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Nota di contenuto	Acknowledgements Foreword Contributor List Preface 1. Activism! Toward a more radical science and technology education, Steve Alsop and Larry Bencze Part I: Constituting Theories Preamble, Steve Alsop and Larry Bencze 2. The elephant in the room: Science education, neoliberalism and resistance, Lyn Carter 3. Science education as a site for biopolitical engagement and the reworking of subjectivities, Jesse Bazzul 4. A Critical Pedagogy for STEM Education, Arturo Rodriguez 5. Becoming part of the solution: Learning about activism, learning through activism, learning from activism, Derek Hodson 6. From promoting the techno-sciences to activism: A variety of stakes involved in the teaching of SSIs, Laurence Simonneaux 7. Hopeful practices: Activating and enacting the pedagogical and political potential in crisis, Rebecca Houwer 8. Using collaborative inquiry to better understand teaching and learning, Ken Tobin 9. From knowledge to action?: Re-embedding science learning within the planet's web, Laura Colucci-Gray and Elena Camino 10. Education for sustainable contraction as appropriate response to global heating, David Selby 11. Learning to let go of sustainability, David Blades and Janet Newbury Part II: The Public Sphere Preamble, Steve Alsop and Larry Bencze 12. Street medicine as a

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science education for activists, Matthew Weinstein -- 13. Why science education mediates the way we eat, Michael Mueller -- 14. Fromwithin-the-event: A post-constructivist perspective on activism, ethics, and science education, Wolff-Michael Roth -- 15. #OccupyTech, Kate Milberry -- 16. Trajectories of socio-scientific issues in news media: Looking into the future, Michael Bowen -- 17. The perils, politics, and promises of activist science, Bernhard Isopp -- 18. Passive no more, Leo Elshof -- 19. Joining up and scaling up: analyzing resistance to Canada's "dirty oil", Randolph Haluza-DeLay and Angela V. Carter --Part III: Elementary and Secondary Education -- Preamble, Larry Bencze and Steve Alsop -- 20. We got involved and we got to fix it!: Actionoriented school science, Erin Sperling, Terry Wilkinson and Larry Bencze -- 21. Undermining neo-liberal orthodoxies in school science: Telling the story of aluminium, Ralph Levinson -- 22. Preparing students for self-directed research-informed actions on socioscientific issues, Mirjan Krstovic -- 23. Activism in science and environmental education: Renewing conceptions about science among students when considering socioscientific issues, Barbara Bader and Yves Laberge -- 24. Utilizing social media to increase student-led activism on STSE issues, Brandon Zoras and Larry Bencze -- 25. Developing an 'activist mentality' in an environmental science course, Erica Blatt -- 26. Responsible stewards of the earth: Narratives of youth activism in high school (science), Ashley Kerckhoff and Giuliano Reis -- 27. Climate change and citizen science: Early reflections on long-term ecological monitoring projects in Southern Ontario, Ana Maria Martinez and Steve Alsop -- 28. "It changed our lives": Activism, science, and greening the club/community, Angela Calabrese Barton and Edna Tan -- Part IV: Post-secondary Education -- Preamble, Larry Bencze and Steve Alsop -- 29. Citizens as concerned but knowledge-poor watchdogs: Attributions of legitimacy to social actors in the management of biotechnology issues, Chantal Pouliot -- 30. Transformative learning in science education: Investigating pedagogy for action, Lyn Carter, Carolina Castano and Mellita Jones -- 31. Promoting students' collective socio-scientific activism: Teachers' perspectives, Pedro Reis -- 32. Counter cultural hegemony: Student teachers' experiences implementing STSE-activism. Darren Hoeg and Larry Bencze -- 33. Implementing practical pedagogical strategies for the widespread adoption of renewable energy, Jose Etcheverry -- Afterword, Larry Bencze and Steve Alsop -- 34. Toward technoscience education for healthier networks of being. This collection examines issues of agency, power, politics and identity as they relate to science and technology and education, within contemporary settings. Social, economic and ecological critique and reform are examined by numerous contributing authors, from a range of international contexts. These chapters examine pressing pedagogical questions within socio-scientific contexts, including petroleum economies, food justice, health, environmentalism, climate change, social media and biotechnologies. Readers will discover far reaching inquiries into activism as an open question for science and

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technology education, citizenship and democracy. The authors call on the work of prominent scholars throughout the ages, including Bourdieu, Foucault, Giroux, Jasanoff, Kierkegaard, Marx, Nietzsche, Ranciere and Žižek. The application of critical theoretical scholarship to mainstream practices in science and technology education distinguishes this book, and this deep, theoretical treatment is complemented by many grounded, more pragmatic exemplars of activist pedagogies. Practical examples are set within the public sphere, within selected new social movements, and also within more formal

institutional settings, including elementary and secondary schools, and higher education. These assembled discussions provide a basis for a more radically reflexive reworking of science and technology education. Educational policy makers, science education scholars, and science and technology educators, amongst others, will find this work thoughtprovoking, instructive and informative.