)	Digital Currencies Bitcoin Payments Block Chain Global EC Payments	*Tony Gallippi* *Co-founder and Executive Chairman* ***BitPay, Inc.*** http://www.weusecoins.com/en/ http://bitcoincharts.com/ https://blockchain.info/ www.bitpay.com	
26 (4/13)	EC Analytics EC Logistics Crowdphysics Presentations	Optional. Sadilek, A., J. Krumm, and E. Horvitz. 2013. Crowdphysics: Planned and Opportunistic Crowdsourcing for Physical Tasks. 7th International AAAI Conference on Weblogs and Social Media, Boston. Short video. Show & Tell	
27 (4/18)	Presentations	Show & Tell	
28 (4/20)	Presentations	Show & Tell	
29 (4/25)	Presentations	Show & Tell	In-Class CIOS Course Survey

Thank you for reading this course syllabus – Dr. Wu.