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DIGITAL STORYTELLING AND READER ENGAGEMENT: MEDIATING ROLE OF NARRATIVE IMMERSION AND MODERATING ROLE OF DIGITAL LITERACY

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Abstract
Digital storytelling has transformed the way audiences engage with narratives by integrating multimedia elements such as audio, video, animations, and interactive components. This study investigates the impact of digital storytelling on reader engagement, focusing on the mediating role of narrative immersion and the moderating effect of digital literacy. A quantitative survey was conducted among 250 readers who regularly consume digital narratives, and data were analyzed. Results indicate that digital storytelling significantly enhances reader engagement, with narrative immersion partially mediating this relationship. Readers who experience higher immersion are more likely to exhibit sustained attention, emotional involvement, and cognitive engagement with the story. Furthermore, digital literacy strengthens the effect of digital storytelling on reader engagement, suggesting that technologically adept readers can better navigate, interpret, and interact with multimedia narratives. The findings extend the literature on digital media and user engagement by integrating cognitive and technological factors, offering insights for content creators, educators, and digital marketers. Practically, enhancing narrative immersion through well-designed digital stories and promoting digital literacy can optimize engagement outcomes in educational, entertainment, and marketing contexts.

Keywords: *Digital Storytelling, Audiences Engage, Digital Literacy, Technological Factors*

Introduction

Digital storytelling (DST) has emerged as a powerful tool in the contemporary media landscape, enabling content creators to deliver rich, interactive narratives that combine text, audio, visuals, and interactivity (Robin, 2008). Unlike traditional storytelling, which relies solely on written or oral forms, DST leverages digital platforms to provide multisensory experiences that enhance comprehension, memory retention, and emotional resonance (Sadik, 2008). Reader engagement, defined as the cognitive, emotional, and behavioral involvement of readers with content, is a crucial outcome of effective storytelling (Busselle & Bilandzic, 2009). High engagement not only fosters sustained attention but also promotes comprehension, reflection, and the likelihood of content sharing.

Despite the growing adoption of DST in education, journalism, and marketing, research has highlighted variability in its effectiveness. One key factor is narrative immersion, the psychological experience of being absorbed and involved in the story world (Green & Brock, 2000). Immersive narratives facilitate emotional connection and cognitive elaboration, which in turn enhance reader engagement (Hsu et al., 2018). Another crucial factor is digital literacy, which refers to a reader's ability to effectively navigate, evaluate, and interact with digital content (Eshet, 2012). Readers with higher digital literacy can better interpret multimedia elements, engage with interactive features, and sustain attention, thereby moderating the impact of DST on engagement.

This study aims to examine how DST influences reader engagement, with narrative immersion acting as a mediator and digital literacy as a moderator. By integrating psychological and technological perspectives, the research provides a comprehensive understanding of the mechanisms through which DST enhances

reader engagement. The findings have practical implications for content creators, educators, and marketers seeking to optimize digital narrative experiences.

Literature Review

Digital storytelling (DST) integrates multimedia components such as text, audio, video, and animations to create interactive narrative experiences (Robin, 2008). It is widely recognized as an effective pedagogical tool, enhancing comprehension, critical thinking, and motivation among learners (Sadik, 2008). Beyond education, DST has been employed in marketing and journalism to capture audience attention and foster emotional connection (Alexander, 2011). Despite its potential, not all DST experiences lead to high reader engagement, highlighting the need to explore underlying mechanisms and contextual factors.

Reader engagement is a multidimensional construct encompassing cognitive, emotional, and behavioral involvement with content (Busselle & Bilandzic, 2009). Cognitive engagement involves focused attention and information processing, emotional engagement reflects empathy and affective responses, and behavioral engagement includes actions such as content sharing or commenting (Huang, 2018). Studies suggest that immersive experiences significantly influence these engagement dimensions, as individuals absorbed in a story are more likely to exhibit sustained attention and emotional involvement (Green & Brock, 2000).

Narrative immersion serves as a key mediator between DST and engagement. Immersion refers to the psychological absorption into a narrative world, enabling readers to temporarily suspend reality and experience the story as if they were part of it (Calleja, 2011). Immersive digital narratives, which utilize interactive features, branching storylines, and multimedia elements, enhance reader engagement by promoting attention, emotional resonance, and cognitive elaboration (Hsu et al., 2018). Empirical research confirms that higher narrative immersion predicts greater behavioral and emotional engagement, making it a critical mechanism in the DST–engagement link (Jennett et al., 2008).

Digital literacy moderates the effectiveness of DST. Digital literacy is defined as the ability to access, evaluate, and interact with digital content effectively (Eshet, 2012). Readers with higher digital literacy are more adept at navigating multimedia, interpreting interactive elements, and managing cognitive load, which enhances their engagement with digital narratives (Ng, 2012). Conversely, low digital literacy may limit the benefits of DST, as readers struggle to process complex multimedia information, resulting in reduced attention and interaction (Meyers et al., 2013).

Theoretical perspectives guiding this study include the Transportation Theory (Green & Brock, 2000), which explains how immersion in a narrative transports individuals into the story world, and the Technology Acceptance Model (TAM) (Venkatesh et al., 2003), which underscores the importance of user capabilities and perceptions in technology-mediated experiences. Together, these frameworks suggest that DST enhances engagement through immersive experiences, but the extent of its effectiveness is contingent upon users' digital literacy. Despite growing research, few studies have examined the combined mediation of narrative immersion and moderation of digital literacy, particularly in cross-platform digital storytelling contexts, representing a gap this study addresses.

Theoretical Framework

Conceptual Model:

Digital Storytelling → Reader Engagement
↓
Narrative Immersion (Mediator)

Digital Literacy (Moderator on DST → Reader Engagement)

Hypotheses:

- **H1:** Digital storytelling positively influences reader engagement.
- **H2:** Narrative immersion mediates the relationship between digital storytelling and reader engagement.
- **H3:** Digital literacy moderates the relationship between digital storytelling and reader engagement.

Methodology

This study employs a quantitative cross-sectional survey design. The target population includes readers who regularly engage with digital narratives, and 250 participants were sampled based on Krejcie & Morgan's (1970) recommendations. A structured questionnaire using a 5-point Likert scale measured digital storytelling, narrative immersion, digital literacy, and reader engagement. Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS was used for data analysis to test direct, mediating, and moderating relationships. Reliability, convergent validity, and discriminant validity were assessed, and bootstrapping with 5,000 resamples was applied to determine significance of path coefficients, mediations, and moderations.

Data Analysis

Measurement Model Assessment

Construct	Cronbach's Alpha	Composite Reliability	AVE
Digital Storytelling	0.91	0.93	0.69
Narrative Immersion	0.88	0.91	0.65
Digital Literacy	0.87	0.90	0.62
Reader Engagement	0.90	0.92	0.67

Interpretation: All constructs exceed recommended thresholds for reliability and convergent validity.

Structural Model Assessment

Path	Beta	t-value	p-value	Result
DST → Reader Engagement	0.40	5.87	0.000	Supported
DST → Narrative Immersion	0.58	8.65	0.000	Supported
Narrative Immersion → Reader Engagement	0.37	4.98	0.000	Supported
DST → Reader Engagement (via Immersion)	0.21	3.80	0.000	Mediated
Digital Literacy × DST → Reader Engagement	0.18	3.12	0.002	Moderated

Interpretation:

- Digital storytelling enhances reader engagement (H1).
- Narrative immersion partially mediates this effect (H2).
- Digital literacy positively moderates the relationship between DST and reader engagement (H3).

Conclusion

The study confirms that digital storytelling significantly improves reader engagement by fostering immersive narrative experiences. Narrative immersion plays a crucial mediating role, ensuring that readers are cognitively and emotionally absorbed, thereby enhancing attention, reflection, and interaction with content. Digital literacy strengthens the effectiveness of digital storytelling, indicating that readers with higher digital competence can better navigate multimedia elements and derive greater engagement benefits. These findings underscore the importance of combining compelling digital narratives with user capability development.

Practical implications

suggest that content creators, educators, and digital marketers should focus on designing interactive, immersive narratives while promoting digital literacy through training and user guidance. Enhancing narrative immersion and supporting readers' digital skills can maximize engagement outcomes, leading to improved comprehension, satisfaction, and behavioral responses.

Discussion

This research integrates cognitive and technological perspectives to explain the mechanisms through which digital storytelling influences reader engagement. The mediation of narrative immersion aligns with Transportation Theory, demonstrating that immersion enhances cognitive, emotional, and behavioral involvement (Green & Brock, 2000). The moderation of digital literacy is consistent with Technology Acceptance Model, highlighting that user competence affects interaction with digital content (Venkatesh et al., 2003).

The findings extend existing literature by empirically demonstrating that immersive experiences and user capabilities jointly determine engagement outcomes in digital storytelling. Content creators should design narratives that leverage multimedia elements, interactive features, and branching storylines to optimize immersion. Simultaneously, improving digital literacy among target audiences ensures that technological barriers do not impede engagement. Future research could explore longitudinal effects of digital storytelling on engagement, investigate other mediators such as emotional connection, or examine cross-cultural differences in engagement patterns.

Future Recommendations

1. Develop interactive and multisensory digital narratives to enhance narrative immersion.
2. Implement digital literacy programs to improve audience navigation and interaction with multimedia content.
3. Explore personalized storytelling strategies based on audience digital competence levels.
4. Investigate other mediators like emotional engagement or cognitive load in future studies.
5. Conduct cross-platform or longitudinal studies to assess the sustained impact of DST on engagement.

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