

The Medium: Global Technologies and Organizations

Learning Objectives

1. Detail the major stakeholders in the evolution of telecommunication systems around the globe.
2. Understand some of the new developments of the International Telecommunication Union (ITU) that have had a profound influence on social, cultural, economic, and political organizations.
3. Explain the history, structure, and concerns of the International Telecommunication Union.
4. Describe the major initiative at ITU promoting a global international mobile system called IMT-2000.
5. Explain how satellites orbit the earth, the impact this has on continuous communication, and the lack of geostationary “parking spots.”
6. Describe the items addressed in the Maitland Report.
7. Understand why the International Telecommunications Satellite Organization (Intelsat) was formed and some of the organization’s major competitors.
8. Detail the implications if the International Telecommunication Union adheres to the private-sector call.
9. Explain the role of Comsat Corporation.
10. Explain the role of the World Trade Organization (WTO) in establishing ground rules for trading.

Chapter Outline

International Telecommunications Union (ITU)
History and structure of the ITU
Current concerns
Geostationary orbits
Maitland Commission
Maitland follow-up
Intelsat
Intelsat competition
The future of Intelsat
ITU's changing role and expectations
World Summit on the Information Society (WSIS)
World Trade Organization (WTO)
Organization for Economic Cooperation and Development (OECD)

Key Terms

Global village
International Telecommunication Union (ITU)
Spectrum/geostationary parking spots/satellites
IMT-2000
Maitland Commission
International Telecommunications Satellite Organization (INTELSAT)
Comsat
World Trade Organization (WTO)
Organization for Economic Cooperation and Development (OECD)

Activities

- Open class discussion: Explain why the World Trade Organization (WTO) is coming under criticism for its role in expanding the global economy and taking cultural industries with it. The instructor should pay particular attention to core nations (e.g., US, EU, Japan). List the students' responses on the board.
- Take-Home Assignment: ask students to explain how they would resolve the issue of limited space for satellites/geostationary parking spots.

Test Questions – Chapter 11

Multiple-Choice

- 1) What is probably the most significant set of regulations the general conferences (International Telecommunication Union) reviews?
 - a. Table of Digital Satellites
 - b. Table of Frequency Allocation*
 - c. Table of Shortwave Frequencies
 - d. Table of Frequency Conversions

- 2) The forerunner of the International Telecommunication Union was the International Telegraph Union. What was the International Telegraph Union's first endeavor?
 - a. short-wave frequency
 - b. Morse code*
 - c. spectrum usage
 - d. radio navigation

- 3) Difficult problems and doubts about the efficiency of the union's structural framework have punctuated ITU. One prime reason for this technical orientation was articulated in the *Economist*, which noted that "the ITU is full of engineers terrified of controversy and terrified of _____."
 - a. the press*
 - b. spies
 - c. the Soviet Union
 - d. hackers

- 4) Currently, what is the major initiative at ITU that promotes a global international mobile system?
 - a. IMT2
 - b. IMT
 - c. IMT-2002
 - d. IMT-2000*

- 5) _____ was the name of the commission set up in the 1980s. This two-year study was accompanied by a report that addressed the

inequities in the distribution of telecommunications systems and services among core and other nations.

- a. MacBride
 - b. Maitland*
 - c. Sinclair
 - d. Faure
- 6) What does INTELSAT mean?
- a. International Telecommunications Satellite Organization*
 - b. International Teledigital Systems Orbit
 - c. International Tele-operations System Technology
 - d. International Telemobile Switching Output
- 7) Who was the organization responsible for launching the world's first communication satellite in the mid-1960s?
- a. Comsat
 - b. ITU
 - c. Intelsat*
 - d. AT&T
- 8) In late 2004, under new ownership, Intelsat made a major move. What was it?
- a. broadcast the Sydney Olympic Games
 - b. acquired the Comsat General Corporation*
 - c. liquidated its assets
 - d. privatized for the first time
- 9) ITU has seen a change in the balance of power. The shift has moved to liberalization of the telecommunications environment and to the private sector. Telecommunications firms, broadcasting companies, and computer corporations work with essentially the same basic digital technologies. Hewlett-Packard, Microsoft, Intel, IBM, and others are ITU's private-sector members. What percentage do private members contribute to the intellectual and technical underpinning of ITU's recommendations and technical standards?
- a. 50 percent
 - b. 75 percent

- c. 90 percent*
 - d. 30 percent
- 10) In 2000, Comsat was purchased by _____ for \$1.2 billion.
- a. Lockheed Martin*
 - b. AT&T
 - c. Boeing
 - d. Microsoft
- 11) How were electromagnetic frequencies originally allocated by the ITU? This procedure has been largely responsible for the congestion in some popular frequency bands.
- a. first come first served*
 - b. frequency allocation given to the highest bidder
 - c. an ITU council voted on frequency allocations
 - d. none of the above
- 12) According to the textbook, why has the international community devoted more attention and preparation to recent ITU conferences?
- a. core nations have become increasingly dominant at the ITU
 - b. core nations now have the ability to stack the ITU with delegates favorable to their causes
 - c. peripheral nations now constitute a majority at the ITU*
 - d. A and B

True/False

- 13) The ITU is a relatively new organization, having been founded in the 1960s. (F)
- 14) Currently, the ITU has developed neither the ability to deal with political or ideological concerns, nor the necessary administrative structure through which such conflicts could be channeled. (T)
- 15) A satellite's coverage area is called an imprint. (F)
- 16) The Maitland Commission argued that telecommunications systems are a luxury, not necessarily a key to economic development. (F)
- 17) Intelsat is now a private company. (T)
- 18) The World Summit on the Information Society (WSIS) is being coordinated by the WTO, who would like cultural industries to be perceived globally as economic entities. (F)

- 19) US withdrawal from ITU would not affect the ITU too severely, since the US rarely participates in ITU conferences. (F)

Short Answer/Essay

- Explain the four facets of the IMT-2000 initiative.
- The issue of geostationary parking spots took on additional symbolic meaning in the 1980s. Because the only position for these satellites was above the equator, and because, by chance, the equator covers part of Latin America and Africa, some delegates from these regions seized on this important point. They began to express the idea at ITU meetings that the outerspace above these nations should be reserved for them so that they would have appropriate parking spots for future satellite deployment. What does this mean to peripheral nations?
- Part of the global telecommunications environment Intelsat faces is the reality of two new strong competing forces. What are the two forces?
- Why is the successful functioning of the ITU important to US telecommunication corporations? (*Answer*: offshore income is big.)
- Why do peripheral nations fear that their interests will be neglected under a privatized Intelsat? (*Answer*: sheer economics and profitability will dominate future decision-making; they could lose connection to the outside world.)
- What are the three areas of contention regarding the WSIS? (*Answer*: selection of Tunisia, NWICO debate, governance of the internet.)