



CALL FOR BOOK CHAPTERS

Between Myth and Reality: Where Metaverse in Education Stands

Deadline: Manuscript Submission: [March 15, 2023](#)

Editors

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Aims and Scope

The COVID-19 pandemic imposed restrictions on physical interactions to change the way of learning and teaching. The social distance stimulates educational

institutes to use learning technologies and rethink novel ways of learning. Recently, several learning technologies and their applications such as Artificial Intelligence (AI), Immersive Technologies, Extended Reality (XR), Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR), blockchain, big data, have been integrated into education to provide more immersed learning experiences, hence achieve better learning outcomes. Apart from these immersive technologies, metaverse has seen growing interest as a promising trend to integrate the physical world with the virtual world to overcome the limitation of social presence. It promotes decent integration of emerging technologies to afford smart learning environments. This interest has shown Meta's (formerly known as Facebook) initiative to offer \$150 million USD to train the next generation of creators building immersive educational content and collaborate with game engine developer Unity to help people gain the skills they need to create incredible AR and VR content, besides the estimated market analysis opportunity to reach \$800 billion by 2024. Moreover, several companies have decided to invest and build metaverse in the upcoming years such as Niantic, Nvidia, Microsoft, Decentraland, Apple, and Tencent.

Despite the potential opportunities that metaverse provides to enhance education, it also comes with several challenges, including privacy, virtual space addiction, and lack of knowledge on how to design effective metaverse-based learning environments.

Motivated by this fragmented literature on metaverse, we are inviting researchers and practitioners to submit book chapters that could enrich the discussion on metaverse in education for the book **“Between Myth and Reality: Where Metaverse in Education Stands”**, as part of the Springer series [Smart Computing and Intelligence](#). This book aims to encourage research and discussion on metaverse to enhance its understanding and adoption worldwide. It also aims to assist educators and various stakeholders (e.g., policy makers, practitioners) in the educational field to understand, implement, promote and integrate metaverse in different learning contexts with the following goals:

- Building a solid theoretical framework that includes concepts, theories, and models of educational metaverse.
- Identifying the design criteria, principles, and prototypes for universal design-based educational metaverse.

- Providing best practices of implementing applications of metaverse in education.
- Searching the related issues and enablers for adopting educational metaverse.

The chapters could focus on answering the following questions:

- (1) How do researchers and educators apply metaverse applications in education?
- (2) What are the challenges of adopting metaverse in education?
- (3) What are the future opportunities for promoting metaverse in education?

We welcome manuscripts that are conceptual or theoretical papers, literature reviews, quantitative or qualitative studies, and case studies. We encourage a wide international representation that demonstrates a wide range of metaverse implementation with different learning scenarios and contexts. Below is a list of potential topics (but are not limited to).

Potential Topics

- **Theoretical frameworks:** proof-of-concept, architectures, models, frameworks, theories on how metaverse could boost smart learning and teaching.
- **Infrastructure, emerging technologies, and applications:** AR, VR, MR, 5G, AI, intelligent tutoring systems, chatbots, virtual teaching assistants, learning analytics, big data, machine learning, data mining, blockchain, and internet of things (IoT).
- **Cognitive and psychological fundament:** mental processes, feeling, thoughts, attention, language use, memory, perception, problem-solving, judgment, creativity, reasoning, and evaluation.
- **Design:** criteria, design principles, instructional design models, prototypes, avatar coaching, personalized learning, and interoperability.
- **Development:** educational applications, educational content creation, virtual worlds, ecosystems, and incentive-based techniques.
- **Implementation:** use cases in different subjects and future scenarios, case studies in STEM education, learning strategies, pedagogical approaches and teachers' roles, educational integration, learning certificates, usability measures, and accessibility.
- **Assessment:** methods, mechanisms, approaches, and outcomes.

- **Related issues:** digital identity, competencies and capacities, ethics, copyright, NFT, security and privacy, technology acceptance, challenges, scalability, and sustainability.

Review and Publication Process

All chapters will go through a double-blind review process by at least two reviewers. After undergoing a peer review process, the editors will assess the quality of the manuscript based on the decision letters from the reviewers.

Submission Guidelines

Manuscripts should be 6,000-10,000 words in length including figures, tables, and references. Please follow the Springer ‘[Manuscript preparation](#)’ guidelines for chapter contributions. Abstracts (with no more than 200 words) and the full chapter should be submitted by email to Dr. Ahmed Hosny: ahmed.hosny@bnu.edu.cn, and Dr. Ahmed Tlili: ahmedtlili@ieee.org by **March 15, 2023**.

Note: There is no submission or acceptance fee for manuscripts submitted to this book. All manuscripts are accepted based on a double-blind peer review editorial process. All manuscripts must be original and not under consideration elsewhere. A chapter cannot exceed plagiarism of 15% excluding references.

Dates and Deadlines

- Full chapter submission: March 15, 2023
- First round of decision (editors and/or double-blind peer review): April 25, 2023
- Submission of the revised chapters (Final Acceptance/Revision/Rejection): May 16, 2023
- Final round of decision: May 31, 2023
- Estimated publication date: September, 2023

Inquiries

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