"The American Hypertext Novel"
Surpassing Hyperfiction through Michael Joyce's *Twilight: A Symphony*

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Abstract

The present paper discusses Michael Joyce's CD-ROM-based hypertext novel *Twilight: A Symphony* (1996), written in the *Storyspace* hypertext writing program, as a case study and as part of a larger set of explorations and experimental practices in electronic literature during the 1990s. Examining this early form of hypertext literature adds to the historicization of the evolution of the American hypertext novel, while bringing to the fore the trans-/re-formative potential of the hypertextual form. While Scott Rettberg acknowledges the death of hypertext as a narrative form in the twenty-first century, he observes that "hypertext has provided a basis for other emergent narrative forms" (2015a,183), illustrating that hypertextual narrative forms and practices need to be constantly re-evaluated. *Twilight* occupies a very particular position in the hyperfiction evolution trajectory, as it appears to be on the threshold of a new era of hyperfiction that was about to emerge after its publication, paving the path for the diverse post hypertextual narrative formulations of the 21st century. The examination of *Twilight* leads one to the realization that hypertext, and by extension the American hypertext novel, even as a nascent genre, has continuously been reinventing itself by subverting its own form. Joyce extrapolates in his novel that hypertext is a dynamic narrative form in perpetual evolution, a fact to which Rettberg also calls attention. This paper aims to expose the ways in which *Twilight* paved the path to future literary genres and practices in American digital studies; it illustrates that Joyce's novel interrogates certain features of early hypertext writing; it demonstrates how certain elements of the novel that differentiated it from other works written in *Storyspace* at the time can now be considered the original "kernels" of later experimentation in the field of electronic literature; and it emphasizes where these elements can be found again, albeit in new forms, in contemporary works.

1. Introduction: histories and continuities

Hypertext marked a major shift in the way text was conceived in the age of new media, signaling a departure from print-bound text towards practiced multi-linearity, as it appeared in an electronic environment. The term 'hypertext' was coined in 1963 by Theodore H. Nelson, and can be defined as "text composed of blocks of words (or images) linked electronically by multiple paths, chains, or trails in an open-ended, perpetually unfinished textuality described by the

terms *link*, *node*, *network*, *web*, and *path*" (Landow 1991, 2). However, hypertext was first introduced as a concept in 1945 with the publication of Vannevar Bush's article entitled "As We May Think," where he suggested the construction of "a mechanically linked information-retrieval machine, called a 'memex'" (Carpenter and Taylor 2003, 41). Memex – short for 'memory extender' – would serve as the prototypical hypertext machine, as it would be programmed to "organize diverse materials according to an individual's own personal associations" (Bush 2001, 142). Hypertext, "as a technological means to interconnect text elements," introduced digitality and multilinearity in literary practice "long before the introduction of the Internet" (Ennslin 2007, 13). As hypertext authors tried to adapt their fiction to the new digital reality of the late 20th century, they transferred literature from the printed book to the computer screen. Hypertext technology then introduced novel practices of writing and reading, offering a new kind of textuality.[1]

American author Michael Joyce, one of the first hyperfiction writers, has managed to refresh literature by introducing hypertext to the literary field with the publication of the first renowned "canonical" hypertext novel, *afternoon: a story* (1990), indubitably a breakthrough in electronic literature.[2] The present paper discusses Joyce's CD-ROM-based, Storyspace-written,[3] hypermedia novel, *Twilight: A Symphony* (1996), as a piece of experimental electronic literature that takes both literary and hypertext conventions a step further. The paper aims to expose the ways in which *Twilight* paved the path to future literary genres and practices in American digital studies; it illustrates that Joyce's novel interrogates certain features of early hypertext writing; it demonstrates how certain elements of the novel that differentiated it from other works written in *Storyspace* at the time can now be considered the original 'kernels' of later experimentation in the field of electronic literature; and it emphasizes where these elements can be found again, albeit in new forms, in contemporary works. Through the examination of Joyce's text, the article will also attempt to illustrate the potential of hypertext as a digital narrative medium in constant evolution as well as its dynamic and contingent form.

Leonardo Flores has recently attempted "to update the historical model" of electronic literature, by "defining three generations" (Flores 2019). The first-generation electronic literature (1952-1995), which also includes Joyce's first hypertext work, is characterized by "pre-

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[1] For more information on hypertext (and) narrative practice, see Espen J. Aarseth's *Cybertext: Perspectives on Ergodic Literature*, Astrid Ennslin's *Canonizing Hypertext: Explorations and Constructions*, N. Katherine Hayles's *Electronic Literature: New Horizons for the Literary*, and George P. Landow's *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization*.

[2] The credited first published hypertext fiction is *Portal* by Rob Swigart originally published as an interactive novel on computer disk in 1986.

[3] Storyspace, a writing environment distributed by Eastgate Systems, is a tool for creating hypertext literature.

Web experimentation with electronic and digital media,"[4] and the second generation (from 1995 to the present), to which Joyce's *Twilight: A Symphony* belongs because it introduces experimentations with the World Wide Web, "incorporates multimedia and interactivity." While in hypertext works of the 1980s and 1990s, "text was clearly the dominant mode of expression," in the mid-1990s, with the changes brought by the World Wide Web, a "multimodal shift" was observed with the "second wave or renaissance of hypertext" "written and distributed on the Web in a network-specific context;" this was "a shift from hypertext *per se* towards hypermedia" "allow[ing] for some use of visual media and other media assets" (Rettberg 2015b, 31; 26).[5] The third-generation electronic literature (from 2005 to the present) involves the use of programs, platforms, social media apps and networks, and multimedia authoring software that allow users to generate their own material as well.[6] Scott Rettberg has observed that in third generation electronic literature, although the hypertext novel is no longer a prominent area of contemporary interest, the structure, form and other components and elements of hypertext/hypermedia have been retained. (Rettberg 2015a, 180).

Why then examine this early form of hypertext literature so many years after its publication? The present paper follows a recent scholarship arguing that early works of electronic literature have not enjoyed the due scholarly attention they deserved. For instance, in *Ex-foliations: Reading Machines and the Upgrade Path* (2009), Terry Harpold "emphasiz[es] the merits of returning to what seems at first like old and familiar territory" within the context of electronic literature, contending that "[u]nderstanding the qualities of a moving field […] requires conscientious investigation of its precursors" because "we [didn't] underst[and] them very well the first time or […] we have discharged our responsibilities to them" (2009, 2-3). It is under this lens that Joyce's text will be viewed here, since this exploration of *Twilight: A Symphony* adds to the historicization of the evolution of the American hypertext novel, but it also brings to the fore the current trans-/re-formative potential of the hypertextual form.

Harpold conceives of a neologism, 'historiation,' which is of particular relevance here. He defines historiation "as a form of recollection activated by visible traits of the reading surface"

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[4] Examples of first-generation electronic literature include mostly CD-ROM-based electronic works written in Storyspace, a writing environment distributed by Eastgate Systems, such as Michael Joyce's first hypertext novel, *afternoon, a story* (1990), Stuart Moulthrop's hypertext novel *Victory Garden* (1992), set in the period during the Gulf War, and Shelley Jackson's hypertext novel, *Patchwork Girl* (1995), a remake of Mary Shelley's *Frankenstein*. Works of Interactive Fiction (IF), such as Nick Montfort's *Zork* (1979), also belong to this generation.

[5] The second-generation electronic literature includes mostly Web-based hypertext and interactive works combining text with other media (videos, audio files, images), such as Michael Joyce's hypermedia novel, *Twelve Blue* (1996), Stephanie Strickland and Cynthia Lawson Jaramillo's electronic poems, *V: Vniverse* (2002), and Michael Mateas and Andrew Stern's interactive drama *Façade* (2005).

[6] I would argue that hypertexts created with platforms like *Twine* (2000), as well as location-based narratives, can be regarded as examples of third-generation literature, as will be shown further down.

that "is shaped by [the reader's] memory, aware and unaware, of prior encounters with other texts, and is elicited by traits of the text presented to her in the present" (Harpold 2009, 8). More recent, third-generation works of electronic literature have served, to use Harpold's words again, as "points of departure for" the reader's multiple "(re)imaginings of [*Twilight*'s] expressive surfaces," which are "open to future revisions" (2009, 9). The present article will explore the extent to which certain third-generation digital texts, such as Alternate Reality Games (ARGs), locative media narratives and games, database narratives, electronic art and literature, and even print experimentations with hypertext, may potentially serve as reminders of Joyce's *Twilight* in that they both may share similar characteristics.

It is also worth mentioning that a general feeling of discontent with hypertext literature was eminent in the beginning of the 2000s, with critics contemplating on its marginalization (Ryan 2004a). Marie-Laure Ryan sheds light on this problematic status of hypertext fiction considering the metafictional quality of the latter as an impeding factor that deprives the text of a thematically rich narratological framework, consequently preventing readers from deeply immersing into the fictional world(s) of its narrative (2004b, 342-343). For example, many Storyspace hypertext novels – including *Twilight* – can potentially be regarded as anti-immersive as a result of their self-referential properties, which also account for their narrow thematic range and their fragmented narrative plot. Worse, as mentioned earlier, interest in the hypertext novel gradually waned to such a degree that Rettberg, almost a decade later, in his article "The American Hypertext Novel, and Whatever Became of It?"[7] characterized the American hypertext novel as "a kind of ghost town – a narrative genre that after being quickly discovered, developed, evolved and was then abandoned in pursuit of new territories before ever reaching its full potential" (2015b, 34).

While Rettberg acknowledges the death of hypertext as a narrative form in the 21st century by arguing that "[h]ypertext is dead. Long live hypertext" (2015a, 183), he observes that "hypertext has provided a basis for other emergent narrative forms within an increasingly diverse range of experimentation in narrative for digital media" (2015a, 183). The present paper explores how Joyce's *Twilight* seems to have paved the path towards the emergence and formation of novel, third-generation digital narrative forms in the 21st century – which Rettberg terms post-hypertextual – thus contributing to the expansion of the concepts of narrative and hypertextuality. *Twilight* seems to have revitalized hyperfiction by marking a transitional phase in electronic literature. The novel is actually an enhanced version of hypertext, as it explores and extends some of the potential of the genre. The novel complies with as well as

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[7] The title of the present article alludes to Scott Rettberg's article titled "The American Hypertext Novel, and Whatever Became of It?" which serves as a point of departure for the discussion on hypertext here.

deviates from the hypertext aesthetics which Joyce himself had established with the publication of the hypertextual classic, *afternoon: a story*. These narrative strategies employed in Storyspace hypertexts pertain to the ways in which the non-linear structure of the latter challenges the traditional textual order of beginning, middle, and end; how closure turns into a subjective process with the readers themselves deciding when and how they stop reading; the lack of particular focal point in the narration; how such a hypertext turns into a web of interrelated elements that has been compared to a jigsaw puzzle in which the readers are invited to formulate a comprehensible whole through the gradual association of ideas and the mental process of reordering disparate pieces of information in a random-ordered, scrambled text. Joyce himself admits that "[he] was especially aware in *Twilight* of working against hypertextual conventions, even and especially those that [he is] to some extent responsible for establishing" (Joyce 1996a), insinuating that hypertext is a dynamic narrative form in perpetual evolution. Rettberg verifies this very fact as well, by stressing that hypertextual narrative forms and processes/practices need to be constantly questioned. The examination of *Twilight* also leads one to the realization that hypertext, and by extension the American hypertext novel, even as a nascent genre, has continuously been reinventing itself by renewing its own form. In the present paper, Marie-Laure Ryan's theories on digital narratives and H. Porter Abbott's narrative theories are also used in order to account for the different variations of hypertextuality and (hyper)narrativity that become evident in Joyce's novel. Using Joyce's text as a potential case study and point of departure, the present paper attempts to address a historical continuity from second-generation hypertextual experiments to third-generation *post*-hypertextual formulations and formats that become manifest in diverse "kinds of digital content" of the 21st century (Flores 2019), such as games, art, and literary (hyper)narratives.

2. From *Twilight*'s dysfunctional hypertextuality to 21st-century posthypertexts

Having said all this, I would argue that *Twilight* can be considered a dysfunctional hypertext narrative in terms of how it can be read, setting the background for other dysfunctional digital fictional works that appeared after its publication. While discussing the notion of dysfunctionality in relation to digital narratives, Ryan calls attention to several digital texts which "are […] dysfunctional with respect to standard narrativity and fictional world-creation" (2015, 138). She differentiates between five dysfunctionalities: code, tools, games, interface and language. Applying Ryan's theory to *Twilight*, one might argue that this novel does not fully "bring [its fictional] world to life" (2015, 137), as it displays a dysfunctional hypertextual interface, while also being dysfunctional in terms of the language and the digital tools it uses.

First, *Twilight* can be regarded as a dysfunctional, "antinarrative interface" (Ryan 2015, 148) that impedes meaning creation. The novel constantly deceives and frustrates the readers by moving beyond traditional hypertextual strategies (Perco 2003, 195; 203). The plot, although essentially fragmented, revolves around a family who visits Pleasant Lake.

Fig. 1: The navigational tools of *Twilight*: the Floating Island, a palette consisting of two uni-directional arrows, four directional arrows, and a "pop" tool in the form of ellipsis, which, once clicked upon, provides a hypertextual map of the novel's lexias

The father takes his son away from his wife, Magda, and they hide in their cottage near Pleasant Lake. A decade later, Magda, who suffers from cancer, asks for Hugh's support while searching for the Twilight Doctor, who will supposedly help her end her own life, but because the Doctor is nowhere to be found, it is Hugh himself who helps Magda in her death. The structure of the novel disrupts the chronological order of events in the novel, as narrative time is divided into a horizontal and a vertical axis, which represent the four spatial orientations: West, East, North, and South. The narrative strands that the novel is comprised of can be perceived topographically, since each one of the directions offered symbolizes a different temporal dimension: in the West lie the past events of the novel, in the East the future events, in the South the current events, and in the North the numerous other events – some of which are related to the story and others are unrelated to it and the main characters – comments and texts (see Figure 1). David Ciccoricco argues that in *Twilight*, "[h]ypertext […] assumes a form that suggests not only movement forward and backward, but also above and below or perhaps inside and out, for not only are nodes linked 'adjacently' to one another, but also they may contain one another in a system of embedded levels of text" (2002). This construction of the narrative adds a game-like quality to the novel, since the readers are invited to put each lexia into one of four (topographical) groups, which represent different storylines. The readers, driven by the novel's spatio-temporal organization, constantly oscillate between the present, past, and future events

in the novel, therefore gradually placing narrative fragments into coherent patterns.[8] At the same time, however, the novel departs from this jigsaw-puzzle model that most Storyspace web-structured hypertexts follow. The novel creates the impression that readers participate in the construction of a jigsaw-puzzle, as first-generation hypertexts used to do. However, the novel's structure seems to be illusive and superficial, and thus a mere obfuscation, since a different kind of structural organization gradually emerges while reading the novel. Although it initially appears to be non-linear and fragmented, it actually contains a few instances of linearity, as it consists of a few mini-narratives or episodes that are presented in a linear order. For example, the readers are allowed to follow chronologically the story of an immigrant's, Boy Scrimshaw's, visit to Hugh's cottage. However, linearity is subverted, since at some points the narrative is interrupted by the intervention of other lexias that appear to be totally irrelevant with the main story. As a result, the novel appears to be only occasionally linear, as it finally transforms again into a random-ordered, non-linear, scrambled text.

In relation to this, the novel utilizes loose navigational mechanisms. For instance, if the readers move from the lexia "five elements" to "salt or Chopin in 6," then to "22short films re R Power," and finally to "yoda," it is unlikely that they will return to "yoda" again by using the right arrow due to the computational randomness of the novel. If the readers choose to go backwards, that is from "yoda" to "five elements," and forward to "yoda" again, using the left and the right arrows respectively, the system will transfer them to other, new lexias. Specifically, if they move from "22short films re R Power" to "yoda" for a second time, the readers will be asked to click anywhere within the former lexia frame in order to be able to move forward in the text. As a result, a new lexia will appear which will disrupt the continuity of the narrative path that the readers have already taken. By resisting the readers' instructions and commands, the system itself appears to guide them to specific pathways.

Even in the instructions of the novel that are contained in the lexia "Reading Storyspaces," Joyce casts doubts as to who actually regulates the text, saying that "you can click (here or anywhere) and the text will take you, or you it, where either you or it are going" (Joyce 1996c). Concurrently, the readers' sense of freedom is rather illusive, as they do not seem to be totally in control of how they move through the text, because it continually mutates, opening up different directions for them to follow. In this light, *Twilight* marks the transition from a command-oriented hypertext into a dysfunctional hypertext which constantly surprises the readers as to the narrative options which are to appear next. Such hypertextual unpredictability becomes also manifest in Nick Montfort's electronic poem *Taroko Gorge* (2009), which is

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[8] The novel's spatial structure is reminiscent of that of contemporary locative narratives that are experienced via mobile devices, requiring users to move in physical space in order to experience the various narratives of the work, as will be shown further down.

automatically generated through algorithms, thus creating a personalized narrative experience for the readers each time. Regardless of the options the readers may make on the screen by clicking on specific words and phrases, the hypertext will constantly mutate, forming diverse narrative outcomes as well as leading the readers to various directions. Similar playfulness with dysfunctionalities of the very notion of hypertext and its mechanisms becomes evident in locative games, such as *Pokémon Go!* (2016), where the narrative functions in a similar hypertextual manner to *Twilight*: at some point in the game's narrative, the players are asked to choose between two Pokémon in the game, *Bidoof or Plump Mouse*, which will seemingly lead to two different narrative outcomes, but because these are two names for the same Pokémon, they eventually realize that both choices surprisingly lead to the same outcome in the game, that is to add more Bidoof Pokémon in the players' inventory (Delioglanis 2023, 244).

Interestingly, even the concept of non-linearity is surpassed in *Twilight* because it acquires a different meaning in the novel: it is not merely that the narration is interrupted by other lexias, thus being non-linear, but also these intruding lexias are self-contained, as they can stand on their own, independently of the rest of the lexias. These lexias, which, according to the novel's spatio-temporal structure, belong to the northern part of the story, include a wide variety of texts, such as poems, emails, single words or short phrases, (graphic) images, metafictional comments, intertextual references to other authors and their work, manga translations, and texts accompanied with sounds, chirps and human voices, all of which are randomly interspersed within the narrative. Even the very notion of lexia linking here is deprived of its main function, as there is not necessarily a semantic relation between the different lexias. For instance, although the readers may visit the lexia 'H&J' immediately after the lexias 'g's' and 'Key West,' they will not be able to provide any semantic links between them nor will they be able to connect them with any of Hugh's and Magdalena's story instances. While the lexia 'H&J' contains simply the words "H and J," as its title suggests, the lexia "g's" includes an email and 'Key West' a poem that not at all relate to one another as well as to the rest of the lexias in the novel. Concurrently, non-linearity does not seem to be an appropriate term here, since most of the lexias in the novel should not be viewed as part of a definitive narrative structure and framework that happens to be presented in a non-linear manner. This is because lexias in *Twilight* can work independently as autonomous textual units; that is to say, the meaning of one lexia does *not* depend on another lexia.

Subsequently, lexias can be read in any possible order with no need to go through a number of other lexias in order to understand a particular one. In this light, the author masterfully combines different linking strategies by providing, on the one hand, numerous self-contained lexias, and, on the other hand, story instances presented in both a linear and a non-linear order. In *Twilight*, Joyce does not provide any immediate – not even oblique – semantic relation

between the lexias for the readers to locate, as he does in his other hypertext novels, in which lexias seem to constitute parts of a general textual framework that the readers themselves construct mentally. For example, the reading of Joyce's other works like *Twelve Blue* (1996) is primarily cumulative, as its meaning is the result of the accumulation of different textual points and clues: the readers add up information they gather from each lexia onto other lexias in order to reach an understanding of their own. And while Ciccoricco considers *Twilight* a "relic" because "[t]he complexity and difficulty of [its] navigational apparatus has contributed to its marginalization" within the field of hypertext literature (2007, 93), such experimentations with hypertextual linking are evident in more recent digital narratives. Rettberg calls attention to *Luminous Airplanes* (2011), where "the use of hypertext […] is actually quite conservative and somewhat limiting" and the "links are not always used to offer the reader narrative progression or an associative logic" (2015a, 182), which is what happens in *Twilight* as well, as explained.

With *Twilight*, Joyce also appears to be "bringing second-generation sensibilities and poetics" a step further. As most second-generation texts do, *Twilight* seems to subvert reader's expectations (Flores 2019) because moving in this traditional navigational hypertext does *not* mean progressing in the narrative, which is exactly what happens in some third-generation electronic literature works. Elsewhere I have characterized such 21st-century forms of hypertext as posthypertextual, borrowing from Rettberg's terminology (Delioglanis 2023). One example of these posthypertextual forms is "sculptural" hypertext, which Mark Bernstein and Diane Greco differentiate from traditional navigational "calligraphic" hypertext. While in calligraphic first-generation literary hypertext, authors "create structure by adding lines until [they] have added exactly the necessary degree of connection," in third-generation "sculptural" hypertexts, but also in *Twilight*, authors "create structure by removing unwanted connections, much as a sculptor may create form by removing unwanted stone" (2004, 171). This has to do with the extent to which the readers' movement is controlled in the hypertext work. A characteristic example of such sculptural hypertext works is location-based narrative games that are experienced in smartphones, which involve movement in physical space. As Rettberg notices, "[n]onlinear interactive narrative also moved from the web browser to other spatial environments, including the physical world" (2015a, 177). Location-based narratives and projects – such as the first locative narrative, *34 North 118 West* (2003), by Jeremy Hight, Jeff Knowlton, and Naomi Spellman – have been characterized as hypertexts in that they involve the discovery and activation of narrative content at specific locations serving as hypertextual nodes. A number of recent studies on hypertext, namely those by Charlie Hargood et al. (2016), David E. Millard, Charlie Hargood and Michael O. Jewell (2013), as well as Mark J. Weal, Mark Bernstein and David E. Millard (2002), apply the hypertext form to locative narratives and games, noting that in the sculptural hypertext that is formed in such works, the readers'/players'

movement in physical space cannot be controlled because it cannot be predicted by the hypertext author, leading to diverse and unpredictable literary outcomes similar to the ones that the readers of *Twilight* experience while reading the novel, as explained above. In calligraphic hypertexts, the links are formed by the readers, while in sculptural hypertexts, the link pre-exist because all nodes can potentially be connected, as happens in *Twilight*.

Interestingly, the lack of control of the form that the locative hypertexts will take every time echoes the aforementioned loose navigational mechanisms that are evident in Joyce's *Twilight*. That is to say, simply moving from one lexia to another in the electronic space of *Twilight* does not necessarily allow the readers to progress in the story due to the dysfunctional strategies employed; at the same time, if physical locations in locative narrative games can be viewed as equivalent to lexias in screen-based hypertext, moving in the hybrid – physical and virtual – space of locative games, such as *Ingress* (2012), does not mean moving "conceptually through the narrative" (Millard, Hargood and Jewell 2013) but only leveling up in the game instead. In fact, the locative narratives that appear in *Ingress* "are essentially dysfunctional because it is impossible for players to place all narrative fragments into coherent patterns" in order "to disclose the storyworld" because not all nodes (that is, locations functioning as hypertextual nodes) reveal narratives (Delioglanis 2023, 239). Game designers here play with the players' expectations in a similar manner that Joyce does with his readers (see Figures 2 & 3).
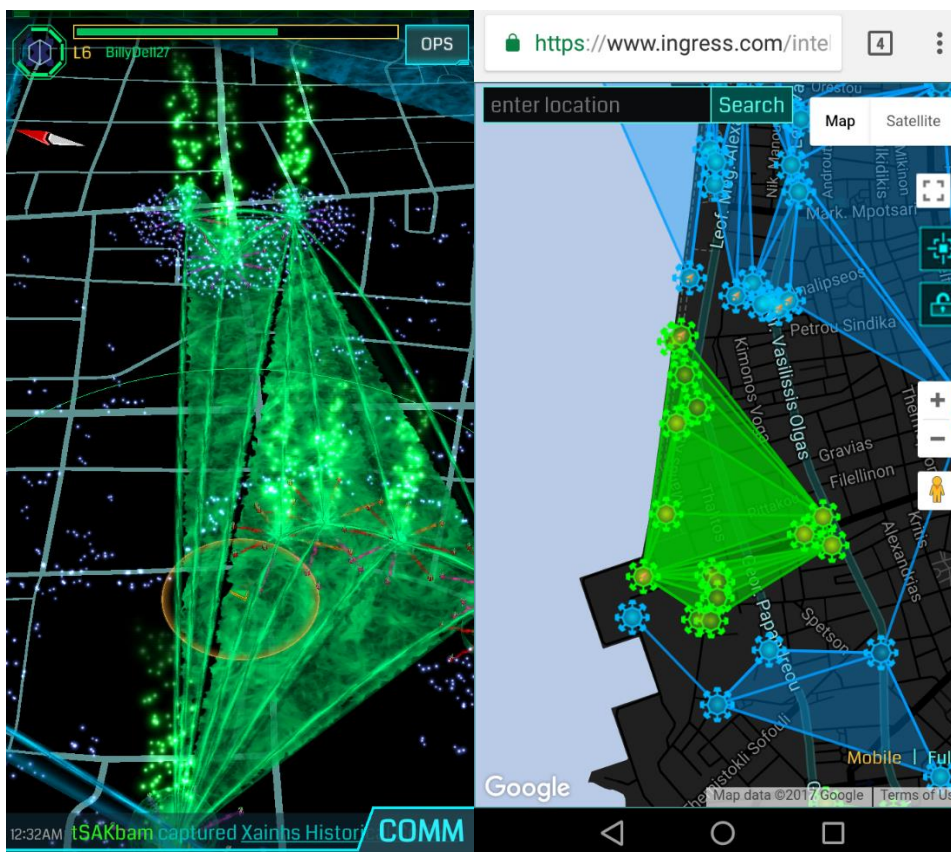

Fig. 2 & 3: Sculptural hypertext linking in Ingress: the links pre-exist because all nodes can potentially be connected by the players. Physical locations serve as nodes in the locative hypertext
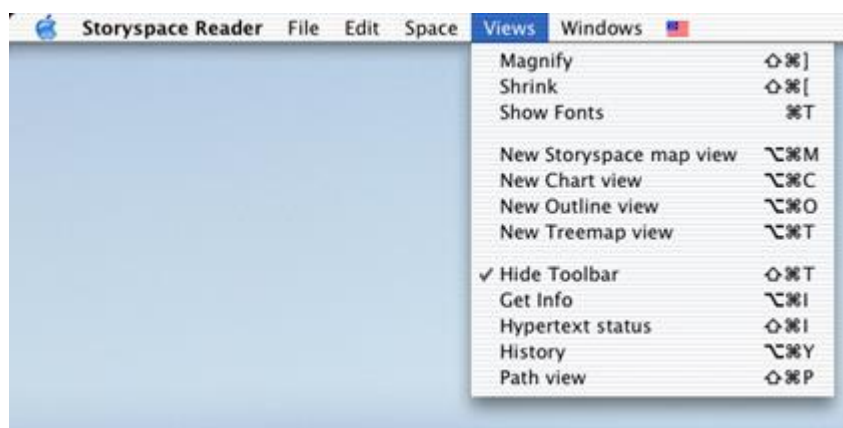
Fig. 4: The tool bar of *Twilight: A Symphony*

The tools offered by the *Twilight*'s hypertext interface are also dysfunctional, a dysfunctionality that, according to Ryan, "affects the level of computer programs" (2015, 140). Considering that not all lexias are relevant with each other but random, separate and individual reading units, the different kinds of hypertextual maps and outlines that *Twilight* provides the readers with in the "Views" menu at the toolbar – "New Storyspace map view," "New Chart view," "New Outline view," "New Treemap view," "Path view," and "History" – showing the specific lexias that the readers have visited, are rendered redundant, since location in the narrative does not matter any more (see Figure 4). Nor is it necessary for the readers to save the path they have followed within the narrative so as to return to it at another time, although the novel offers them the opportunity to do so by clicking on the commands "Save reading" and "Restore saved reading" respectively. As Ryan would argue, dysfunctionality here serves as a way to "[free] our attention from the interface and from the material conditions of reading, enabl[ing] us to pay greater attention to the semantics of the text" (2015, 143).

Twilight implicitly questions the "spatial" emphasis of the whole *Storyspace* writing program and of early hypertext writing as such. These "overviews" possibilities have gone completely lost with the move to the HTML and http protocols of the World Wide Web, not only in digital literary works but in electronic reading practices as such. With the rise of the Web, the hypertextual map featured in first-generation works of electronic literature was challenged, especially with its transformation into a database hypertext that is especially manifest in third-generation digital texts like ARGs. The official websites of ARGs like *Walker Creek Broadcast Station*, *Harry Potter: Wizards Unite*, and *Ingress*, are a case in point where their spatial design bears a database hypertextual structure that offers readers/players the opportunity to delve deeply into the various modules of which the website consists in order to play the game (See Figure 5).
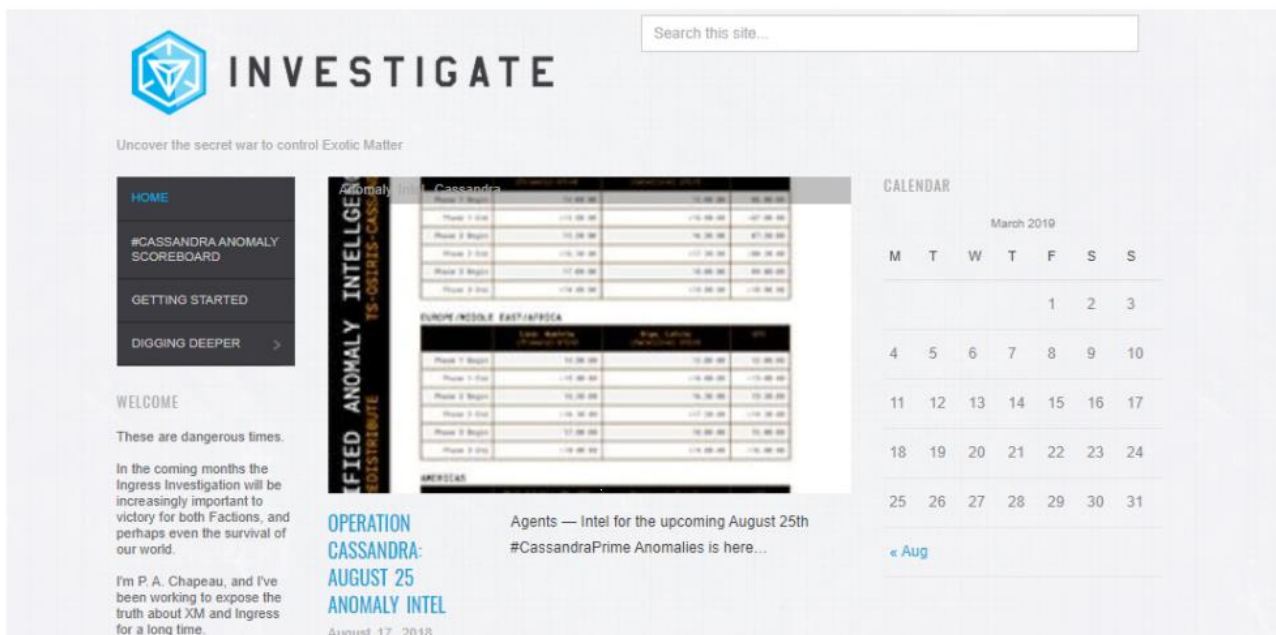
Fig. 5: An early version of the database hypertext structure of the Ingress website. The readers may choose to read the hypertexts through the menu (at the left side of the screen) or through the calendar, on the basis of when they were published (at the right side of the screen)
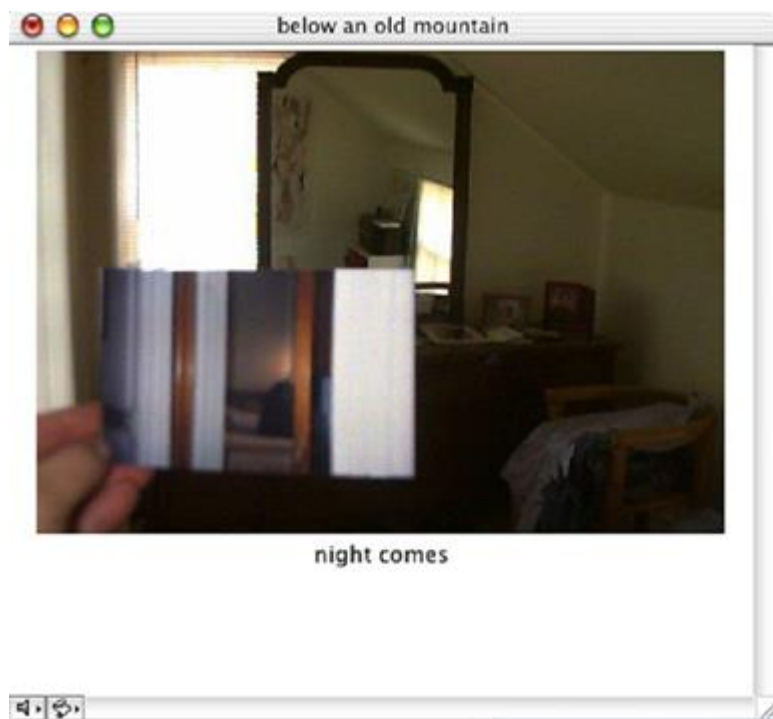

Fig. 6: Screen shot from the lexia entitled "below an old mountain"

Dysfunctionality also becomes evident in *Twilight* in the ways in which pictures can be interpreted in the novel. The ways in which pictures relate with the text in the novel further complicate the processes of world building. Pictorial and textual components in *Twilight* are unrelated, since the linguistic message does not reinforce the pictorial message, and vice-versa.

For example, the same lexia, "14," reappears in the novel, albeit in a different form. While the new lexia now bears the title "below an old mountain," it contains the same picture albeit with the caption title "night comes" (see Figure 6). Although title and subtitle could be combined in a semantically viable phrase, they do not correspond to the pictorial content of the lexia, as they do not represent or describe the image that appears in the picture.

Thus, pictures can be viewed and interpreted separately and independently, without resorting to the verbal information that is conveyed by the accompanied text, something that can be seen as part of Joyce's poetics because it is an element that is also used in other works, such as *Twelve Blue*. As Brian McHale would also argue, "the absence of any apparent relation between the illustration and the verbal text turns these visual materials into pure demonstrations of […] *visuality*," and thus into anti-illustrations, as they seem to depict and explain nothing else but themselves (1987, 190). Unable then to make any associations between the verbal and the visual information that the novel provides, readers become passive spectators of images that resist apparent meaning and interpretation. Hence, by parodying the conventions of illustration and visuality, Joyce is being playful and ironic in order to demonstrate that images and words can both be insufficient or equally ineffective for "the construction of a coherent storyworld," as Ryan claims about a more recent dysfunctional third-generation digital text, entitled *Grafik Dynamo* (2015, 149). Indeed, *Grafik Dynamo* "subverts the reading habits associated with graphic narratives in multiple ways," as well as "the relation between image and text" which is rendered "narratively [in]significant" (Ryan 2015, 149), as is also the case in *Twilight*. Subsequently, *Twilight* is open to multiple interpretations by the readers, who "can treat the […] text and image" incongruence "as a stimulant for the imagination," to use Ryan's words once again when describing dysfunctional texts (2015, 149).

The author then offers a rather loose definition of the term "hypertext novel," by transforming *Twilight* into a "searchable archive," with readers turning into "investigator[s] who [dig] into the history of the textual world by freely exploring a collection of documents" (Ryan 2004b, 343), as happens for example in the database hypernarratives of the locative game and ARG websites mentioned earlier. In fact, the readers here gain access to different pieces of information which are not necessarily related to each other, as if they are exploring the various pages of an electronic encyclopedia. Readers can find articles and citations from various sources, as is the case with the lexias "Francois Girard's" and "coming to writing" respectively, the book citations for example in "Pandora Laura," as well as the intertextual references to critics, like George Landow, Umberto Eco and Yellowlees Douglas, who turn into fictional characters in the lexia "stories" as well. The synthesis and integration of various genres and types of text in the novel, such as poetry, non-fiction, cited books, and quotes, add an encyclopedic sensation to the text(s). Joyce uses in the lexia "phantom" the words "[p]anic [e]ncyclopedia," alluding to the confusing

effect that the novel creates to the readers as a result of the diverse and disparate textual and informational elements it consists of.

As Ciccoricco suggests, the novel can thus be characterized as a symphony, after its very title. As the novel narrator confesses in "Heights," "I am trying to tell you everything in variations on one text. This makes me a musician" (Joyce 1996c). Ciccoricco also calls attention to the novel's connection with a music composition, with the lexias being viewed as musical phrases in a concerto, or symphony (2002). Similarly to the musical phrases or sonic variations of a general musical theme that is frequently repeated throughout a symphony, the combinations of different lexias in the novel can be taken to be textual variations in which death is the main recurrent theme, "present[ing] different versions of the same story, [which is] a variation itself" (Ciccoricco 2002). Hypertext permits the creation of different narrative configurations and fictional ontologies, since, by intermixing the genres of music and fiction, Joyce surpasses the indispensable generic characteristics of the (hypertext) novel mentioned earlier.

In discussing hypertext linking, H. Porter Abbott also juxtaposes hypertext with a symphony, taking Ciccoricco's observations a step further:

> Is the hypertext linking function deployed in such a way that we continue to look for, and occasionally, find, the thread of a story? Or does it so disburse [*sic*] attention from the story line that we see the whole thing as something other than narrative? Nelson Goodman argued that if you twist up the narrative discourse sufficiently, a text can pass from being a narrative to being either a "study" or a "symphony," arousing respectively either a state of meditation or a state of pure aesthetic enjoyment. (2008, 34)

Abbott continues by saying that this is a grey area "because determining when the twisting has sufficiently obscured narrative coherence is a subjective judgement call" (2008, 34). In calling such a decision "a subjective judgement call," Abbott also leaves it to the readers to decide whether a hypertext ought to be considered a narrative or a "symphony." Similarly, Ryan also calls attention to this subjective aspect of narrative, claiming that "[w]hen we are presented with a text of unknown origin, and asked" to define whether or not it is "a narrative […], we may diverge in our answers, […] because we apply different criteria of narrativity (2007, 32). Joyce's novel then suggests a "broade[r] conception [of] narrative" (Ryan 2017, 518) or a "larger definition of narrative" (Abbott 2008, 13). Abbott argues that "[a]ttention in these texts is focused not so much on figuring out the story […] as enjoying the way the lexia play off against each other" (2008, 34), while Ryan similarly argues that in such dysfunctional texts, users can satisfy "a pleasure made of curiosity, discovery, and surprise reminiscent of the excitement of a child (or adult) who opens the windows of Advent calendar, discovering treasures that lie behind the surface, and filling the landscape with images that stimulate the imagination" (Ryan 2015, 146).

It seems then that the *Twilight* lexias enhance the process of meditation on the part of the readers, thus serving as points for further intellectual activity for them, since the novel's alternative hypertextual linking and navigational mechanisms defy not only the close reading strategies required in traditional linear narratives, but also the hypertextual reading involved in first-generation hypertexts. Ryan characterizes "dysfunctional texts [as] a form of conceptual art," suggesting that, since they do not construct "worlds, [they] are not supposed to be read in their entirety but rather to be sampled in quick grabs, like the output of a Web cam" (2015, 158; 159). The novel, in evading generic classification, "indeed becomes more of a work of art," as we discover in the lexia "Michael Century," and as such, it also subverts the accusatory statement that "CD ROMs DON'T MIX WITH ART," which Joyce himself offers in the lexia "chronicle" (Joyce 1996c). This being the case, *Twilight* resembles a rough draft of the author's scattered thoughts and ideas, leaving at the same time gaps for the readers to fill in.

It is "[a]n unfinished novel," or "[a]n [a]abandoned [b]ook," to be completed and concluded by the readers, as the lexias "Pleasant Lake" and "Sam" respectively denote (Joyce 1996c). In this case, the hypertext form itself is also challenged due to the novel's fluid and expandable quality and structure. Not only can lexias be read at random order, but, most importantly, any other text can possibly be included *in* the novel. Borrowing George P. Landow and Paul Delany's poetic metaphor, the novel can actually be compared to a living organism whose cell membranes have been destroyed (1991, 10). What this means is that by "dissolving notions of intellectual separation of one text from others as some chemicals destroy the cell membrane of an organism," the author renders the novel, and by extension, hypertext itself, a gradually expanding system that constantly changes and evolves (Landow and Delany 1991, 10). Since lexias are linked with each other regardless of their semantic content, it is implied that not only they can "bond with whatever text links to [them]," but they can potentially "bond freely with text created by other authors" as well (Landow and Delany 1991, 10). This in turn alludes to the utopian vision of hypertextual totality which, according to Silvio Gaggi, prescribes that "all texts can be downloaded and used for personal and educational purposes without constraint" (1997, 116). *Twilight* can be regarded only as a small section of this hypothetical, vast and infinite informational network, since Joyce attempts to link everything together. For instance, in the lexia "Chryalis," the author indirectly articulates the difference between other Storyspace hypertexts and *Twilight*, by insinuating that, while in the former "the reader[s] could be lost in the plenitude," facing a serious "navigational problem," in the novel this "[is not] a problem […] because everything [can] be linked" (Joyce 1996c).

Thus, the novel ought not be seen as a self-contained system, but as an open-bordered one, in that its loose and unfixed structure suggests the potential inclusion of an infinite number of other texts in it. In this sense, the novel is open-ended, as the lexia "Michael Century" informs

us by saying that *Twilight* "is a 'work-in-progress' […] which never ends and keeps on permutating" (Joyce 1996c), placing emphasis on the expansive impression it creates, despite the finite number of lexias it includes. Joyce experiments with the status and form of hypertext in order to challenge the readers' expectations about what a novel is and, most importantly, what hypertext fiction is and can be by ultimately suggesting a kind of (hypertext) literature that can potentially include all types of texts.

This kind of textual expandability that is evident in *Twilight* actually manifests itself in collective hypertext narratives of the 21st century. The distinction between exploratory and constructive hypertext that Joyce was the first one to make is useful here: an exploratory hypertext is a finished work with which the readers can only interact and explore, as its very name reveals, while in constructive hypertext, the readers may also edit and modify the structure and content of the text as well expand it (Rettberg 2011, 189). Although *Twilight* is technically an exploratory hypertext because the readers cannot alter its content, the aforementioned sense of open-endedness it emanates alludes to "[a] constructive hypertext[,] [which] can […] be as productively understood as a participatory writing performance, an 'event' as well as a 'work'" (Rettberg 2011, 190). Recent collectively written constructive hypertexts could be viewed as third-generation works of electronic literature, according to Flores's definition and classification, in that they are user-generated and are based on social media platforms, apps, and networks, but most importantly, they "ha[ve] become everyday practice on the web" (Rettberg 2011, 199). Collective narratives can also be considered constructive hypertexts, according to Rettberg, as "the idea of hypertext itself is based to some extent on harnessing collective knowledge" (2011, 188).

In light of the above observations, Ciccoricco is right to suggest that the novel "marks a transitional period in Joyce's own conception of networked space," not only because of the diverse mapping and navigational strategies it introduces (2007, 91), but for another reason as well. Although, contrary to Joyce's another novel, *Twelve Blue*, *Twilight* is not an online novel, the application of the theory of hypertextual totality to the novel described above foregrounds the oblique relationship of the novel with the World Wide Web. Hypertextual totality constitutes an approximate yet expanded version of the World Wide Web, which "offers the potential for new types of collective authorship" (Rettberg 2011, 190) because anyone can insert anything to the system. Rettberg enlists many such collective constructive hypertexts (2011), starting from early second-generation works, namely Deena Larsen's *Marble Springs* (1993), Cathy Marshall and Judy Malloy's *Forward Anywhere* (1995), Robert Coover et al.'s *Hypertext Hotel* (1996), the collaborative hypertext novel *The Unknown* (Gillespie et al. 1998), and moving to third-generation hypertexts, such as Wikipedia, Barbara Campbell's *1001 Nights Cast* (2005-2008), *Mr. Beller's Neighborhood* (2002-present) and Ettinghausen et al.'s *A Million Penguins* (2007).

I would add a few more characteristic examples to this list. Specifically, in ARGs, such as *Ingress* (2012-), *Pokémon Go!* (2016-), *Harry Potter: Wizard Unite* (2019-2021) and pervasive games such as *The Beast* (2001), narrative material is constantly delivered to the audience via websites and social media platforms for a long period of time. The participants constantly modify these collective constructive hypertexts by adding new material or even by changing the plot of the hypernarrative through gameplay.

That is, the players' actions in the game actually shape the narrative of the game. In *Ingress*, for example, the narrative is shaped depending on which group team wins a specific mission. Such collective hypertexts that are "open to constant expansion" are reminiscent of Ted Nelson's visualizations of Xanadu, which he considered "the ideal hypertext system," where "an ideal literature would remain continuously accessible and that any given item could be linked to any other item in the database according to any criteria" (Rettberg 2011, 188; 189). What remains to be answered has to do with how such hypertexts could be termed. Rettberg himself avoids using the term "novel" for such cases, noting that "[o]nce you let everything in, perhaps you no longer have a novel but some other type of textual creature" (2015a, 182). Rettberg would probably name such projects "performance[s], game[s], and literature" (2011, 202), but because they invite a broader definition and conception of the term "narrative" – which becomes open-bordered and open to interpretation in a fashion reminiscent of Joyce's *Twilight* – I would also add the term "symphony," after Abbott's aforementioned definition, but also after Joyce's "symphony," both explained earlier.

All these ideas are further enhanced by the novel's central theme, which revolves around death. Thematically speaking, the novel consists of certain death narratives, focusing on Magda's imminent death as well as Hugh's mother's death, as described in the lexia "a beginning" (Joyce 1996c). As Johndan Johnson-Eilola correctly suggests, Hugh's and Magda's constant search for death symbolizes the readers' quest for meaning (2011, 308). The lexia "the end" is ironically and deliberately entitled as such in order to create the impression that the novel has come to an end. Nevertheless, the readers are once again mocked, since Magda never dies and the readers are left lingering into the text, eternally trying to attain meaning; Magda is brought to life again and the text is deprived of a proper ending. Ciccoricco also asserts that "[t]he plot of *Twilight* […] emphasizes […] its perpetual deferral," thus "subvert[ing] our expectation of closure" because "Joyce's equation of narrative closure to death" paradoxically "allows him to embed the quality of *endlessness* in the thematic framework of the story" (2002, emphasis added). If death then implies meaning, life signifies an endless search for meaning. However, the novel is not only about death, since, if one interprets death as the ultimate "ontological boundary that we are all certain to experience, the only one we shall all inevitably

have to cross," the novel itself can also be said to "simulate death" because it transgresses "ontological levels or boundaries," as McHale would argue (1997, 231).

The notion of death in the novel could be viewed in a metaphorical way to account for the ways in which the novel surpasses the novelistic and hypertextual conventions; this kind of "transgression" manifests itself, as shown, in the dysfunctionalities of the novel, namely the linking and navigational strategies, the tools, and the re-examination of the relationship between text and image. The novel's theme has a self-referential significance, as it is used to demonstrate that, by exploring the functions and qualities of hypertext, Joyce overcomes the ontological boundaries posed by first-generation hypertexts. Taking this a step further, one could argue that death alludes to the metaphorical death of the hypertext novel as we already know it, which actually has "not ever really perish[ed]," but it has "merely go[ne] into hibernation and, in dormancy," until the different novelistic and hypertextual aesthetics proposed by Joyce in this novel "have migrated into other forms of digital narrative," to use Rettberg's own words here (2015a, 183).

3. Concluding remarks

Taking all the above into consideration, I would claim that *Twilight* occupies a very particular position in the hyperfiction evolution trajectory, as it appears to be on the threshold of a new era of hyperfiction that was about to emerge after its publication, paving the path for the diverse posthypertextual narrative formulations of the 21st century. *Twilight* constitutes then an exploration of the capabilities of the digital medium as well as an indication that dysfunctionality can be and has indeed been applied to many digital texts of third-generation electronic literature, which is what renders hypertext a dynamic and contingent narrative form that is constantly evolving and rediscovered. The value of examining this text at this very moment lies in it being part of the changes that the field of electronic literature has been undergoing, while stressing the characteristics of this changing field and pointing towards the potential paths that it might take. Therefore, the examples discussed in this paper are merely indicative and may well be embellished with more connections between Joyce's text and other third-generation hypertexts, while future research may also focus on more first- and second-generation hypertexts and their potential evolutionary trajectories, which is exactly what the process of "historiation," mentioned in the beginning, is about. The present article has actually attempted to situate Joyce's *Twilight* within this wider process/context of historiation. As Rettberg has put it, which is also applicable to *Twilight: A Symphony*, "[w]hat may have seemed outlandish in the 1980s is merely an extrapolation of existing technologies and methodologies today" (2011, 202).

Bionote

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