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# Section 8634-001-20201

# **Smarter Worlds**

# **Half-Term course**

# Spring 2020 A term **Matthew Quint**

**[TENTATIVE] Tuesdays, 5:45 pm - 9:00 pm** [mq2120@gsb.columbia.edu](mailto:mq2120@gsb.columbia.edu)

**January 28 – March 3, 2020**  Office: 475 Riverside Dr., Suite 312B

TBD Office hours: by appointment only

TA: **TBD**

**METHOD OF EVALUATION**

Class preparation, Attendance and Participation 30%

Group Presentations 50%

Final Individual Paper 20%

**READINGS**

* Future Today Institute, “2018 Emerging Tech Trends”
* Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, Chapters 1,2, 4
* Michael Porter and Jim Heppelmann, “A Manager’s Guide to Augmented Reality,” HBR Article Collection
* Seth Shapiro and Andriy Pishchalenko, “Virtual and Augmented Reality: A State of the Industry Review,” USC School of Cinematic Arts
* Philip Evans, et al., “Thinking Outside the Blocks,” Boston Consulting Group
* Phil Gomes, “Blockchain Technology: The Marketing Value of Digital Permanence”
* McKinsey Global Institute, “The Internet of Things: Mapping the Value Beyond the Hype,” Executive Summary
* Donna L. Hoffman and Thomas P. Novak, “How to Market the Smart Home: Focus on Emergent Experience, Not Use Cases”. The Center for the Connected Consumer. The George Washington University School of Business
* The Integer Group, “Embracing the Machines: AI’s Collision with Commerce”
* Susan Etlinger, “The Age of AI: How Artificial Intelligence Is Transforming Organziations,” The Altimeter Group
* Microsoft, “The Future Computed: Artificial Intelligence and Its Role in Society”
* Martin Ford, “Rise of the Robots: Technology and the Threat of a Jobless Future,” Chapters 1-2

## **COURSE OVERVIEW**

The Smarter Worlds course is a survey course designed to stimulate students to learn and contemplate how emerging technologies are changing consumer behavior and business practices, and how this will impact the future of business development and brand building.

Developments in the Internet of Things, blockchain technology, artificial intelligence, mixed reality, and robotics will create a “smarter world” in the future. Ever-increasing amounts and forms of data will be analyzed and fused into new interactive tools that affect how businesses build relationships with their stakeholders, impact society, and build brands.

Major themes for course lecturers, guest speakers, discussions, and group and individual assignments will focus on the near- and medium-term impacts of these technologies on businesses and brand development:

* What elements are necessary for technological advances to reach mainstream business and/or consumer use?
* How will people react to the roll out of these new technologies? What will they expect from such technologies as they interact with brands that employ them?
* What risks and ethical considerations must companies consider in developing emerging technology initiatives?
* What strategies will firms need to employ internally and externally to use these new advances effectively?
* How might these technologies create societal shifts that affect business management and brand development?

**COURSE ORGANIZATION**

This course is a half-term course. Half the class will be lectures and discussions that look at implications and elements around effects of how emerging technologies will create a smarter world. The other half of the course will be guest lectures and panels featuring practitioners that are implementing these technologies for business growth and brand building.

Students will be divided into groups that will present an analysis of a specific technological use case and its effects on consumer behavior or business model development.

Readings will be provided on Canvas.

**CONNECTION TO THE CORE**

The learning in this course will utilize, build on, and extend concepts covered in the following core courses:

|  |  |
| --- | --- |
| **Core Course** | **Connection with Core** |
| Marketing | 1. Innovation 2. Integrated marketing communications 3. Customer Analysis 4. Competitive Analysis 5. Branding 6. Market Penetration & Marketing Strategy |

Students will be expected to have mastered these concepts and be able to apply them in the course.

**ASSIGNMENTS AND GRADING**

Requirements for the course are: prepare for, attend class and participate in class discussions (30%), written assignment (20%), and final group project (50%).

***Group Presentations –***During the first class students will break into groups of 4-5 members. In the projects, each group will take the perspective of a brand consultant and present insights and recommending a course of action to address how a particular brand could utilize two (or more) areas of technology development to better build its relationships with its stakeholders (external or internal)

**This course adheres to Columbia core culture. Students are expected to be:**

**Present:**

* On time and present for every session
* Attendance tracked

**Prepared:**

* Complete pre-work needed; expect cold calling
* Bring nameplates and clickers

**Participating:**

* Constructive participation expected and part of grade
* No electronic devices unless explicitly called for by the instructor

**COURSE OUTLINE**

**Note: Tentative planning based on availability of guest lecturers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Session** | **Date** | **First-half** | **Second-half** | **Possible Guests/Companies** |
| Session 1 | 1/28 | Smarter Worlds introduction | Artificial Intelligence: Lecture |  |
| Session 2 | 2/4 | Artificial Intelligence: Guest panel | Internet of Things: Lecture | Chris Duffey, Head of AI Innovation and Strategy, Creative Cloud Enterprise, Adobe  Alex Poon ’06, VP, Engineering, AiCure; Founder, X.ai |
| Session 3 | 2/11 | Internet of Things: Guest panel | Blockchain: Lecture | Patrick Way, Engineering Manager, Client Experience, Intersection |
| Session 4 | 2/18 | Blockchain: Guest panel | AR/VR: Lecture | David Post, MD, IBM Blockchain Ventures  Carolina Abenante, Founder and Vice Chair, NYAIX |
| Session 5 | 2/25 | AR/VR: Guest panel | Robotics:  Lecture | Dessy Levinson, MD and Head of Story, 645 Ventures; Ori Inbar, Founder, Super Ventures  RLab Accelerator Tech Demo |
| Session 6 | 3/3 | Robotics: Guest panel | Final Group Presentations | Aaron Horowitz, CEO and Co-Founder, Sproutel  Jeremy Balkin, Head of Innovation US, HSBC |

**READING SCHEDULE**

**Session 1: Smarter Worlds: Intro**

* REQUIRED: Future Today Institute, “2018 Emerging Tech Trends,” pgs 8-21
* REQUIRED: Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, Chapters 1, 2, 4  
    
  **Artificial Intelligence: Lecture**
* REQUIRED: Future Today Institute, “2018 Emerging Tech Trends,” pgs 47-66
* REQUIRED: Susan Etlinger, “The Age of AI: How Artificial Intelligence Is Transforming Organizations,” The Altimeter Group
* RECOMMENDED: The Integer Group, “Embracing the Machines: AI’s Collision with Commerce”
* RECOMMENDED: Microsoft, “The Future Computed: Artificial Intelligence and Its Role in Society”

**Session 2: Internet of Things: Lecture**

* REQUIRED: McKinsey Global Institute, “The Internet of Things: Mapping the Value Beyond the Hype,” Executive Summary (pgs 1-14)
* REQUIRED: Future Today Institute, “2018 Emerging Tech Trends,” pgs 175-191
* RECOMMENDED: Donna L. Hoffman and Thomas P. Novak, “How to Market the Smart Home: Focus on Emergent Experience, Not Use Cases”. The Center for the Connected Consumer. The George Washington University School of Business

**Session 3: Blockchain Technology: Lecture**

* REQUIRED: Phil Gomes, “Blockchain Technology: The Marketing Value of Digital Permanence”
* RECOMMENDED: Philip Evans, et al., “Thinking Outside the Blocks,” Boston Consulting Group

**Session 4: AR/VR: Lecture**

* REQUIRED: Future Today Institute, “2018 Emerging Tech Trends,” pgs 134-140
* REQUIRED: Michael Porter and Jim Heppelmann, “A Manager’s Guide to Augmented Reality,” HBR Article Collection
* RECOMMENDED: Seth Shapiro and Andriy Pishchalenko, “Virtual and Augmented Reality: A State of the Industry Review,” USC School of Cinematic Arts

**Session 5: Robotics: Lecture**

* REQUIRED: Future Today Institute, “2018 Emerging Tech Trends,” pgs 86-98
* REQUIRED: Martin Ford, “Rise of the Robots: Technology and the Threat of a Jobless Future,” Chapters 1-2