Plattform Privatheit

Research for a Self-Determined Life in the Digital World

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Press Release

AbracaData! Gaming Research Sets New Standards for Privacy Protection

VR Game Combines Privacy Protection with Data Value Creation

Gamers care more about their privacy than previously assumed. *This key finding has driven the PRETINA-team, an interdisciplinary group of researchers and developers affiliated with the* ***Platform Privacy****, in their development of the latest iteration of the virtual reality (VR) game AbracaData.* ***The game will debut at Gamescom in Cologne from August 25–30, 2026. By integrating privacy-preserving eye-tracking technology, the project team demonstrates that technological progress can be harmonized with data protection to foster sustainable and trustworthy business models.***

At last year's Gamescom, the team had already demonstrated the use and implications of eye tracking in VR gaming. **While eye tracking technology holds the potential to enhance the gaming experience, the analysis of eye movements allows for far-reaching conclusions about emotions, health, or preferences that extend far beyond the context of gaming.**

Gamers care about privacy protection

To learn more about gamers' experiences and needs, the PRETINA team conducted an empirical study at Gamescom 2025. The result: The target group has specific privacy needs that require the development of tailored protective actions. "Gamers have very specific expectations regarding their privacy that conventional concepts of data protection do not address sufficiently," Céline Gressel, ethicist at the International Center for Ethics in the Sciences and Humanities at the University of Tübingen, argues. **"We immediately sense violations of privacy in the physical world, for instance when someone comes too close. However, in digital spaces, we do not feel these boundary violations as strongly, which is why we want to introduce in-game stimuli that raise awareness of one's privacy, thereby increasing users' agency when it comes to making decisions about their data."**

AbracaData v2.0: Implementing Privacy by Design through Play

And how does the game work? In the virtual world of "AbracaData v2.0," players take on the role of a wizard´s apprentice. As they bring order to a chaotic laboratory, their eye movements are recorded and analyzed. The unique selling point: Instead of using complicated consent forms, the game incorporates an intuitive interface that allows players to easily decide how much of their data they want to disclose. As Souptik Majumdar, doctoral candidate at the Institute for Visualization and Interactive Systems (VIS) at the University of Stuttgart, explains: **"By first demonstrating in a playful way what data we can collect about players and then showing them how to select their desired level of data protection, we make 'Privacy by Design' easy to understand and use."**

A Competitive Advantage for the European Market

Beyond enhancing the user interface, the project addresses the systematic need for robust regulatory frameworks. “Effective privacy protection in VR gaming cannot be reduced to a checkbox in a privacy policy,” says legal scholar PD Dr. Christian Geminn. “With the latest version of our game, we are demonstrating **how legal requirements can be reconciled with technological constraints and player needs.”**

For Dr. Michael Raschke, CEO of Blickshift GmbH, this approach provides a decisive edge for the European industry: **“This is our chance to actively shape an emerging market,”** he asserts. **“EU companies can set new standards within the global market in the fields of big data and eye tracking by proving that data-driven innovation, legal compliance, and ethical responsibility go hand-in-hand.”**

Dr. Murat Karaboga, innovation researcher at Fraunhofer ISI and PRETINA consortium leader, summarizes: **“Currently, data protection and innovation are often discussed as if they were mutually exclusive. Our research shows that they are entirely compatible. If we take customer needs seriously and design products accordingly, we can achieve innovations that are both profitable and fully compliant with data protection goals.”**

PRETINA is an interdisciplinary research project affiliated with the Platform Privacy and stands for Privacy-preserving and legally compliant eye tracking in everyday digital life (**P**rivatheitswahrendes und **r**echtskonformes Eye**t**rack**in**g im digitalen **A**lltag).

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