Multimedia book apps in a contemporary culture: commerce and innovation, continuity and rupture

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Abstract
Book apps are positioned halfway between the children’s literature sector, in which producers look for works to adapt, and new formats belonging to the electronic medium. This unstable location calls for an interdisciplinary approach in order to analyse different aspects of these products. The effectiveness of literary theories, particularly poststructuralist perspectives, for studying digital literature has been highly questioned over the past decades by Games Studies scholars such as Aarseth. However, the special nature of book apps, which is different from any other kind of electronic literature, requires a reassessment of these ideas. This article explores postmodernist tracks into three book apps, two of them adapted from two postmodern picturebooks, and the other published both as an app and a printed book at the same time. Possible changes of the metafictional variations due to the medium shift are studied, as well as the role of interactivity in the fictional design of the apps. Results show that both literary theories and media-related theories are necessary for a complete analysis of book apps.

Keywords: children book apps; postmodernism; literary theory; medium-shift; metafictional picturebooks; interactivity

The digital book app market dwells somewhere between the children’s literature market and the general entertainment industry. Although there is a notable presence of children’s literature titles, there is still a lack of research in this field. The hybrid nature of these products demands an approach to incorporate both theories—one that considers their literary aspects, if they remain, and theories that are capable of analysing their medium-related features.

In this article, the author first presents the theoretical debates that may arise when examining book apps, mainly discussing the claims that literary theory is fundamentally inapplicable to a digital corpus. Then the author discusses the theoretical background of innovative features in children’s literature and, more specifically, the postmodern picturebook. The author has also added some concepts bound to the analysis of the digital medium, primarily concerning interactivity. This methodology is finally applied to a corpus of three selected book apps; two of them are adaptations of two well-known postmodern picturebooks; the other was published as a picturebook and an app at the same time. The aim of the research is to test the effectiveness of applying literary theories previously used to analyse the postmodern picturebook to a set of metafictional book apps, without ignoring the eminently interactive nature of these products and the variations this element may introduce. The analysis will be combined with additional tools from other theoretical disciplines related to the electronic medium in order to compensate the gaps that contemporary literary theory leaves unattended.

THEORETICAL APPROACHES TO BOOK APPS
After the celebration of the materialisation of poststructuralist theories1 into the new electronic

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medium by theorists of hypertext,² a wave of scholars, led by Espen Aarseth (1997) and his concept of ergodic literature, questioned the links between these two poles. A new field of study was created, with new concepts and ideas, which moved away from narratology and everything that recalled literary theory. This discipline called Game Studies opened the door to richer analyses of new types of fiction. It was welcomed with such enthusiasm by academia that it almost banned the possibility of applying literary concepts to any subsequent work in electronic format. Therefore, approaching digital fiction with concepts coming from the contemporary literary theories at hand, especially poststructuralism and reader-response, would seem to be a sign of either ignorance or subversion.

Ergodic literature, as defined by Aarseth, requires a non-trivial effort to allow the reader to traverse the text (1997, 1) but, as some scholars studying children book apps show,³ this effort is not what the majority of children’s book apps call for. In fact, Aarseth’s non-trivial effort could be declared unusual in the book apps market, even if book apps are electronic interactive products, sometimes quite far in form from their physical counterparts. This fact is probably the reason why scholars entering the field of children book apps defend that some literary perspectives can provide productive insights for their analysis (Al-Yaqout and Nikolajeva 2013; Stichnothe 2014; Turrión 2013).

Marie-Laure Ryan, a well-known independent scholar in the field of interactive fiction, lists the aspects of contemporary theory that were echoed by hypertext theorists:

The open text. Meaning as reconfigurable network. The slipperiness of the signifier and the referral of meaning (symbolized by the system of links). Intertextuality. Reading as “exploding the text” and as endless activity. (…) Non-linearity. The death of the author. The empowerment of the reader. (Ryan 1999, 101)

In other works, Ryan (2006) acknowledges that, although questioned as a productive tool for the study of interactive fiction, narratology is an option. In her previous book Cyberspace Textuality, the author shows a much more moderate defence of literary theory, highlighting that “postmodernist uses and theorizing are a possibility, not a necessity” when approaching the virtual (1999, 104). In accordance with these statements, and with the fact that “there is no point in denying the natural and elective affinities of electronic writing for postmodern aesthetics” (Ryan 1999, 103), this essay focuses on the possibilities of postmodern picturebook theory for analysing some specific aspects of some particular book apps in order to, paraphrasing Aarseth, find potentially valuable insights.

Nevertheless, it is important to clarify that although this article stands up for these theories, it in no way expects to invalidate other approaches from different theories, literary or not. Specific concepts emerging from Game Studies, hypertext theory or film theory are equally relevant and can disclose numerous aspects of book apps that cannot be explained through contemporary literary theory.

LITERARY INNOVATION IN CHILDREN’S LITERATURE

It seems to me that, when working on the digital children’s book market, the main reason to get away from contemporary literary theory must come instead from the fact that most works tend to be simplified due to the imperatives of the mass market. These dynamics mean that the majority of the production is led to rely on simple and commercial forms, leaving only a small niche for experimentation—be it postmodern, ergodic, or in any other way innovative. Such phenomena are widespread in the traditional children’s literature market as well. The contemporary children’s literary market shows a double logic, as there are two apparently contradictory tendencies in its production. Although they both take advantage of the mass market, on the one hand, the majority of books rely on the assumption of simplicity commented by Colomer (1998)⁵ while on the other hand there are some that are innovative in one way or another. The latter is the group with which this article is concerned in its quest for continuity between children’s literary studies and digital book apps.

Over the last decades of the 20th century, literary experimentation and the application of contemporary theory entered the children’s literature system. As Nikolajeva and Scott point out, “we have shifted from absolutes to relativities, from understood rules of behaviour to personal preference (…)”; contemporary picturebooks represent the fin-de-siècle dilemmas that challenge us as the new century begins” (2006, 260). This “general tendency of contemporary children’s fiction toward complexity and ambivalence” (Nikolajeva and Scott 2006, 260) has been analysed and confirmed by
scholars such as Teresa Colomer (1998), leading to some of them setting up the foundations of hybrid studies including physical books and electronic texts (Dresang 1999), some of them studying in-depth mechanisms of metafictive picturebooks (Silva-Díaz 2005a; Turrión 2010) and comparing theoretical results with experimental research (Arizpe and Styles 2003; Silva-Díaz 2005a).

The aforementioned tendency towards complexity is clarified by Colomer’s assertion on the same topic. Colomer affirms that the application of postmodern ideas to literature results in “a consciousness-raising of the art in general, as well as an exploration of the limits and possibilities of art from the conventions in which they are based” (1998, 91). The results of Colomer’s work on children’s contemporary narrative books were summarised into several characteristics of contemporary literature:

1. The configuration of new models in the literary representation of the world
2. The tendency towards narrative fragmentation
3. The increase of narrative complexity
4. The increase of the reader’s participation in the work interpretation process
5. The consolidation of the written form of literature

Colomer 1998, 301–3106

Of this set of characteristics, the second, third and fourth features are the ones which this article deals with.

THE POSTMODERN PICTUREBOOK

Parallel to Colomer’s assertion on postmodernism in literature, Nikolajeva and Scott define metafiction in their study on picturebooks as “a stylistic device aimed at destroying the illusion of a ‘reality’ behind a text and instead emphasizing its fictionality” (2006, 220). For these researchers, picturebooks, a type of book in which images carry a significant part of the meaning, “open wide possibilities for metafictional comments, as several scholars have observed” (2006, 220). It is not that metafiction is a new device but it has been “rapidly increasing” in the last decades of the past century.

David Lewis (2001) lists the features of postmodernism as follows: indeterminacy, fragmentation, decanonisation, irony, hybridisation and participation. This enumeration is developed and applied to a corpus of children’s picturebooks by Silva-Díaz in her thesis on metafictive picturebooks (2005a). Silva-Díaz quotes Colomer on the features that characterise children’s literature with a postmodern turn:

1. Ambiguity between reality and fantasy
2. Increase of the play with intertextual allusions
3. High degree of fragmentation (in which the role of image stands out)
4. Play with the written forms of literary communication (several type of texts, genres and characters)
5. Proliferation of parody, demystification and humour
6. Use of graphic means as narrative space, use of the text as an image

These features are developed by Silva-Díaz (2005a, 2005b) in what she calls metafictional variations, that is, variations from the canonical forms typical of children’s literature. For the purpose of this essay such a detailed tool is not needed, and thus, the analysis here only uses the principles-effects categorisation. These variations, she argues, seek certain effects in the reader. In order to produce these effects, elements are arranged following particular principles. The author summarises four cases of this double mechanism into a category called principles-effects:

1. Indeterminacy: there are ambiguities because there is a lack of information or too much information
2. Reverberation: the story echoes other stories or material. In its more extreme form the result is similar to a collage
3. Short-circuit: happens when the narrative communication hierarchy is altered
4. Play: if the important thing in the story is to enjoy the signifiers rather than the signified, or the work considers the reader as a player

These categories are especially fruitful, as they are directly linked to the fact that metafictional variations subvert the traditional role of the child reader, for the implied reader (Iser 1974, 1978) of these books is asked to:

Engage in an active puzzling together of information, clues, and cues: the drama of potentiality, which results from the interanimation of narration and pictorialisation, is a sensory and literary mind game for any number of players. Picturebooks engage their readers in some level of performance every time they are read (Schwenke 2006, 176).
In the analysis, it will be tested whether implied readers or implied users of the apps participate by wrestling with ambiguities and fragmented information, by capturing meaning from playing with the fictional space and non-conventional treatment of texts, and by responding to humour and parody, as they do in their print versions.

**SPECIFIC CONCEPTS FOR A DIGITAL CORPUS**

Apart from analysing the presence of postmodernist marks in the apps, it is also important to clarify some concepts that may arise from the inclusion of these works on an interactive screen. Following Linda Hutcheon and her proposal of three modes of engagement: telling, showing and interacting (2013, 22), it becomes clear that the engagement of the reader may differ from an original work—picturebooks in this study—to its adaptation—here, picturebook apps—when a change of medium occurs.

Ryan points out that of all the properties of digital systems, interactivity is “the most important,” for “not all digital texts are interactive, but those that aren’t could usually be taken out of the computer and played by another medium” (2006, 99). Therefore, Hutcheon’s interactive mode would be the most salient of the three modes in book apps. As Hutcheon (2013, 23) explains:

> Neither the act of looking at and interpreting black marks—words or notes—on a white page nor that of perceiving and interpreting a direct representation of a story on the stage or screen is in any way passive; both are imaginatively, cognitively, and emotionally active. But the move to participatory modes in which we also engage physically with the story and its world (...) is not more active but certainly active in a different way.

Therefore, it is vital to distinguish between the several possible meanings of the concept participation; conventional participation, such as letters decoding or the passing of pages or screens; active participation, a complex interpretive demand related to a postmodern configuration of meanings; and interactive participation, or physical cooperation with the work.

Another useful differentiation is that of the degree of interactivity. Although there are several fruitful approaches for a typology of interactivity (Ryan 2004, 2006) and its application to a children’s book app corpus (Stichnothe 2014), the author of this article focuses on Moreno’s broad classification of selective participation, in which the user chooses among the options offered by the program; transformative participation, in which the user selects and transforms the contents proposed by the author; and constructive participation, in which the user can select, transform and build new proposals that are not planned by the author (2002, 96).

To end up with the analysis of interactivity, it is convenient to classify the forms in which interactivity becomes a part of the story. For this goal, the author has proposed a categorisation distinguishing between real, simulative and false participation with the story, adapting Moreno’s (2002) concepts of real and simulative participation. Real participation stands for an interactive proposal in which the action of the user works in a necessary cause–effect relationship with the story. Simulative participation occurs when the user’s action produces an effect in the story that would appear equally even if he or she did not trigger the hot spot. False participation refers to cases where the effect of the user’s action is repetitive or meaningless for the development of the story.

**POSTMODERNIST TRACKS IN A DIGITAL CORPUS FOR CHILDREN**

The three book apps selected for the analysis are digital versions of physical picturebooks. Two of them, Harold and the Purple Crayon (first published in 1955), and The Monster at the End of This Book (first published in 1971) are established titles of metafictional picturebooks for children. The third one, Chopsticks (2012) was recently published as a print picturebook version when the app market already existed.

It has been argued that when a literary work is remediad from the print medium to the digital, it may lose some of its properties. Dealing with postmodern attributes in the digital media, Aarseth (1997), for instance, explains how the hypertext Afternoon: a story (1987) by Michael Joyce, a work containing “many literary devices typically associated with postmodernism,” loses “the subversion they might have in a codex format” as the work gets “naturalized” in the “hypertext environment” (86).

Taking this possibility into account, this article looks for the postmodernist aspects of the original print books in the interactive versions in order to reveal whether they remain the same, change in their nature, or are no longer subversive. This analysis will answer the question:
• Does the book app production show a continuity of the postmodernist course that was so relevant in the picturebook production?

And also the related questions:

• Could postmodern picturebook theory shed some light on the analysis of these apps?
• Is this theory enough to understand the fictional experience proposed by the app?

THE SIMULATIVE CO-CREATION OF THE FICTIONAL WORLD IN HAROLD AND THE PURPLE CRAYON

In the afore-mentioned study by Silva-Díaz (2005b) on metafictional picturebooks, she includes the print picturebook Harold and the Purple Crayon as an example of short-circuit: “the character is at the same time the creator of the narrative world. Through the magic crayon he draws the reality of the page, that is, he formulates the fictional world” (2005b, 17).

In the eponymous app, there is an option called “Touch Tale.” The structure is exactly the same as that of the print picturebook: an animate Harold draws his fictional world with his purple crayon. The background music is a repetitive melody, which achieves a certain sense of continuity despite the pauses in the system in relation to the visual story. The text appears at the bottom of the screen and is read by a placid female voice. Conventional interaction appears in the user having to tap the arrows of the screens in order to browse through the screens in a linear way.

In addition, the user is requested to help Harold in his creation of the fictional world by colouring in the grey lines that draw the path that the crayon should follow. The user is put in a parallel position to the protagonist, as the story does not unfold until the user performs the task. In the second screen, for example, Harold cannot start walking until the lines of the road are purple-coloured by the user.

In this case, the participation is not real but simulative, for the user is not free but must adhere to the app programming. The user as co-protagonist is part of the fictional illusion of this app. Therefore, the app contains conventional as well as simulative interaction, two different modes of engaging the reader.

Nevertheless, the interactive design of the app, the transfer from the print to the digital medium, does not destroy the metafictional nature of the story. The simulative participation proposal has an effect on the interpretative level as well. The story is still presented as an artifice, for the user is not asked to surf through a pre-established fictional world as in video games but to contribute with their actions to the creation of this world. Harold’s metafictional adventure needs the user’s hand in order for it to be achieved. The building of the fictional scenario on a blank screen by the Harold-user pair violates corresponding conventions as it does in print; the short-circuit is still present in the app.

SURFING DIGITAL PAGES IN THE MONSTER AT THE END OF THIS BOOK

The Monster at the End of This Book pictures Grover, the protagonist, as well as the narrator, speaking about the story itself. He knows that at the end of the book there is a monster, and so tries to prevent—as well as tempt—the reader from turning the pages. Short-circuit again occurs here because of the character’s consciousness of the support and paratexts about the materiality of the medium.12

In the app version, the title is maintained, as well as the simulation of dealing with a book. This is possible thanks to the cohesive nature of the electronic medium, a decisive feature mentioned by numerous authors (Aarseth 1997, 19; Murray 1999, 39; Ryan 2006, 28). The imitation of the materiality of the book, visually, textually and aurally representing the turning of pages, allows the metafictional spirit of the print picturebook to be maintained.

Additionally, the app includes a more realistic approach to the story in the pages where materials are used by the character to block the pages. In the pages where Grover uses ropes, nails and even a wall of bricks, the user is provoked to unknot, extract the nail, and break (the visual representation of) these materials in order to continue with the story. Interaction with the fictional world is therefore more genuine than in the print version.

Thus, the app maintains the metafictional play, making the user’s action more realistic. Postmodern and purely interactive features unite to reach the metafictional goal.

QUESTIONING FICTIONAL FACTS IN CHOPSTICKS

Chopsticks is a visual narrative for adolescents published as a print book and an app at the same time. The story of a girl called Gloria, a
piano genius, oscillates between a realistic tale about her tortuous life and love with her neighbour and the narrative of her madness shown through a first-person unreliable narrator.

In the app, fragmented texts, documents, music videos, images and cinematic scenes are combined to tell the reader about the inner life of this character. The role of the user is to turn the screens as pages in a conventional movement and triggering the animations when musical notes appear dancing on the pages (that is, responding to a convention that has been created for this app). The first half of the story seems to be told/displayed through a heterodiegetic narrator but contradictions appear in the second half of the book. Drawings that previously appeared signed by Gloria’s boyfriend appear signed by her.

Images that the reader accepted as real within the fiction become questionable. The same happens with video scenes: after witnessing the scene of the kiss, without doubting its authenticity, the reader is confronted with a video in which the boy’s character appears in the rest facility where Gloria is admitted and where he could not stay.

The apparent realism of photographs, documents and videos is here questioned in a metafictional play provoking ambiguities (indeterminacy in Silva-Díaz classification) that challenge coherent interpretation. It is not that the medium prevents postmodern features to appear, but the conventions of the visual and cinematic elements that the medium is able to include—in a fragmented way—are violated in a metafictional way.

CONCLUSIONS

These apps show, as Aarseth pointed out, how postmodern features may appear both in print and on electronic devices. Although, as Aarseth demonstrates, some postmodern variations may be conventions when a medium change occurs, it is not always the case. Postmodern features such as short-circuit, fragmentation, indeterminacy, parody, and so on, may defy conventions of the electronic format to show the artifice of fiction. They may also rest on literary conventions and represent the pages as if we were in front of a book. The user is then supposed to enter the illusion of being a book reader in order to recover the related conventions and accordingly interpret the story.

It could be argued that new elements such as interaction or the adding of different languages such as image or audio may fill the blanks that are necessary for the reader to struggle with interpretation. However, as these book apps show, a challenging interpretation may come from other aspects such as focalisation play, as in Chopsticks, or interaction may add new features to the metafictional experience, as in The Monster at the End of This Book.

It should not be forgotten that, when dealing with fictional complexities in electronic formats, postmodern features are only one option. Other difficulties related to this medium are hypertext and the ambiguities it may cause, time variations or the leaking of the reader’s time into the story time (for example, using the reactivity possibilities of tablets). In order to analyse this other kind of complexity, researchers must turn to hypertext and interactive theories as well.

This article applies some concepts taken from interactive theories; the relevance they demonstrate for the purpose of book app analysis calls upon a deeper application of these products. Close reading analyses of book apps, attempting to answer literary questions, calls for a combination of literary and non-literary theories in order to obtain a complete picture of what these apps offer to children readers and mediators.

Notes

1. As Currie states, “poststructuralists moved away from the treatment of narratives (and language system in general) as buildings, as solid objects in the world, towards the view that narratives were narratological inventions construable in an almost infinite number of ways” (1998/2011, 7).
2. “The heightened virtuality of the electronic text has been hailed by some theorists as the triumph of the conception of textuality proposed by postmodern literary theory, more particularly by poststructuralism and deconstructionism” (Ryan 1999, 100).
3. For a specific analysis of this issue see Stichnothe 2014.
4. Other researchers working in the field are Aline Frederico and Ross Buckingham (see Stichnothe 2014).
5. My translation of the Spanish supuestos de simplicidad.
7. My translation.
8. The terms reader and user are used indistinctly. In each case, the chosen term is the one better fitting the context.
10. It is important to point out that other scholars find postmodern elements in Michael Joyce’s work, that is, Koskimaa in Borra’s (comp.), 2005.
11. Stichnothe (2014) sets the difference between computed or “the computed minimum or maximum
speed for progressing from one page to the other” and empirical speed “of a specific user at one specific running of the app.”

12. As Silva-Díaz argues, “including the page as a narrative space makes a short circuit to happen between elements that canonical narratives clearly separate as inside and outside the narration (…).” The reader “is placed at the same time inside and outside” fiction and gets conscious of this paradox (2005b, 18). My translation and adaptation.

WORKS CITED

Apps

Harold and the Purple Crayon by Crockett Johnson © 2011 Trilogy Studios. iPad edition.

Secondary works cited
