Course Syllabus
Fall 2017, MIS 6302
The University of Texas at Dallas

Course Information

Course Number	MIS 6302
Course Title	Managing Digital Strategy
Term and Dates	Fall 2017: 8/25/2017 - 12/08/2017
Location	JSOM 2.103
Time	Fridays, 7:00 pm – 9:45 pm

Professor Contact Information

Professor	Ron Bose, PhD., PMP
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Office Hours	by appointment

About the Instructor

Ron Bose is Clinical Professor at the Naveen Jindal School of Management at the University of Texas at Dallas where he teaches undergraduate and graduate courses in information systems, digital strategy and business analytics. He holds a Ph.D. in Operations Research from the University of Texas at Austin, a Masters in Systems Engineering from Case Western Reserve University and a Bachelors in Electrical Engineering from the Indian Institute of Technology, Kanpur. Prior to joining UT Dallas in 2013, he held senior executive positions in companies in the information and communications industry, including AT&T, Arthur Andersen, Siemens and Fujitsu. Please see: www.linkedin.com/in/ronbose

Course Pre-requisites, Co-requisites, and/or Other Restrictions

None

Course Description

The information technology (IT) industry is a $3.0 trillion-plus worldwide industry growing at over 15% per year. IT enhances competitiveness and provides a resource for building, compounding and sustaining the competitive advantage of any enterprise. Cost reduction, expedited decision making, and improved productivity are specific instances of this greater purpose.

Today, every business is a digital business. Based solely on IT, new businesses have emerged to change the economic landscape completely. Information and knowledge based businesses are emerging rapidly. Companies such as Amazon, Google, Facebook, Uber and Airbnb did not even exist 30 years ago. Continuous IT innovations bring forth new industries, market segments, product niches and strategic

spaces where none existed a few years ago. Big data and The Internet of Things are examples of new waves.

Broadly, the course explores the strategic management and business development issues associated with IT and Digital Business Strategy. Specifically, the course:

I. Provides an overall understanding of the strategic drivers of modern IT functionalities and architectures, such as Innovative Business Models, Big Data and the Internet of Things;

II. Provides a framework to understand how IT strategy aligns with business strategy and how to develop strategies for digital enterprises;

III. Develops competencies in generating effective business and financial models for enterprises in the new age of IT and the digital economy.

Based on ideas presented in the course, participants will develop strategic business models and financial plans in some of the current areas in IT, such as Big Data and the Internet of Things.

This course will benefit MS, MBA and graduate students in Accounting, Management Science, Operations Management, Finance and Computer Science.

Career paths could include positions as business strategy analyst, financial analyst, IT manager, software manager, business auditor and IT management strategy consultant.

Student Learning Objectives/Outcomes

The course enables participants to be capable analysts by:

I. Understanding conceptual tools associated with analyzing strategy competencies

II. Understanding contemporary IT developments and be able to appreciate what drives IT strategy, how IT addresses customer needs and how contemporary IT strategies are developed

III. Providing knowledge to develop digital and IT-based business strategies and undertake research in contemporary relevant areas such as Big Data and the Internet of Things, and apply conceptual strategy analysis competencies to real-world IT applications in creating sustainable strategies

IV. Providing insights to appreciate digital and IT strategic management by acquiring abilities in business model development, strategy planning, economic analysis and financial modeling.

Required Textbooks and Materials

There is no required textbook. This will be a readings intensive course. An extensive amount of materials are provided online to students.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation

This course material uses a tool called eLearning. Students will use their UTD NetID account to login at: http://elearning.utdallas.edu.

UTD provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Support Center: http://www.utdallas.edu/elearninghelp.

Communications

This eLearning course has built-in communication tools which will be used for interaction and communication outside of face to face meetings. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the eLearning Tutorials webpage for video demonstrations on numerous tools in eLearning.

Interaction with Instructor

The instructor will communicate with students in the classroom and using the Announcements and Discussions tools.

Student Resources

The following university resources are available to students:

UTD Distance Learning:

http://www.utdallas.edu/elearning/students/cstudents.htm

McDermott Library:

Distance Learners (UTD students who live outside the boundaries of Collin, Dallas, Denton, Rockwall, or Tarrant counties) will need a UTD-ID number to access all of the library's electronic resources (reserves, journal articles, ebooks, interlibrary loan) from off campus. For UTD students living within those counties who are taking online courses, a Comet Card is required to check out materials at the McDermott Library. For more information on library resources go to http://www.utdallas.edu/library/distance.html

Course Policies

Extra Credit
There will be no extra credit in this course.

Late Work
Late work is not accepted.

Class Participation
Each class will consist of an instructor-led lecture and student-led discussions of reading assignments and business concepts. Students are required to participate in all class activities such as discussion, presentations and group projects.

Practical Project

40% of the class grade is based on a practical project related to a major IT-based business idea, the business and financial model development of that idea and presentations.

The materials related to the project should be read at the beginning of the semester as well as referred to continuously throughout the semester.

Course Unique Features

The key features of the course are:

I. *Discursive*: This is a reading materials intensive course (no textbook), since we are dealing with rapidly changing phenomena. A large number of required readings are provided; additional readings are suggested; and there will be numerous opportunities for discussions by participants amongst themselves.

II. *Interactive*: There will be several required sessions for presentations, and interactions with the instructor and the participants, as well among the participants themselves.

III. *Hands On*: There will be preparation of a detailed plan for a business idea to turn concepts into practice

IV. *Intensely Pragmatic:* 40% of the grade is based on the practical project report or paper related to a major IT-based business idea, the business and financial model development of that idea and on-line presentation of the idea and report.

V. *Group Work Based*: There will be leverage of individual strengths to maximize social learning and collective intelligence

The learning steps involve:

1. Read assigned material
2. Actively participate in discussions during and after lessons
3. Complete all assignments and the project

Grading Information

Grading Policy

Twenty percent [20 %] of the grade is based on readings and discussions at every class

Forty percent [40 %] of the grade is based on two [2] short papers accounting for twenty percent [20 %] each.

Forty percent [40 %] of the grade is based on a project paper elated to a major IT-based business idea and business model development and presentation

Weights and Due Dates

Class discussion and presentations	20%	Every class
Group Paper 1	20%	October 20
Group Paper 2	20 %	November 17
Project Report	40%	December 1
Total	100%	

Grading Scale

Scaled Score	Letter Equivalent
90-100	A
80-89	B
70-79	C
Less than 70	F

Accessing Grades

Students can check their grades by clicking "My Grades" on the course menu after the grade for each assessment task is released.

Assignments

ALL ASSIGNMENTS MUST BE SUBMITTED BY 11:59 PM DALLAS TIME ON THE DUE DATE

- Researching and writing 2 short group papers accounting for 20% of the grade each and in total for 40%. Due dates for the 2 short papers are October 20 and November 17.

- Researching and writing a project report on a business development or business operations transformation using contemporary IT functionalities with this project report accounting for 40% of the grade. Due date is December 1.

<div style="background-color:#d9d9d9;">Project Report Requirement</div>

- The project report will have as its elements:

    1. a business idea or application design to be developed for practical use;

    2. a design for the technological functionalities driving the business idea or application;

    3. a business plan addressing customer and market related issues; and

    4. a financial plan addressing financial and economic viability

- The project report has to be done in groups, with a maximum length of 25 pages.

- Key dates:

    1. Group composition finalized with instructor: September 8

    2. Specific project idea finalized with instructor: September 29;

    3. Final report due: December 1.

A web conference system is available for use. Teams can schedule a live web conference for team work. Please see the Web Conferencing page for instructions on making a reservation and other web conference information.

Assignment submission instructions
Locate the assignment in your eLearning course. You will submit your assignments in the required file format with a simple file name and a file extension. To submit your assignment, click the assignment name link and follow the on-screen instructions to upload and submit your file(s). For additional information on how to submit assignments, view the Submitting an Assignment video tutorial.

Please Note: Each assignment link will be deactivated after the assignment due time. After your submission is graded, you may go to My Grades on the course menu and click the score link to check the results and feedback. For any group assignments, one group member will submit the assignment for the group and all group members will be able to view the results and feedback once it has been graded.

Academic Calendar

DATES	UNIT #	READINGS
Aug 25	1 Introduction	• Five Priorities for competing in an age of digital globalization • The evolution of Social Technologies • Business Models, Strategy and Innovation • Disrupting Beliefs: A new Approach to business model innovation • The economic essentials of Digital Strategy • How enterprise architects can help ensure success with digital transformation • Ericsson Mobility Report 2016 • INSEAD – The Real Impact of Digital
	2 Business Models	• The New Digital Economy, • Chapter 1.6 The Economic Impact of Next-Generation Mobile Services: How 3G Connections and the Use of Mobile Data Impact GDP Growth, chapter in the Global Information Technology Report 2013 • Consumerization of Information Technology • OECD Digital Economy Outlook 2015 • WEF Global Information Technology Report 2015 • Inspiring Global Social Business Leaders IBM 2015 • Business Models, Strategy and Innovation
	3 Project Paper Discussion	
Sep 1	4 Strategic Drivers of Modern IT	• BYOD Here to Stay, But Organizations Must Adapt • The New World of Collaboration • The Consumerization of IT: The Next-Generation CIO, • C-Change: The Impact of Consumerization of IT • Chapter 1.3 Big Data Maturity: An Action Plan for Policymakers and Executives, chapter in the Global Information Technology Report 2014 • The Next Frontier in IT Strategy: A McKinsey Survey • From Vision to Results: Attaining High Performance through IT Transformation
Sep 8	5 Mobility	• Anatomy of a Mobile App • Building Modern Apps for the age of the customer • A mobile app development primer • Definitive guide to mobile application management • Achieving Mobile App development Success with Hybrid Cloud • The New Digital Economy,

		• Chapter 1.6 The Economic Impact of Next-Generation Mobile Services: How 3G Connections and the Use of Mobile Data Impact GDP Growth, chapter in the Global Information Technology Report 2013
Sep 15	5 Mobility	• The Benefits of Wireless Infrastructure Management in the Cloud • BYOD File Sharing: Go Private Cloud to Mitigate Data Risks • How the mobile revolution really played out • The Customer is always Mobile • Return on Mobility: The Power of Mobility to Catalyze Business Growth • eGuide to Mobile Security • A mobile app development primer • Definitive Guide to Mobile Application Management • Enterprise Mobility: A Competitive Comparison of Leading Mobile Application Development Platforms
Sep 22	6 Big Data Core Ideas	• Big Data Meets Big Data Analytics, • Unlocking Value in the Fragmented World of Big Data Analytics: How Information Infomediaries Will Create a New Data, • Big Data: The Next Frontier for Innovation, Competition, and Productivity • Strategic Guide to Big Data Analysis
Sep 29	6 Big Data Core Ideas	• Challenges and Opportunities with Big Data, • Analytics: The Real-World Use of Big Data, • Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data, • Operationalizing the Buzz; Big Data 2013, • Untangling the Internet of Things
Oct 6	7 Big Data Discussion	• In-Memory Databases Put the Action in Actionable Insights • In-Memory Analytics: Get Faster, Better Insights from Big Data • Deep learning: A brief guide for practical problem solvers • Embrace infrastructure as code • APIs for dummies • Digitizing the Consumer Decision Journey • Deriving Meaning from the Data Explosion
Oct 13	8 Cloud	• Aerial Big Data • How you connect to the Cloud matters • Why cloud apps can never be totally portable • Cloud apps need governance too • Adding Extra Security to Cloud Storage

Oct 20	9 IoT Core Ideas	• Internet of Things: Strategic Research Roadmap, • The Machine of the Future • Internet of Things: An Integral Part of the Future Internet
Oct 27	10 IoT Core Ideas	• Internet of Things: Living with Internet of Things: The Emergence of Embedded Intelligence, • Internet of Things (IoT): A Vision, Architectural Elements, and Future Directions • Data Visualization: Making Big Data Approachable and Valuable
Nov 3	11 IoT Discussion	• 25 Weirdest Things in the Internet of Things • The Internet of Things at Home: Why We Should Pay Attention • Harness the Power of Data Visualization to Transform Your Business
Nov 10	12 Security	• Identity and Access Management for Internet of Things – Summary Guidance • The Identity of Things (IDoT): Access Management (IAM) Reference Architecture for Internet of Things (IoT) • The Internet of things: What it is, where it's going • Deriving value from the Internet of Things. • Understanding Data Streams in IoT
Nov 17	13 Financial and Economic Analysis	• Evaluating Socio Economic Development SOURCEBOOK 2 Methods and Techniques, • The Economic Appraisal of Investment Projects at EIB • Economic Evaluation for Business Cases Technical Guidelines
Dec 1	13 Financial and Economic Analysis	• The Advancing Statewide Spatial Data Infrastructures in Support of the National Spatial Data Infrastructure • Social Cost-Benefit Analysis of Delhi Metro
Dec 8	Project Report Presentations	

Scholastic Honesty

The University has policies and discipline procedures regarding scholastic dishonesty. Detailed information is available on the UTD Judicial Affairs web page. All students are expected to maintain a high level of responsibility with respect to academic honesty. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

Course Evaluation

As required by UTD academic regulations, every student must complete an evaluation for each enrolled course at the end of the semester. A link to an online instructional assessment form will be emailed to you for your confidential use.

University Policies

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.
Please go to http://go.utdallas.edu/syllabus-policies for these policies.
These descriptions and timelines are subject to change at the discretion of the professor.