Ouestions

Lec – 6: Technology progression and Transformation of human role

1) How does the comparative advantage between labor and capital influence task allocation in production?

2) To what extent does automation lead to job creation versus job displacement? Provide examples of how automation can simultaneously create and eliminate jobs in different industries.?

3) Why is it so difficult for machines to replicate human abilities like understanding what we see, feeling textures, or naturally communicating with language?

4) How does automation and technology create a "job polarization" effect, where middle-skill jobs are disappearing, but low-skill, labor-intensive work remains steady?

5) How does the exponential growth in human capital influence the pace of technological advancement and the transformation of production processes?

6) Why are ideas so important for driving innovation? What challenges do we face when trying to turn ideas into successful products or solutions?

Lec -7: Technology Lifecycle, Diffusion Patterns and Principles of Innovation

- How does innovation, while driving prosperity, also create unexpected challenges and disruptions in the market economy?
- Why do so many start-ups fail despite having great ideas, and what factors contribute to this high failure rate?
- Why is the journey from a great idea to a profitable product often a long and difficult process of continuous improvement?
- How does competition affect the willingness of consumers to pay for innovative products, and why must innovators constantly release new versions to stay relevant?
- Why do new innovations often attract competitors, and how do they impact the original creators' market share?
- What does the concept of "disruptive innovation" mean, and how does it lead to the creative destruction of established products or industries?
- How do innovation indices, like the Global Innovation Index, sometimes mislead policymakers in understanding the true innovation capacity of a country, especially in developing economies?

Lec – 8: Managing Technology Uncertainties and Portfolio in Creating Economic Value

- Why is it crucial for companies to develop their own in-house R&D capacity, even if they source core technologies externally?
- How did Apple demonstrate the importance of internal R&D in refining externally sourced technologies? Can you think of any other companies that followed a similar strategy?
- What is meant by a "progressive roll-out" of technology, and why is it considered a safer approach to exploiting technological advancements?
- How did early-stage applications of LCD technology help pave the way for its eventual use in large flat-screen TVs? What lesson can businesses learn from this?
- What role did military demand play historically in the development and commercialization of new technologies, and how does this differ from the role of venture capital today?
- In the context of technology diffusion, what do the terms "early adopters," "early majority," and "laggards" refer to, and how does technology maturity impact market penetration?
- What is the "chasm" that often appears between early adopters and the early majority, and how can companies overcome this gap to reach a broader audience?
- How can companies manage a balanced portfolio of technologies, and why is it important to synchronize technology maturity with market share growth?