## Table of Contents

Part 1 Multimedia Overview: What It's All About
I Introduction to Multimedia
A What is Multimedia?
B A Concise History of Multimedia
1 Early Multimedia Computing
2 Hypermedia and Hypertext
C Combining Content from Various Media
D Linear vs. Interactive Multimedia
1 Linear Multimedia
2 Nonlinear Interactive Multimedia
3 Kinds of Multimedia
E Let's Get Technical
F Analog-to-Digital Evolution
II The Purpose and Application of Multimedia
A Benefits of Interactive Presentations
1 Avoiding Potential Pitfalls
B Uses of Multimedia
C Planning Stages and Development Process
1 Roles and Responsibilities of the Multimedia Team
2 Information Architecture
3 Copyright Issues: Securing Permission for Media Usage
D Tools Required for Creating and Preparing Media
E Making it Functional and Interactive

F Finalizing, Testing, and Delivering Multimedia

Part 2 Kinds Of Media: The Essential Components

III Graphics and Images

A Designing Vector Graphics

**B Creating Raster Images** 

1 Pixel-Based Displays

2 Working with Raster Graphics

C Scanning and Resolution

D Digital Photography

E Clip Art and Stock Images

F File Formats for Screen Display

G Color Theory: Pigment vs. Pixels

1 CMYK and the Subtractive Color Model

2 RGB and the Additive Color Model

3 Color for Digital Displays

IV Text and Typography

A Text Defined

1 Typing, Texting, and Emailing

B Words and Copywriting: How to Write Effective Content

C Typography

1 Fonts and Styles

a Serif vs. Sans Serif

2 Typographic Treatment: Designing with Type

3 Placement and Arrangement of Type

D Preparing Text for the Screen: Amount and Legibility/Readability

- 1 Type Sizes and Styles for the Screen
- 2 Screen vs. Print
- 3 Type on the Web
- **V** Animation
- A Animation in Multimedia
- 1 Functions of Moving Images
- 2 Advantages and Disadvantages of Animation
- 3 Interactive Animation
- 4 Kinds of Animation: Categorizing and Evaluating
- **B Traditional Animation Overview**
- 1 Principles of Animation
- C Concept Development and Storyboarding
- D Differences Between 2D and 3D Animation
- 1 2D Computer Animation: Frame-By-Frame and Tweening
- 2 3D Animation: Modeling, Ray Tracing, and Rendering
- E Animation Files and Formats
- VI Audio: Music and Sound Effects
- A Audio Fundamentals
- 1 Mechanics of Sound
- 2 Analog and Digital Audio
- B Recording vs. Importing Audio
- 1 Amplitude, Frequency, and Sampling Rates
- C MIDI and Digital Music
- D Editing and Manipulating Audio Tracks
- E Audio File Formats and Compression Schemes

- 1 Audio File Types
- 2 Storage Options
- F Using Sound in Multimedia Projects
- 1 Web Site Audio
- 2 Mobile Device Audio
- VII Video: Recording and Manipulating Moving Images
- A Video Mechanics
- B Video in Multimedia
- C Analog and Digital Video
- 1 Composite vs. Component Signals
- 2 Analog-to-Digital Conversion
- 3 Video Resolution
- D Shooting or Obtaining Video
- 1 Recording Raw Footage
- 2 Capturing Directly from TV
- 3 Importing Video to Computer
- 4 Acquiring Video Clips
- E Display Standards and Playback Options
- F Editing and Manipulating Video
- G Video File Formats and Compression Schemes
- 1 Video File Types
- 2 Storage and Memory
- H Using Video in Multimedia Projects
- VIII Authoring for Multimedia Functionality
- A Programming and Scripting to Create Interactive Environments

B Tools for Authoring
1 Tool Selection Considerations
2 Bandwidth for Web Projects
C Web Authoring with HTML
1 HTML Tags
2 JavaScript Programming
3 Web Page Formatting with CSS
4 Web Standards and Guidelines
D Interactive Design
1 Graphical User Interfaces
2 Screen Layout and Arrangement of Elements
Part 3 Tools For Creating Multimedia Projects: Hardware and Software Needed To Make It Happen
IX Hardware and Equipment Options
A Multimedia Project Equipment Setup
B Input Devices
1 Mice, Digitizing Tablets, and Trackpads
2 Keyboards
3 Scanners
4 Image and Motion Capture
5 Microphones
6 Touchscreens and Fingerprinting Technology
7 Digital Audio Recorders
C Output: Displays and Screens
1 Dual Monitors
2 Speakers and Headphones

D Data Storage 1 Internal Drives 2 External USB Drives and Large Capacity Hard Disks 3 Online and Networked Storage **E Computing Platforms** 1 Desktop Computers 2 Mobile Devices and Operating Systems X Software for Multimedia A Multimedia Software Options B Vector Graphics: Illustration and Line Art C Digital Imaging: Photography and Bitmapped Images 1 Screen Captures and Recordings D Page Layout and Typography E Animation and Motion Graphics F Audio and Video Recording and Editing G Authoring and Web Design H Presentations I Media Players Part 4 Multimedia End Products: Putting It All Together XI Multimedia Projects A Categorizing Multimedia Uses **B** Presentations C Video and Animation D Educational and Training Programs E Web Sites

F Apps and Mini Software Programs
G Video Games
H Noteworthy Gadgets and Devices
XII Delivery Systems
A Multimedia Product Maintenance
B Troubleshooting and User-testing
C Disk vs. Web Preparation
D Presentation Options
1 Portable or Permanent Displays
2 Kiosks
3 Projection
4 Multiple Screens
5 Interactive Whiteboards
6 Touch Screen TVs and Handheld Devices
7 E-Readers
8 Video Game Consoles
E Delivering Multimedia
Final Exam
Web Resources
Index