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Descrizione fisica	1 online resource (IX, 205 p. 49 illus., 40 illus. in color.)
Disciplina	507.1
Soggetti	Science education Physics Computational complexity Neural networks (Computer science) Computer organization Social structure Equality Science Education Applications of Graph Theory and Complex Networks Complexity Mathematical Models of Cognitive Processes and Neural Networks Computer Systems Organization and Communication Networks Social Structure, Social Inequality
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Secondary Student Mentorship and Research in Complex Networks: opportunities and challenges -- Network Science PhD Program -- Network Science, Neuroimaging and the Effects of Music on the Brain: An interdisciplinary approach to introducing network science techniques to undergraduate and pre-college students in a public school community-based university partnership -- Discovering Complex Networks Through Project-Based Learning -- Network Visualization Literacy: Novel approaches to measurement and

instruction -- The Project: NetSci in your pocket -- Comparison of Curricular Contents and Structures Across Network Science Courses -- Pay, Position, and Partnership: The relationship between salary and sharing in a district leadership team -- The Imaginary Board of Directors: A resource for introducing network theory and practice -- Building the Foundation of Network Science Education at the Undergraduate Level -- Network Science in K-16 Practice and Policy -- MovieGalaxies: Hands-on tools for effective learning.

Sommario/riassunto

Around the globe, there is an increasingly urgent need to provide opportunities for lifelong learners to embrace complexity; to develop the many skills and habits of mind relevant to today’s complex and interconnected world; and to make learning more connected to our rapidly changing workplace and society. This presents an opportunity, not only to leverage new paradigms for understanding the structure and function of teaching and learning communities, but also for promoting new approaches to developing methods, curricular materials, and resources. Network science — the study of connectivity — can play an important role in these activities, both as an important subject in teaching and learning and as a way to develop interconnected curricula. Since 2010, an international community of network science researchers and educators has come together to raise the global level of network literacy by applying ideas from network science to teaching and learning. Network Science in Education - which refers to both this community and its activities - has evolved in response to escalating activity in the field of network science and the need for all people to be able to access the field through education channels. Network Science In Education: Transformational Approaches in Teaching and Learning offers case studies from the wide variety of activities that have been developed around the globe to address this need: the creation of entirely new courses and degree programs; tools for K–20 learners, teachers and the general public; and in-depth analysis of selected education networks. As network-based pedagogy and the community of practice continues to grow, we hope that the book’s readers will join this vibrant network education community in order to build on these nascent ideas and to help deepen the understanding of networks for all learners. .