

1. Record Nr.	UNINA9910473457603321
Autore	Ryoo Jungwoo
Titolo	Innovative Learning Environments in STEM Higher Education : Opportunities, Challenges, and Looking Forward / / edited by Jungwoo Ryoo, Kurt Winkelmann
Pubbl/distr/stampa	Springer Nature, 2021 Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-58948-X
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XV, 137 p. 8 illus., 7 illus. in color.)
Collana	SpringerBriefs in Statistics, , 2191-544X
Classificazione	COM004000COM025000COM077000EDU009000SOC027000
Disciplina	519.5
Soggetti	Statistics Machine learning Learning Instruction Knowledge representation (Information theory) Statistics for Social Sciences, Humanities, Law Machine Learning Statistics and Computing/Statistics Programs Learning & Instruction Knowledge based Systems Educació STEM Educació superior Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction -- 2. X-FILEs Vision for personalized and Adaptive Learning -- 3. X-FILEs Vision for Multi-modal Learning Formats -- 4. X-FILEs Vision for Extended/Cross Reality (XR) -- 5. X-FILEs Vision for Artificial Intelligence (AI) and Machine Learning (ML) -- 6. Cross-Cutting Concerns -- 7. Epilogue.
Sommario/riassunto	As explored in this open access book, higher education in STEM fields is influenced by many factors, including education research,

government and school policies, financial considerations, technology limitations, and acceptance of innovations by faculty and students. In 2018, Drs. Ryoo and Winkelmann explored the opportunities, challenges, and future research initiatives of innovative learning environments (ILEs) in higher education STEM disciplines in their pioneering project: *eXploring the Future of Innovative Learning Environments (X-FILEs)*. Workshop participants evaluated four main ILE categories: personalized and adaptive learning, multimodal learning formats, cross/extended reality (XR), and artificial intelligence (AI) and machine learning (ML). This open access book gathers the perspectives expressed during the X-FILEs workshop and its follow-up activities. It is designed to help inform education policy makers, researchers, developers, and practitioners about the adoption and implementation of ILEs in higher education.
