A Coauthorship-Centric History
of Interactive Emergent Narrative

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Abstract. We trace the history of emergent narrative as both a term and a concept, with a particular focus on *interactive emergent narrative* (IEN): the use of emergent narrative as an approach or solution to the problems presented by the combination of interactivity and narrativity. We argue that discussion of IEN—both historical and modern—often fails to distinguish between two contrasting uses of IEN: to enable player *participation* as a character in an authored storyworld, and to enable player *authorship* of new stories. We additionally advocate for a clearer distinction between these perspectives, so that IEN systems which aspire to enable player authorship can be developed, studied and evaluated on their own terms.

Keywords: Emergent narrative · History of IDN · IDN theory

1 Introduction

Interactive emergent narrative (IEN) is an approach to the construction of interactive digital narrative experiences that aims to create computational systems from which narrative naturally emerges, bottom-up, through simulation and user interaction. Since the 1995 introduction [7] and 1999 popularization [2] of the term "emergent narrative", IEN has predominantly been framed as a solution to the problem of creating narrative play experiences in which the player may meaningfully *participate* as a character in an authored storyworld. For almost as long, however, there has also existed an alternative perspective on the purpose of IEN. This alternative perspective frames IEN as an approach to the creation of play experiences in which the player takes on the role of the *author* of the "emergent" narrative, rather than a participant. From this perspective, the goal of IEN can be viewed as the provision of the user with *creativity support* [32]: IEN games and systems must give the user the tools and materials they need to construct a story of their own, even in the presence of barriers to player creativity that might obstruct or inhibit the construction of a successful story [14].

These two contrasting perspectives on IEN, despite the substantial differences between them, have remained rhetorically entangled due to the lack of a clear distinction between the play-pleasures of authorship and the play-pleasures of participation. Additionally, when IEN is discussed in a modern context, it is

often taken to stand specifically for the form of IEN that targets participatory user experiences.

We believe that several recent developments in the study of interactive digital narrative justify a reexamination of the player-authorship perspective on IEN. The study of *retellings* [6], or the stories that players tell about their play experiences (often in IEN games like *The Sims* and *Dwarf Fortress*), has called attention to the cultural significance of these stories—and to the extensive work that players do in constructing them, for instance by embellishing or extrapolating beyond the bare events of play to craft a better story [13,22] and constructing stories that ironically comment on or critique the IEN systems with which they were produced [33]. James Ryan [26] has drawn a clear distinction between the raw material of simulation and a particular telling or narrativization of this material, proposing a new *curationist* perspective on emergent narrative that highlights the work done by the human interactor in crafting a coherent story from the disorderly and overwhelming outputs of a simulation engine. In tabletop roleplaying games, recent years have seen the emergence of a clearer distinction between games that focus on enabling player participation in a story (like the traditional *Dungeons and Dragons* style of tabletop roleplaying) and games that intend to enable player coauthorship of a story (like the "GM-less" games *Microscope* and *The Quiet Year*) [8]. And several recent efforts have been made to construct digital IEN games in which the intended player experience is one of coauthorship, rather than one of participation [10–12,30].

In this paper, we attempt to trace the history of emergent narrative (EN) as both a term and a concept, with a particular focus on *interactive emergent narrative* (IEN): the use of emergent narrative as an approach or solution to the problems presented by the combination of interactivity and narrativity. Walsh [34], Ryan [26] and Larsen et al. [16] have all made significant attempts to disentangle the history of emergent narrative, and we draw extensively on their efforts here. These existing histories, however, stop short of drawing a clear distinction between two frequently conflated uses of IEN: the use of IEN to enable participation play and the use of IEN to enable authorship play. We therefore focus especially on drawing out and clarifying this distinction, with an eye to how this distinction can inform the design of IEN systems intended to facilitate each kind of play.

We argue that one central play-pleasure of IEN lies in the use of IEN systems by players to actively compose narratives. In this context, the computer functions as a storytelling partner that supports the player's storytelling practice, often by keeping track of complicated storyworld state; elaborating on the player's actions in unexpected ways, or otherwise suggesting new directions in which the narrative could be taken; and providing *curatorial affordances* [26] that assist the player in extracting particularly resonant details of the play experience into narrative form.

This use of IEN to enable player *authorship* of narrative is distinct from the use of IEN to support the player's *participation* in a storyworld through the embodiment of a particular character. Although these uses are sometimes com-

patible within a single IEN play experience, they are also frequently at odds with one another. Artificially limiting the player's viewpoint and agency to align with that of a single character, for instance, may help to strengthen player identification with the character in question (and thus the player's sense of participation in the world), but may simultaneously inhibit the player's ability to tell stories about storyworld events to which their point-of-view character did not directly bear witness, or to "nudge" the storyworld in certain desirable ways in order to promote the development of a particular narrative direction or theme. Therefore, it is useful to consider the play-pleasures of participation and the play-pleasures of authorship as related but distinct phenomena, and to maintain a consistent awareness of which play-pleasures you intend to prioritize during IEN design.

One reason for confusion around the concept of emergent narrative is that people have discussed the concept without using the term, and have also used the term to talk about several different related concepts. In this paper, we will first discuss early usage of the concept of emergent narrative prior to the appearance of the term. Then we will discuss the birth, popularization, and development of the term itself, including two distinct strands of thought that view emergent narrative primarily through the lens of player participation and player authorship respectively, as well as an additional expansive perspective that attempts to situate both interactive and non-interactive EN systems within a common framework.

For the purposes of this paper, we adopt a definition of "authorship" that follows earlier scholarship on emergent narrative—particularly the definition given by Louchart and Aylett (2004) [18], which holds that an author is someone who "seeks control over the direction of a narrative in order to give it a satisfying structure". Though we recognize that this definition sidesteps the debate over the boundary between reader and author that has taken place in hypertext communities (e.g., in Landow's work [15]), not to mention the extensive debate over the broader concept of authorship that has unfolded in modern and postmodern literary theory, we hope that this definition can nevertheless serve as a useful jumping-off point from which to survey existing literature in the interactive digital narrative tradition. Reconciliation of how authorship is discussed in an IDN context with how it has been conceived of in literary theory more broadly remains a potentially fruitful direction for future research.

2   Pre-interactive EN

James Ryan [26] argues that emergent narrative as a computational approach to storytelling originated several decades before the term "emergent narrative" was coined. In particular, he identifies the early story generators *Saga II* (1960), Sheldon Klein's murder mystery generator (1967-73), and Meehan's *Tale-Spin* (1975-77) [21] as some of the earliest works of computational emergent narrative. In all of these systems, narrative is treated as the emergent product of bottom-up interactions between a variety of simulated agents or characters, rather than something that is scripted into being from the top down.

Table 1. A timeline of key moments in the evolution of "emergent narrative" as a term with respect to Louchart and Aylett's three proposed user roles (spectator, participant, and author) [18] over time. Rows are publications; the S/P/A columns are marked if a publication's definition of emergent narrative includes spectatorship, participation, or authorship modes of user involvement respectively.

Publication	S	P	A	Notes
Early worldsim story generators, e.g. *Tale-Spin* (1975) [21]	✓			Predate coinage of EN as a term, but retroactively included by Ryan (2018)
Galyean (1995) [7]		✓		First academic use of EN as a term
Aarseth (1997) [1]		✓	✓	Discusses EN without using term directly; treats MUD players mostly as participants but sometimes uses coauthorship language
Murray (1997) [23]		✓		Discusses EN without using term directly
Aylett (1999, 2004) [2, 18]		✓		Introduces definition of EN that remains most widely used today
Mateas (2002) [20]			✓	Cites Aylett but interprets EN differently, without comment
Jenkins (2004) [9]			✓	Cites and disagrees with Murray; doesn't cite Galyean/Aylett/Mateas
Ryan, Marie-Laure (2006) [29]	✓	✓	✓	First occurrence of expansive definition
Walsh (2011) [34]			✓	Cites and disagrees with Ryan (2006)
Ryan, James (2015) [27]		✓		Closely follows Aylett's definition
Ryan, James (2018) [26]	✓	✓	✓	Pivots from Ryan (2015) to an expansive definition

Dehn [4] critiqued *Tale-Spin* for its limitations—particularly its need to begin a simulation run with all eventually-necessary characters, props, locations, and so on already invented in advance—and instead proposed an alternative approach to story generation, founded not in *Tale-Spin*'s *world simulation* (simulation of agents with various needs, desires, and so on) but in *author simulation*: the simulation of the process by which a human author assembles a story. In Dehn's view, human authors take a variety of actions beyond placing characters in a storyworld and allowing them to produce a story through their interactions. For instance, authors may invent characters, props, and locations on the fly as needed; plan out desired plot beats far in advance; deliberately develop characters and plotlines to engage with or comment on specific themes; or rearrange the order in which events are presented to achieve a desired effect on the reader. Dehn's approach represented a break from emergent narrative, and helped to found an alternative tradition of story generation founded on author simulation, which is continued in part today by the robust field of planner-based story generation [24,36]. The analog story generation framework *Plotto* (1928) [3], which

was later operationalized as a digital story generator [5], can also be viewed as an early manifestation of story generation via author simulation.

In the early context of story generation, then, the emergent narrative approach can largely be identified with bottom-up world simulation as opposed to top-down author simulation. However, neither the early world simulation-driven story generators nor their author simulation-driven counterparts present themselves as live interlocutors that can take input from a user midway through the story generation process and adapt the story in response. Instead, these systems aim to produce fully formed static narratives without a human in the loop. Due to our focus on interactive emergent narrative specifically, we thus consider these story generators to be largely outside the scope of our interest here.

3   The Participatory View of IEN

This brings us to the origins of the term "emergent narrative", which appears to have been coined in parallel by several different scholars and practitioners in the 1990s. Ryan traces the earliest academic use of the term to Tinsley Galyean's dissertation in 1995 [7]. Galyean makes only brief use of the term, discussing emergent narrative primarily as a contrast to the approach he intended to introduce: "narrative guidance of interactivity", which involves the use of interactivity to tell the specific story the author of the game wants to tell [7, p. 27]:

> In the narrative guidance model the presentation is manipulated to assure that the user will be told the story regardless of their interaction. In other words, the story remains the same at a high level while the presentation of the story varies.

Critically, however, it is at this stage in the history of emergent narrative that interactivity becomes key to its definition. Emergent narrative for Galyean specifically represents a potential solution to a challenge that would later come to be known as the *narrative paradox*: the difficulty of conveying a coherent story in the presence of an unpredictable human interactor [18]. Galyean's main intent was not to provide an extended characterization of EN, but to present narrative guidance of interactivity as a potential alternative solution to the narrative paradox—in opposition to emergent narrative, which for Galyean had already proven itself viable as the approach taken by a number of successful interactive experiences, such as flight simulators, *DOOM*, and *Myst*. Nevertheless, it is a Galyean-esque understanding of emergent narrative as a prospective solution to the narrative paradox that Ruth Aylett appears to have been responding to in her own work, which substantially developed and popularized emergent narrative as both a term and an approach.

Aylett (1999) [2], the first of Aylett's papers to lay claim to "emergent narrative" as a term, frames itself around the central question "What structures are needed to produce narrative often enough and with enough complexity to satisfy the user?". This framing makes clear the fact that the locus of interest for Aylett is on the system's production of narrative, not on the player's.

Louchart and Aylett (2004) [18] develop this distinction and make it more explicit. Here, Louchart and Aylett present three contrasting perspectives on the role of the user in interactive storytelling (user-as-spectator, user-as-participant, and user-as-author), and frame emergent narrative as an attempt to solve the problems associated with the user-as-participant perspective specifically:

> The role of the user is a key issue in interactive storytelling, with whether the user is considered as an author or a participant within the story having a major impact on theoretical approaches. The contradiction between authorship and participation is an important element of the narrative paradox previously mentioned. On the one hand an author seeks control over the direction of a narrative in order to give it a satisfying structure. On the other hand a participating user demands the autonomy to act and react without explicit authorial constraints. Casting the user either as a spectator, with no ability to act, or as the author him or herself avoids this problem, however it does not offer a solution for a participating user in real-time interaction within a narrative display. It also limits the storyline to a single entity. We argue that a serious consideration of the user as participant can actually present a solution to the narrative paradox, in the sense that it would encourage the emergence of several storylines while still leaving the user with the responsibility of conducting real-time meaningful actions within the unfolding narrative.

This distinction between user roles in IEN is particularly useful for understanding how different authors understand the scope of emergent narrative as a term or concept. In the remainder of this paper, we will make frequent reference to Aylett's proposed user roles in order to contextualize the design goals of different EN systems and approaches to EN system design.

Aylett's conceptualization of emergent narrative as fundamentally based in participation play is further supported (if only implicitly) by two early key works of interactive narrative scholarship: Espen Aarseth's *Cybertext* [1] and the first edition of Janet Murray's *Hamlet on the Holodeck* [23]. Both texts were published in 1997, shortly after the first appearance of the term "emergent narrative", but prior to Aylett's arrival on the scene in 1999. At the time, the term "emergent narrative" was not yet in wide use, but both texts engage with emergence and its relationship to interactive narrative. Moreover, although neither text explicitly draws a clear distinction between participant and author as user roles, both deal primarily with play experiences in which the user directly controls a particular embodied character in the storyworld, and both tend to come down on the side of narrative as either "merely" emergent from interaction or primarily produced by the system rather than by the participating human user.

Aarseth's interest in narrative emergence centers largely on the phenomenon of collaborative improvisatory storytelling in multi-user dungeons, or MUDs. He describes this collaborative storytelling as analogous to a "jazz jam session" [1, p. 158] and frames players in MUDs as "literary cyborgs" [1, p. 160], collaborating both with one another and with autonomous bots to construct textual or

literary "happenings" that may lack the "grand structural schemes" of "prose narrative", but that are worthy of treatment as texts. This characterization seems to position MUD players somewhere between participants and authors from a narrative perspective, while largely avoiding the question of narrativity one way or the other. Simultaneously, for Aarseth, "to be an 'author' means to have configurative power over not merely content but also over a work's genre and form" [1, p. 164]. Through this lens, authorship may or may not be available to players of MUDs and other highly malleable IEN systems (that allow users, for instance, to define new commands or interaction mechanics), and remains clearly out of reach for users of more closed IEN systems (such as *The Sims*, *Dwarf Fortress*, and other IEN games that are widely known today).

The tension between Aarseth's desire to characterize MUD play as a form of collaborative storytelling and his hesitance to assign users of computational systems the status of "author" may be attributable to Aarseth's view of early IEN systems (like the MUD) as texts in and of themselves, rather than as tools for producing texts. This conflation—the same one that Ryan [26] argues against, with his admonition that the simulated storyworld is not itself an emergent story—leads Aarseth to treat the unedited transcripts of MUD play sessions as the artifacts of narrative interest. Without the distinction between narrative material and retelling advanced in more recent work [6, 13, 14, 16, 22, 26, 33], Aarseth's view on the role of the user in IEN ends up suspended ambiguously between the user-as-participant and user-as-author perspectives.

Murray's position, meanwhile, is less ambiguous in its strong association of narrativity with participation. Her discussion of MUDs positions the MUD as a "collective creation" and a "digital narrative environment" in which stories can take place [23, p. 103], but does not treat the MUD itself as a narrative per se. MUDs for Murray are essentially a form of "participatory theater" [23, p. 152], and the central design issue that they pose is not one of co-creativity but of "discovering the conventions of participation" [23, p. 153] that will preserve the participant's sense of immersion. Similarly, in her discussion of different player attitudes toward *SimCity*, Murray states that "for the wife, [the game] was a narrative" [23, p. 105], but places the wife in the role of receiving the story rather than creating it. This attitude is made more explicit by Murray's assertion that the "narrative quality" of *SimCity* is "expand[ed]" by changes in later versions that "[allow] the player to live inside a more-detailed three-dimensional city rather than only manipulate it from on high" [23, p. 106]—or, essentially, that a simulation game becomes more of a narrative experience the more closely identified a player becomes with a particular character in the storyworld. Ultimately, Murray's goal is not to produce play experiences that center around player authorship, but to extend into computational media the pleasures of experiencing a story that someone else has authored. To Murray, "once we understand simulations as interpretations of the world, the hand behind the multiform plot will feel as firmly present as the hand of the traditional author" [23, p. 347]—and it is this firm sensation of authoredness that she believes interactive narrative systems should ultimately aspire to provide.

Today, the term "emergent narrative" has become strongly associated in many research communities with the work of Aylett and her collaborators (including Sandy Louchart, Mariët Theune, Ivo Swartjes, and others). Moreover, this research program has consistently maintained its strong focus on participatory experiences. For instance, Louchart et al., in a more recent (2015) characterization of the history of IEN [19], still frame the central problem that EN as an approach is intended to solve as one of "reconcil[ing] the demands of a carefully structured story experience with the necessary freedoms (movement, decisions) one would expect to grant an interactive user." This framing carries forward the focus on the interactor-as-participant-in, not the interactor-as-author-of, the emergent narrative, and consequently the close identification of the interactor with a particular player character. Similarly, Weallans, Louchart and Aylett's 2012 work on distributed drama management [35] essentially attempts to reconcile the idea of the "drama manager" from interactive drama research [17,25] with the bottom-up approach taken in emergent narrative design in order to produce a particular kind of narrative experience from the perspective of the player character inhabited by the user. This work takes it as a technical requirement that the user is strongly identified with a particular player character.

As a result, it may appear that IEN research is concerned primarily with systems in which the user's role is that of a participant in a simulated storyworld. But in parallel with Aylett's early work in the late 1990s and early 2000s, an alternative conceptualization of emergent narrative was also taking form. This alternative view, which treats "emergent" stories as having been actively coauthored by the users of IEN systems, has significant but often-overlooked implications for how IEN systems should be designed.

4   The Player-Authorship View of IEN

Perhaps the first concrete evidence of this alternative view can be found in Mateas's 2002 dissertation [20]. Like Galyean before him, Mateas does not spend much time on emergent narrative, listing it as one of a wide variety of potential alternatives to the interactive drama approach to interactive narrative on which he prefers to focus. But Mateas's definition of emergent narrative is focused on player authorship: for him, "emergent narrative is concerned with providing a rich framework within which individual players can construct their own narratives, or groups of players can engage in the shared social construction of narratives", and emergent narrative can be explicitly contrasted with the traditional view of narrative as "highly structured experiences created by an author for consumption by an audience" [20, p. 20]:

> Rather than viewing narratives as highly structured experiences created by an author for consumption by an audience, emergent narrative is concerned with providing a rich framework within which individual players can construct their own narratives, or groups of players can engage in the shared social construction of narratives. Autonomous characters may be

designed in such a way that interactions among autonomous characters and between characters and the player may give rise to loose narratives or narrative snippets [Stern 2002; Stern 1999; Aylett 1999]. Multi-user online worlds, including textbased Multi-User Dungeons (MUDs), avatar spaces, and massively multiplayer games such as Everquest and Ultima Online, create social spaces in which groups co-construct ongoing narratives. And simulation environments such as *The Sims* may be used by players to construct their own stories. Using the ability to capture screen shots and organize them into photo albums, plus the ability to construct new graphical objects and add them to the game, players of *The Sims* are constructing and posting online thousands of photo album stories.

Although Mateas cites Aylett (1999) for support in his discussion of emergent narrative, his definition in fact conflicts with Aylett's. Aylett frames emergent narrative not in terms of narrative construction by the user, but in terms of getting the user to participate correctly in a narrative that is "emerging" naturally from the bottom-up interactions of virtual agents. Aylett particularly spends time considering how to ensure the user is watching from the right place when interesting emergent events take place. For Mateas, in contrast, it is always the player's role to "construct" narrative from the "narrative snippets" that interaction produces.

Jenkins cites neither Mateas, Aylett, nor Galyean directly, but his 2004 treatment of emergent narrative [9] falls into the same category as Mateas's. He positions emergent narrative alongside three other kinds of game narrative (evoked, enacted, and embedded narratives) and explicitly suggests that one game design goal may be to "[produce] game platforms which support player-generated narratives", framing the player as the ultimate creator of the emergent narrative and cautioning designers against "attempt[ing] to totally predetermine the uses and meanings of the spaces they create". Further, Jenkins specifically asserts that it is the designer's responsibility to provide players with "highly legible" narrative material to aid them in the construction of their own narratives—although he does not quite go so far as suggesting that designers ought to provide players with tools to help them assemble this material into narratives.

And perhaps the strongest existing articulation of the player-authorship perspective on emergent narrative can be found in Walsh (2011) [34]. Walsh argues that narrative is necessarily "a semiotic activity, a sense-making process, rather than a product of other modes of representation or action"—and, therefore, that it cannot merely emerge as an "inherent result of running a simulation or interacting with a simulated environment". Instead, Walsh concerns himself with what he views as the "semiotic use of a simulation" by players: the deliberate use of narrative sense-making facilities to create a story, rather than to "remediate" a narrative that naturally emerges from play. Walsh highlights Marie-Laure Ryan's characterization of the central play-pleasure of *The Sims* as "coaxing a good story out of the system" [29] to underscore his argument, claiming that

This description implies the semiotic use of a simulation; such an approach to a *Sims* session would involve using the representational logic of the

simulation and the directive influence of your own intervention to create a narrative.

For Walsh, then, the central responsibility of the IEN system designer is to design a system that generates "narratively legible" behavior, and thus "[invites] narrative interpretation". But like Jenkins before him, even Walsh—despite his strong characterization of player storytelling behavior as active and deliberate—stops just short of suggesting that IEN systems can essentially be viewed as tools or instruments of narrative authorship.

5   The Expansive View of EN

One outlier definition of emergent narrative, which subsumes both the participation-focused and authorship-focused views of IEN under a single label, can be found in the writings of narrative theorist Marie-Laure Ryan. In her 2006 book *Avatars of Story* [29], Ryan distinguishes between a wide variety of narrative "modes", and discusses three modes that she considers especially important for digital narrative: the "emergent", "simulative", and "participatory" modes. For Ryan, the emergent mode includes all works of narrative media in which discourse (how story is presented to the recipient) and "at least some aspects of story" (the events occurring within the storyworld) are "created live through improvisation". Improvisation may occur within a single human storyteller, as in oral storytelling; between a cast of human actors, as in commedia dell'arte; within a computer program, as in what Ryan calls the "simulative" narrative mode; or between a human "recipient-participant" and a larger storytelling system, as in hypertext, tabletop roleplaying games, interactive drama, and computer games.

Ryan views the simulative and participatory modes as subcategories of the emergent mode. Her simulative mode is "specific to digital media" and characterized by its use of simulations, or "productive engines that generate many different courses of events through a combination of fixed and variable parameters", to implement the improvisatory dynamism of emergent narrative. Her participatory mode, meanwhile, contains works of narrative media in which the recipient plays an "active role" in shaping either the events presented by the narrative (story-level participation) or the narrative presentation of those events (discourse-level participation). In hypertext fiction, for instance, the recipient plays an active role in shaping the discourse by traversing the node-link structure in a particular order and thereby determining the sequence in which the events of the narrative are presented, while in Dungeons and Dragons, the recipient "impersonates an active character who influences the evolution of the storyworld", and thereby participates at a story level.

Ryan's definition of emergent narrative is thus the most expansive of the definitions we consider here, and in fact, we can recognize works of narrative media that cast the user in all three of Aylett's user roles (spectator, participant, and author) within Ryan's definition of EN. Spectatorship-oriented story generators based on world simulation, for instance, clearly fall within EN from Ryan's perspective, as do participation-focused non-digital roleplaying games. Authorship

play, meanwhile, is represented most clearly in Ryan's work by her characterization of *The Sims*, which she discusses several times in *Avatars of Story* but also unpacks further in her 2005 essay "Narrative and the Split Condition of Digital Textuality" [28]. Here, Ryan discusses the game's "story mode" (in which players "create comic strips by taking snapshot of the screen and adding their own text"—an early example of what James Ryan would later term "curatorial affordances") and points out that some "players have been known to manipulate the game, in order to get the snapshots that will fit into the plot they have in mind". Moreover, she asserts that the game does not afford users "enough control over the plot" to truly serve those users who aspire to authorship, and suggests that the game should provide more tools to give players control over what's going on in the characters' heads. For Ryan, "the most important problem to resolve for emergent systems of the future is to find the right balance between computer-generated and user-controlled events"—and, in some cases, the right balance lies much more on the side of user authorship of narrative than other contemporary theorists of emergent narrative tend to acknowledge.

Marie-Laure Ryan is not alone in adopting an expansive definition of EN. James Ryan, in his early (2015) writing on emergent narrative [27], cited and relied on Aylett's participation-focused definition of EN. However, he later shifted (in his 2018 writing) to an expansive definition [26] that more closely follows the definition given in *Avatars of Story*. This rhetorical shift was likely driven by Ryan's desire to incorporate early world simulation-based story generation systems into his conception of EN, and thereby to subsume both non-interactive and interactive forms of EN under a single model. The resulting curationist model holds that emergent narrative is always the product of a multi-stage process which refines the raw material of narrative potentiality into fully-realized narrative through active curation and narrativization—sometimes by a human user, as in the case of Ryan's own *Bad News* [31], but sometimes by a computer system that implements "story sifting" techniques, as in the case of Ryan's more recent project *Sheldon County* [26]. By exploding the process of emergent narrative creation into a series of steps with a number of distinct roles that either a human or a computational system could perform, Ryan simultaneously endorses the importance of user authorship in contemporary emergent narrative creation and attempts to present a path by which computational systems could engage in the construction of emergent narrative entirely on their own, without a human in the loop.

6   Conclusion

Emergent narrative is a historically contested term. For Galyean (perhaps the first to introduce the term to the scholarly literature) and especially Aylett (who initially popularized the term), emergent narrative represented a particular approach to designing interactive narrative systems in which the user takes up the role of a participant in a simulated storyworld. But almost from its introduction, as evidenced by Mateas's early interpretation of the term, "emergent narrative"

as a category was also taken to include interactive narrative systems in which the user takes up the role of an author.

This sideways bleed of the term, and the resulting rhetorical confusion, mirrors the confusion present in early discussions of storytelling-oriented tabletop roleplaying games, where design strategies for promoting the "emergence" of stories around player participants were routinely conflated (on a rhetorical level) with mechanics that enabled the players to participate as authors in a process of story construction. The move to distinguish "GM-less" from traditional tabletop roleplaying games helped to resolve some of this rhetorical confusion by defining a new category of play experiences that center the play-pleasures of authorship as distinct from the pleasures of participation. As a result, design patterns for authorship play can now be discussed more clearly, due to the lack of constant compensation for the fundamental but unresolved discrepancy between two kinds of storygames. We hope that a similar turn can advance understanding of the differences between two analogous and oft-conflated types of digital storygames—thereby opening the door to a new category of IEN play experiences and design strategies intended to facilitate authorship play as a distinct mode of player interaction.

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