Paper: The Construction of Meaning in Three Fairy Tale Enhanced Electronic Picturebooks

Abstract: Informed by David Lewis' ecological approach to picturebooks, this study conducted close readings of three enhanced e-book versions of the fairy tale *The Three Little Pigs*, analyzing how the different modalities that constitute these narratives interanimate each other and participate in the meaning-making process.

Résumé:

Enhanced e-books are not necessarily new; during the 1990s and 2000s, they were present in the format of CD-ROMs or DVDs for desktop computers. Since Apple's iPad release in April 2010, however, these books, also referred to as storybooks apps, seem to have found their ideal platform on these light, portable, high-resolution touch screen devices. As textuality is entangled in the medium as well as in the message (Bizzocchi and Tanembaum 2011), a new kind of narrative in the format of enhanced e-book emerges from this specific combination of picturebook and technology. Due to the novelty of storybook apps, little research has been published on this emergent textual form (Al-Yaqout 2011; Chiong et al. 2012; Vaala and Takeuchi 2012). Furthermore, the studies that have been made available do not take into account the vast differences among storybook apps available. The work presented in this paper is part of a larger longitudinal study of children's e-reading that aims to narrow the gaps in the understanding of the emerging landscape of storybook apps children's reading practices in the Digital Age.

This study is informed by David Lewis' ecological approach to picturebooks. Lewis (2001) proposes the analysis of a picturebook in terms of its "ecology", as the elements that constitute the picturebook are interconnected; a change in one of its elements constitutes a change in the whole ecosystem. According to Lewis, the combination of words and images in picturebooks is limitless. Each picturebook is unique because of the interanimation between words and images. The meanings conveyed from this interaction cannot be achieved the same way by any other combination. Extending the concept of interanimation to enhanced e-books, the inclusion of multimedia and interactive elements generates a new process of meaning-making. By applying the ecological theoretical framework proposed by Lewis, this study conducted close readings of three enhanced e-book versions of the fairy tale *The Three Little Pigs*, analyzing how the different modalities that constitute these narratives interanimate each other and participate in the meaning-making process.

A brief look at the iTunes App Store reveals that some classic texts have dozens of unique downloadable versions for sale, each produced by a different app developer. Fairy tales in particular, since the stories are in the public domain, can be found in myriad versions, providing a unique point of comparison: the narrative is based on a common tale, but interpreted distinctively by the app developing team. The three versions of the Three Little Pigs employed by this study were chosen from over 30 options. Although they are all considered enhanced e-books and, in this case, they relate the same plot with

minimal variation, I argue that they constitute entirely different e-books, with different narrative strategies and objectives.

In analyzing of the range of *Three Little Pig* versions, three broad categories of storybook app emerged, which I identify as limited, disconnected, and sophisticated.

- Limited: enhanced e-books that explore few of the digital features and do not expand the possibilities of integrating new text modalities, in comparison with the print book.

- Disconnected: these e-books explore a great number of multimodal features but do not consistently connect them to the narrative, generating a profusion of disconnected codes that do not interanimate to create meaning.

- Sophisticated: a small number of e-books explore the multimodality of digital media and integrate audio, animation and interactivity with words and images to significantly enhance the reading experience and extend the depth of interpretation and the meaning-making possibilities.

In order to understand deeply these differences and how they affect the meaning-making processes, one app from each of the categories described above was selected, respectively, *The Three Little Pigs* apps by Stepworks Books, by TapTap Kids and by Nosy Crow.

Considering that a text is "a gestalt of medium and message" and its close reading may reveal the "poetics of a medium writ large" (Bizzocchi and Tanembaum 2011), by close reading these three versions of the same story in the format of enhanced e-books for tablet computers, insights emerge with regard to how the different elements of the these books interanimate each other and participate in the construction of meaning.
The analysis is divided into three sections, one for each book, and thus three contrasting cases of e-book development are presented. An ecosystem of story elements is used in the analysis, including: text, illustration, animation, narration, audio effects, soundscape, interactivity, navigations and settings. For each e-book, I analyze the elements and provide screen shots to illustrate how the elements are composed. The "ecosystem" approach suggests that the meaning each element alone conveys is not the same as what the experience of the book as a whole might be. Thus, at the end of each section, the book as a whole is considered based on the interanimations occurring amongst all the elements, pointing out where these relationships are strong or weak, how they influence each other and how the meaning of the book is conveyed.

A synthesis of the findings can be seen in the table below, which compares the elements analyzed in each e-book:

	by Kidztory	by TapTap Kids	by Nozy Crow
Text	rhymed and funny	excessive focus on the moral, style not interesting	intertextuality, humour
Illustrations	collage / attractive but with simplistic composition	attractive but not always meaningful to the narrative	3D / detailed, attractive, meaningful to the narrative
Audio			
Narration	child / dramatized	adult / no meaningful dramatization	child / dramatized
Effects	limited / interactive	varied / both interactive & non-interactive	limited/not always interactive
Soundscape	none	repetitive & annoying	varied & sophisticated
Animation	minimal	simple but varied	varied and complex
Interactivity	limited	varied and excessive / mostly disconnected from the narrative	varied and directly related to the narrative
Activities	none	hide-and-seek	hide-and-seek
Navigation	linear and limited	linear and non-linear possibilities / easy to access	linear and non-linear possibilities / easy to access
Settings	minimal customization	partial customization	great customization

Elements that enhance the reading experience · Elements that impair the reading experience

It is necessary that all elements in enhanced picturebooks be interwoven at the content level to produce original and coherent meaning. There cannot be symmetry amongst different elements in picturebooks (Lewis 2001, 38). That is, due to the different qualities of words, images, audio, interactivity, they cannot present exactly the same kind of information. On the other hand, if the interanimation occurs exclusively by these distinct intrinsic characteristics of each mode of text but does not occur in the content level, the relationship amongst all those elements is weak and does not sustain the narrative as a whole. The analysis of these e-books shows that due to the variety of elements that constitute this kind of narrative and the different levels of interanimation that may occur between them, each storybook app results in a very unique narrative that may privilege different aspects, some being clearly focused on the reading experience while others aim mostly entertainment. The more the digital features are integrated into the narrative, the more novel and experimental these enhanced e-books are in comparison to print books, providing a more immersive and enhanced reading experience.

This study provides an important foundation for the literary analysis of electronic children's texts, as well as a necessary first step in understanding the literary functions of enhanced books in children's reading practices. A shortcoming of prior e-book studies with children is failing to acknowledge the incredible diversity of approaches to multimedia authoring, and how this diversity may affect the meaning construction of early readers. Through close readings of enhanced texts, and the development of an adapted framework for picturebook analysis in the digital realm, this work opens new possibilities for the study of children's narrative.

References

"About and Contact." *Nosy Crow*. Accessed December 4, 2012.

    http://nosycrow.com/about-and-contact/

"About us." *Genera Interactive*. Accessed December 4, 2012.

    http://www.generainteractive.com/about_us/

Agosto, Denise E. 1999. "One and inseparable: Interdependent storytelling in picture

    storybooks." *Children's Literature in Education* 30 (4): 267-80.

Ahlberg, Janet, and Allan Ahlberg. 1986. *The jolly postman, or, other people's letters*.

    Boston: Little, Brown.

Al-Yaqout, Ghada. 2011. "From slate to slate: What does the future hold for the

    picturebook series?" *New Review of Children's Literature and Librarianship* 17 (1):

    57-77.

"Apps." *Nosy Crow*. Accessed December 4, 2012. http://nosycrow.com/apps/

TapTap Kids. Accessed December 4, 2012. http://www.taptapkids.com/

Bircher, Katie. 2012. "What makes a good picture book app?" *The Horn Book Magazine*

    88 (2): 72.

Bizzocchi, Jim, and Tanenbaum, Joshua. "Well read: Applying close reading techniques

    to gameplay experiences." In *Well Played 3.0: Video Games, Value and Meaning*,

    edited by Drew Davidson et al. ETC Press, 2011. Accessed December 4, 2012.

    http://www.etc.cmu.edu/etcpress/content/well-read-jim-bizzocchi-joshua-tanenbaum

Chiong, Cynthia, Ree, Jinny, Takeuchi, Lory, and Erickson, Ingrid. 2012. *Print books vs.*

    e-books: Comparing parent-child co-reading on print, basic, and enhanced e-book

    platforms. New York: The Joan Ganz Cooney Center at Sesame Workshop.

    Accessed December 4, 2012. http://www.joanganzcooneycenter.org/Reports-35.html

Gastalver, Pablo. *The Three Little Pigs*. Produced by TapTap Kids. Last modified November 08, 2012. iPhone Book App.

Goodfleisch, Marcy. "Review of Nosy Crow's 3 Little Pigs Storybook App for iPad". *HubPages*. Last modified August 17, 2012. http://marcygoodfleisch.hubpages.com/hub/Review-of-Nosy-Crows-3-Little-Pigs-Storybook-App-for-iPad

Ishizuka, Kathy. 2011. "The APP squad: Making sense of book apps for kids-with a little help from our friends." *School Library Journal* 57 (5): 38.

Jacobs, Joseph. "The Story of the Three Little Pigs." In *Folk & Fairy Tales*, edited by Martin Hallett, and Barbara Karasek, 289-291. Peterborough, Ont: Broadview Press, 2009.

Kidztory - animated children's story book apps for iPhone, iPad and iPod Touch. Stepworks. Accessed December 4, 2012. http://www.kidztory.com/

Leverkus, Cathy. 2011. "BOOK APP MANIA." *Library Media Connection* 30 (2): 50.

Levine, Gail Carson. 2010. *Betsy Red Hoodie*. New York: Harper Collins.

Lewis, David. 2001. *Reading contemporary picturebooks: Picturing text*. New York: Routledge Falmer.

Nodelman, Perry. 1988. *Words about pictures: The narrative art of children's picture books*. Athens: University of Georgia Press.

Strauss, Valerie. "Is technology sapping children's creativity?" *The Washington Post*. Last modified September 13, 2012.

The Three Little Pigs. Produced by Kidztory. Last modified September 13, 2011. iPhone Book App.

The Three Little Pigs. Produced by Nosy Crow. Last modified June 21, 2012. iPhone Book App.

Vaala, Sarah, and Takeuchi, Lori. 2012. *Co-reading with children on iPads: Parents' perceptions and practices.* New York: The Joan Ganz Cooney Center at Sesame Workshop. Available at: http://www.joanganzcooneycenter.org/Reports-36.html