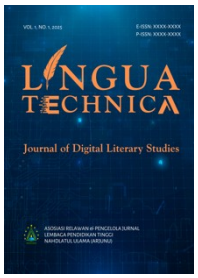
Lingua Technica, 1(1), 2025, 13-24

List of contents available at Lingua Technica

Lingua Technica:
Journal of Digital Literary Studies

homepage: https://journal.arjunu.org/index.php/lingtech



From hypertext to interactive narrative: structure, agency, and multimodal meaning-making of e-literature

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Article history:
Received Dec 11, 2024
Revised Dec 30, 2024
Accepted Jan 23, 2025
Published Jan 30, 2025

Keywords:
agency;
digital fiction;
electronic literature;
hypertext;
interactive narrative

A B S T R A C T

Background: The expansion of digital culture has transformed literature from a print-based, linear, and author-centered form into a computational, multimodal, and interactive system of meaning-making. **Objective:** This study aims to examine the evolution of electronic literature from hypertext fiction to interactive narrative by analyzing how textual structure, reader agency, and multimodal experience change across selected digital literary forms. **Method:** Using a qualitative digital humanities design, the study analyzes selected works and metadata from curated electronic literature archives, including the Electronic Literature Collection, ELMCIP Knowledge Base, The NEXT, and Pathfinders, through hypertextual structure analysis, interactive narrative analysis, and multimodal discourse analysis. **Results:** The findings show that early hypertext fiction replaces linear sequence with nodes, links, lexias, screens, and navigational pathways that reposition the reader as an active explorer of textual architecture. **Implication:** This study also reveals that interactive narrative expands reader agency from pathway selection into decision-making, action, feedback, interface-mediated participation, and narrative consequence within responsive story systems. **Novelty:** The novelty of this study lies in its integrative analytical model that connects hypertextual architecture, participatory agency, and multimodal transformation as three interrelated dimensions in the evolution of electronic literature.

DOI: https://doi.org/10.1016/j.lingua.2024.101865

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INTRODUCTION

Digital culture has radically altered the conditions under which literature is produced, distributed, archived, and experienced. In 2026, global internet users surpassed six billion, while social media user identities reached more than 5.6 billion, indicating that textual experience is increasingly embedded in networked, screen-based, and interactive environments. This transformation is not merely technological; it has reshaped the ontology of literary form itself. Literature now appears not only as printed language or digitized text, but also as programmable text, hyperlinked structure, animated interface, algorithmic performance, and participatory narrative system. Electronic literature, therefore, becomes a crucial object of inquiry because it records how literary expression adapts to the infrastructures of digital media. From early hypertext fiction to contemporary interactive narrative, electronic literature demonstrates that reading is no longer confined to linear reception but increasingly involves navigation, selection, manipulation, feedback, and embodied interaction (Joshwa, 2023). Studying this evolution is necessary to understand how digital environments redefine authorship, textuality, reader agency, and literary experience.

Previous studies have established electronic literature as a distinct field within digital humanities, media studies, and literary theory. Many scholars have examined electronic literature through concepts of materiality, procedurality, multimodality, code, platform, hypertextuality, and interactive digital narrative (Bell & Ensslin, 2024; Hanafi, 2024; Samira & Chemseddine, 2025). Archives such as the Electronic Literature Collection, ELMCIP Knowledge Base, The NEXT, and Pathfinders have also documented the diversity of works ranging from pre-web hypertext fiction, interactive fiction, kinetic poetry, generative literature, literary games, and locative narrative to platform-based literary experiments (Papailia, 2023; Ramya & Rukmini, 2021; S. & Sanal, 2023). However, much of the existing scholarship tends to focus either on canonical works, specific genres, preservation issues, or theoretical definitions of electronic literature. Less attention has been given to an integrative and corpus-oriented account of how electronic literature evolves structurally from hypertextual architecture toward interactive narrative systems. This gap is significant because the movement from link-based reading to interaction-based storytelling marks a fundamental shift in the relationship between text, system, and reader.

This study aims to examine the evolution of electronic literature from hypertext fiction to interactive narrative by focusing on three interrelated questions. First, how does the structure of electronic literature change from node-link hypertext to more complex narrative systems involving branching, feedback, and procedural organization? Second, how does reader agency develop from navigational choice into interactive participation that can influence narrative progression, character movement, storyworld exploration, or narrative outcome? Third, how do multimodal elements such as interface, image, sound, animation, screen design, and code contribute to the changing literary experience of digital texts? To answer these questions, this study analyzes selected works and metadata from recognized electronic literature archives, including the Electronic Literature Collection, ELMCIP, The NEXT, and Pathfinders. Methodologically, the study combines hypertextual structure analysis, interactive narrative analysis, and multimodal discourse analysis in order to trace formal, experiential, and semiotic transformations across selected phases and genres of electronic literature.

The central argument of this study is that the evolution of electronic literature should not be understood simply as a chronological movement from old to new digital forms, but as a transformation in the logic of literary meaning-making. Hypertext fiction foregrounds discontinuity, multilinearity, and navigational freedom, while interactive narrative expands these features into systems of choice, feedback, consequence, and embodied engagement. In this sense, electronic literature shifts from a text that readers traverse to an environment that readers help actualize. This transformation has important implications for literary studies because it challenges print-based assumptions about narrative sequence, authorial control, textual closure, reader interpretation, and the separation between literary form and technological infrastructure. It also suggests that electronic literature must be analyzed not only as verbal art but as a computational, multimodal, and participatory practice. By mapping this transition through curated archival corpora and three complementary analytical tools, the study contributes a more precise framework for understanding how literature persists, mutates, and acquires new aesthetic forms within digital culture.

LITERATURE REVIEW

Electronic literature

Electronic literature is generally understood as literary work that is born digital and dependent on computational environments for its production, circulation, preservation, and reception. It is not merely literature distributed through digital devices, such as scanned books or conventional e-books, but literature whose aesthetic form emerges from the affordances and constraints of digital media. The Electronic Literature Organization defines it as work with significant literary qualities that takes advantage of computer-based contexts, while Hayles emphasizes its "digital-born" condition. This distinction is crucial because electronic literature must be differentiated from digitized literature: the former depends on computation as part of its form, while the latter only changes the medium of distribution. Other scholars broaden the term to include procedural writing, codework, kinetic poetry, generative text, literary games, and networked fiction (Eldiasty & Mansour, 2025; Liu et al., 2025). These definitional differences show that electronic literature is both a literary category and a media-specific practice shaped by code, platform, interface, and reader interaction.

The main aspects of electronic literature can be identified through its material, formal, archival, and experiential dimensions (Samira & Chemseddine, 2025). Materially, it depends on hardware, software, code, platforms, interfaces, and preservation systems. Formally, it often includes nonlinearity, textual fragmentation, animation, procedural generation, hyperlinking, and multimodal composition. Experientially, it requires readers to navigate, click, select, play, interpret, manipulate, or respond to textual environments. Archival and curatorial dimensions are equally important because many electronic literary works depend on obsolete platforms, unstable software, and specific technical environments that affect access and interpretation. The Electronic Literature Collection and ELMCIP Knowledge Base demonstrate that electronic literature includes hypertext fiction, interactive fiction, digital poetry, generative literature, locative narrative, literary games, and platform-based writing. Therefore, its indicators cannot be limited to verbal language alone, but must include medial dependency, computational process, interface structure, multimodality, and reader-system interaction.

Hypertext

Hypertext is one of the earliest and most influential forms through which electronic literature acquired its theoretical identity. It is commonly defined as a textual system composed of discrete units, nodes, or lexias connected by electronic links. Some scholars foreground formulation of hypertext as linked blocks of text with its departure from linear print culture (Ijaz et al., 2026; Zeynalova, 2022), while others situate hypertext within broader debates on multilinearity, textual openness, and readerly participation (Papailia, 2023; Samira & Chemseddine, 2025). In this sense, hypertext is not simply a technical arrangement of links, but a narrative architecture that reorganizes textual sequence, interpretive order, and the reader's movement through the work. However, hypertext has been interpreted differently: some view it as a liberation from linear narrative, while others see it as a structured system whose paths are still designed by authors and constrained by interface logic. This tension makes hypertext central to debates on freedom, control, and designed navigation in digital literary studies.

The key aspects of hypertextuality include node structure, link design, navigational path, textual fragmentation, multilinear sequence, recursive movement, and reader choice (Hossain, 2025). In hypertext fiction, meaning emerges not only from what is written but also from how textual units are connected, interrupted, repeated, withheld, or made accessible through links. Lexias function as reading units, while links create possible routes across the narrative field. Earlier works preserved in Pathfinders and The NEXT show that hypertextual literature often depends on spatial reading, associative logic, return, disorientation, and the tension between exploratory freedom and structural constraint. Thus, hypertextual analysis must examine both narrative content and the architecture through which reading becomes a navigational act. These aspects provide the conceptual bridge between early hypertext fiction and later interactive narrative, because both depend on designed pathways, user movement, and non-linear textual organization.

Interactive narrative

Interactive narrative extends the logic of hypertext by emphasizing agency, decision, feedback, consequence, and storyworld participation. While hypertext allows readers to choose reading paths, interactive narrative enables users to participate in the unfolding of story events, character movement, narrative outcomes, or fictional worlds. Scholars of interactive digital narrative define it as a form in which narrative experience is shaped through interaction between user, system, and designed storyworld (Eldiasty & Mansour, 2025; Kaloi et al., 2025). The concept therefore shifts attention from textual navigation to procedural participation: the reader does not only move through a text, but acts within a system that can respond to input. Nevertheless, definitions vary: literary scholars often stress interpretation and textuality (Ramya & S, 2021), whereas game studies and media studies emphasize agency, simulation, procedurality, and ludic structure (James, 2025). This interdisciplinary tension is productive because it shows that interactive narrative occupies the boundary between literature, game, interface, and computational performance.

The principal indicators of interactive narrative include user agency, branching structure, rule-based response, narrative feedback, replayability, embodiment, interface mediation, and multimodal immersion (Zafar et al., 2024). These elements distinguish interactive narrative from conventional storytelling because the reader's action becomes part of the narrative process. Contemporary studies on interactive digital narrative show that such works can represent complexity, plurality, and situated experience through choice-based systems and dynamic environments. In electronic literature, this means that literary meaning is no longer located solely in the text but distributed across interface, code, action, and reader-system interaction. Consequently, interactive narrative marks a decisive shift from reading as interpretation to reading as participation. For this reason, the present study treats hypertextual structure, reader agency, and multimodal transformation as interconnected concepts rather than separate categories, because they collectively explain how electronic literature evolves from linked textual fragments into responsive narrative systems.

METHOD

The unit of analysis in this study consists of selected electronic literary works that represent the historical and formal transition from hypertext fiction to interactive narrative. The material objects include early hypertext fiction, pre-web digital literature, interactive fiction, kinetic and generative poetry, literary games, and multimodal interactive narratives. These works are treated not merely as textual artifacts but as computational, navigational, and multimodal systems. The analysis focuses on six main units: node-link structure, lexia organization, reader pathways, interface design, narrative choices, and multimodal features such as image, sound, animation, and code. To strengthen corpus validity, the works were selected purposively from curated electronic literature archives based on four criteria: historical relevance, genre diversity, platform variation, and representativeness in the evolution from hypertextual architecture to interactive narrative. The corpus was selected purposively from established electronic literature archives to ensure historical relevance, genre diversity, and methodological validity.

This study applies a qualitative digital humanities design with a descriptive-comparative orientation. The design is appropriate because the research does not seek to measure electronic literature statistically, but to interpret its formal, medial, and experiential transformations across different historical phases. The descriptive dimension explains the structural features of each corpus, while the comparative dimension traces continuities and differences between hypertext fiction and interactive narrative. The study combines close reading, media-specific analysis, corpus mapping, and digital textual analysis to examine electronic literature as both literary expression and computational artifact. This design allows the study to move beyond general theoretical discussion by linking each conceptual claim to observable features in the selected corpus. This design enables the research to examine electronic literature as a hybrid object situated between literary form, computational system, interface design, and readerly participation.

The sources of information in this study consist of primary and secondary materials. Primary sources include selected electronic literary works archived in the Electronic Literature Collection, ELMCIP Knowledge Base, The NEXT, and Pathfinders. These archives were chosen because they provide curated, documented, and historically significant collections of electronic literature. The inclusion of multiple archives also helps avoid dependence on a single institutional collection and allows the study to compare works across different

periods, platforms, genres, and preservation contexts. Secondary sources include scholarly articles, books, critical essays, author statements, curatorial notes, and preservation documents related to electronic literature, hypertext theory, interactive digital narrative, and multimodal textuality. These sources provide theoretical grounding, historical context, methodological justification, and interpretive support for analyzing the transformation of literary forms in digital environments.

Table 1. Research corpus

No	Corpus Category	Example of Data	Analytical Focus	Main Source
1	Early Hypertext Fiction	Pre-web hypertext fiction produced through Storyspace or HyperCard	Node, link, lexia, nonlinearity	Pathfinders; The NEXT
2	Canonical Hypertext Works	Early digital literary works by Michael Joyce, Shelley Jackson, Stuart Moulthrop, and others	Fragmentation, multilinearity, reader navigation	The NEXT; ELO
3	Electronic Literature Collection Works	Selected works from ELC Vol. 1, 2, 3, and 4	Genre, platform, digital aesthetics	Electronic Literature Collection
4	Interactive Fiction	Text-based or choice-based narrative works	Choice, agency, branching, consequence	ELO; ELMCIP
5	Generative Literature	Works using algorithmic or procedural text generation	Code, repetition, variation, randomness	ELMCIP; ELO
6	Kinetic and Digital Poetry	Animated, screen-based, or code-driven poetry	Movement, typography, visual rhythm	ELC; ELMCIP
7	Literary Games	Narrative-based game-like literary works	Rule, play, agency, storyworld	ELO; The NEXT
8	Multimodal Interactive Narrative	Works combining text, image, sound, animation, and user action	Interface, immersion, multimodality	ELC; ELMCIP
9	Metadata and Curatorial Notes	Author, year, platform, genre, technical description	Historical mapping and classification	ELMCIP; ELO
10	Critical Documentation	Essays, author statements, interviews, and archival descriptions	Contextual interpretation	EBR; ELO; Pathfinders

Data collection was conducted through archival mapping, purposive selection, documentation, and analytical note-taking. First, relevant works were identified from major electronic literature archives based on period, genre, platform, and formal characteristics. Second, each work was documented by recording its title, author, year, platform, genre, technical environment, narrative structure, and mode of interaction. Third, screenshots, navigation notes, interface observations, and reading pathways were compiled to capture how each work operates as a digital literary system. Fourth, the works were organized into analytical categories corresponding to hypertextual structure, interactive agency, and multimodal transformation. Fifth, secondary texts were used to verify the historical position, technical condition, and scholarly interpretation of each selected work. This process ensured that the data were not limited to textual content but included structure, interface, platform, and reader-system interaction.

Data analysis was conducted through three interconnected procedures: hypertextual structure analysis, interactive narrative analysis, and multimodal discourse analysis. Hypertextual structure analysis examined nodes, links, lexias, navigational paths, fragmentation, and multilinearity. Interactive narrative analysis focused on reader agency, choice, branching, feedback, consequence, and the relation between user action and narrative development. Multimodal discourse analysis examined how text, image, sound,

animation, typography, interface, and code produce literary meaning. The analysis proceeded in four stages: corpus classification, feature coding, comparative interpretation, and theoretical synthesis. In the feature-coding stage, each work was examined according to recurring indicators, including link structure, interaction mode, system response, interface function, multimodal composition, and reader participation. Through these stages, the study traces how electronic literature evolves from navigational textuality toward participatory narrative systems.

RESULTS

From linear text to hypertextual architecture

The first result concerns the transformation of electronic literature from linear textual organization into hypertextual architecture. This section examines how early electronic literary works depart from the sequential logic of print-based narrative and develop a digital structure based on nodes, links, lexias, screens, and navigational pathways. Figure 1 operationalizes this transformation through observable indicators, including textual sequencing, node organization, link function, reader navigation, narrative coherence, spatial reading, temporal disruption, authorship model, medium dependency, and evolutionary implication. Rather than treating hypertext merely as a technical feature, the analysis positions it as a literary mechanism that reshapes sequence, coherence, authorship, temporality, and reader participation. The corpus indicates that hypertext fiction marks a decisive shift from fixed textual order to reader-activated textual architecture.

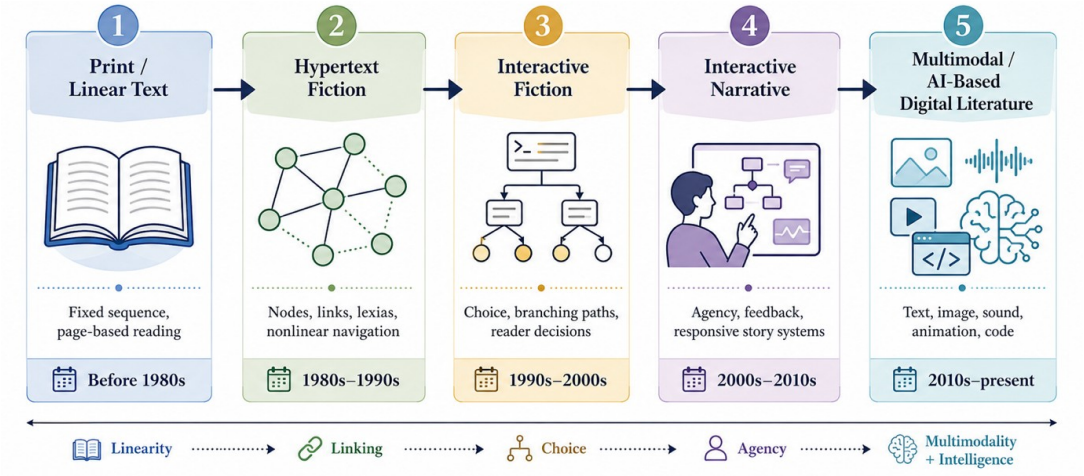

Figure 1. Timeline evolution of electronic literature

Figure 1 shows that hypertextual transformation occurs across structural, navigational, and medial dimensions of literary form. Linear sequence is replaced by multilinear arrangement, while paragraphs, pages, and chapters are displaced by nodes, lexias, screens, and clickable textual segments. Links function as narrative devices because they connect, interrupt, repeat, redirect, or delay the reader's movement across fragments. The reader's position also changes from a follower of textual order into a navigator who constructs a particular reading trajectory. Narrative coherence becomes less dependent on chronology and causality, and more dependent on association, return, juxtaposition, memory, and interpretive reconstruction. These findings demonstrate that hypertext changes not only the structure of literary works but also the mode through which reading itself is performed.

These findings suggest that hypertext fiction should be understood as an architectural model of literary meaning-making. Its significance lies not only in its rejection of linearity, but in its reorganization of literature as a system of possible relations. In this model, the author no longer controls a single narrative sequence but designs the conditions through which multiple reading paths may emerge. The reader, in turn, does not simply receive meaning but activates it through movement, selection, return, and reconstruction across textual fragments. Hypertext therefore establishes the conceptual foundation for interactive narrative by transforming literature into a spatial, procedural, and participatory form. This confirms that electronic literature evolves through changes in textual structure, medium dependency, and readerly agency.

Reader agency and the rise of interactive narrative

The second result concerns the emergence of reader agency as a central feature in the development of interactive narrative. While hypertext fiction already transforms readers into navigators of textual fragments, interactive narrative expands this position into a more active and consequential form of participation. Figure 2 operationalizes this development through indicators such as reader role, type of agency, choice structure, system response, narrative consequence, character positioning, temporal experience, interface mediation, authorship model, and evolutionary implication. This section therefore examines how electronic literature moves from link-based navigation toward decision-based, responsive, and system-oriented storytelling. The corpus indicates that interactive narrative changes reading from the selection of textual routes into participation in narrative formation.

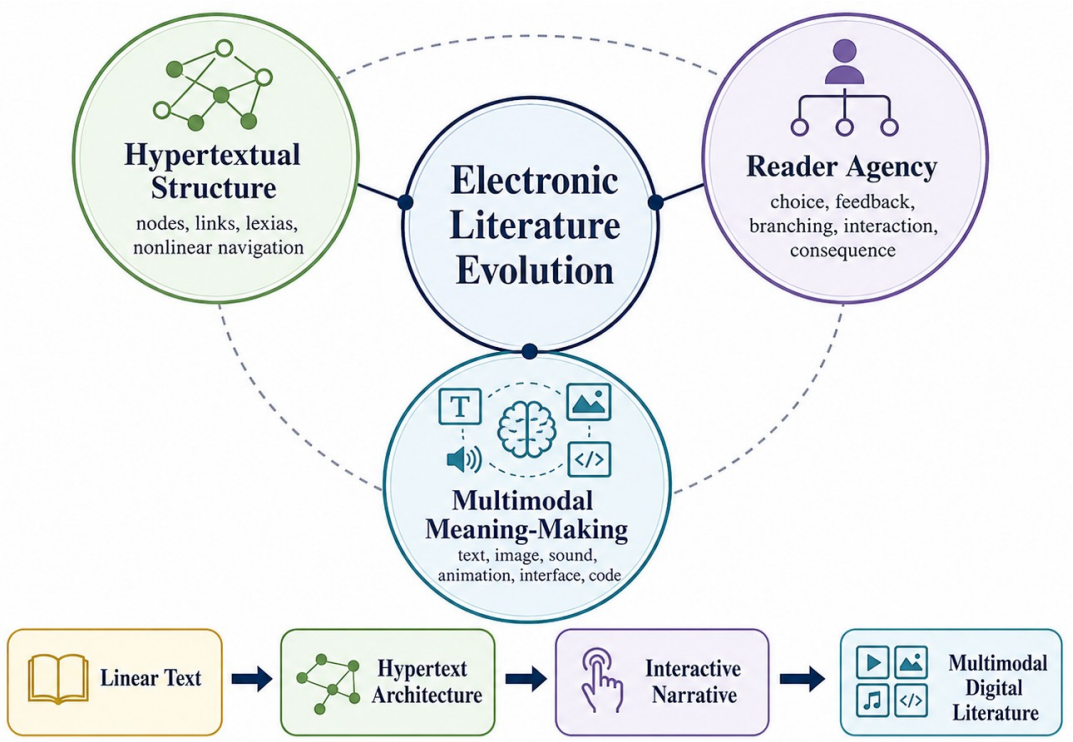

Figure 2. Three-dimensional analytical model of electronic literature evolution

Figure 2 shows that interactive narrative develops from, but also exceeds, the logic of hypertextual navigation. In hypertext fiction, readers mainly select links, revisit nodes, and construct a reading sequence. In interactive narrative, however, readers make choices, perform actions, respond to prompts, manipulate environments, occupy character positions, and sometimes influence plot development, event sequence, or story outcomes. Interaction becomes more varied, including clicking, typing, selecting, playing, exploring, and triggering system responses. Figure 2 also shows that reader agency is not unlimited, because it is mediated by interface structures such as menus, buttons, command lines, icons, maps, prompts, and clickable zones. These findings demonstrate that electronic literature increasingly treats reader action as part of the narrative structure itself.

These findings suggest that interactive narrative transforms electronic literature from a navigable textual architecture into a responsive narrative system. Reader agency is no longer limited to interpretive freedom or pathway selection; it becomes a procedural force that helps actualize the storyworld. This shift also changes the concept of authorship, because the author no longer designs only textual fragments and links, but constructs rules, choices, conditions, consequences, and feedback mechanisms. As a result, literary meaning is distributed across authorial design, computational response, interface mediation, and reader participation. Interactive narrative therefore marks a crucial evolution in electronic literature: from reading as navigation to reading as performative engagement within a dynamic system.

Multimodal transformation of literary experience

The third result concerns the multimodal transformation of literary experience in electronic literature. This section examines how digital literary works move beyond text-dominant expression toward a hybrid aesthetic form involving language, image, sound, movement, interface, code, and reader action. Figure 2 operationalizes this transformation through indicators such as mode of expression, textual materiality, visual organization, auditory mode, movement, interface function, readerly embodiment, code, narrative space, and evolutionary implication. While hypertext fiction emphasizes navigational structure and interactive narrative foregrounds reader agency, multimodal electronic literature expands the sensory and semiotic conditions of literary meaning. The corpus indicates that electronic literature does not simply transfer literature into digital media, but reconstructs literature as a screen-based, procedural, sensory, and participatory experience.

Figure 2 shows that electronic literature transforms literary experience across verbal, visual, auditory, kinetic, spatial, procedural, and embodied dimensions. Verbal language remains important, but it no longer functions as the sole carrier of meaning. Text becomes movable, clickable, animated, and dependent on screen-based display, while visual elements, sound, movement, and interface design operate as constitutive parts of narrative and poetic expression. Figure 2 also shows that code plays a significant role in generating, animating, randomizing, or regulating textual experience. Readers must not only interpret language but also watch, listen, click, scroll, select, type, wait, replay, and navigate digital environments. These findings demonstrate that electronic literature reorganizes reading as a multimodal, operational, and embodied process.

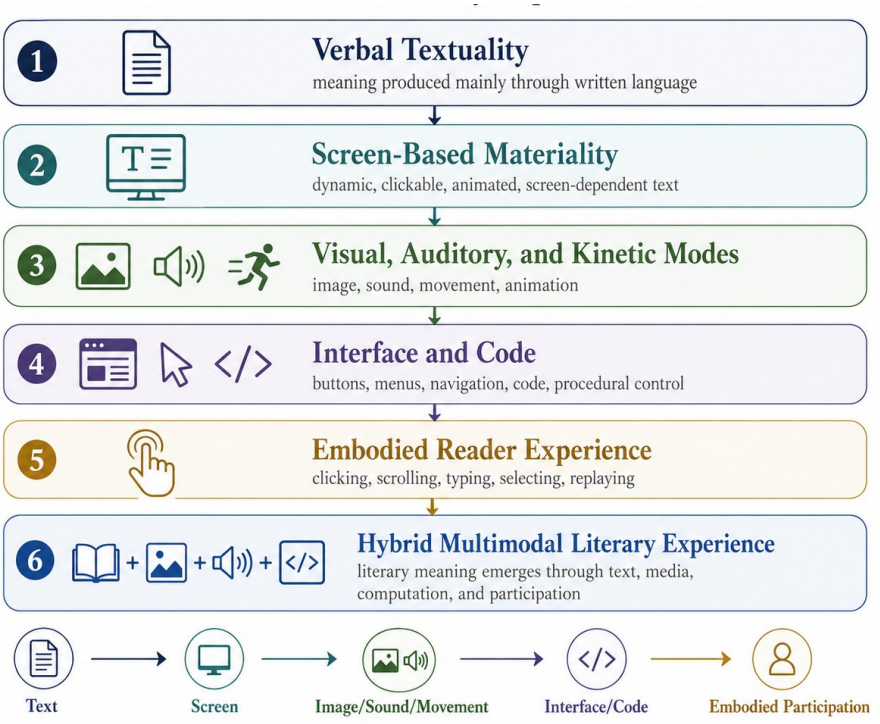

Figure 3. Layered multimodal transformation from verbal textuality to hybrid electronic literary experience

These findings suggest that electronic literature should be understood as a media-specific literary form in which meaning is distributed across multiple semiotic and computational modes. The transformation from verbal text to multimodal experience challenges print-based assumptions that locate literariness primarily in language, narrative sequence, or authorial expression. In electronic literature, literary meaning emerges through the interaction of text, image, sound, movement, interface, code, platform, and reader performance. This condition also changes the status of the reader, who becomes not only an interpreter but an embodied participant within a digital environment. Multimodal transformation therefore completes the broader

evolution of electronic literature by showing how literary form becomes inseparable from media, technology, computation, and interaction.

DISCUSSION

The transformation from linear textuality to hypertextual architecture has important implications for how literary form is understood in digital environments. The findings show that hypertext does not merely rearrange narrative order; it changes the function of literary structure by turning sequence into a designed field of navigational possibilities. In print-based narrative, sequence often stabilizes interpretation through chronology, causality, and authorial arrangement. In hypertext fiction, however, structure becomes a field of possible relations activated by the reader's movement across nodes, links, and lexias. This function is visible in the corpus through fragmented screens, multiple entry points, link-based routes, recursive returns, and non-sequential access to textual units. This shift enables literature to represent discontinuity, multiplicity, fragmentation, and associative thought more effectively than conventional linear forms (Rukmi et al., 2024; Sheikh, 2025). Yet its possible dysfunction is also visible: excessive fragmentation may produce disorientation, weaken narrative coherence, or turn interpretive freedom into navigational uncertainty. Thus, hypertextual architecture both expands and destabilizes literary reading by making meaning dependent on movement through textual space.

This shift occurs because hypertext is built upon a different underlying structure from print narrative. Linear literature is organized through stable order, while hypertextual literature is organized through relational architecture (Ramya & Rukmini, 2021; Samira & Chemseddine, 2025). The link does not simply connect fragments; it functions as the structural principle through which meaning is generated, delayed, interrupted, repeated, and reconfigured. This explains why early hypertext fiction is often associated with multilinearity, textual openness, and readerly participation. The technical form of the medium produces a corresponding aesthetic logic: because the text is stored as interconnected units rather than sequential pages, reading becomes an act of selection, return, and recombination. In this sense, the corpus confirms that digital structure and literary experience are causally connected: the organization of nodes, links, screens, and platform-dependent pathways reshapes how narrative coherence is produced. Therefore, the movement from linear text to hypertextual architecture should be understood not as a stylistic variation, but as a structural transformation in literary meaning-making.

The rise of reader agency further intensifies the transformation of electronic literature because it moves reading from navigation toward participation. In hypertext, the reader chooses paths; in interactive narrative, the reader may influence events, perspectives, outcomes, or the rhythm of narrative development (Alagiya, 2023; Sheikh, 2025). The findings indicate that interactive narrative functions by converting reader action into a component of narrative formation through choices, commands, prompts, feedback, replay, and consequence. This produces a major implication for literary theory: interpretation is no longer only cognitive but also operational. The reader's action becomes part of the literary process. Interactive narrative therefore functions as a model of participatory storytelling in which meaning emerges through the relation between user, system, and storyworld. Its strength lies in its ability to represent plurality, contingency, and situated experience, but its weakness appears when agency becomes too limited, predictable, or merely decorative. The central issue is not whether readers are free, but how freedom is designed, constrained, and made meaningful.

The expansion of agency is caused by the procedural structure of interactive narrative. Unlike hypertext, which primarily offers alternative pathways among textual fragments, interactive narrative depends on rules, conditions, feedback systems, and programmed responses (Eldiasty & Mansour, 2025; Ramya & Rukmini, 2021). The corpus shows that agency is mediated by interface elements such as menus, command lines, buttons, maps, prompts, clickable zones, and response systems that determine what readers can do. This structure explains why agency in digital narrative is never absolute; it is always designed within a computational environment. The reader acts, but the system defines what kinds of action are possible, what consequences can occur, and how the storyworld responds. This means that reader agency is produced by the correlation between narrative design and computational constraint. The reader becomes active not because authorial control disappears, but because authorial control is redistributed into rules, options, interfaces, and

feedback loops. Agency, therefore, should be interpreted as a designed condition rather than unlimited reader freedom.

The multimodal transformation of literary experience broadens the implications of electronic literature even further. The findings demonstrate that electronic literature no longer relies exclusively on verbal language, but distributes meaning across text, image, sound, movement, interface, code, platform, and reader action. This transformation challenges the print-centered assumption that literariness is primarily located in words, sentences, and narrative sequence. In multimodal electronic literature, meaning is distributed across semiotic modes and sensory channels (Liu et al., 2025; Zafar et al., 2024). The image may function narratively, sound may create affective atmosphere, movement may produce temporality, and interface may regulate access to the story. This multimodal function enriches literary experience because readers must interpret not only language but also visual organization, auditory texture, screen movement, interface logic, and procedural behavior. However, its possible dysfunction appears when sensory complexity overwhelms interpretation or reduces literary engagement to technical novelty. Thus, multimodality expands the field of literary meaning while also requiring more complex interpretive competence from readers and critics.

This multimodal condition emerges because electronic literature is inseparable from its technological infrastructure. Digital works are not simply texts displayed on screens; they are performed through software, interface, platform, code, and hardware. Code generates movement, regulates interaction, organizes timing, enables variation, and sometimes produces textual sequences that cannot be reduced to authorial wording alone (Bell & Ensslin, 2024; Hanafi, 2024). Interface determines what can be seen, clicked, hidden, repeated, or transformed. Screen layout turns reading into spatial perception, while sound and animation turn literary reception into embodied experience. The corpus therefore indicates that electronic literature must be analyzed as a media-specific literary system rather than as a verbal text transferred into digital form. The evolution from hypertext to interactive narrative demonstrates that digital literature changes not only what literature says, but how literature exists, operates, and is experienced. This is the central theoretical implication of the study: electronic literature evolves through the convergence of structure, agency, multimodality, and computation.

CONCLUSION

This study demonstrates that the evolution of electronic literature from hypertext to interactive narrative is not merely a technological progression, but a fundamental transformation in literary meaning-making. The most important finding is that electronic literature develops through three interconnected shifts: from linear sequence to hypertextual architecture, from navigational reading to participatory agency, and from verbal textuality to multimodal experience. These shifts show that digital literature must be understood as a dynamic system in which text, interface, code, platform, and reader action jointly produce literary meaning. The strength of this study lies in its integrative analytical model, which combines hypertextual structure analysis, interactive narrative analysis, and multimodal discourse analysis to explain how electronic literature changes across structure, agency, and sensory experience. By doing so, the study contributes to electronic literature studies by renewing the methodological lens through which digital literary works are examined.

However, this study is limited by its reliance on curated archival corpora and selected representative works, which may not fully capture the diversity of contemporary platform-based, AI-generated, mobile, and transmedia literary practices. The analysis also focuses primarily on textual, structural, interface, and multimodal features, while empirical reader reception, cross-cultural interpretation, and user-experience testing remain beyond the scope of this article. Future research should therefore expand the corpus to include social media fiction, AI-assisted storytelling, literary games, mobile narratives, and non-Western electronic literature. Further studies may also combine qualitative digital humanities analysis with reader-response experiments, interface usability studies, ethnographic observation, or computational mapping to examine how different audiences actually experience agency, immersion, and meaning in digital literary environments. These directions would strengthen the empirical and comparative dimensions of electronic literature research.

ACKNOWLEDGMENTS

The authors thank the reviewers and editorial team for their constructive feedback on this manuscript.

FUNDING INFORMATION

Author states no funding involved.

AUTHOR CONTRIBUTIONS STATEMENT

Nurmalita Herdiana: conceptualization, methodology, formal analysis, writing – original draft, writing – review and editing; data curation, formal analysis, writing – original draft, writing – review and editing.

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

AI USE DECLARATION

The authors used artificial intelligence tools to assist with the formatting and layout of this manuscript. AI was not used to generate the substantive content, conceptualization, data, analysis, or conclusions of the research, all of which remain the sole responsibility of the authors.

INFORMED CONSENT

Not applicable – this study did not involve direct human participants. Data consisted solely of publicly accessible documents, platform policies, and governance materials.

ETHICAL APPROVAL

This research did not involve human or animal subjects; it analyzed publicly available documentary records concerning machine co-authorship, and therefore no institutional review board approval was required. Where research does involve human subjects, the authors affirm that such research would be conducted in full compliance with all relevant national regulations and institutional policies, in accordance with the tenets of the Declaration of Helsinki, and would be approved by the authors' institutional review board or equivalent committee.

DATA AVAILABILITY

The corpus/data analyzed in this study are available from the corresponding author upon reasonable request.

REFERENCES

Alagiya, K. (2023). Exploring the Potential of Twine Fiction as an Interactive Learning Tool for Literature Education: A Case Study of Girish Karnad's Naga-Mandala. *Vidhyayana*. https://doi.org/10.58213/vidhyayana.v9isi1.1584

Bell, A., & Ensslin, A. (2024). Reading Digital Fiction. https://doi.org/10.4324/9781003110194

Eldiasty, A., & Mansour, E. (2025). Technical Innovations in the Interactive Storytelling of Jon Ingold's All Roads. *Egyptian Journal of Linguistics and Translation*. https://doi.org/10.21608/ejlt.2025.425152.1120

Hanafi, H. (2024). Narrative Structures and Reader Agency in Hypertext Fiction: A Comparative Analysis of selected literary texts. *The Creative Launcher*. https://doi.org/10.53032/tcl.2024.9.5.15

Hossain, M. (2025). Digital Narratives and Reader Engagement: Transforming Literary Forms in the Digital Era. *Asian Journal of Education and Social Studies*. https://doi.org/10.9734/ajess/2025/v51i41851

Ijaz, S., Raza, A., Dawood, M., & Zubair, N. (2026). Technology and Postmodern Literature: A Critical Interrogation of Digital Influence on Narrative Forms. *The Critical Review of Social Sciences Studies*. https://doi.org/10.59075/85f57s85

James, S. (2025). Digital Reading and Comprehension Experiences: A Focus on New Narratives and User Experience. *Journal of Humanities and Education Development*. https://doi.org/10.22161/jhed.7.5.4

Joshwa, J. (2023). Reading hypertextuality: a critical reading of Dictionary of the Khazars (1984). *New Review of Hypermedia and Multimedia, 29*, 151 - 166. https://doi.org/10.1080/13614568.2023.2258848

Kaloi, M., Amir, S., & Jamali, A. (2025). Interactive Storytelling and Digital Narratives in Contemporary Literature: A Postmodern Analysis. *The Critical Review of Social Sciences Studies*. https://doi.org/10.59075/n030z126

Liu, Z., Xu, M., & Tang, Y. (2025). The Impact of Real-Time Reader Interactions on Plot Structure and Pacing in Chinese Web Novels. *Studies in Art and Architecture*. https://doi.org/10.56397/saa.2025.02.05

Mazlan, N., Rahma, C., Putra, W., & Sulistyo, H. (2025). Understanding reader navigation patterns in multi-path hypertext fiction: A case study approach to Patchwork Girl. *Lingua Technica: Journal of Digital Literary Studies*. https://doi.org/10.64595/lingtech.v1i1.3

Papailia, A. (2023). Hypertextual innovation in Evgenios Trivizas' The 88 Dolmadakia. *Reci Beograd*. https://doi.org/10.5937/reci2316124p

Ramya, R., & S, R. (2021). Literature in New Media: A Comparative Study of Literary Affordances of Lance Olsen's "10:01" in Traditional and Digital Medium. *Rupkatha Journal on Interdisciplinary Studies in Humanities*. https://doi.org/10.21659/rupkatha.v13n2.45

Rukmi, N., , R., & Novianti, H. (2024). Reading digital fiction. narrative, cognition, mediality. *Media Practice and Education, 25*, 302 - 304. https://doi.org/10.1080/25741136.2024.2352973

S., A., & Sanal, S. (2023). Beyond the Page: Exploring Hypertextual Elements in Milorad Pavic's The Landscape Painted with Sea. *The Creative Launcher*. https://doi.org/10.53032/tcl.2023.8.6.05

Samira, G., & Chemseddine, C. (2025). Literature and technology: characteristics and sensitivities of the literary text's journey from print to electronic and digital forms. *STUDIES IN EDUCATION SCIENCES*. https://doi.org/10.54019/sesv6n2-016

Sheikh, A. (2025). Interactive Digital Narratives as Tools for Language Acquisition: Bridging Storytelling and Pedagogy in the 21st-century classroom. *International Journal of English Literature and Social Sciences*. https://doi.org/10.22161/ijels.104.90

Zafar, Q., Jabeen, G., Asif, M., & Rauf, Z. (2024). Exploration of How Digital Media and Technology are Changing Narrative Forms and Literary Consumption. *Bulletin of Business and Economics (BBE)*. https://doi.org/10.61506/01.00486

Zeynalova, K. (2022). Hypertext as a Form of Artistic Refl ection of Reality in the Digitalization Era. *Humanitarian Vector*. https://doi.org/10.21209/1996-7853-2022-17-4-145-156