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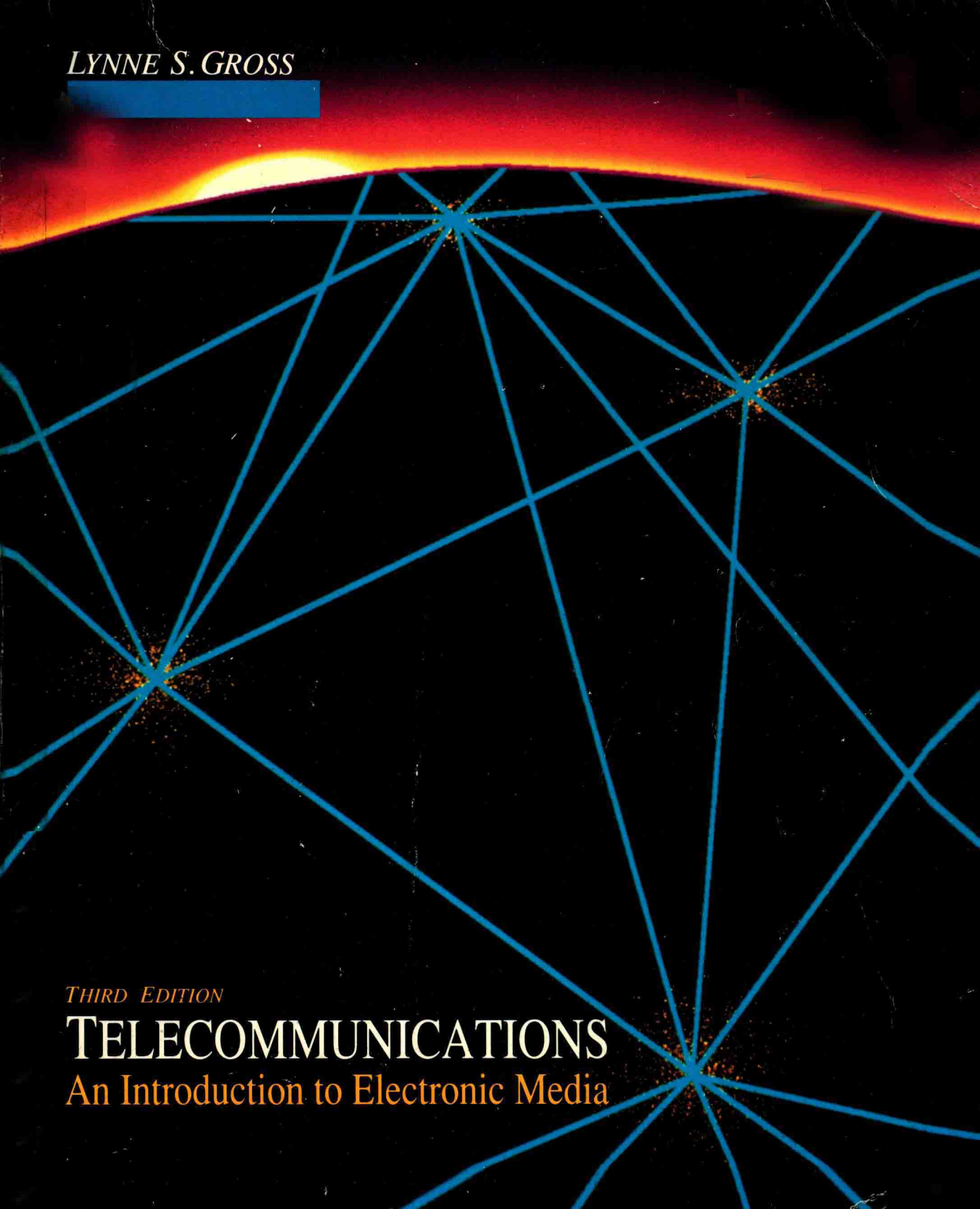

THIRD EDITION

# TELECOMMUNICATIONS

## An Introduction to Electronic Media

*THIRD EDITION*

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## An Introduction to Electronic Media

*LYNNE SCHAFER GROSS*
*California State University-Fullerton*

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*To My Husband*

# PREFACE

## Purpose

Telecommunications is one of the most potent forces in the world today. It influences society as a whole, and it influences every one of us as an individual. As each year passes, telecommunications grows in scope. The early pioneers of radio would never recognize today's vast array of electronic media—broadcast television, cable TV, teletext, and videocassettes, just to name a few. Neither would they recognize the structure that has evolved in such areas as regulation, advertising, and audience measurement. They would marvel that their early concepts of equipment have led to such developments as audio tape recorders, cameras, video tape recorders, switchers, editors, computer graphics, and satellites. If they could see the quantity and variety of programming available today, they might not recognize that it all began with amateurs listening for radio signals on their "primitive" crystal sets.

All indications are that telecommunications will continue to change and develop at a rapid pace. As it does, it will further affect society, and individuals will find themselves interacting with electronic media to an even greater extent. All people, whether they be individuals working in the telecommunications field or individual members of society, have a right to become involved with media and have an obligation to understand why people need to interact with the media. Some knowledge of the background and structure of the industry is an essential basis for this understanding.

A major goal of this book is to provide just that kind of knowledge so that intelligent decisions about the rolé of telecommunications can be made both by those who are practitioners in the field and those who are members of the general society.

## Organization of the Book

This is the third edition of this book, the first appearing in 1983 and the second in 1986. A number of major changes have occurred in telecommunications since 1986, so corresponding changes needed to be made in this book. The importance of electronic media in the international arena and the continuing growth of corporate telecommunications led to the addition of two chapters on those subjects.

The multitude of changes in the newer media led to the total revision of Chapter 6, "Other Electronic Media." Improvements in equipment also led to major revisions in that chapter. Other major structural alterations, such as management changes at ABC, CBS, and NBC, the introduction of peoplemeters, the continuing aspects of deregulation, and variances in audience viewership, led to a great deal of updating in all areas.



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To enhance organization, the text is divided into six parts. Part I, the introduction, deals with the social implications of telecommunications and sets the scene for the importance of the electronic media industry. Although the entire first chapter is devoted to social impact, the subject is not dropped at this point. The "social implications of telecommunications" theme is carried throughout the book and is one that should be considered in conjunction with all of the chapters.

Part II deals with communication systems—commercial radio, commercial TV, public broadcasting, cable TV, and other media. Each chapter in this part covers the historic development of a media form.

The technical aspects of production and distribution of all the previously discussed forms of telecommunications are covered in Part III.

Part IV deals with a subject familiar to most readers—programming. Here, again, both the older and newer media are discussed.

Part V covers regulation and business, ending with a chapter on telecommunications personnel that should be particularly helpful to those contemplating a career in the field.

The final section, Part VI, consists of two new chapters dealing with corporate, government, and personal uses of telecommunications and with international broadcasting.

All the chapters should lead the reader to assess the strengths and weaknesses of the particular subject being discussed. Information relating to future directions telecommunications may possibly take is also woven throughout the appropriate chapters.

## Special Features

Each part of the book begins with an overall statement that relates the chapters to one another. Each chapter begins with an overview of the major topics covered in that chapter. This alerts the reader to important points and also serves as a review of chapter material once the reader has completed that chapter.

Each chapter conclusion summarizes major points but does so in an organizational manner slightly different from that given within the chapter. For example, if the chapter is ordered chronologically, the conclusion may be organized in a topical manner. This should help the reader form a gestalt of the material presented.

Further aids in understanding the material are the thought questions at the end of each chapter. These questions do not have "correct" answers, but rather are intended to lead the reader to form his or her own judgments. Discussions centering around these questions will indicate that varying opinions surround telecommunications issues.

Chapters are broken down into major divisions and marginal notes appear within each division. Each marginal note highlights the main subject being discussed in the adjacent paragraph or paragraphs. Taken together, these notes serve as review points for the reader. Important concepts are in boldface, which can also help the reader review the chapter.

The chapters may be read in any sequence; however, some of the terms that are defined early in the book may be unfamiliar to people who read later chapters first. The glossary can help overcome this problem. It includes important technical terms that the reader may want to review from time to time, as well as terms that are not necessary to an understanding of the text but that may be of interest to the reader. The glossary also includes abbreviations used frequently in the telecommunications field.

Chapter notes, which appear at the end of the book, are extensive and provide many sources for further study of particular subjects. In addition, a selected bibliography of some of the comprehensive books and articles dealing with telecommunications is provided.

The photographs that appear throughout the book supplement the textual information. Similarly, the quotations that appear at the beginning of the chapters provide additional food for thought.

## Supplementary Materials

*Instructor's Manual* The instructor's manual available with *Telecommunications* offers two sample course outlines that can be adapted to semesters or quarters, as well as learning objectives, audiovisual sources, suggested lecture topics/activities, and a bibliography for each text chapter.

*TestPak* wcb TestPak is a computerized system that enables you to make up customized exams quickly and easily. Test questions can be found in the Test Item File, which is printed in your instructor's manual or as a separate packet. For each exam you may select up to 250 questions from the file and either print the test yourself or have wcb print it.

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Lynne Schafer Gross

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# TELECOMMUNICATIONS
## An Introduction to Electronic Media

# Introduction

*PART* *I*

*T*elecommunications is a powerful force in society. Radio and television permeate our lives, yet many generations of people existed without electronic media. The pervasive influence has occurred in a short space of time, but its intensity compensates for its youth.

# Social Implications of the Electronic Media

1

*Television is less a means of communication (the imparting or interchange of thoughts, opinions, and information by speech, writing, or signs) than it is a form of communion (act of sharing or holding in common; participation, association; fellowship).*

*Richard Schickel*
*The Urban Review*

## Overview

The influence that telecommunications exerts upon our society is obviously extensive. The mere ability to communicate instantaneously affects the process of communication. Beyond this, the permeation of opinions, emotions, and even fads can often be attributed to various elements of the media. The pervasiveness of radio and television, whether applauded or condemned, cannot be denied. The influence extends from the individual through the social structure, the economy, technology, and politics.

This chapter emphasizes the influence of electronic media by presenting the following information:

Reasons for the study of telecommunications
Points of criticism and praise for radio and TV
Problems of terminology in the field
Statistics detailing the extent to which radios and TVs are owned and used
Opinions about the media
Communications models
Examples of scientific research undertaken in such areas as television teaching and children's television
Historical and biographical research
Effects of telecommunications on individuals in terms of positive and negative education, passivity, relaxation, role models, and stereotypes
The issue of giving people what they want or what they need
Effects of radio and TV on such societal elements as family, school, culture, sports, fads, and crime
Telecommunications as a reflector and improver of society
Spiraling interrelationships of technology and electronic media relating to obsolescence, artistic quality, and communication
Direct and indirect effects of telecommunications on the economy
Profit versus public responsibility
Effects of telecommunications on politicians and the political process

## A Rationale for Study

Everyone has an opinion about radio or television fare, and everyone can exhibit a certain amount of expertise about a force that is seen and heard on a daily basis.

Then why study this field? Some of the answers to this question are obvious. Anyone who is aiming toward a career in this area will profit from an intimate knowledge of the history and inner workings of the industry. Radio and television are highly competitive fields, and those armed with knowledge have a greater chance for career survival than those who are naive about the inner workings and interrelationships of networks, stations, cable TV facilities, advertisers, unions, program suppliers, telephone companies, the government, and a whole host of other organizations that affect the actions and programming of the industry.

career information

On a broader scope, individuals owe it to themselves to understand the messages, tools, and communication facilities that belong to our society because they are so crucial in shaping our lives. Rare is the individual who has not been emotionally touched or repulsed by a scene on TV. Rare, too, is the individual who has never formed, reinforced, or changed an opinion on the basis of a presentation seen or heard on one of the electronic media. A knowledge of the communications industry and its related areas can lead to a greater understanding of how this force can influence and affect both individual lives and the structure of society as a whole.

understanding of influence

The practitioners and the critics of the media need to understand each other so that barriers of ignorance do not deter communication. Those who generalize that employees of networks, stations, and other related companies are profit-hungry, glory-hungry deceivers will not gain a sympathetic ear from the very people they wish to influence. Similarly, those within the telecommunications establishment who look upon their critics as cause-happy, glory-seeking profit hamperers will not be willing to listen to reason even when it does prevail. A television executive must be able to understand the feelings of a mother who is watching her child turn into a TV junkie, and the mother must be able to realize that, in our capitalistic society, the media as a whole cannot exist if it does not obtain reasonable profits.

critic-practitioner understanding

Whether a person is interested in a radio or TV career, in being an informed media consumer, or in making social changes within the present structure, that person must study and understand the electronic media.

## Criticism and Controversy

Radio and television have been blamed, at least in part, for a vast array of society's ills. Many of these comments may sound familiar.

critical comments

Johnny can't read because he spends too much time watching television.

The lyrics played on radio encourage drug usage.



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