Sound Effects in Search of Causes

Storytelling with Psst! - the Programmable SoundScape Toy

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ABSTRACT

This abstract introduces the Psst! project. The objective of the Psst! project is to explore the possibilities for a new type of storytelling tool/medium, that combine physical artefacts with virtual information.

Psst! is a test platform, consisting of a story universe, a sound database and a physical interface: wooden boxes with loudspeakers and a number of dolls with electronic ID-tags. The Psst! platform is built to make it possible to quickly try out and modify play concepts based on sound and objects.

In our first tests we have experimented with combinations of unpredictability and causality in order to find a balance where the interaction with the toy cues children to create rich narratives commenting and explaining the sound events in the boxes.

Keywords

Interactive narrative, toys, play, sound, augmented reality

INTRODUCTION

The starting point of Psst –and the project Narrative Toys of which it is a part - is the assumption that physical toys serve as an aid to formulate and share stories, by opening up a narrative space into the actual physical space and by adding some story elements (characters and events) into the process of narrative construction by the children playing.

Psst! – the Programmable SoundScape Toy - is a development tool for play concepts around character-driven storytelling and narrative through sounds. It consists of a story universe built around nine characters, the Psstians, a physical platform and a sound database. Based on these, we are presently developing a number of play concepts, that in different ways combine interaction with sound effects. The system provides characters and sequences of events, but the narrative interpretation is left to the players.

Psst! is intended for group play, and we concentrate on children age 5-8.

TECHNICAL DESCRIPTION

The Psst platform consists of nine dolls provided with identity tags (I-buttons). Six boxes of different colour and shape contain loudspeakers, and on the top of them are contacts where dolls can be placed. Microprocessors in the boxes collect data about position and identity of the dolls, and send it to a control box, where the positioning information is collected and forwarded to a computer via serial communication. The control box also contains an analog switch which directs the sound

to one or several of the boxes. The whole setup is controlled from one computer, in order to make it easy to add or modify play concepts.

SOUND DATABASE

The sound database contains the core "content" of Psst, soundfiles of several types:

- Psst-talk. Each character has a repertoire of about 50 utterings (it's own name, name of other Psstians, greetings, questions, answers and exclamations in jibberish)
- Sound environments. Seashore, kitchen, city, road, garden, churchyard, cellar…
- Sounds of events and activities performed by the Psstians (cooking, sawing, playing at diverse instruments, eating, dancing, jumping…)
- Step sounds. Each character has it's own distinct step sound, evoking different sensorial characteristics (heavy, windy, bouncy, queaking…).
- "Catastrophies". Longer sounds depicting an unfolding sequence of events that cannot be stopped.
- Musical loops. Related to the event/activity sounds, but through rhythm and repetition opening up for a musical interpretation.

In the present first versions of the different play scenarios, the sounds are sorted into thematic catogories (waterplay, carpentry) and played at random within the categories. Already now it is clear that there is a huge potential in finding more complex ways of sequencing the soundfiles, i.e. the intentionality of the characters, establishing a place through its influence on those who enter it.

NARRATIVE FORMATS IN PSST!

At present, we are developing a number of play scenarios for the Psst! platform, based around four main themes: games, musical play, construction/configuration and storytelling.

- Hello Psst!. The characters introduced through names and step sounds
- At the Psst's. An interactive narrative describing how the Psstians play, work, eat, sleep and make music.
- Ghost Hunt Psst. A game, where children have to localise and capture a ghost hiding in one of the boxes.
- Talk Psst. Playing out random conversation between Psst characters.
- Picnic Psst. A musical setup, based on a combination of looped and singular sounds.
- Record Psst – enables children to record their own voices to the Psst characters, and to configure the boxes with sound environments via a computer interface.

USER TESTING

Working with children in we have seen that inexplicable events give strong impulses to narrative –making up stories to explain the inexplicable, and inventing causes for the effects provided in sound or images. Unresolved conflicts also set the narrative fantasy of children in motion.

At the moment we are assembling the first version of the play scenarios, and the regular testing phase of Psst! is planned for the beginning of this autumn. It is our hope to get some valuable input on how physical toys and virtual information (sounds and behaviours) can be combined into a new storytelling medium, tailored for collaborative fantasy play.

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