

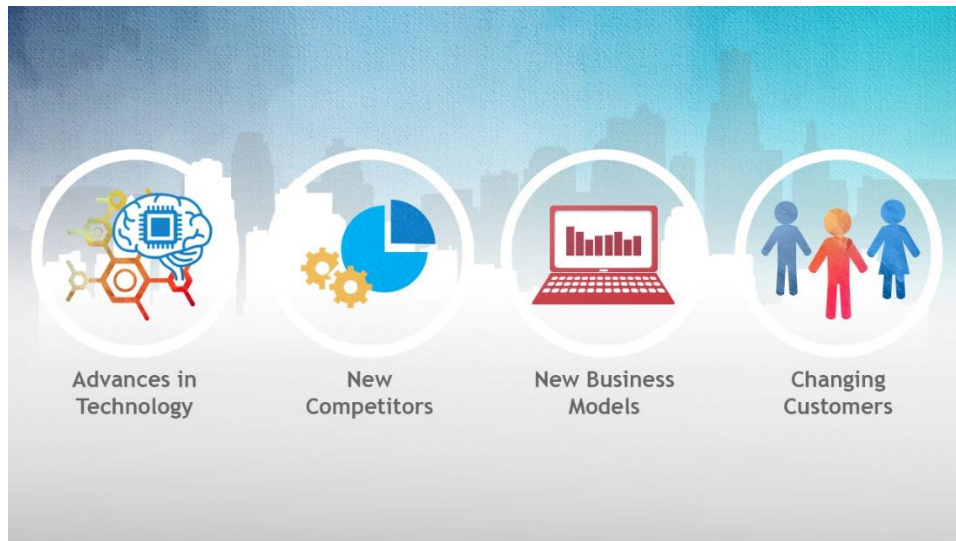
# INSIDE TECHNOLOGY, MEDIA, AND TELECOMMUNICATIONS® (TMT)

## CURRICULUM DESCRIPTION AND COURSE OUTLINES

To effectively represent, position and provide your firm's solutions, your professionals must understand the quickly evolving TMT industries.

PSi's *Inside TMT Curriculum* online courses provide the relevant industry knowledge your employees need in a self-directed, e-learning environment. The courses were designed with today's learner in mind. Our mobile-enabled courses are fast-paced and include:

- Interactive videos and exercises
- Current global industry content your employees need to understand the technology-focused, ever-changing TMT environment



The content in each course has a particular focus on the emerging technologies and changes driving the industries covered (technology, media and entertainment and telecommunications). For new industry entrants, it is critical that they are familiar with not only the foundations of technology, media, entertainment and telecommunications, but the changing landscape that is driving these related industries.



Each course is supported by PSI's *Inside TMT Wiki* which is a repository of "everything you need to know about TMT". The *Inside TMT Wiki* is a tool that learners can use:

- During the training to enhance their understanding or learn more about particular topics
- After the training as a performance support tool
  - Users can access the Wiki at any time to:
    - Look up industry information
    - Prepare for meetings
    - Learn more about new/emerging areas of each industry
    - Reinforce what they learned in the courses "as needed"

By using PSI's *Inside TMT Curriculum* and Wiki, your learners will have access to the requisite foundation of TMT industry knowledge they need to be successful in this fast-changing environment.

PSI's *Inside TMT Curriculum* includes the following 50-minute courses:

- [\*Introduction to Technology, Media and Telecommunications\*](#)
- [\*Inside Technology\*](#)
- [\*Inside Media and Entertainment\*](#)
- [\*Inside Telecommunications\*](#)
- [\*Making Money in Technology, Media and Telecommunications\*](#)

Each course will take 50-60 minutes to complete and qualifies for one (1) CPE Credit.

PSI updates each course every 12-18 months and updates the Wiki on an ongoing basis.



## Introduction to Technology, Media and Telecommunications

This course provides learners with an introduction to the technology, media and telecommunications industry.

Completion time: 50 minutes

CPE Credit: 1

### COURSE OBJECTIVES

- Name technology, media and telecommunications customers
- Identify participants within the industry
- Recall the industry segments
- Recognize important executives within technology, media and telecommunications companies
- Identify the challenges facing the industry

### COURSE OUTLINE

#### Customers

- Consumers
- Small and medium enterprises (SMEs)
- Enterprises
- Advertisers
- Other industry participants

#### Industry Participants

- Technology companies
  - Hardware companies (component manufacturers, semiconductor companies, OEMs)
  - Software companies
  - Internet software and services companies
  - IT service providers
  - Channel partners
- Telecom companies
  - Integrated communications service providers (CSPs)
  - Mobile service providers
  - Cable companies
  - Satellite television providers
- Media and entertainment companies
  - Global media conglomerates
  - Publishers
  - Television networks and stations
  - Movie production companies and theaters



- Video on demand providers
- Video game companies
- Music companies
- Advertising companies

#### Industry Segments

- Technology
- Media and entertainment
- Telecommunications

#### Executives (and their responsibilities)

- Chief Financial Officer
- Chief Marketing Officer
- General Counsel
- SVP, Human Resources

#### Industry Challenges

- Digital disruption and the shifting competitive landscape
- Cybersecurity
- Emerging technologies
- Evolving regulations



## Inside Technology

This course introduces the technology segment of the technology, media and telecommunications industry.

Completion time: 50 minutes

CPE Credit: 1

### COURSE OBJECTIVES

- Name technology customers
- Identify different types of technology providers
- Recall technology products and services
- Recognize important executives within technology companies
- Identify the challenges facing the technology industry

### COURSE OUTLINE

#### Customers

- Consumers
- Small and medium enterprises (SMEs)
- Enterprises
- Advertisers
- Partners

#### Providers

- Hardware companies
- Software companies
- Internet software and services companies
- IT service providers

#### Products and Services

- Hardware
  - Devices
  - Infrastructure
  - Semiconductors
- Software
  - Operating systems and application software
  - Proprietary and open source software
  - On-premise software and SaaS
  - Enterprise software (office productivity suites, CRM, ERP and HCM)
  - Database software (and big data)
  - Mobile apps
  - Analytics



- Internet software and services
  - Cloud computing
  - Ecommerce
  - Social media
  - Messaging apps
- Digital platforms
- IT Services
  - Technology consulting
  - Systems integration
  - Managed services
  - Outsourcing (IT outsourcing, business process outsourcing)

#### Executives

- Presidents of lines of business
- EVP, Engineering
- EVP, Sales
- SVP, Customer Operations

#### Industry Challenges

- Cybersecurity
- Emerging technologies
  - Artificial intelligence
  - Voice computing and digital assistants
  - Internet of things (IoT)
  - 5G
  - Note: Other emerging trends will be covered in the industry wiki (including virtual/augmented reality, edge computing, distributed ledgers and blockchain, robots, autonomous vehicles, drones, biometrics, 3D printing, quantum computing, etc.)
- Changes in enterprise IT
  - Virtualization
  - Cloud migration
  - DevOps
  - Robotic process automation
- Regulation
  - Consumer data protection and privacy
  - Anti-trust considerations
  - Tax and trade policies
  - Intellectual property protection



## Inside Media and Entertainment

This course introduces the media and entertainment segment of the technology, media and telecommunications industry.

Completion time: 50 minutes

CPE Credit: 1

### COURSE OBJECTIVES

- Name media and entertainment customers
- Identify different types of media and entertainment providers
- Recall media and entertainment products and services
- Recognize important executives within media and entertainment companies
- Identify the challenges facing the media and entertainment industry

### COURSE OUTLINE

#### Customers

- Audiences
- Advertisers
- Other industry participants

#### Providers

- Global media conglomerates
- Publishers
- Television networks and stations
- Movie production companies and theaters
- Video game companies
- Music companies
- Radio networks and stations
- Advertising companies

#### Products & Services

- Publishing services
- Broadcasting services
- Video on demand
- Movies
- Video games
- Music
- Advertising
  - Digital advertising
  - Ad servers and networks

#### Executives

- Group and Network Presidents



- Managing Editors
- EVP, Production
- EVP, Advertising Sales
- SVP, Digital Media

#### Industry Challenges

- Advances in technology and evolving audience behaviors
- Changes in business models
- Broad industry responses
  - Focusing more on user experience
  - Exploring acquisition targets
  - Prepare for new opportunities created by emerging technologies
- Challenges in publishing
  - Publishers' responses
- Video on demand
  - Subscription video on demand (SVOD)
  - Television network responses
  - SVOD provider responses
  - Movie studio and distributor responses
- Challenges in the video game industry
  - Esports
  - Virtual and augmented reality
- Advertising
  - Google and Facebook duopoly
  - Digital advertising fraud
  - Ad blocking technology
- Regulation
  - Consumer data protection and privacy
  - Net neutrality rules
  - Intellectual property protection
  - Anti-trust considerations
  - Government censorship





## Inside Telecommunications

This course introduces the telecommunications segment of the technology, media and telecommunications industry.

Completion time: 50 minutes

CPE Credit: 1

### COURSE OBJECTIVES

- Name telecom customers
- Identify different types of telecom providers
- Define different telecom networks
- Recall telecom products and services
- Recognize important executives within telecom providers
- Identify the challenges facing the telecom industry

### COURSE OUTLINE

#### Customers

- Consumers
- Small and medium enterprises (SMEs)
- Enterprises
- Wholesale customers

#### Providers

- Integrated communications service providers
- Mobile service providers
- Cable companies
- Satellite television providers

#### Networks

- Fixed line networks
  - Access networks
  - Central Offices
  - Core networks
- Wireless networks
  - Cellular networks
  - Radio spectrum
  - Cellular network generations
- Wi-Fi networks
- IP networks
- Broadband networks

#### Products & Services



- Voice services
- Data services
- Video services
  - Subscription television services
  - Video on demand
- Enterprise services
  - Leased lines
  - Virtual private networks (VPNs)
  - Managed services
  - Machine-to-machine (M2M) services
- Wholesale services
- Customer equipment

#### Executives

- Presidents of the lines of business
- EVP, Network Operations
- EVP, Customer Operations
- SVP, Media Programming

#### Industry Challenges

- Shifting competitive landscape
  - Over-the-top (OTT) providers
  - Device manufacturers and app developers
  - IT companies
- Increasing data traffic
  - Industry responses
- Pressure on revenue
  - Industry responses
- Evolving regulations
  - Anti-trust considerations
  - Spectrum licenses and auctions
  - Consumer data and privacy and government surveillance
  - Net neutrality
  - Government censorship



## Making Money in Technology, Media and Telecommunications

This course provides a fundamental understanding of how technology, media and telecommunications companies make money and track their financial performance.

Completion time: 50 minutes

CPE Credit: 1

### COURSE OBJECTIVES

- Identify the sources of revenue and expense for technology, media and telecom companies
- Explain key performance indicators (KPIs) used in the industry
- Recall sources of financial information
- Use financial information to better understand specific companies

### COURSE OUTLINE

Why is Financial Information Important?

- Understand business and strategy
- Participate in conversations with senior business executives
- Prioritize efforts

Sources of Revenue and Expense

- Revenue
  - Revenue for technology companies
    - Hardware and device sales
    - Software licensing revenue (and consumption/pricing models)
    - Services fees
    - Advertising
    - Transaction fees
    - Net sales
  - Revenue for media and entertainment companies
    - Advertising
    - Rentals
    - License fees
    - Subscriptions
    - Direct sales
  - Revenue for communications service providers (CSPs)
    - Voice revenue
    - Messaging revenue
    - Data revenue
    - Pay-television subscription fees



- Advertising revenue
- Prepaid revenue
- Postpaid revenue
- Cost of Sales
  - Manufacturing and distribution costs
  - Personnel and related costs
  - Consulting delivery costs
  - Advertising costs
  - Amortization of software development
  - Media production costs
  - Network operating and maintenance costs
- Operating Expenses
  - Research and development (R&D) expenses
  - Sales and marketing (S&M) expenses
  - General and administrative (G&A) expenses
  - Depreciation and amortization expenses
- Capital Expenditures
- Other Sources of Revenue and Expense
  - Interest expenses
  - Equity income from affiliates
  - Financial income (or expense)
  - Income taxes

#### Key Performance Indicators (KPIs)

- Gross margin
- EBITDA margin
- Operating margin
- Debt to EBITDA
- Cash flow
  - Funds from operations
  - Free cash flow

#### Using Financial Information

#### Sources of Financial Information