

# IT 230: Economics of Information and Communications

*Credits: 3*

*Lecture Hours: 48*

## Course Objective

This module aims to examine information as an economic commodity and a public good especially in relation to pricing, provision and regulation.

## Course Description

Managerial Economics Basic, Markets for Information Goods, The Role of Information in an Economy, Strategies for Pricing Information, Rights Management, Market Strategies: Switching costs and Lock-in, Networks and Positive Feedback, Strategies for Information Industries, Antitrust and Information Policy, Thriving in a new economy, The knowledge-based new Economy, Information and communication Technologies in the Hollywood's global Primacy

## Course Details

### Unit 1: Managerial Economics Basic

**LH 3**

- 1.1 Defining moments of economics: from Industrial revolution to Information revolution
- 1.2 Technological change in a global economy
- 1.3 Market failure, Externalities and Public goods

### Unit 2: Markets for Information Goods

**LH 4**

- 1.4 Foundations of the Information economy
- 1.5 Introduction to Information economy
  - 1.5.1 Definition of information good
  - 1.5.2 The cost of producing information
  - 1.5.3 Managing intellectual property
  - 1.5.4 Economic and public good
  - 1.5.5 The economics of attention
- 1.6 Technology
  - 1.6.1 Systems competition
  - 1.6.2 Lock-in and switching costs
  - 1.6.3 Positive feedback, network externalities, and standards
- 1.7 Policy

### Unit 3: The Role of Information in an Economy

**LH 4**

- 1.8 Transaction costs and Information costs
- 1.9 The economy of search
- 1.10** Information problems
  - 1.10.1 The moral hazard problem
  - 1.10.2 The Adverse-Selection Problem
- 1.11 Speculation and Risk Bearing

1.12 The Futures Market

**Unit 4: Strategies for Pricing Information**

**LH 6**

1.13 Pricing Information Goods

1.13.1 Cost of producing information

1.13.2 Costs and competition

1.13.3 Product Personalization

1.13.4 Product pricing

1.13.5 Personalized pricing

1.13.6 Versioning

1.13.7 Group pricing- Price sensitivity, Network effects, Lock-in, Sharing

1.14 Versioning Information

1.14.1 Types of versioning

1.14.2 Value-subtracted versions

1.14.3 Avoiding pitfalls in versioning

1.14.4 On-line and off-line versions

1.14.5 Goldilocks pricing

1.14.6 Customizing the browser

1.14.7 Bundling

1.14.8 Promotional pricing

**Unit 5: Rights Management**

**LH 3**

1.15 Production and distribution costs

1.16 Lower distribution costs

1.17 Lower reproduction costs

1.18 Trusted systems

1.19 Historical examples - Growing the market

1.20 Choosing terms and conditions

**Unit 6: Market Strategies: Switching costs and Lock-in**

**LH 5**

1.21 Recognizing Lock-In

1.21.1 Examples of lock-in

1.21.2 Valuing an installed base of customers

1.21.3 Classification of lock-in

1.21.4 Suppliers and partners face lock-in, too

1.21.5 The lock-in cycle

1.22 Managing Lock-In

1.22.1 Lock-in strategy for buyers

1.22.2 Lock-in strategy for sellers

1.22.3 Investing in an installed base

1.22.4 Encouraging customer entrenchment

1.22.5 Leveraging your installed base

**Unit 7: Networks and Positive Feedback**

**LH 7**

1.23 Positive feedback

1.24 Demand-side economies of scale

- 1.25 Network externalities
- 1.26 Collective Switching Costs
- 1.27 Igniting positive feedback: performance vs. compatibility
- 1.28 Revolution: offer compelling performance
- 1.29 Igniting positive feedback: openness vs. control
- 1.30 Generic strategies in network markets
- 1.31 Historical examples of positive feedback- Telephone networks and interconnection

## **Unit 8: Strategies for Information Industries**

**LH 4**

- 1.32 Cooperation and Compatibility
  - 1.32.1 How standards change the game
  - 1.32.2 Winners and Loser from standards
  - 1.32.3 Tactics in formal standard-setting
  - 1.32.4 Managing open standards
    - 1.32.4.1 Case Study- Linux Adoption in the Public Sector: An Economic Analysis
- 1.33 Waging a Standards War
  - 1.33.1 Classification of standards wars
  - 1.33.2 Information-age standards wars
  - 1.33.3 Key assets in network markets
  - 1.33.4 Two basic tactics in standards wars
  - 1.33.5 Capstone case: Microsoft vs. Netscape,

## **Unit 9: Antitrust and Information Policy**

**LH 2**

- 1.34 Policy overview
- 1.35 Price differentiation
- 1.36 Competition policy
- 1.37 Telecommunications regulation and policy in brief (Nepalese context)

## **Unit 10: Thriving in a new economy**

**LH 2**

- 1.38 The components of Digital Economics
- 1.39 Twelve theme of the new economy
- 1.40 The ten technology shift
- 1.41 The Internet Economy and its Indicators
- 1.42 E-commerce and Digital Economy

## **Unit 11: Information and communication Technologies in the Hollywood's global Primacy**

**LH 3**

- Hollywood, defined, Hollywood's economic leadership, Economic analysis of the Hollywood system
- Drivers of Hollywood's competitive Advantage
- The economic drivers of Hollywood's global
  - Competitive advantage
  - Factor conditions
  - Relating and supporting industries
  - Strategy, structure and rivalry
  - Demand conditions
  - The potential threats to Hollywood's global primacy in an evolving landscape

## Unit 12: The effects of continual disruption: technological resources supporting resilience in regions of conflict

### LH 2

- Technologies to aid resilient behavior
- Research setting
- Technologies resources supporting resilience

#### Information systems in crisis

- Introduction
- Exploring key information resources
- Fundamental components of an information environment

## References

Robert S. Pindyck and Daniel S. Rubinfeld. *Microeconomics*, 5<sup>th</sup> Edition, PHI.(ISBN: 81-203-2336-X )

H. Craig Petersen and W. Cris Lewsi. *Managerial economics*. (ISBN: 81-203-0963-4)

Carl Shapiro and Hal R. Varian. *Information Rules: A Strategic Guide for the Network Economy*. Harvard Business School Press, Cambridge, MA, 1998.

Roy J. Ruffin and Paul R. Gregory: *Principles of economics*. 7<sup>th</sup> edition, Addison Wiley Pub, 2000.

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