

Between Pages and Reality: Exploring a Book Metaphor for Unfolding Data-Driven Storytelling in Immersive Environments

Weizhou Luo, Mark Abdelaziz, Julián Méndez, Rufat Rzayev



Introduction and Motivation

Virtual reality (VR) has great potential for innovatively presenting engaging narratives and multimodal content for storytelling. However, ensuring that the presentation and interaction possibilities are comprehensible to broad audiences is essential. Drawing inspiration from the traditional role of books in preserving stories, we introduce StoryBook, a concept that uses a book metaphor for interacting with immersive data stories. Through analogical reasoning, we mapped existing concepts of physical books to interact with a VR storytelling process. StoryBook provides a familiar and intuitive way of navigating, inserting, and extracting story elements in VR, akin to page-flipping, bookmarking, or note-taking with a real book. We developed a prototype and conducted initial user feedback sessions, showcasing the potential of our concepts.

▶ Reading



▶ Extraction



Contributions

- ▶ A VR narrative control metaphor for seamless storytelling.
- ▶ Mapped physical book concepts into VR.
- ▶ Transformations between 2D and 3D content.
- ▶ Insights into the design of VR Storytelling.

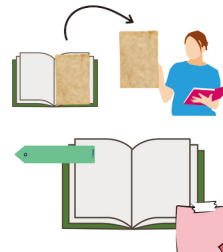
Future Work

- ▶ Improve features and achieve seamless experience.
- ▶ Create a comprehensive storytelling toolkit.
- ▶ Employ visual aids to help users comprehend interactions.

▶ Insertion



▶ Bookmark and Annotation



Preliminary User Study

Participants: 11 (4 males, 7 females, aged 17-33)
Methodology: Think-aloud walkthrough followed by an interview

- Immersive nature
- Narrative control
- Non-linear data exploration

Other Feedback:

- Unintentional triggering of insertion interaction
- Confusion about insertable items

"I wanted to continue shooting to know more; it wasn't just a task but a part of the story." P7

Contact Information



Weizhou Luo — weizhou.luo@tu-dresden.de

Mark Abdelaziz — markmichealhp@gmail.com

Julián Méndez — julian.mendez2@tu-dresden.de

Rufat Rzayev — rufat.rzayev@tu-dresden.de