

ANATOMY TEACHING MODELS

ANATOMY TEACHING MODELS PLAY A CRUCIAL ROLE IN THE EDUCATION OF STUDENTS IN THE MEDICAL AND BIOLOGICAL SCIENCES. THESE MODELS PROVIDE A TANGIBLE REPRESENTATION OF COMPLEX ANATOMICAL STRUCTURES, ENHANCING UNDERSTANDING AND RETENTION OF KNOWLEDGE. WITH THE RISE OF INNOVATIVE TECHNOLOGIES, ANATOMY TEACHING MODELS HAVE EVOLVED SIGNIFICANTLY, OFFERING VARIOUS TYPES, INCLUDING 3D PRINTED MODELS, VIRTUAL REALITY SIMULATIONS, AND TRADITIONAL PHYSICAL MODELS. THIS ARTICLE WILL DELVE INTO THE DIFFERENT TYPES OF ANATOMY TEACHING MODELS AVAILABLE, THEIR BENEFITS IN EDUCATIONAL SETTINGS, CONSIDERATIONS FOR SELECTION, AND FUTURE TRENDS IN THEIR DEVELOPMENT.

- INTRODUCTION TO ANATOMY TEACHING MODELS
- TYPES OF ANATOMY TEACHING MODELS
- BENEFITS OF USING ANATOMY TEACHING MODELS
- CONSIDERATIONS FOR SELECTING ANATOMY TEACHING MODELS
- FUTURE TRENDS IN ANATOMY TEACHING MODELS
- CONCLUSION
- FAQs

TYPES OF ANATOMY TEACHING MODELS

ANATOMY TEACHING MODELS COME IN VARIOUS FORMS, EACH DESIGNED TO MEET SPECIFIC EDUCATIONAL NEEDS. UNDERSTANDING THESE TYPES IS ESSENTIAL FOR EDUCATORS AND STUDENTS ALIKE.

PHYSICAL MODELS

PHYSICAL ANATOMY MODELS ARE THREE-DIMENSIONAL REPRESENTATIONS MADE FROM MATERIALS SUCH AS PLASTIC, RESIN, OR RUBBER. THESE MODELS OFTEN DEPICT VARIOUS SYSTEMS OF THE BODY, INCLUDING THE SKELETAL, MUSCULAR, AND ORGAN SYSTEMS. THEY PROVIDE A HANDS-ON LEARNING EXPERIENCE, ALLOWING STUDENTS TO PHYSICALLY MANIPULATE STRUCTURES. COMMON TYPES OF PHYSICAL MODELS INCLUDE:

- SKELETON MODELS
- MUSCLE MODELS
- ORGAN MODELS
- EMBRYOLOGY MODELS

EACH OF THESE MODELS SERVES A DISTINCT PURPOSE, AIDING IN THE VISUALIZATION OF ANATOMY IN A TANGIBLE WAY.

DIGITAL MODELS

DIGITAL ANATOMY MODELS ENCOMPASS A RANGE OF TECHNOLOGICAL ADVANCEMENTS, INCLUDING 3D SIMULATIONS AND VIRTUAL REALITY. THESE MODELS OFFER INTERACTIVE LEARNING EXPERIENCES, ALLOWING STUDENTS TO EXPLORE ANATOMY

FROM MULTIPLE ANGLES AND DISSECT VIRTUALLY. SUCH MODELS ARE INCREASINGLY BEING INTEGRATED INTO MEDICAL CURRICULA FOR THEIR ENGAGING AND IMMERSIVE PROPERTIES.

3D PRINTED MODELS

THE ADVENT OF 3D PRINTING TECHNOLOGY HAS REVOLUTIONIZED ANATOMY TEACHING. 3D PRINTED MODELS CAN BE CUSTOMIZED TO MEET SPECIFIC EDUCATIONAL NEEDS, PROVIDING UNIQUE ADVANTAGES, SUCH AS:

- TAILORED ANATOMICAL STRUCTURES
- COST-EFFECTIVE PRODUCTION
- HIGH LEVELS OF DETAIL
- LIGHTWEIGHT AND PORTABLE OPTIONS

EDUCATORS CAN DESIGN MODELS THAT REFLECT REAL PATIENT ANATOMY, ENHANCING THE RELEVANCE OF THE LEARNING EXPERIENCE.

BENEFITS OF USING ANATOMY TEACHING MODELS

THE INTEGRATION OF ANATOMY TEACHING MODELS INTO EDUCATIONAL PROGRAMS OFFERS NUMEROUS ADVANTAGES THAT CAN SIGNIFICANTLY IMPROVE LEARNING OUTCOMES.

ENHANCED UNDERSTANDING

ANATOMY TEACHING MODELS FACILITATE A DEEPER UNDERSTANDING OF COMPLEX STRUCTURES BY PROVIDING VISUAL AND TACTILE EXPERIENCES. STUDENTS CAN OBSERVE THE RELATIONSHIPS BETWEEN DIFFERENT ANATOMICAL PARTS, LEADING TO IMPROVED COMPREHENSION OF SPATIAL ARRANGEMENTS.

IMPROVED RETENTION

STUDIES HAVE SHOWN THAT HANDS-ON LEARNING EXPERIENCES LEAD TO BETTER RETENTION OF INFORMATION. BY ENGAGING WITH PHYSICAL MODELS OR INTERACTIVE DIGITAL MODELS, STUDENTS ARE MORE LIKELY TO REMEMBER ANATOMICAL DETAILS AND CONCEPTS.

SUPPORT FOR DIVERSE LEARNING STYLES

NOT ALL STUDENTS LEARN IN THE SAME WAY; SOME MAY BENEFIT FROM VISUAL AIDS, WHILE OTHERS MAY REQUIRE KINESTHETIC EXPERIENCES. ANATOMY TEACHING MODELS CATER TO VARIOUS LEARNING PREFERENCES, MAKING THE SUBJECT MORE ACCESSIBLE TO A BROADER AUDIENCE.

CONSIDERATIONS FOR SELECTING ANATOMY TEACHING MODELS

WHEN CHOOSING ANATOMY TEACHING MODELS, SEVERAL FACTORS SHOULD BE TAKEN INTO ACCOUNT TO ENSURE THAT THEY MEET THE EDUCATIONAL OBJECTIVES EFFECTIVELY.

EDUCATIONAL GOALS

CLEARLY DEFINE THE EDUCATIONAL GOALS AND OBJECTIVES FOR THE ANATOMY COURSE. DIFFERENT MODELS SERVE DIFFERENT PURPOSES, SO ENSURE THAT THE SELECTED MODELS ALIGN WITH THE LEARNING OUTCOMES.

QUALITY AND DETAIL

THE QUALITY OF THE MODELS IS PARAMOUNT. HIGH-QUALITY MODELS SHOULD PROVIDE ACCURATE REPRESENTATIONS OF ANATOMICAL STRUCTURES WITH SUFFICIENT DETAIL. THIS ACCURACY IS CRUCIAL FOR MEDICAL EDUCATION, WHERE PRECISION IS ESSENTIAL.

BUDGET CONSTRAINTS

COSTS CAN VARY SIGNIFICANTLY DEPENDING ON THE TYPE OF MODEL. PHYSICAL MODELS MAY BE LESS EXPENSIVE THAN HIGH-TECH DIGITAL SOLUTIONS, BUT INVESTING IN QUALITY MODELS CAN PAY OFF IN THE LONG RUN WITH ENHANCED EDUCATIONAL OUTCOMES.

FUTURE TRENDS IN ANATOMY TEACHING MODELS

AS EDUCATION AND TECHNOLOGY CONTINUE TO EVOLVE, THE FUTURE OF ANATOMY TEACHING MODELS LOOKS PROMISING. SEVERAL TRENDS ARE SHAPING THE LANDSCAPE OF ANATOMICAL EDUCATION.

INTEGRATION OF AUGMENTED REALITY

AUGMENTED REALITY (AR) IS POISED TO ENHANCE ANATOMY EDUCATION BY OVERLAYING DIGITAL INFORMATION ONTO PHYSICAL MODELS. THIS TECHNOLOGY ENABLES STUDENTS TO VISUALIZE ANATOMICAL STRUCTURES IN REAL-TIME, PROVIDING AN INTERACTIVE AND ENGAGING LEARNING EXPERIENCE.

INCREASED USE OF ARTIFICIAL INTELLIGENCE

ARTIFICIAL INTELLIGENCE CAN PERSONALIZE LEARNING EXPERIENCES BY ADAPTING CONTENT TO MEET INDIVIDUAL STUDENT NEEDS. AI-DRIVEN ANATOMY MODELS CAN OFFER TAILORED QUIZZES, SIMULATIONS, AND FEEDBACK BASED ON STUDENT PERFORMANCE.

COLLABORATIVE LEARNING ENVIRONMENTS

FUTURE ANATOMY TEACHING WILL LIKELY EMPHASIZE COLLABORATIVE LEARNING, ENCOURAGING GROUP WORK AND PEER-TO-PEER TEACHING. MODELS THAT FACILITATE TEAMWORK AND DISCUSSION WILL BECOME INCREASINGLY VALUABLE IN EDUCATIONAL SETTINGS.

CONCLUSION

ANATOMY TEACHING MODELS ARE INDISPENSABLE TOOLS IN THE FIELD OF MEDICAL EDUCATION, OFFERING A DIVERSE ARRAY OF RESOURCES THAT ENHANCE LEARNING AND COMPREHENSION. WITH ADVANCEMENTS IN TECHNOLOGY AND A GROWING UNDERSTANDING OF EDUCATIONAL NEEDS, THE FUTURE OF ANATOMY TEACHING MODELS PROMISES EVEN GREATER INNOVATIONS. AS EDUCATORS CONSIDER THE INTEGRATION OF THESE MODELS INTO THEIR CURRICULA, THEY WILL FIND THAT QUALITY, ENGAGEMENT, AND ADAPTABILITY ARE KEY TO FOSTERING EFFECTIVE LEARNING ENVIRONMENTS.

Q: WHAT ARE ANATOMY TEACHING MODELS?

A: ANATOMY TEACHING MODELS ARE PHYSICAL OR DIGITAL REPRESENTATIONS OF ANATOMICAL STRUCTURES USED IN EDUCATIONAL SETTINGS TO ENHANCE THE UNDERSTANDING OF HUMAN ANATOMY.

Q: WHAT TYPES OF ANATOMY TEACHING MODELS ARE AVAILABLE?

A: AVAILABLE TYPES OF ANATOMY TEACHING MODELS INCLUDE PHYSICAL MODELS (SUCH AS SKELETONS AND ORGANS), DIGITAL MODELS (LIKE 3D SIMULATIONS), AND 3D PRINTED MODELS THAT CAN BE TAILORED TO SPECIFIC EDUCATIONAL NEEDS.

Q: HOW DO ANATOMY TEACHING MODELS BENEFIT STUDENTS?

A: ANATOMY TEACHING MODELS BENEFIT STUDENTS BY PROVIDING ENHANCED UNDERSTANDING AND RETENTION, SUPPORTING DIVERSE LEARNING STYLES, AND OFFERING HANDS-ON EXPERIENCES THAT MAKE LEARNING MORE ENGAGING.

Q: WHAT SHOULD EDUCATORS CONSIDER WHEN SELECTING ANATOMY TEACHING MODELS?

A: EDUCATORS SHOULD CONSIDER EDUCATIONAL GOALS, THE QUALITY AND DETAIL OF THE MODELS, AND BUDGET CONSTRAINTS WHEN SELECTING ANATOMY TEACHING MODELS FOR THEIR COURSES.

Q: WHAT ARE THE FUTURE TRENDS IN ANATOMY TEACHING MODELS?

A: FUTURE TRENDS INCLUDE THE INTEGRATION OF AUGMENTED REALITY, INCREASED USE OF ARTIFICIAL INTELLIGENCE FOR PERSONALIZED LEARNING, AND THE PROMOTION OF COLLABORATIVE LEARNING ENVIRONMENTS IN ANATOMY EDUCATION.

Q: ARE DIGITAL MODELS MORE EFFECTIVE THAN PHYSICAL MODELS?

A: THE EFFECTIVENESS OF DIGITAL VERSUS PHYSICAL MODELS DEPENDS ON THE LEARNING OBJECTIVES AND THE PREFERENCES OF THE STUDENTS. BOTH TYPES HAVE UNIQUE ADVANTAGES, AND A COMBINATION OF BOTH MAY PROVIDE THE BEST EDUCATIONAL OUTCOMES.

Q: CAN ANATOMY TEACHING MODELS BE USED IN FIELDS OUTSIDE OF MEDICINE?

A: YES, ANATOMY TEACHING MODELS CAN BE USED IN VARIOUS FIELDS, INCLUDING BIOLOGY, SPORTS SCIENCE, AND KINESIOLOGY, WHERE UNDERSTANDING HUMAN ANATOMY IS ESSENTIAL.

Q: HOW DO 3D PRINTED MODELS ENHANCE ANATOMY EDUCATION?

A: 3D PRINTED MODELS ENHANCE ANATOMY EDUCATION BY ALLOWING FOR CUSTOMIZED DESIGNS, HIGH LEVELS OF DETAIL, AND COST-EFFECTIVE PRODUCTION, MAKING IT EASIER FOR STUDENTS TO ENGAGE WITH REAL-LIFE ANATOMICAL VARIATIONS.

Q: WHAT IS THE ROLE OF TECHNOLOGY IN MODERN ANATOMY TEACHING?

A: TECHNOLOGY PLAYS A SIGNIFICANT ROLE IN MODERN ANATOMY TEACHING BY PROVIDING INNOVATIVE TOOLS SUCH AS DIGITAL MODELS, VIRTUAL REALITY, AND AUGMENTED REALITY, WHICH CREATE IMMERSIVE AND INTERACTIVE LEARNING EXPERIENCES.

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anatomy teaching models: *Biomedical Visualisation* Paul M. Rea, 2019-03-27 This edited volume explores the use of technology to enable us to visualise the life sciences in a more meaningful and engaging way. It will enable those interested in visualisation techniques to gain a better understanding of the applications that can be used in imaging and analysis, education, engagement and training. The reader will be able to explore the utilisation of technologies from a number of fields to enable an engaging and meaningful visual representation of the life sciences. This use of technology-enhanced learning will be of benefit for the learner, trainer, in patient care and the wider field of education and engagement. By examining a range of techniques in image capture (photogrammetry, stereophotogrammetry, microphotogrammetry and autostereoscopy), this book will showcase the wide range of tools we can use. Researchers in this field will be able to find something suitable to apply to their work to enhance user engagement through improved visual means using the technologies we have available to us today. It will highlight the uses of these technologies to examine many aspects of the human body, and enable improved ways to enhance visual and tactile learning, including 3D printing. By demonstrating co-design processes, working directly with the end-stage users (including patients), it will also highlight successes in adopting tools like hand motion tracking rehabilitation for patients with conditions like multiple sclerosis. The book will also discuss the applications of immersive environments including virtual, augmented and mixed reality. The ultimate aim is to show how, by using these tools, we can enhance communication, mobile applications, health literacy and illustration of both normal and pathological processes in the body. By applying a wide range of tools and technologies, this volume will highlight the wide range of applications in education, training and learning both for students and faculty, but also for patient care and education. Therefore, the work presented here can be accessed by a wide range of users from faculty and students involved in the design and development of these processes, by examining the pedagogy around these technologies. Importantly, it presents material, which will be of benefit for the patient, engaging them to become more involved with techniques like physiotherapy.

anatomy teaching models: *Biomedical Visualisation* Dongmei Cui, Edgar R. Meyer, Paul M. Rea, 2023-08-30 Curricula in the health sciences have undergone significant change and reform in recent years. The time allocated to anatomical education in medical, osteopathic medical, and other health professional programs has largely decreased. As a result, educators are seeking effective teaching tools and useful technology in their classroom learning. This edited book explores advances in anatomical sciences education, such as teaching methods, integration of systems-based components, course design and implementation, assessments, effective learning strategies in and outside the learning environment, and novel approaches to active learning in and outside the laboratory and classroom. Many of these advances involve computer-based technologies. These technologies include virtual reality, augmented reality, mixed reality, digital dissection tables, digital anatomy apps, three-dimensional (3D) printed models, imaging and 3D reconstruction, virtual microscopy, online teaching platforms, tablet computers and video recording devices, software programs, and other innovations. Any of these devices and modalities can be used to develop large-class practical guides, small-group tutorials, peer teaching and assessment sessions, and various products and pathways for guided and self-directed learning. The reader will be able to explore useful information pertaining to a variety of topics incorporating these advances in

anatomical sciences education. The book will begin with the exploration of a novel approach to teaching dissection-based anatomy in the context of organ systems and functional compartments, and it will continue with topics ranging from teaching methods and instructional strategies to developing content and guides for selecting effective visualization technologies, especially in lieu of the recent and residual effects of the COVID-19 pandemic. Overall, the book covers several anatomical disciplines, including microscopic anatomy/histology, developmental anatomy/embryology, gross anatomy, neuroanatomy, radiological imaging, and integrations of clinical correlations.

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This edited book explores digital visualization as a tool to communicate complex and often challenging biomedical content in an accessible and engaging way. The reader will learn how current visualization technology can be applied to a wide range of biomedical fields to benefit the learning of students and enhance the public understanding of science. The focus of this volume will be on the innovative use of digital visualization (2D or 3D) in biomedical education and public engagement. This includes medical imaging (i.e., magnetic resonance imaging and computed tomography) as well as other digital imaging techniques such as laser scanning. It also covers the use of state-of-the-art visualization tools (i.e., augmented and virtual reality, animations and 3D printing) and the integration of 3D models of anatomical structures into serious computer games. This book will appeal to educators, researchers and students in life science subjects as well as to healthcare professionals and designers of digital learning resources. The book will be a source of inspiration for any reader who is interested in using digital visualization as a meaningful and engaging communication tool for biomedical content, ranging from the anatomy and function of organs to the mechanisms of diseases and their prevention.

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2021-08-11 Virtual Reality in Higher Education: Instruction for the Digital Age brings to the foreground how Virtual Reality, using headsets in educational and training programs, is already beginning to be used in higher education. The book is the result of research to determine where and how virtual reality is being used in higher education, recruitment, and athletics. The book cites specific examples and methods used in teaching, training, and recruitment that would be of interest to faculty and administrators in community colleges and universities. The book is written to help faculty to understand the potential of VR for education, administrators to see possibilities for student recruitment, and athletic directors and sports program coaches to determine the advantage of new avenues for successful training. It is critical that faculty and administrators investigate the potential of VR for teaching, learning, recruitment, and athletics. This technology provides an immersive method that could create serious changes in how faculty teach, students learn, institutions recruit, and athletic programs train.

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Learning, and Practice Marcos-Pablos, Samuel, Juanes-Méndez, Juan Antonio, 2022-02-11 The use of technology in health sciences has a direct impact on health outcomes, as well as on the quality and the safety of healthcare processes. In addition, the use of new technological developments in medical education has proven to be greatly effective and creates realistic learning environments to experience procedures and devices that will become common in medical practice. However, bringing new technologies into the health sector is a complex task, which is why a comprehensive vision of the health sciences ecosystem (encompassing many different areas of research) is vital.

Technological Adoption and Trends in Health Sciences Teaching, Learning, and Practice obtains an overview of the technological trends within the health sciences ecosystem, identifies the strengths and weaknesses of the research presented to date, and depicts possible future research directions within health science education and practice. Covering topics such as artificial intelligence and online laboratories, it is ideal for health sciences educators and practitioners, technological solution providers, health organizations, health and care workers, regulators, governing bodies, researchers,

academicians, and students.

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fuse. Precisely because this theatre is unreal, it is a valuable tool: the risks of experimentation and failure are gone, while the opportunity to understand remains. Improvement of this tool, through steady technological progress, is the purpose of MMVR. This book presents papers delivered at the MMVR18 / NextMed conference, held in Newport Beach, California, in February 2011, with contributions from international researchers whose work creates new devices and methods at the juncture of informatics and medicine. Subjects covered include simulation and learning, visualization and information-guided therapy, robotics and haptics, virtual reality and advanced ICT in Europe, validation of new surgical techniques, and many other applications of virtual-reality technology. As its name suggests, the NextMed conference looks forward to the expanding role that virtual reality can play in global healthcare. This overview of current technology will interest those who dedicate themselves to improving medicine through technology.

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anatomy teaching models: *Medicine Meets Virtual Reality 19* James D. Westwood, 2012 A physician who is treating a patient confronts a complex and incompletely understood living system that is sensitive to pain. An engineer or programmer who develops a new device, on the other hand, operates within the less emotional domains of materials and mathematics. The Medicine Meets Virtual Reality (MMVR) conference brings together physicians, scientists, engineers, educators, students, and others to bridge the gap between clinicians and technologists, and to create collaborative solutions to healthcare challenges. This book presents the proceedings of the Medicine Meets Virtual Reality conference (MMVR19), held in Newport Beach, California, USA, in February 2012. It includes papers on modeling and simulation, imaging, data visualization and fusion, haptics, robotics, telemedicine and medical intelligence networking, virtual and augmented reality, psychotherapy and physical rehabilitation tools, serious games, and other topics. MMVR stimulates interaction between developers and end users and promotes unorthodox problem-solving as a complement to rigorous scientific methodology. This book will interest all who are involved with the future of medicine.

anatomy teaching models: **Virtual Reality Technology** Grigore C. Burdea, Philippe Coiffet, 2024-09-18 Thorough overview of virtual reality technology fundamentals and latest advances, with coverage of hardware, software, human factors and applications, plus companion Laboratory Manual in Unity 3D. The Third Edition of the first comprehensive technical book on the subject of virtual reality, *Virtual Reality Technology*, provides updated and expanded coverage of VR technology, including where it originated, how it has evolved, and where it is going. Its primary objective is to be a complete, up-to-date textbook, as well as a source of information on a rapidly developing field of science and technology with broad societal impact. The two highly qualified authors cover all of the latest innovations and applications that are making virtual reality more important than ever before. Unlike other books on the subject, the book also includes a chapter on Human Factors, which are

very important in designing technology around the human user. Virtual Reality Technology provides Instructors with a website-accessible Laboratory Manual using the Unity 3D game engine and programming language. Unity 3D is the preferred VR language these days and will prepare the student for the VR gaming and mobile applications industry. For universities Unity 3D is cost-effective as its student license is freely available. With comprehensive coverage of the subject, Virtual Reality Technology discusses sample topics such as: Input and output interfaces, including holographic displays, foveated head-mounted displays, neural interfaces, haptic and olfactory feedback Computing architecture, with emphasis on the rendering pipeline, the graphics processing unit and distributed/edge rendering Object modeling, including physical and behavioral aspects, Artificial Intelligence controlled characters, and model management techniques Programming toolkits for virtual reality and the game production pipeline Human factors issues such as user performance and sensorial conflict, cybersickness and societal impact aspects of VR Application examples in medical education, virtual rehabilitation, virtual heritage, gaming, and military use of virtual reality. Virtual Reality Technology provides thorough and complete coverage of an in-demand sector of technology, making it a highly valuable resource for undergraduate and graduate students in computer science, engineering, and science, along with a variety of professionals across many different industries, including but not limited to engineering, gaming, healthcare, and defense.

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novel field of engineering to train future veterinarians and engineers on design and application of technology to veterinary medicine. Serves as a learning resource for the training and education of veterinary students, veterinarians and engineers Demonstrates through experiments and case studies the merging point between engineering and veterinary medicine Discusses concepts and issues associated with engineering and veterinary medicine Illustrates veterinary challenges using an engineering-design approach Provides examples of veterinary applications with successful outcomes, incorporating step-by-step directions for engineers

anatomy teaching models: *Integrating 3D Printing into Teaching and Learning* , 2020-01-20 Three dimensional or 3D printing technology is a process of making three dimensional solid objects from a digital file. Currently, low cost and affordable 3D printers enable teachers, schools, and higher education institutions to make 3D printing a part of the curriculum. Integrating 3D printing into the curriculum provides an opportunity for students to collaboratively discuss, design, and create 3D objects. The literature reveals that there are numerous advantages of integrating 3D printing into teaching and learning. Educators recommend that 3D printing should be introduced to the students at a young age to teach STEM concepts, develop creativity and engage in team work - essential skills for the 21st century work force. This edited volume documents recent attempts to integrate 3D printing into the curriculum in schools and universities and research on its efficacies and usefulness from the practitioners' perspectives. It unveils the exemplary works by educators and researchers in the field highlighting the current trends, theoretical and practical aspects of 3D printing in teaching and learning. Contributors are: Waleed K. Ahmed, Issah M. Alhamad, Hayder Z. Ali, Nagla Ali, Hamad AlJassmi, Jason Beach, Jennifer Buckingham, Michael Buckingham, Dean Cairns, Manisha Dayal, Muhammet Demirbilek, Yujiro Fujiwara, Anneliese Hulme, Myint Swe Khine, Lee Kenneth Jones, Jennifer Loy, Kehui Luo, Elena Novak, James I. Novak, Joshua Pearce, Dorothy Belle Poli, Chelsea Schelly, Min Jeong Song, Sylvia Stavridi, Lisa Stoneman, Goran Štrkalj, Mirjana Štrkalj, Pamela Sullivan, Jeremy Wendt, Stephanie Wendt, and Sonya Wisdom.

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