A Brave New World of Privacy: Empirical Insights into the Metaverse's Personalization Dynamics

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Abstract : As the metaverse emerges as a dynamic virtual simulacrum of reality, its implications on user privacy have become a focal point of interest. While previous discussions have ventured into metaverse privacy dynamics, a glaring empirical gap persists, especially concerning the effects of personalization in the context of news recommendation services. This study stands at the forefront of addressing this void, meticulously examining how users' privacy concerns shift within the metaverse's personalization context. Through a pre-registered randomized controlled experiment, participants engaged in a personalization task across both the metaverse and traditional online platforms. Upon completion of this task, a comprehensive news recommendation service provider offers personalized news recommendations to the users. Our empirical findings reveal that the metaverse inherently amplifies privacy concerns compared to traditional settings. However, these concerns are notably mitigated when users have a say in shaping the algorithms that drive these recommendations. This pioneering research not only fills a significant knowledge gap but also offers crucial insights for metaverse developers and policymakers, emphasizing the nuanced role of user input in shaping algorithm-driven privacy perceptions.