1231.3943.01 – Digital Opportunities: Insights from the Startup Nation

Summer Semester – 2021/22

Course Details

Day	Hour	Lecturer (s)
Sunday, 18 July	NO CLASS	Dr Llewellyn Thomas
Monday, 19 July	15:45-17:30 and 18:00-19:45	llewellyn.thomas@imperial.ac.uk
Tuesday, 20 July	15:45-17:30 and 18:00-19:45	
Wednesday, 21 July	15:45-17:30 and 18:00-19:45	Dr Eyal Benjamin
Thursday, 22 July	15:45-17:30 and 18:00-19:45	eyalbenjamin@taux.tau.ac.il
Friday, 23 July	11:00-14:00	

Teaching Assistant (TA): TBD

Course venue: In class, both in TLV & London – synchronous – Classless connected by Zoom.

Office Hours (Virtual): By appointment

Course Units

1 course unit = 4 ECTS units

The ECTS (European Credit Transfer and Accumulation System) is a framework defined by the European Commission to allow for unified recognition of student academic achievements from different countries.

Course Description

The continuing introduction and adoption of digital technologies by business, government and consumers has led to the emergence of the digital economy – an economy based upon digital computing technologies. Primarily characterised by the Internet, but which also includes data, artificial intelligence, the internet of things and the blockchain, these digital technologies have revolutionised industries, upset incumbents, created new corporate behemoths, and provided a plethora of opportunities for start-ups.

In this course we consider the characteristics of the digital economy and digital technologies, and how these create opportunities for entrepreneurs. As well as considering those industries such as software, telecommunications, music, and other forms of digital content and services that have already seen significant entrepreneurial activity, we also investigate the entrepreneurial opportunities provided by emerging digital technologies such as Internet of Things, security, blockchain and artificial intelligence.

The goals of the module are for the student to understand, analyse and critically evaluate the:

- Characteristics of emerging digital technologies such as blockchain and AI;
- Entrepreneurial opportunities arising from the evolving digital landscape;
- Distinctive characteristics of digital value propositions;
- Broader social, economic and political impacts of digitalization;
- Sustainable digital business models.

The module features several guest speakers from industry and the academy. Guest speakers will leverage the local Israeli context to provide rich and meaningful insight into the digital opportunities in Israel as well as providing a global perspective.

For each lecture, students will be given suggested readings to better understand each topic and prepare for the group and final individual assessment.

Course Objectives

Knowledge Objectives
Students will develop an understanding of analytic frameworks to evaluate digital opportunities. Students will be able to assess the effects of digital transformation and related societal change on digital business opportunities. They will understand and apply the strategic mechanisms for capturing the economic benefits from new technological opportunities.

Skill Objectives
Students should develop an appreciation of managerial and personal skills including:

- Improve diagnostic and analytical skills
- Enhance verbal skills via class and group discussions
- Build up critical thinking and interpretation skills
- Critically analyze digital business opportunities and digital business models

LEARNING OUTCOMES
At the end of this course, students will be able to demonstrate understanding, critical assessment, and application of the following:

- Definitions and concepts related to digitization
- Role of intellectual property rights in the digital economy
- Digital business models
- Societal impacts of digitization
- Digital opportunity assessment

Teaching Methods and Structure

The module consists of 24hr over 5 days.

The module is interactive and relies on self-study, lectures, module notes, team work and in-class discussions and case analyses. The topics covered during the module are illustrated with examples of current and past digital businesses. The use of cases and practical examples is aimed at highlighting the opportunities that the digital economy provides.

Assessment and Grade Distribution

Grade weight	Assignment	Requirements
70%	**Class presentation**	4-5 members per group.
30%	**Individual Report**	

Course Assignments

The module is assessed as follows:
- **Group coursework**
  - Digital opportunity analysis
  - Midpoint Video (Day 03): 20%
  - In Class Presentation (Day 05): 50%
  - Students will systematically analyse digital opportunity of selected case studies and present in class their findings (groups will have 15 minutes each)
  - More detail will be provided at the beginning of the module
- **Individual coursework**
  - Individual reflection
  - Individual report: 30%
  - Provide a two-page reflection on the module and its impact on your professional and personal futures as you see them. Make sure you refer mostly to the topics and issues introduced in the various sessions.
  - Students will submit their individual report using Moodle/The HUB by XXXXX.

Criteria used to assess quality of both coursework include:
- Evidence of knowledge and understanding - 40%,
- Analytical skills - 50%,
- Presentation and references - 10%.

Should a student become unable to complete an assignment or course requirement, s/he must notify the TA of the course in advance via email

Grading Policy

As of the 2008/9 academic year the Faculty has implemented a grading policy for all graduate level courses. This policy applies to all graduate courses in the Faculty, and will be reflected in the final course grade. Accordingly, the final average of the class for this course (which is a core course) will fall between 82-87%. Additional information regarding this policy can be found on the Faculty website.

Evaluation of the Course by Student

Following completion of the course students will participate in a teaching survey in order to evaluate the instructor and the course for the benefit of the students and the university.

Course Site (Moodle)

The course Moodle site will be the primary tool used to communicate messages and material to students. It is, therefore recommended to periodically check the course site in general, periodically, before each lesson, at end of the course as well. (For example: exam details and updates regarding assignments)

Course slides will be available on the course site.
Please note that topics which are not covered in the slides, but are discussed in class are considered an integral part of the course material and may be tested in examinations.

Reading List

- See detailed in syllabus below

Syllabus
(Subject to change)

DAY 01 Session 01 – Introduction and the Israeli Entrepreneurial Ecosystem

Overview:	In this session we introduce the module, the group challenge, and the Israeli digital entrepreneurial ecosystems. Students will have the opportunity to familiarize themselves with the online approach to the module, as well as their assigned case and its competitive and IP landscape.
Lecturers:	Eyal Benjamin & Llewellyn Thomas
Required Readings:	Israel Tech Review 2020; Introduction https://www.ivc-online.com/Portals/0/RC/Magazine%20&%20YB/IVC_Meitar_Israeli_Tech_Review_2020/mobile/index.html
Optional Readings:	Senor, D., & Singer, S. 2011. Start-up nation: The story of Israel's economic miracle. Random House Digital, Inc. Cohan, P. S. 2018. Start-up Cities. Apress.

DAY 01 Session 02 – Digitalization and Value Propositions

Overview:	In this session we delve into the constantly changing world of digitalization and its impacts on the economy and organizations. Students will focus on understanding digital value propositions and how digital technology improves their delivery.
Lecturers:	Llewellyn Thomas
Required Readings:	Christensen, C. M., Hall, T., Dillon, K., & Duncan, D. S. 2016. Know your customers' "jobs to be done". *Harvard Business Review*, 94(9): 54-60.
Optional Readings:	Brynjolfsson, E., & McAfee, A. 2012. Winning the race with ever-smarter machines. *MIT Sloan Management Review*, 53(2): 53-60.

DAY 02 Session 01 – The Power of Platforms

Overview:	In this session we investigate the important digital phenomenon of platforms. We first clarify how network effects drive value dynamics in the digital economy, and the increasingly important role ecosystems in enabling digital opportunities.
Lecturers:	Llewellyn Thomas

Required Readings:	Van Alstyne, M. W., Parker, G. G., & Choudary, S. P. 2016. Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*, 94(4): 54-62.
Optional Readings:	Hagiu, A., & Altman, E. J. 2017. Finding the platform in your product: Four strategies that can reveal hidden value. *Harvard Business Review*, 95(4): 94-100.
	Fuller, J., Jacobides, M. G., & Reeves, M. 2019. The myths and realities of business ecosystems. *MIT Sloan Management Review*, Feb Special Issue: 2-10.

DAY 02 Session 02 – Blockchain and Changing Market Structures

Overview:	In this session we feature a guest speaker from the Israeli tech scene who will clarify the confusing landscape of distributed ledger technology and the promise of blockchains in shaping market structures and novel digital opportunities.
Lecturers:	Guest Lecturer & Eyal Benjamin
Required Readings:	Tapscott, D., & Tapscott, A. 2017. How blockchain will change organizations. *MIT Sloan Management Review*, 58(2): 10-13.
Optional Readings:	Pilkington, M. 2016. Blockchain technology: Principles and applications. In F. X. Olleros, & M. Zhegu (Eds.), *Research handbook on digital transformations*: Chapter 11, 225–253. Cheltenham, UK: Edward Elgar.

DAY 03 Session 01 – Artificial Intelligence and Analytics

Overview:	In this session we feature a guest speaker from the Israeli tech scene who will delve into the rapidly changing role of data, analytics and AI, and how data can be leveraged to deliver novel value propositions.
Lecturers:	Guest Lecturer & Eyal Benjamin
Required Readings:	Parmar, R., Mackenzie, I., Cohn, D., & Gann, D. M. 2014. The new patterns of innovation. *Harvard Business Review*, 92(1/2): 86-95.
	Iansiti, M., & Lakhani, K. R. 2020. Competing in the age of AI. *Harvard Business Review*, 98(1): 60-67.
Optional Readings:	Pilkington, M. 2016. Blockchain technology: Principles and applications. In F. X. Olleros, & M. Zhegu (Eds.), *Research handbook on digital transformations*: Chapter 11, 225–253. Cheltenham, UK: Edward Elgar.

DAY 03 Session 02 – Digital Crisis Management

Overview:	In this session, drawing on lessons learnt from the Covid pandemic as well as other economic and social shocks, we consider digital responses to crisis situations.
Lecturers:	Eyal Benjamin
Required Readings:	None.
Optional Readings:	Dalton Caldwell – All about Pivoting: https://www.youtube.com/watch?v=8pNxKX1SUGE

DAY 04 Session 01 – The Dark Side of Digital

| Overview: | In this session we investigate the broader societal impacts of digitalization, and how these can both help and hinder digital opportunities. We also consider who digital opportunities can emerge from these societal impacts. |

Lecturers:	Llewellyn Thomas
Required Readings:	Kanze, D., Conley, M. A., & Higgins, E. T. 2020. Research: Organizations that move fast really do break things. *Harvard Business Review Digital Articles*: 1-5.
	Howard, A., & Borenstein, J. 2020. Ai, robots, and ethics in the age of covid-19. *MIT Sloan Management Review*. URL: https://sloanreview.mit.edu/article/ai-robots-and-ethics-in-the-age-of-covid-19/
Optional Readings:	None.

DAY 04 Session 02 – Group Mentoring

Overview:	In this session the professors work with each student group on their assigned cases and coursework.
Lecturers:	Eyal Benjamin & Llewellyn Thomas
Required Readings:	None.
Optional Readings:	None.

DAY 05 Session 01 – Group Presentations

Overview:	In this session the students present their assigned cases.
Lecturers:	Eyal Benjamin & Llewellyn Thomas
Required Readings:	None.
Optional Readings:	None.

DAY 05 Session 02 – Wrap Up: The Future of Digital

Overview:	The professors wrap up the course, as well as feature a guest speaker from the Israeli tech scene who will discuss their vision for the future of digital.
Lecturers:	Eyal Benjamin, Llewellyn Thomas and Guest
Required Readings:	None.
Optional Readings:	None.