Thesis Abstract

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Thesis Title

Augmented Narrative: Amending the Dialog between Writer and Reader in an Interaction with Sound.

Thesis Summary

In oral communication, senders are receivers and vice versa; we are capable to speak but also to listen. However, in print, the written discourse detaches the author form the narrative, making writer and reader unreachable to each other. Until now, the analytical reflection that spontaneity should come as a natural dialogue has been in discordance with the essence of print, as the medium is unresponsive. For this reason, the present research looks into the cognitive process of reading, and how they relate to involuntary changes of the body to create a framework that transform literature into a truly interactive medium. Unbound from the restrictions of print, this new intelligent agent (IA) uses the spontaneity of oral communications to better communicate what has been set on paper. The IA consists of a system called Augmented Narrative, where the author not only codes his narrative into written language, but also spontaneous sonic interventions that create context. The reader then uses the system's biofeedback to interact with the multimodal narrative, allowing for an embodied experience of the literary text.

Augmented Narrative creates an interaction for literary storytelling by transforming the book into a cognitive agent capable to assist its reader. The system consists of smart glasses worn by the reader to detect her engagement. This glasses allow the literary storyteller to collect data of the reader's mental workload in real time. A higher mental workload is a signal that the reader is being transported into the story, and thus tells the book that the reader is engaged. However, if the system finds that the mental workload is low, it infers that the reader has not been able to immersed herself into the narrative text. This is when the book, now a cognitive agent, can intervene. The intervention is design to support and complement the text rather than change the written word, or take the reader's attention away from it. Thus, the system uses sonic interventions of non-verbal information that do not compete with the reading task, but give the reader extra-textual cues in a second channel to support imagery. For instance a soundscape that depicts the landscape of the story's setting, which the reader can integrate in a dual coding across senses.

The biofeedback, made possible by the smart glasses, allows a natural dialog that resembles oral communications. Literature changes into a storyteller that preserves the text in the authorial omniscience of the written word, mixed with the spontaneity of sound, that addresses a particular situation that vanishes with the situation itself. In this way Augmented Narrative is set to redefine literature as an empathetic storyteller that adapts to each individual giving an improved reading experience that brings the ear into an activity that had only been for the eyes.