

1. Record Nr.	UNINA9910595026303321
Titolo	Biomedical Visualisation [[electronic resource]] : Volume 12 The Importance of Context in Image-Making // edited by Leonard Shapiro, Paul M. Rea
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-10889-2
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (195 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1388
Disciplina	170
Soggetti	Anatomy Medical education Medicine - Research Biology - Research Education - Data processing Information visualization Medical Education Biomedical Research Computers and Education Data and Information Visualization Enginyeria biomèdica Biotecnologia Visualització tridimensional Imatges mèdiques Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Part I. Exciting Data and Representation -- Chapter 1. A Multimodal Social Semiotics Perspective on Teaching and Learning Using Biomedical Visualisations -- Chapter 2. Reasons for Knocking at an Empty House: Visualisation, Representation and Dissemination of Health-Related Public Engagement Media -- Chapter 3. The Evolution of Scientific Visualisations: A Case Study Approach to Big Data for

Varied Audiences -- Part II. Biomedical Education: Theory and Practice -- Chapter 4. The Affordances of Visual Modes in Pedagogy on the Physics of Motion in Physiotherapy Education -- Part III. Making 3D -- Chapter 5. Mitochondria to Bitter Melon: Understanding the 3D Ultrastructure of the Cell via 2D Thin Section Reconstruction and the History of Mitochondrial Visualization -- Chapter 6. Using Molecular Visualisation Techniques to Explain the Molecular Biology of SARS-CoV-2 Spike Protein Mutations to a General Audience -- Chapter 7. Student-Perceived Value on the Use of Clay Modelling in Undergraduate Clinical Anatomy -- Part IV. Ethical Considerations -- Chapter 8. Advances in Digital Technology in Teaching Human Anatomy: Ethical Predicaments.

Sommario/riassunto

This image-rich book explores the practice as well as the theory of visual representation and presents us with the importance of designing appropriate images for communication to specific target audiences. This includes the appropriate choice of high-tech digital or low-tech analogue technologies in image-making for communication within the medical education, biological research and community health contexts. We hear from medical students about the value of using clay modelling in their understanding of anatomy, from educators and curriculum designers about visual affordances in medical education and from a community-driven project in South Africa about their innovative use of locally designed images and culture-specific narratives for communicating important health information to marginalised communities. A chapter explores the evolution of scientific visualisation and representation of big data to a variety of audiences, and another presents the innovative 3D construction of internal cellular structures from microscopic 2D slices. As we embrace blended learning in anatomy education, a timely chapter prompts us to think further about and contribute to the ongoing discourse around important ethical considerations in the use and sharing of digital images of body donors. This book will appeal to educators, medical illustrators, curriculum designers, post-graduate students, community health practitioners and biomedical researchers.
