1.

Record Nr.	UNINA9910731477303321
Autore	Gumbo Mishack T
Titolo	Indigenous Technology Knowledge Systems : Decolonizing the Technology Education Curriculum / / edited by Mishack T. Gumbo, P. John Williams
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	9789819913961 9819913969
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (340 pages)
Collana	Contemporary Issues in Technology Education, , 2510-0335
Altri autori (Persone)	WilliamsP. John
Disciplina	500.89
Soggetti	Technical education Educational sociology Education - Curricula Teachers - Training of Engineering and Technology Education Sociology of Education Curriculum Studies Teaching and Teacher Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I. Making a case for indigenous technology -- 1. The leapfrogging effect of the Fourth Industrial Revolution on indigenous technology: Implications for Technology Education -- 2. Making a case for Indigenous Technological Knowledge Systems Education (ITKSE) – A STEAM Perspective -- 3 -- Engineering knowledge as indigenous knowledge -- 4. Building Modern Technology Innovation on Indigenous Knowledge Systems in Technology Education -- 5. Creating the value of Indigenous Knowledge and Technologies in Technology Education Curriculum through Intellectual Property Rights -- Part II. The cultural foundations of indigenous technology -- 6. Indigenous Technological Knowledge Systems Education: Technology Education in a Swedish Sámi School -- 7. Toys, Design and Technology: Intergenerational connects and embodied cultural practices -- 8. Indigenous knowledge and technology embodied in the Ogiek's ethnic dress: Implications for

sustainable design education and practice -- 9. Hindu Temples and Vastushastra Technology Education.

| Sommario/riassunto | There has been a growing interest in indigenous knowledge systems and research. This interest has been mainly triggered by the need to decolonize education as a response to the colonial onslaught on indigenous knowledge and people. Research has, however, concentrated on the generality of the indigenous knowledge system rather than on its related dimensions. One area that has suffered a lack of attention is indigenous conceptions of science, technology, engineering, and mathematics (STEM) despite the unquestionable evidence of STEM in indigenous contexts. Most STEM is presented by colonial establishments and representations, especially in developed/modern/urban contexts, which portray STEM as a colonial construct. This book focuses on indigenous technological knowledge systems education (ITKSE). Indigenous people have been at the front of technological developments from pre-colonial times. The list of precolonial industries, science, and technology is extensive, including blacksmithing, wood-carving, textile-weaving and dyeing, leather works, beadworks, pottery making, architecture, agricultural breeding, metal-working, salt production, gold-smithing, copper-smithing, leather-crafting, soap-making, bronze-casting, canoe-building, brewing, glass-making, and agriculture, for example. In some parts of the world such as Africa and Australia, these technologies still exist. ITKSE should not be left to exist outside of the technology education curriculum and classroom as it can benefit both indigenous students, who have been denied learning about what is relevant to them, and non-indigenous students. These cultural groups can expand their knowledge of technology by learning both ITKSE and Western technological knowledge systems education (WTKSE). ITKSE also presents opportunities for technology teachers to reflect on and revisit their depth of technological knowledge, pedagogies, and assessment. The intent of this book is transformational in the sense that it brings decolonial and indigenous perspectives into the technology education context. It extends technology education in the sense that it will not only influence Western-minded architects, artisans, designers, etc. but encourage indigenous-mindedness as well. |