

B7217-001

Tools and Principles for Managing in the Information Economy and Media Sector

Prof. Eli Noam
Course Syllabus

I. Overview

This course covers a subject that is important in the present and crucial for management success in the future: how to manage in the emerging Information Economy, and what the differences are to more traditional approaches of industry and finance. It does so by focusing in depth on the sector furthest along in its digital transformation, that of media, information and communications, and projecting its lessons. The course takes an innovative approach, bringing together many of the strands of the entire MBA/EMBA program and applying them to this sector. In doing so, it is also a “capstone course” for the business curriculum and thus useful for future entrepreneurs, investors, creators, marketers, and advertisers, even if they do not aim for a career in this sector.

The course covers a media company's major functions (and by extension, of most companies): 1. The Producing function, including financing, HRM, technology management, and production management. 2. The Harvesting function, including demand analysis, marketing, distribution, pricing, and intellectual asset management. 3. The Control Function, including accounting and strategy.

Lecture topics are media and startup finance; content production and valuation; HRM for creatives; marketing, pricing, and distribution of digital products; technology and innovation management; intellectual asset management; emerging information sector strategies; and more. We cover how these functions are managed in the Information Economy, where activities are based on bit-based intangibles and knowledge assets, and are globally internetworked.

For each of these functions we will assemble:

- A set of MBA tools and analyses for managers, investors, and users
- A set of societal perspectives on drivers, impacts, and issues.

- Examples:
 - Online strategies
 - Portfolio diversification for content and products
 - Optimal capital structure for analysis
 - Technology project selection and budgeting
 - Technology convergence and regulatory policy
 - Valuation of intangibles
 - Demand estimation and analysis
 - Capacity optimization
 - Marketing of advertising
 - Tournament theory of compensation
 - Corporate structure and ownership
 - Productivity measurement
 - Standards strategies
 - National culture and global media
 - Strategies for competing with free
 - Advertising budgeting

We discuss these topics across various media, communications, and technology industries, from print to online.

II. People

- Prof. Eli Noam:
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 - 212-854-8332
 - Office hours: Thursday 2-3 PM, Fri/Sat by appointment, 1-A Uris Hall

Eli Noam is Professor of Economics and Finance at the Columbia Business School since 1976, and its Garrett Professor of Public Policy and Business Responsibility. He served for three years as a Commissioner for Public Services of New York State, and was appointed by the White House to the President's IT Advisory Committee. He is the Director of the Columbia Institute for Tele-Information, a research center focusing on management and policy issues in communications, internet, and media. He has also taught at Columbia Law School, Princeton University's Economics Department and Woodrow Wilson School, and the University of St. Gallen, and is active in the development of electronic distance education. Noam has published 30 books and over 300 articles in economics journals, law reviews, and interdisciplinary journals, and served as a regular columnist for the *Financial Times* online edition. His recent books and projects include: *Media Ownership and Concentration in America* (Oxford); *Peer-to-Peer Video* (Springer); *Who Owns the Media* (ed., Oxford, forthcoming); *Media Management* (3-volumes, forthcoming); and the project: *A National Initiative for Next Generation Video*.

Noam has been a member of advisory boards for the Federal government's telecommunications network, and of the IRS computer system, of the National Computer Systems Laboratory, the National Commission on the Status of Women in Computing, the Governor's Task Force on New Media, and of the Intek Corporation. His academic, advisory, and non-profit board and trustee memberships include the Nexus Mundi Foundation (Chairman), Oxford Internet Institute, Jones International University (the first accredited online university), the Electronic Privacy Information Center, the Minority Media Council, and several committees of the National Research Council. He served on advisory boards for the governments of Ireland and Sweden, and is a member of the Council on Foreign Relations. He is a commercially rated pilot, served in the Israel Air Force in the 1967 and 1973 wars, and is currently a search and rescue pilot with the Civil Air Patrol (1st Lt.). He is married to Nadine Strossen, a law professor and national president of the American Civil Liberties Union for 18 years. He received the degrees of BA, MA, Ph.D (Economics) and JD from Harvard University, and honorary doctorates from the University of Munich (2006) and the University of Marseilles Aix-la-Provence(2008).

Course Teaching Assistant

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III. Course Website

- The primary administrative access point to the course is Canvas (canvas.gsb.columbia.edu). But for the course content, such as readings, go to the course website, either by linking from Canvas or directly. The direct URL is:
- Login:
- Password:

The website includes a variety of features such as quizzes, feedback, RSS newsfeeds, readings, lecture notes, etc. You can access the course readings, including the “Suggested Readings” which are not reproduced on paper, in contrast to the “Required Readings.” You can also download the ePub of the required readings to a tablet.

III. Course Schedule

- A. The Information Environment
- B. Demand Measurement and Analysis
- Production of Content and Information Products
- Technology Management
- Human Resource Management in Creative Industries

Financing Media and Technology
 Intellectual Asset and their Commercialization
 Managing Law and Regulation
 Marketing of Media and Information Products
 Distribution Networks
 Pricing of Information Products
 Accounting and Valuation for Media and Information Activities
 Strategies for Media and Information Firms

IV. Lectures

- Lectures are presented in class and are available online soon thereafter.
- Powerpoint (always)
- Word text chapters (sometimes)
- Video of lecture

Electronic Quizzes:

- Each chapter has a brief online quiz.
- The quizzes are self-grading (as a feedback to the student), with answers, and do not count for the final grade. However, you are expected to take them.

V. Cases

The cases are short business situations, with discussion tracking the lectures

Lecture

Demand and Market Research
 Production of Media Content
 Financing Media
 Technology Management
 Human Resources Management
 Intellectual Asset Management
 Entertainment Law and Regulation
 Marketing of Media Products
 Networks and Distribution
 Pricing of Information Products
 Media Accounting and Valuation
 Media Strategies

Case Discussion

Viacom's Golden years Media
 CanalPlus and the Hollywood Advantage
 Time Warner and start up Internet TV
 Sony as a Convergence Firm
 Disney and its Workforce
 GE manages its Intellectual Assets
 Comcast vs. AT&T
 Condé Nas's Physical and Electronic "Fly & Sky" Magazine
 Bertelsmann Distribution
 Encyclopedia Britannica vs. Wikipedia
 Disney Mickey Mouse Accounting?

VI. Course Readings

- The “Required Readings” are sections from Professor Noam’s draft Textbook “Media Management.”
- Readings are located on the course website.
- They are also provided as a bound paper volume (“required readings”).
- They are also provided as an ebook for tablets, etc. This is available on CITI Course Website, described above.
- Supplementary Readings are provided on the website for the use of students who want to study topics in greater detail.

Additional Resources

- The course website also provides several RSS feeds to continuously update news on the media industries:
 - TV, Film, Internet, Telecom, Book Publishing, Newspapers, Theater
- The course website also includes many links to outside sites and resources, including industry newsletters for the latest information.

VII. Exams

- No final exam, but Final Paper Project

VIII. Final Paper Project

- The paper’s theme: *A Business Plan for a Media or Media Tech Project Utilizing Ultrabroadband*
 - Ultrabroadband operates at speeds above 1 Gigabit per second, about 100 times current speeds. It is based on fiber networks, and has started to reach the consumer and small business market.
 - Your paper should be a business plan to provide a new service or product utilizing ultra-high speed broadband. Any media, e-commerce, or tech project operating on that platform is acceptable as a paper topic.
 - Explain how you would operationalize your strategy in the company in 20 pages plus.
 - Other paper format and topics are possible subject to professor’s consent
 - Some topic ideas are listed on the course website

- Students will submit draft sections of sections of their paper in 3 installments. The first is due one week after session # 3, and will cover first class topics as they relate to the project: Demand estimation, production and financing. Professor Noam will provide feedback. The second install is due one week after seminar #6, and will cover HRM, technology, and Intellectual Assets. The third installment is due one week after class # 9, and will cover Law & Regulation, Marketing and Distribution. The Final paper, due one week after the last lecture will put these sections together, as well as cover strategy, pricing and Accounting issues.
- The Paper should be organized with sections covering the 12 functions discussed in the chapters of this course (finance, HR, etc) where appropriate
- Paper topic proposal must be e-mailed to TA by 2nd class session.
- Ultrabroadband could be used, for example for:
 - Entertainment and sports
 - Immersive meetings and their applications
 - Live events
 - 3-D and super-HD (4K)
 - Marketing tools
 - Telemedicine and online shopping
 - Telecommuting
 - Virtual reality and simulated environments
 - Mobile location-based applications
 - Interactive Games

Grading Composition

Grades will be determined as follows:

- Paper Installments 30%
- Final Paper 35%
- Class Participation 30%
- Completion of quizzes and submission of reading feedback (scores do not matter) 5%

IX. Outline of Classes

1. THE INFORMATION ENVIRONMENT

I. INTRODUCTION

- History
- Is Media Management Different?

II. MACROECONOMICS OF THE INFORMATION ECONOMY

- The Information Society
- Drivers of Change

III. MICROECONOMICS OF THE NEW MEDIA ECONOMY

- New Business Models
- Economic Properties of Media

IV. 8 ECONOMIC MANAGEMENT TOOLS FOR MEDIA

V. CONCLUSIONS

2. DEMAND MEASUREMENT ESTIMATION AND ANALYSIS

1. WHY DEMAND ANALYSIS

2. DATA COLLECTION

- EMPIRICAL SAMPLING OF AUDIENCE/ CONSUMERS
- DEMAND EXPERIMENTS
- MEASURING SALES
- MEASURING TRAFFIC
- SELF-REPORTING
- ANALYTICAL/STATISTICAL MODELS
- INTERNET MEASUREMENTS

3. ANALYZING THE DATA

- ANALYTICAL/ETC.
- ECONOMETRIC ESTIMATION
- CONJOINT ANALYSIS
- DIFFUSION MODELS

4. CONCLUSIONS

3. PRODUCTION OF CONTENT AND INFORMATION PRODUCTS

I. THE PRODUCTION PROCESS

- Special Aspects of Content Production
- Content Production Worldwide
- Case Discussion: The Hollywood Advantage

II. CONVENTIONAL EXPLANATIONS OF SUCCESS FACTORS IN CONTENT PRODUCTION

III. SUCCESS FACTORS IN CONTENT PRODUCTION

- Organizational Structure
- Risk Reduction
- Funding

IV. PRODUCT DEVELOPMENT AS A KEY FACTOR

- Productivity
- Style
- Product Selection
- Production Planning

IV. CONCLUSIONS

- Elements of Success for Content Production
- Future of Organizational Structure

4. TECHNOLOGY MANAGEMENT

I. WHAT IS DIFFERENT IN MEDIA TECHNOLOGY DEVELOPMENT?

- Technology Drivers of Change in Media Industries
- Case Discussion: Sony

II. HOW IS R&D MANAGED?

III. The Chief Technology Officer

- Selection of technology and R&D
- Budgeting R&D
- Management of innovation
- Role of CIO
- The standards process

IV. THE 1st CONVERGENCE: COMPUTERS (1C)

V. THE 2nd CONVERGENCE: COMMUNICATIONS HARDWARE AND COMPUTERS (2C)

- Network Infrastructure

VI. CONVERGENCE WITH CONTENT

VII. COMMUNITY AND COGNITION

VIII. THE FUTURE OF THE CONSUMER ELECTRONICS AND IT INDUSTRIES

5. MEDIA HUMAN RESOURCE MANAGEMENT IN CREATIVE INDUSTRIES

I. THE HRM FUNCTION

AND ITS ORGANIZATION

- Case discussion: Disney
- What is special about Media HRM

II. "HARD HRM"

- Human Capital Theory
- Internal Labor Markets
- Contract Theory

III. "TOUGH LABOR"

- Industrial workforce
- Craft workforce
- Media workforce
- Unions in the 'New Economy'
- Productivity in the media

IV. THE CREATIVE WORKFORCE

V. "SOFT CONTROL"

VI. CONCLUSIONS

- The Info workforce of the Future

6. FINANCING MEDIA AND TECHNOLOGY

I. CORPORATE

FINANCE & THEORY

II. SPECIAL ASPECTS OF MEDIA FINANCE

**III. CASE DISCUSSION-
TIME WARNER INTERNET TV**

IV. INTERNAL FUNDING

V. DEBT FINANCING

- Types of Debt

VI. OTHER TYPES OF DEBT

- Securitization
- Vendor and buyer finance
- Government
- Lease Finance
- Risk Reduction Strategies

VII. EQUITY FINANCING

- Partnerships
- Private Equity
- Venture Capital
- Public Equity

VIII. MODELS FOR OWNERSHIP

IX. CAPITAL STRUCTURE

- Optimal Capital Structure
- Financial Life Cycle

X. CONCLUSIONS

**7. INTELLECTUAL ASSETS AND THEIR
COMMERCIALIZATION**

I. INTELLECTUAL PROPERTY

- History
- Case Discussion: GE

II. INTELLECTUAL ASSETS

- Trade Secrets
- Patents
 - Infringements
 - Frontiers
- Trademarks
- Rights of Publicity
- Copyrights

- Copyright vs. Patent
- III. **COMMERCIALIZATION OF IPRs**
 - Valuation Techniques
 - Securitization
 - Real Options
 - IP Management
 - IP Strategies
 - Licensing
- IV. **CHALLENGES TO IPRs**
- V. **PROTECTION STRATEGIES**
- VI. **CONCLUSIONS**

8. MANAGING LAW & REGULATION

- I. **MANAGING NON-MARKET COMPETITION**
- II. **LEGAL & PUBLIC AFFAIRS FUNCTIONS IN MEDIA FIRMS**
 - Inside & Outside Case Discussion: Time Warner Cable vs. AT&T
 - Litigation Management
- III. **INFLUENCING GOVERNMENT AND THE PUBLIC**
 - Lobbying
 - Organization
 - Public Relations
- IV. **THE REGULATORY PROCESS**
 - Self Regulation
 - Direct Government Regulation
- V. **SUBSTANTIVE MEDIA LAW**
 - Content Restrictions
 - Anti-Competitive Behavior
 - Profit Regulation
- VI. **GOVERNMENT INDUSTRIAL AND CULTURAL POLICY**
- VII. **CONCLUSION**

9. MARKETING OF MEDIA AND INFORMATION PRODUCTS

- Structure and Organization
- Products and Services
- The Attention Budget
- II. **MARKET ANALYSIS**
 - Forecasting
 - Product Design
 - Positioning
- III. **BRAND CREATION**
 - Story as brand
- IV. **PROMOTION**
 - Viral Marketing

- V. ***ADVERTISING***
 - Marketing to advertisers
 - Budget
 - Media effectiveness and mix
 - ROI
- VI. ***ONLINE TOOLS***
- VII. ***REGULATION OF MARKETING***
- VIII. ***ANALYSZING MARKTING PERFORMANCE***

10. DISTRIBUTION NETWORKS

- I. ***INTRODUCTION***
- II. ***DISTRIBUTION***
 - Physical Networks
 - Informational Networks
 - Case Discussion: Bertelsmann
- III. ***THE NETWORK MODEL***
 - Architectures
- IV. ***ECONOMIC CHARACTERISTICS OF DISTRIBUTION NETWORKS***
- V. ***ANALYTICAL TOOLS FOR DISTRIBUTION***
- VI. ***NETWORK MANAGEMENT***
- VII. ***PUSH VS. PULL DISTRIBUTION***
- VIII. ***TELECOM NETWORKS***
- IX. ***IP & BROADBAND DISTRIBUTION***
- X. ***WHOLESALE DISTRIBUTION***
- XI. ***RETAIL DISTRIBUTION***
- XII. ***CONCLUSIONS***

11. PRICING OF INFORMATION PRODUCTS

- I. ***SETTING A PRICE***
 - Special Problems in the Pricing of Information Products
 - Case Discussion: Encyclopedia Britannica
- II. ***PRICING STRATEGIES***
 - Pricing of Cost
 - Market-Based Pricing
 - Dynamic Pricing
 - Value Pricing
- III. ***MEASURING PRICE SENSITIVITY***
 - Hedonic Prices
 - Conjoint (Trade-Off) Analysis
 - Optimal Price Discrimination
- IV. ***P>MC IN PRACTICE: MONOPOLY AND OLIGOPOLY***
- V. ***LEADER PRICING***
- VI. ***STRATEGIC PRICING***
 - Network Effect and Penetration Pricing
- VII. ***STRATEGIES TO KEEP P>MC***

VIII. *OTHER TYPES OF PRICING*

- Protection from Price Variations: Hedging

IX. *LEGAL ASPECTS OF PRICING*

X. *THE FUTURE OF PRICING: MICRO PRICING*

XI. *CONCLUSION*

12. ACCOUNTING AND VALUATION FOR MEDIA AND INFORMATION ACTIVITIES

I. *ACCOUNTING & MEDIA ACCOUNTING*

- Function of Accounting in Business
- Is Media Accounting Special?
- Special Problem: Post 2000 Scandals In Media Accounting
- Types of Accounting
- Case Discussion: Disney

II. *PROFIT ACCOUNTING*

III. *FINANCIAL ACCOUNTING*

- What Financial Documents Investors Look For
- Auditing
- Balance sheets, P & L, cashflow curves
- Analyzing Financial Statements
- Valuation of Media Properties

IV. *TAX AND REGULATORY ACCOUNTING*

- Capitalization and Expensing
- Depreciation and Amortization
- Stock options

V. *MANAGERIAL ACCOUNTING*

- Profit Centers
- Transfer Pricing

VI. *MANAGEMENT INFORMATION SYSTEMS*

- MIS, ERP, RTA etc.

13. STRATEGIES FOR MEDIA AND INFORMATION FIRMS

I. *THE STRATEGY FUNCTION IN BUSINESS- GENERAL*

II. *WHAT IS DIFFERENT ABOUT THE STRATEGY FUNCTION OF MEDIA INDUSTRIES?*

III. *CASE DISCUSSION: COMCAST*

IV. *THEORIES AND TOOLS OF BUSINESS STRATEGY*

- Oligopoly analysis and game theory
- Competitive analysis approach
- Core competencies and RBV
- Adaptability approaches

V. *THE EMERGENCE OF THE GURU INDUSTRY*

VI. *THE STRATEGY PROCESS*

VII. *EXTERNAL ASSESMENT*

VIII. *INTERNAL ASSESMENT*

IX. *DEVELOPING STRATEGIES*

X. *HOW TO SELECT AMONG STRATEGIES*

XI. *IMPLEMENTATION OF STRATEGY*

- **Communication**
- **Budgeting**
- **Monitoring and assessment**

XII. *CONSTRAINTS TO STRATEGY*

XIII. *CONCLUSION ON CASE AND ON LECTURE*

XIV. *CONCLUSION ON COURSE*

A. In what ways is management in the Information Age different?

B. The role and of managers

C. Conclusions on the New Management