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Nota di contenuto	Cover; Computational Thinking in Sound Teaching the Art and Science of Music and Technology; Copyright; Dedication; CONTENTS; ACKNOWLEDGMENTS; PREFACE; THINKING AND TEACHING BEYOND OUR DISCIPLINE-SPECIFIC SILOS; HELPING STUDENTS LEARN ABOUT TECHNOLOGY THROUGH THEIR INTERACTIONS WITH MUSIC; HELPING STUDENTS SEE THE CONNECTION BETWEEN TECHNOLOGY AND MUSIC; TODAY'S COMPLEX PROBLEMS REQUIRE MULTIDISCIPLINARY SOLUTIONS; COMPUTATIONAL THINKING FOR EVERYON; BIBLIOGRAPHY; ABOUT THE COMPANION WEBSITE; Computational Thinking in Sound Chapter 1: Computational Thinking in Music Courses: How to Get Artsy Types to Start Thinking like Geeks and Vice VersaWHAT IS COMPUTATIONAL THINKING?; OPERATIONALIZING COMPUTATIONAL THINKING; A First Activity to Introduce CT; COMPUTATIONAL THINKING IN MUSICAL FLOWCHARTS; Chunking and Connecting; STUDENT EXAMPLES; LOOKING AHEAD; BIBLIOGRAPHY; Chapter 2: Imagination and Creativity: The School-Based Paradox; WHO IS CREATIVE AND WHY DOES IT MATTER?; THE WHAT AND WHY OF EDUCATION; A BIT OF BACKGROUND

BUILDING A BETTER MOUSETRAP: LEARNING ENVIRONMENTS THAT FOSTER IMAGINATIVE AND CREATIVE EXPERIENCES  
TOWARD CREATING MEANINGFUL PROJECTS; Playful and Fun; Collaboration; Exploration and Discovery; Risk Taking and Curiosity; THE YIN AND YANG OF CREATIVITY AND THE COLLABORATIVE PROCESS; BIBLIOGRAPHY;  
Chapter 3: Interdisciplinary Teaching and Learning: Two Heads Might Actually Be Better than One; YESTERDAY AND TODAY; DEFINING INTERDISCIPLINARY TEACHING; "SYNCHRONIZED" VERSUS "HYBRID" COURSES; LEARNING FROM EXPERIENCE; BENEFITS TO STUDENTS; BENEFITS TO THE PROFESSORS; BIBLIOGRAPHY  
Chapter 4: Notation and Representation: How We Get 'Em to Crack the Code  
GATEWAYS, BARRIERS, AND BOUNDARIES; FOUND INSTRUMENTS PROJECT: GOALS AND OVERVIEW; A BIT OF BACKGROUND; SYNCHRONIZED CLASS VERSION; Part 1: The Music Assignment; Part 2: The Computer Science Assignment; HYBRID CLASS VERSION; From Two Parts to Three; From Exercises to Music; THEME, VARIATIONS, AND COMPUTATIONAL THINKING; BIBLIOGRAPHY; Appendix for Chapter 4; ADDITIONAL FOUND INSTRUMENTS AND NOTATION EXAMPLES: From the Synchronized Classes; From the Hybrid Class  
Chapter 5: Getting Them Started I Didn't Know You Could Do That with a Computer  
JUST WHAT IS A COMPUTER, ANYWAY?; AUDACITY: THE STANDARD IN FREE MUSIC EDITING; GETTING MUSIC INTO AND OUT OF AUDACITY; GAINING COMPUTATIONAL THINKING SKILLS THROUGH AUDACITY; HOW COULD YOU HAVE THE AUDACITY TO DO THAT TO MY SONG?!?; AN EXAMPLE FROM OUR COURSE: THE AUDIO-ETHNOGRAPHY PROJECT; THE VALUE OF PERFORMANCE; APPENDIX; Downloading and Installing Audacity with the LAME MP3 Encoder; BIBLIOGRAPHY; Chapter 6: Platforms and Tools: Anything You Can Do, I Need to Do Cheaper; GETTING INTO THE GAME; SOUND EDITING  
Audacity

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Sommario/riassunto

This text, for music fundamentals educators, is devoted specifically to music, sound, and technology. The work offers practical guidance on creating an interdisciplinary classroom program, and includes numerous student activities at the intersection of computing and music.

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