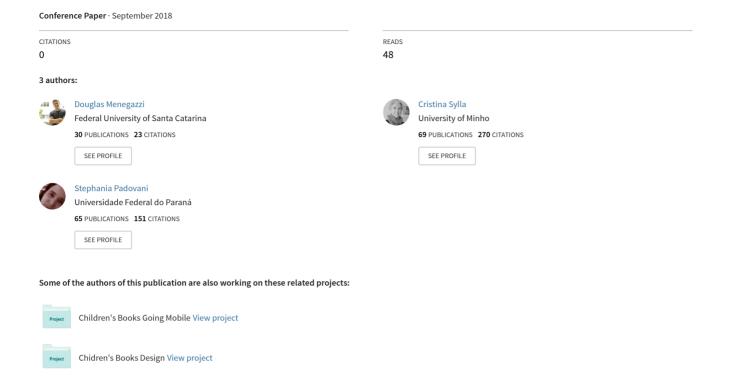
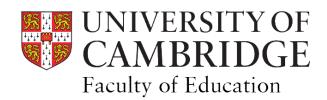
Hotspots in Picturebook Applications: an Investigation on the Readers' Perception from the Perspective of Interaction Design





The paper is informed by its authors' practice as illustrators and educators, one approaching the question as a picturebook maker, the other as a creator of comics. Since their respective research interests stem from their practice, their discussion compares theoretical work on frames and framing by scholars of comics and of picturebooks (e.g. Bang 2016; Nodelman 2012; Groensteen 2007, 2013; Chavanne 2010). The paper therefore furthers the exchange between comics studies and picturebook research as well contributing to the dialogue between scholarship and practice, extending interdisciplinary discourses that have begun to develop in the years since Nodelman's *Words About Pictures* was first published.

Katherina Manolessou is an illustrator and senior lecturer in Children's Book Illustration at Anglia Ruskin University. She originally studied chemistry before moving into animation and going on to study at the Royal College of Art in London. Her practice-based doctorate focused on animal characterisation in picturebooks. The book that she developed during her PhD, Zoom Zoom, was published in 2014 by Macmillan. It was followed by T-Veg (illustrator, Frances Lincoln, 2015), Mummy and Me (Macmillan 2017), and Look for Ladybird in Plant City (Frances Lincoln 2017). Katherina's picturebooks have been published in 13 countries.

Becky Palmer is an illustrator, graphic novelist and lecturer on the Children's Book
Illustration MA at Anglia Ruskin University. Her first book, La Soupière Magique, was
published by Éditions Sarbacane in 2014. Since then, she has worked with Walker Books and
Nobrow on Ellie and Lump's Very Busy Day and A Castle in England. In 2016, she gained
her doctorate with a practice-based study into the relationship between comics and
picturebooks, and articles based on that research have been published in The Journal of
Graphic Novels and Comics and Interjuli.

Douglas Menegazzi (Federal University of Santa Catarina, Brazil), Cristina Sylla (independent, Brazil) & Stephania Padovani (Federal University of Paraná, Brazil)

HOTSPOTS IN PICTUREBOOK APPLICATIONS: AN INVESTIGATION ON THE READERS' PERCEPTION FROM THE PERSPECTIVE OF INTERACTION DESIGN (7B)

In the present context of the popularization of mobile interactive devices (MIDs), such as tablets and smartphones, the publication of picturebooks in the form of applicative (apps)

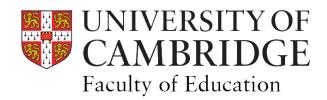




stands out in relation to other e-book formats. A picturebook app is a software designed to take advantage of the multimedia and multimodality of MIDs, allowing for a rich and complex interaction of user-readers through video, audio, sound effects, digital games, etc. As objects of literature for children, apps must also prioritize design due to a specific reading system. However, by means of a bibliographical review we have verified that the poorly planned or careless design of the interaction areas (hotspots) in apps is one of the main factors responsible for diverting attention span, compromising comprehension of the storyline and hindering the learning process in children. This is even more serious in the context of mediated reading between parents and children, since parents can interact erroneously with the hotspots or even feel that their presence is superfluous due to the digital resources of apps. Outgoing from this situation, we have investigated the positive and negative impact of hotspots in picturebook apps according to the perspective of the users-readers, considering parents and children in mediated reading. For this purpose, we have carried out a user study with a representative sample of readers, using three selected applications that have different interaction properties. The theoretical framework of the analyses is given by Hunt's and Colomer's literary theory; by Nikolajeva & Scott's; Linden's; Salisbury & Styles' analyses of contemporary picture books; and by the studies of Morgan; Frederico; Kao and colleagues, as well as Smeet & Bus' studies on children's digital books. Our analyses revealed that the majority of hotspots in applicatives has no narrative goal and bureaucratizes the activity of mediated reading and are generally perceived as entertainment of low educational value. Conversely, hotspots that reveal extratextual explicative contents lead to digital solutions that improve the reading of children's books.

Douglas Menegazzi is an assistant professor at the Federal University of Santa Catarina, in Brazil, where he teaches Digital Illustration and Drawing. He is a member of the Research Group on Digital Design and Information (Capes/CNPq). In the scope of his collaboration with the Research Center of the Community Library Barca dos Livros he participates in curation process of the Brazilian National Foundation of Children and Youth Literature (FNLIJ). Currently he is also a Design PhD student at the Federal University of Paraná, Brazil. His research focus on the analyses of interaction design of digital picturebooks. He is a research fellow from the Brazilian National Council for Science and Technology (CNPq - Brazil).





Cristina Sylla has a PhD in Educational Technology, a Master degree in Technology and Digital Art and a Master degree in Literary Studies. Her work is regularly published in international journals and conferences. She is part of the program committee from several international conferences. Her work has been distinguished with several awards, such as the Golden Award for Best Demo at the International Conference on Advances in Computer Entertainment Technology 2012, and the World Technology Award Category Entertainment in 2013. She is a Fellow of the World Technology Network and Corporate Member and a member of the ACM Association for Computer Machinery.

Stephania Padovani has a degree in Industrial Design from the University of the State of Rio de Janeiro, a Master degree in Design from the Pontifical Catholic University of Rio de Janeiro and a PhD in Cognitive Ergonomics from the Loughborough University. She is currently a professor and researcher at the Design Department of the Federal University of Paraná, where she teaches at the undergraduate, master and doctoral levels. She has experience in the areas of Human-Computer Interaction and Usability, working mainly on hypermedia, navigation systems, usability evaluation and interface design.

Christophe Meunier (University of Orleans, France)

FROM THE ICONOTEXT TO THE ICONOBOOK: HOW THE SPATIAL TEXT WORKS IN PICTUREBOOKS? (1A)

Many writers have tried to define picturebooks/picture books by studying the mechanisms that explained how they worked. According to Perry Nodelman, for example, "books intended for young children (...) communicate information or tell stories through a series of many pictures combined with relatively brief texts or no text at all" (Nodelman, 1988). The vast majority of researchers agree on the interdependence, the entanglement, the synergy between the verbal and the visual texts inside that is called by Kristin Hallberg, in 1982, iconotext.

When Lawrence R. Sipe, in 1998, quotes the *English Oxford Dictionary*, he explains what he means by synergy between verbal and visual texts, that is to say: "the production of two or more agents (...) of a combined effect greater than the sum of their separate effects". However, there seems to be another agent with which words and pictures synergize. In 1976, Barbara Bader, in her definition of picturebook added a third agent. She wrote: "A

