
ENT-1013: Data and Digital Economy

Class: Thursday 3:00 to 6:10
Google Classroom Link: TBA

Instructor: Dr Arvind Gupta (Eisenhower Fellow, MBA and MS (UIUC))

Email:

Office Hours:

Course Overview:

To orient students towards future industrial paradigms with a focus on the digital economy, its impact on global consumer behaviour, and policy implications. The course is designed for a broad student base, emphasizing conceptual understanding and practical applications.

Learning Outcomes:

- Participants will gain an understanding of the digital economy, and its impact across sectors, and develop the ability to engage with its various elements critically.
- Ability to grasp the concepts and vocabulary of the digital economy and the 4th Industrial Revolution, Digital Public Infrastructure in India.
- Identification of key skills required to be part of these new paradigms.
- Relating the concepts to their domain of interests, whether within or outside engineering.

Target Participants:

1. Students who seek to work in policy teams, think tanks or consulting firms or investment firms
 - Understand nuances of how policymakers conceive policy paradoxes and their reasons for seeking out certain technologists and policy professionals.
2. Students who seek to join start-ups and/or to be entrepreneurs,
 - An insight into the mind set of Indian technologists who built the digital public infrastructure in India.
 - Provide an insight into how entrepreneurs think while solving for social problems

TextBook(s)/ Readings

1. Don Tapscott & Alex Tapscott, Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World, Penguin.
2. Klaus Schwab, The Fourth Industrial Revolution, Portfolio Penguin.
3. Klaus Schwab, Shaping The Future of the Fourth Industrial Revolution, Portfolio Penguin.

4.2 Reference books and Articles

1. Gerardus Blokdyk, Blockchain a Complete Guide - 2019 Edition, 5starcooks.
2. Value of Data, World Economic Forum, Arvind Gupta & Vasudha Thirani, <https://www.weforum.org/agenda/2017/09/the-value-of-data/>
3. JAM Case Study
4. Arvind Gupta, Karan Bhasin & Vasudha Thirani, A move towards Direct Social Security Evidence from India,
5. Arvind Gupta & Philip Auswerald, How India is Moving Towards a Digital First Economy, <https://hbr.org/2017/11/howindiaismovingtowardadigitalfirsteconomy>
6. Arvind Gupta & Philip Auswerald, The Ups and Downs of India's Digital Transformation, <https://hbr.org/2019/05/theupsanddownsofindiasdigitaltransformation>
7. Arvind Gupta and Aakash Guglani, [“Uber Files leak shows why India’s approach to security and privacy matters”](#) ThePrint, July 2022.
8. Arvind Gupta and Aakash Guglani, Chapter Contribution: [“Scenario Analysis of MUI and Challenges to Psychological Security in India”](#) The Palgrave Handbook of Malicious Use of AI and Psychological Security edited by Evgeny Pashentsev, July 2023.

9. Angeline G. Close (2012) Online Consumer Behavior: Theory and Research in Social Media, Advertising and E-tail (Marketing and Consumer Psychology Series)
10. Nikolas Christakis and James Fowler (2011) Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives
11. Reshaping customer engagement in the digital world, Deepak Gandotra
<https://startup.siliconindia.com/viewpoint/cxoinsights/the-3as-of-marketing-that-are-reshaping-customer-engagement-nwid-14252.html>
12. Data without context tells a misleading story: https://bits.blogs.nytimes.com/2013/02/24/disruptions-google-flu-trends-shows-problems-of-big-data-without-context/?_r=0
13. The Rise of Patanjali, Piyush Kumar and Deepak Gandotra <https://economictimes.indiatimes.com/how-baba-ramdev-has-bent-the-marketing-rule-book/articleshow/54542404.cms?from=mdr>
14. Reliance Jio: Revolutionizing Indian Telecom, Tripti Ghosh Sharma, Arcot Ravi Praveen, Libin Joshua, and Ashish Tiwari, <https://hbr.org/product/reliance-jio-revolutionizing-indian-telecom/W17175-PDF-ENG>
15. <https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/>
16. Volkswagen: The Scandal Explained, <https://www.bbc.com/news/business-34324772>
17. HBR: Branding in The Digital Age, David C. Edelman
18. How Amul India is using the power of digital?
19. <https://tech.economictimes.indiatimes.com/news/startups/flipkart-introduces-100-robots-in-its-bangalore-delivery-centre/68483810>
20. <https://www.livemint.com/industry/human-resource/flipkart-to-set-up-more-logistic-parks-generate-50-000-jobs-report-1556082041188.html>

Organization of the Class:

A. The course is conducted in 6 sessions of 180 mins each. You are expected to contribute to class, discuss and reflect on practitioners' dilemma in policymaking and businesses. Your class contributions will be part of your participation grade. To prepare for the class, you should write down one or two questions or discussion points that come up for you which will help the other participants of the class.

B. **Assignment Submissions:** Students will be expected to work in Groups of 2-5 and submit group submissions for ALL relevant assignments. Students will be expected to commit at least 2-3 hours per session for out-of-class readings and group projects.

Evaluation:

The course is designed to be a) highly practical, b) requires active class participation. While the course is focused on learning outcomes and not on grades.

Proposed Grading:

1. Class Participation and Attendance: 20% (**absence in more than 2 sessions without prior TA consent will lead to zero marking**)
2. Group Submissions: 30%
3. Individual Policy Brief Submissions: 20%
4. Final Group Case Write up and Presentation: 30%

Assignment Descriptions:

Participation (20%): To be marked according to the standard ENT department rubric.

Group Submissions (20%): To be communicated.

Individual Submissions (20%): This will be in the form of one-pager policy brief submissions after lecture 2 and 4. The dates for the same will be announced in class.

Final Case Group Assessment (40%): Max 5-page PowerPoint group submission and 2-3 page case solution.

Note:

Detailed instructions pertaining to the individual and group assignments will be made available on Google Classroom.

Details for assignments:

1. All presentations are restricted to **5 PowerPoint** slides.
2. All papers should be typed, double-spaced, size 12 with 1-inch margins all around, using Times New Roman or a similar type of font.
3. **Due dates** to be announced on Classroom.
4. Please proofread your work before submitting it to avoid losing points
5. Assignments are due at **11:59 pm** on the date they are due.

*Assignments turned in after 11.59 pm of the due date will be considered late and will be graded down. **Assignments will lose 10% of the total grade in cases that they are submitted late (including weekend days).** We will not accept assignments that are more than 3 days late and without an excused reason.*

If you have a well-documented excused reason (i.e., a delay in submission due to extenuating circumstances such as major medical illness or family emergencies, please email us as soon as possible and provide the required documentation).

Expectations (from students)

Come up with an open mind to discuss the policy dilemmas faced by policy professionals, entrepreneurs and public officials.

Course Outline and Tentative Schedule:

****SYLLABUS IS SUBJECT TO CHANGE BY INSTRUCTOR, W/T ADVANCED NOTICE****

<u>Module</u>	<u>Unit</u>	<u>Duration</u>	<u>Topics</u>	<u>Key Learning Objectives</u>	<u>Case Studies</u>
1. The Foundation of the Digital Economy	Understanding the Digital Economy	180 mins	Introduction to Digital Economy, Industrial Revolution 4.0, Tech Giants, Data and AI	Grasp foundational concepts of the digital economy	Google Duplex, Microsoft's Seeing AI, Open Data
2. Consumer Behaviour and Government Role	Digital Consumerism and Policy	180 mins	Digital vs Traditional Industries, Science of Persuasion, Government's Digital Transformation Role	Understand digital consumer behaviour shifts and government roles	DPI, ONDC, JAM, DBT in Public Service Delivery

3. Marketing and Challenges in the Digital Economy	The New Age of Marketing and Digital Challenges	180 mins	Digital Marketing Strategies, Challenges in Digital Economy	Insight into digital marketing and ethical challenges	Facebook in US Elections, Brexit and Social Media, Loyalty Programmes
4. The Sharing Economy and Industrial Revolution	The Sharing Economy & 4th Industrial Revolution	180 mins	Sharing Economy, Global Impact of 4th Industrial Revolution	Understanding the sharing economy and industrial revolution impact	Ola, Airbnb
5. New Economy Principles and Digital Transformation	Ethics and Governance in the Digital Age	180 mins	Digital Consumption Patterns, Ethical Dilemmas, Data Governance	Navigate ethical aspects and governance in the digital economy	#10YearsChallenge, Autonomous Vehicles
6. Human Capital in the Digital Economy	Workforce Transformation in the Digital Era	180 mins	Digital Transformation Impact on Recruitment and Workforce, Digital Business Identity	Explore digital economy's impact on human capital	Flipkart's Big Billion Days, Dabbawalla System

Faculty Details:

Arvind Gupta is the Head and Co-founder of Digital India Foundation, a policy think tank working in the areas of technology policy, digital inclusion, ethics of AI, supply-chain security, and governance of critical and emerging technologies. He is also an Adjunct Professor at IIT-BHU and has published many articles on the digital economy and governance in leading national newspapers of India, Harvard Business Review, and the World Economic Forum.

He has been appointed as one of the board members of the Open Network of Digital Commerce (ONDC)--an interoperable network under public-private ownership--to empower neighborhood stores to democratize the e-commerce landscape in India. In his previous role, he was the CEO of MyGov- a platform envisioned by PM Modi for digital inclusion through participative governance. He is also member of the investment committee at the Small Industries Development Bank of India. He is a former board member of companies like Larsen and Toubro and ITC etc.

Mr. Gupta has almost three decades of industry experience in consumer Internet, digital media, payment systems, analytics, and data economy in senior leadership levels of policy and entrepreneurial profiles in India and Silicon Valley, USA. He has been on the Global FinTech Top100 list of Influencers and also the Member of the World Economic Forum's Global Futures Council on Digital Economy & Society, and an OECD Expert Member of Global Value Chains. He has been awarded the Eisenhower Global Fellowship for Innovation for the year 2014 and Distinguished Centenary Alumni award from IIT-BHU. He is also an active member of TiE, NASSCOM, and a founder member of iSPiRT and has co-founded startups such as amplify.ai, ApnaPay, Ideaswall amongst others.

He graduated with a degree in Electronics and Communication Engineering from IIT-BHU, Varanasi. He has a postgraduate degree in Computer Science and Business Administration (Finance & Marketing) from the University of Illinois at Urbana Champaign.

STANDARD COURSE POLICIES

Academic Honesty and Plagiarism:

The best learning communities are characterized by a commitment to integrity in academic standards and professional conduct. Students are expected to understand and abide by the campus Code of Academic Integrity. We will be using the Turn-it-in software provided by the university to detect plagiarism. If the software detects plagiarism in your work, you will lose the entire grade component for that assignment and depending on whether this is the first time or a repeat offense, the citation of plagiarism (that includes copying in an examination) will be reported to the Office of Academic Affairs. Please make sure you are well versed with what constitutes plagiarism and how to avoid it. For example, copying verbatim and including the citation in the references is still plagiarism. Similarly, circulating the same essay for different courses is plagiarism. There are no acceptable excuses for failure to maintain academic honesty. **You can use ChatGPT and other LML engines, however please give due credit and be prepared to explain the learning outcome in class when asked**

Academic Accommodations:

Students requiring specific academic accommodations should contact us with the appropriate documentation from OAA and/or OLS during the first week of the semester. If you need accommodations, we strongly encourage you to not wait till the week of the assessment/exam. Please reach out to the OLS as soon as possible and we will do our best to support you. We will not be able to offer accommodations if we do not have the required documentation. We will also not be able to support any last-minute requests for extensions, exceptions and/or other accommodations.