Editorial

Discovering and Creating the Leading Edge of Extended Reality and Spatial Computing: A Message From the Editor-in-Chief

Lars Riedemann, MD

Department of Neurology, Heidelberg University Hospital, Heidelberg, Germany

Corresponding Author:

Lars Riedemann, MD Department of Neurology Heidelberg University Hospital Im Neuenheimer Feld 400 Heidelberg, 69120 Germany

Phone: 49 6221 56 6999

Email: lars.riedemann@med.uni-heidelberg.de

Abstract

We are pleased to introduce *JMIR XR and Spatial Computing*, a peer-reviewed journal dedicated to advancing the integration of extended reality and spatial computing technologies into routine clinical care.

(JMIR XR Spatial Comput 2024;1:e64545) doi: 10.2196/64545

KEYWORDS

editorial; extended reality; XR; spatial computing

We are excited to announce the launch of *JMIR XR and Spatial Computing*, a peer-reviewed journal dedicated to showcasing research on extended reality (XR) and spatial computing technologies and their integration into everyday clinical practice.

In navigating the frontier of XR and spatial computing for more than a decade, we have adopted a stance of informed optimism tempered by vigilant caution. Based on the large number of high-quality articles published by JMIR Publications and others ovy

The tangible impact of these developments in health care is evident. For instance, Bandelow et al [7], who authored the German guideline for treating anxiety disorders, recommend virtual reality exposure therapy as a viable alternative when in vivo exposure is not feasible for patients with spider, height, or flight phobias. Furthermore, the US Food and Drug Administration has reviewed and authorized the marketing of a growing number of devices with augmented reality and virtual reality through 510(k) clearance, De Novo requests, or premarket approval in many fields of medicine [8].

These examples illustrate the growing acceptance of immersive technologies in clinical practice as "another arrow in the quiver" of health care.

However, our optimism is tempered with pragmatism. Although XR and spatial computing offer promising avenues for enhancing health care delivery, we recognize that they are not universal solutions. The successful integration of these technologies into existing health care systems and workflows requires thoughtful consideration and careful implementation [8]. Their true effectiveness will be determined by the appropriateness of their application, the specific contexts in which they are deployed, a significantly positive cost-benefit ratio, and most importantly, their demonstrable ability to improve patient outcomes or enhance health care efficiency [8,9]. As we move forward, it is crucial to approach the adoption of these technologies with a balanced perspective, ensuring that their integration complements and enhances, rather than disrupts, the foundational aspects of quality health care delivery.

Therefore, we encourage authors from both academia and industry to view *JMIR XR and Spatial Computing* as a platform for showcasing their collaborative efforts, sharing insights, and

contributing to the responsible advancement of immersive technologies in health care.

Our journal recognizes the critical importance of addressing the accessibility and equity challenges surrounding XR

- 8. Beams R, Brown E, Cheng W-C, Joyner JS, Kim AS, Kontson K, et al. Evaluation challenges for the application of extended reality devices in medicine. J Digit Imaging. Oct 2022;35(5):1409-1418. [FREE Full text] [doi: 10.1007/s10278-022-00622-x] [Medline: 35469355]
- 9. Selaskowski B, Wiebe A, Kannen K, Asché L, Pakos J, Philipsen A, et al. Clinical adoption of virtual reality in mental health is challenged by lack of high-quality research. npj Ment Health Res. May 16, 2024;3(1):24. [FREE Full text] [doi: 10.1038/s44184-024-00069-8] [Medline: 38755289]