Preface

Scope and Focus

One unique aspect of the history of the radio industry is its creative adaptability, demonstrated through radio's success in overcoming every new medium threatening to replace it. *Digital Radio Production* offers a fresh, insider's approach to a constantly evolving industry. Now, more than ever, the old axiom is true: "You are either moving forward or you are moving backward." Remaining stationary is not an option in the radio industry.

Written for an industry in motion, *Digital Radio Production* is designed to equip today's students with a well-rounded and comprehensive grounding in radio production. Although the production person's job is to produce commercial and programming elements, radio broadcasting today demands a broad knowledge of sales, promotions, programming, and other key areas of the station from every employee. That is why *Digital Radio Production* takes a holistic approach to radio production and the production person. Although radio is all about communicating and delivering a message to listeners, the business environment and technology cannot be ignored. In many respects, the traditional technical skills of a radio production person have transitioned into audio data and system management skills. For a producer, an excellent knowledge of computers and software is the norm rather than the exception. Regardless of the technology, however, the core element of radio production remains the same, communicating with the listener.

Digital Radio Production holds the humanity of radio communication at center stage, and in its technical approach to making that communication possible, this book is first and foremost digital. The twenty-first century is not about vinyl records or reel-to-reel tape recorders. The approach focuses on new technologies and trends, with chapters that introduce students to concepts vital to a successful radio career. Some of the special features of this text include:

- an explanation of the role of the production person in today's broadcast industry
- easy-to-understand, cutting-edge presentations about digital audio recording, storage, manipulation, audio processing, and special effects
- current state-of-the-industry basics in commercial writing and production techniques, recognizing the role the sales department plays in production
- benchmark chapters about station promotion and imaging and taking the station on location
- a discussion about the Internet and digital audio transmission methods for everything from transferring a commercial to another station to high-definition radio production techniques
- a no-nonsense approach to how programming and production go hand-in-hand in today's industry

- a valuable insider's approach to getting a first job in radio . . . and it's not what you think!

Although each chapter covers a different group of core skills and background information, all are interrelated. Each chapter features suggested activities to involve the student outside of class, industry web sites for more information, and a chapter-by-chapter Pro Speak glossary of industry terms.

In addition, three special features make *Digital Radio Production* truly different, placing it in a league of its own in terms of making technology accessible to students:

1. Nearly 100 audio examples, covering virtually every aspect of production from microphone technique to commercial production samples, are included on the demonstration CD and are described in the text.

2. Another CD features an outstanding selection of production music with over 200 music loops and a custom studio-tracking session, with suggested activities written for this text.

3. A fully functional trial edition of Adobe Audition multitrack recording software is included with this text for students to use, experiment with, and learn the latest in digital technology.

Structure

The first chapter of this book, "The Production Person," sets the stage for the rest of the text by explaining the business and programming aspects of radio, identifying the key players and departments, and describing the integral role of the production person in each area of the station.

Radio is a technology- and hardware-based industry, and chapters 2 through 5 focus on the science and hardware of digital radio production. Students are introduced to "Basic Science: Analog and Digital Audio" in chapter 2, including analog sound and how humans hear as the foundation for analog-to-digital conversion and the practical uses of digital audio. Chapter 3, "Microphones and Their Role in Radio Production," is an in-depth examination of microphones, mounts, cables, windscreens, and preamplifiers in addition to special-purpose and wireless microphones. "Control, Mixing, and Monitoring," chapter 4, focuses on control boards, mixing, and monitoring across the on-air, production, and portable console platforms. There is also an in-depth discussion of the importance of metering in digital production. "Basic Concepts in Digital Recording" introduces students to recording, mixing, and mastering using digital audio workstations and a variety of digital media in chapter 5. It also features instruction in the basic set-up and operation of Adobe Audition and Pro Tools digital recording software.

The foundation of knowledge developed in the first five chapters is a basis to advance into the artistic and creative side of production in chapters 6 through 10. "Audio Processing," chapter 6, is an introduction to the creative use of dynamic, dimensional, and frequency processing including voice, effects, and broadcast audio processors. In this chapter, care is taken to emphasize not only what can be created using audio processing but also the perceptual effect it can have on listeners.

"The Art of Sixty-Second Story Telling," chapter 7, introduces commercial production as a part of the sales process and approaches commercial creation from the point of view of moving a project from a sales order to an on-air product. This chapter is not about writing so much as it is about how to create well-crafted solutions to a client's marketing problems. "Producing Commercials, Promos, and News," chapter 8, begins with the talent selection process and advances through produc-

tion pre-planning, production, and delivery to the client. This chapter includes in-depth discussions on the use of music and sound effects. The chapter also includes a section on the special challenges of news production. Chapter 9, "Communicating with the Listener: Announcing," begins with the philosophy of how to communicate one-on-one with listeners and advances to show planning, delivery, voice tracking, news, and sports delivery. The chapter also includes sections on working with producers and production directors as well as a section on developing your voice.

"Promotion and Station Imaging," chapter 10, is unique to *Digital Radio Production* and introduces the concepts of branding and positioning to station promotion and imaging. There is an in-depth examination of effective production for liners, sweepers, station IDs, jingles, and imaging placement. The section on contest promotion moves from the initial tease to post-prize-award promotion.

Chapter 11, on location work, begins by explaining the unique relationship between the sales, promotion, and production departments that result in successful live broadcasts. Entitled "Fieldwork: Taking the Station on Location," this chapter includes detailed sections on digital remote broadcast transmission methods and producing commercial, sports, and news remotes.

"Interfacing with the Net," chapter 12, is a straightforward chapter that addresses audio production for the Internet and explores the unique programming and business relationship radio enjoys with the Internet. Although covering webcasting, the focus of chapter 12 is on audio production and radio's more creative uses of the Internet.

Chapter 13, "From Here to There: Radio and Audio Transmission in a Digital World," introduces the student to the many digital transmission methods radio has available for everything from transferring commercials from one station to another, to using ISDN lines for voice tracking and live remotes. Unique to the chapter are sections on high-definition radio and radio production for high-definition radio.

"Programming, Production, and Measuring Success," chapter 14, explores the relationship between radio production and radio programming. Included are sections on the radio production person's role in programming, music and format selection, and format delivery methods ranging from live to automated voice tracking. The chapter also discusses Arbitron audience ratings and how they are used to measure a radio station's success.

The last chapter, "Getting Your First Job in Radio," is unique in a production text from the standpoint that it provides students with the key information they need to secure their first position in radio broadcasting, with advice from someone who spent over twenty years in radio management. Chapter 15 has the information the career services office does not provide to broadcasting students. This tightly focused chapter's topics range from arranging an internship to completing an audition CD, including a special section on electronic resumes and auditions and creative approaches to delivering an application.

CDs and Supplements Package

Digital Radio Production is accompanied by several powerful learning tools. The demonstration CD included with the text features nearly 100 audio concepts and demonstrations discussed throughout the text. Students have the advantage of being able to experience what they are reading about 24/7. The demonstration CD includes a number of

unedited recordings created for this text, such as a shuttle launch at the Kennedy Space Center, a real Baldwin steam locomotive captured in the Great Smoky Mountains, and a recording made deep in a national forest demonstrating some of the most basic principles of sound. The audition CD examples included on the demonstration disc from chapter 15 are actual student and professional auditions.

The music CD that accompanies *Digital Radio Production* features twenty cuts of production music written especially for this text. What is so unique about these is that each selection has been written as a production exercise. Students are treated to a raw multitrack recording session in which they can edit, mix, and master over 100 new musical selections. Additionally, there are over 200 music loops for students to compose their own production music with on the music CD. Beginners to masters will find something on the music CD that excites their creativity.

Also included with the text is a fully operational trial version of Adobe Audition. Adobe Audition is one of the de facto standards of radio production adopted by some of the largest broadcast companies. Students get to work with this incredibly powerful digital audio software as a learning tool on their personal computers and to create projects outside of class, experimenting with up to 128 tracks.

Digital Radio Production, with its demonstration CD, music CD, and Adobe Audition, is a complete production package featuring the information and tools a student needs to become a successful production person. Additionally, there is a full complement of instructor and student ancillaries supporting this text, including a complete and online learning center, packed with additional resources, exercises, and self-study quizzes, at http://www.mhhe.com/connelly. Also available are the Instructor's Resource CD, and test banks.

Acknowledgments

In writing this first edition of *Digital Radio Production* as a brand new text, I'm grateful to have had the opportunity to start fresh, based on where the industry is now and where it is going.

When my wife and I both fell in love with the mountains of Western North Carolina and made the tough decision to change careers, there were so many terrific people who helped in our transition from the industry to academics. My sincere thanks are due Dr. Kathleen Wright at Western Carolina University. As the head of the communication department, she took a chance and gave me the opportunity to excel at the profession of teaching. I would also like to thank my faculty mentor, Dr. "Newt" Smith of Western's English department. When I told Newt I had been approached to write this text he looked me square in the eye and in his best North Carolina drawl said, "If you don't do this, I will kick your ____." People who know him will tell you he wasn't kidding.

Digital Radio Production is unique with its industry-leading digital audio software, audio demos, and music CD. Thanks are due to Hart Shafer of Adobe Audition for sharing my vision and love of production so that students can have the opportunity to work with one of the most powerful digital audio programs there is.

I have worked with a lot of great people in my broadcasting career and I would sincerely like to thank everyone who assisted me with this project. I would particularly like to thank Rick Green, general manager; Jim Underwood, general sales manager; Jim Poling, director of operations; and Frank Lovre, chief

engineer of Clear Channel Communications' Florida's Radio Networks, where I was affiliate relations director. Also, a big thanks to Dave Green, director of production services, and Mike Sprysenski, director of engineering, at Clear Channel Communications, Orlando.

I owe a special note of thanks to one of the best voices and imaging talents in the country, Jeff Laurence and his Autumn Hill Studios. Jeff's voice is heard on over 120 radio stations and, additionally, he is the voice of many national television commercials. Jeff provided valuable insight, help, and guidance in developing the chapter on promotion and station imaging.

Dr. Bruce H. Frazier is the Carol Grotnes Belk Distinguished Professor in Commercial and Electronic Music at Western Carolina University. Bruce is a good friend and an incredibly talented professional. The Academy of Television Arts and Science has twice recognized him for his contributions to dramatic underscore and sound mixing for television programs. He has also been nominated for several Emmys for his role as music editor on the TV series *Quantum Leap* and a Golden Reel nomination for his work on *JAG.* I am still amazed at how Bruce took my basic concept for music to accompany the text and created over twenty "musical exercises" for students to work with. My sincerest thanks go to Bruce for his contribution to this text.

Before taking on this project, the longest written work I had ever prepared was my master's thesis, many years ago. I learned so much working with Dr. John Slater, associate professor of communication at Western Carolina University. John is an accomplished writer and editor and deserves my deepest gratitude and a special recognition for serving as my non-industry reader/editor. John is an incredibly patient man and taught me that wordcrafting really is hard work. I will forever be grateful to him as a colleague and friend.

I would also like to extend my thanks to Lynn Distler, president, Comrex Corporation, and to Robert Eaton of Electro-Voice, who took the time to be interviewed for the text.

I also extend my gratitude to all of those who patiently reviewed this first edition. I truly appreciated their insight and the contributions that they made to the text. My thanks to:

Stephen Adams, Cameron University

Steve Buss, California State University,Sacramento

Vincent M. Ditingo, New York Institute of Technology

Dana Vance Elderkin, North Carolina State University

Karen Holp, The University of Oklahoma

Heather Hundley, California State University, San Bernardino

José M. Maunez-Cuadra, University of Central Florida

Patrick J. Piotrowski, The University of Texas at El Paso

David D. Sabaini, Indiana State University

and Stanley Sollars, Ball State University.

I want to extend my sincere thanks to Phil Butcher and the incredible team at McGraw-Hill including David Sutton and Chanda Feldman, production editors; Marcella Tullio and Françoise Villeneuve, editorial assistants; Leslie Oberhuber, marketing manager; Christie Ling, media producer, for her experienced guidance and help in bringing my vision for *Digital Radio Production* to life. I would like to extend my very special thanks to Laura Lynch,

who was my editor on the project and was always there with wisdom and advice when something came up.

Finally, I must express my deepest gratitude to my wife Debie for her incredible support during this project. I have worked a lot of odd hours in the radio business, but this project topped them all. For the last two years, most of my evenings and my spare time have been spent in front of a computer, writing the text and preparing the audio cuts. Debie's support and encouragement were invaluable. Now, with the publication of *Digital Radio Production,* she'll probably wonder who the stranger is finally joining her for dinner and an evening at home.