

# **Exploring Narrative Strategies for Scalable Locative Audio Drama**

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## **Introduction**

This paper reports on a recent collaboration between the Lansdown Centre for Electronic Arts at Middlesex University and the BBC Radio Drama Department, which was designed to investigate the narrative possibilities of locative media in a drama context. The locative drama *Scratch* is the first outcome of an ongoing research project, Locating Drama, whose aim is to investigate and develop narrative strategies that take full advantage of the current generation of GPS enabled portable computing devices for audio drama. In particular, we are exploring content and modes of interaction, which, while based on location awareness are *not in any way site-specific* allowing users to experience the drama in a location of their choice. We will refer to this approach as *translocational* as it allows the translation of locative media experiences to a wide variety of spaces. The translocational approach is of particular interest to broadcasters as it is more scalable than a site-specific paradigm, opening the possibility of downloadable location-aware podcasts featuring professionally authored content for a wide audience.

*Scratch* was initially presented at the BBC Radio 3 Free Thinking Festival in Liverpool (UK). The delivery of the project was, briefly, as follows. Pre-recorded audio files are preloaded onto GPS-equipped iPAQ pocket computers, provided by Hewlett-Packard, using their MScape authoring tool as a prototyping platform (an iPhone version is also under development). These audio files are associated with locations in a physical space, relative to the starting point, so, as participants move around, they encounter a number of scenes triggered by the GPS sensor. One of the principal design decisions was to create a wholly *aural* interactive experience: once the user has pressed Start there is no need for further explicit interaction with the device. In our quest to make the technology 'transparent' all interaction is achieved through movement in space and all feedback is diegetically embedded in the narrative. These ideas build on our previous translocational work such as '*Ere be Dragons* (Boyd Davis et al 2007).

*Scratch* presents a complex narrative of interwoven stories in which the listener is implicated as an eavesdropper on increasingly surreal childhood events which are finally revealed to have been an inner journey taken under hypnosis.

## **Context**

As Iain Chambers observes, the advent of the personal stereo has changed not only where and when we listen, but also how we relate to what we hear:

Here as opposed to the discarded “grand narratives” (Lyotard) of the city, the Walkman offers the possibility of a micro-narrative, a customised story and soundtrack, not merely a space but a place, a site of dwelling. Our listening acts as an escape from our lived environment while also intersecting with this environment forming an accidental soundtrack to our real lives.” (Chambers 2004: 100)

This leads to the possibility of what Siegfried (Siegfried 2006) calls ‘situational stories’, in which the listening environment can be considered an active participant in the story-telling.

The ready availability of portable media players such as smart-phones or PDAs that combine the ability to play back audio with location detection using the global positioning system (GPS) or similar technologies, opens up the possibility of audio drama that is directly responsive to the listener’s location and/or movement in space.

While artists such Blast Theory in the UK (Koleve et al 2001) or Katapult in Denmark (Hansen et al 2008) have been exploring the potential of locative media for forms of dramatic storytelling, they have focussed on specific sites and have often even involved live actors in the space. In contrast we are constructing *translocational* dramas which may be experienced in any suitable (outdoor) location. Parks, beaches, station platforms are transformed into virtual theatres through immersive audio.

## **Design and Development**

At an early stage in the development of *Scratch* writers and producers were invited to participate in demonstrations of the technology, with the aim that their experience of this mode of interaction would inform every aspect of the production, from script development to recording techniques and editing strategies. We presented them with a range of examples of audio experiences in clearly defined virtual spaces and experimented with various layouts or *storyshapes*.

Following these demonstrations, the writers pitched to produce a locative drama. Penelope Skinner was selected on the basis of a concept that became *Scratch*. Her script involved a journey through a number of distinct soundscapes: a garden, a house, the mysterious east wing, and finally a surreal circus or fairground. The script was driven by the sonic possibilities and described many features of each soundscape in great detail. The layout of scenes in the space was suggested by her in the script. It drew on many of the features presented in the demonstrations and the subsequent discussion, in particular, the idea of unique sonic environments, separated by clear audio boundaries, through which the listener could walk from one environment to another. Characters played out various scenes within these defined spaces.

Figure 1 shows the layout as it was implemented for the Liverpool trials. The overarching linear trajectory of the story was mapped directly onto the space so that the end of the story occurred at the furthest point from the start, with alternative routes available through the space. There was an emphasis on creating a detailed geography with sound effects such as clocks and fountains placed in specific positions within each virtual environment. This layout required the system to be calibrated as the scale and orientation of the virtual space needed to be matched to the listening environment.

## Return

When designing for a translocational experience, we cannot rely on the extrinsic associations of site-specific media experiences. In a site-specific piece story elements are associated with particular locations (e.g., this is the actual location where a battle took place). In a translocational drama this relationship is reversed as locations become intrinsically associated with characters or moments in the story, wherever they were first encountered (e.g. this is where I heard the gardener). This becomes meaningful when listeners are allowed to return to locations they have already visited as it helps them to fully recognize their role in the listening experience. Re-visiting a place must have a meaningful result: a recurring character or a sound environment that is noticeably related. It can also allow us to introduce the temporal into the narrative, as revisiting a space can offer a progression in time (e.g. listeners might encounter the same character, only older). In the Liverpool trial return to a location signified memory. Auditory scenes were replaced by collages of already heard material summarizing the 'story so far' which allowed the user to rewind their experience and connect new material to old.

## Beyond the Trial

In response to extensive evaluation of the Liverpool experience, incorporating questionnaires, filmed interviews and feedback meetings, two further layouts have been tested by the team, which will be discussed below. The second of these in particular satisfies the requirements of translocationality while also addressing issues of responsiveness and control that were raised by the evaluation process.

### 1. Islands model

The seamlessness of the sound design made it hard for users to distinguish between aural changes inherent in the unfolding scene, and those initiated by their movements. In particular, the fact that a number of scenes could be found within a single soundscape, such as the garden or the house, made it hard to appreciate that two adjoining scenes were separate localised entities. The consistency of the background sound design caused some listeners to describe the experience as being like listening to a cd or the radio, with little sense that they were either controlling or uncovering localised events.

We believe this to be partly due to the fact that more than one scene could be found within each soundscape. The explicit reference by individual characters to sounds which formed the boundaries between soundscapes (e.g. references to an oncoming storm and the sound of thunder) may also have reduced the clarity of the spatial mapping. One feature that consistently elicited a positive response, however, was the first transition, walking forward through a seascape into a garden environment. This clear movement from one soundscape into a quite different one, seemed to emphasise the sense of control due to the high level of contrast between the spaces.

A version was therefore devised in which all scenes were located as isolated islands in a ‘sea of the unconscious’. (Figure 2) The listener would wander through a seascape until a scene was located. The sea would then fade to reveal the scene, played out in the appropriate atmosphere (house, garden, east wing). At the end of the scene or if the participant moved away, the sea would encroach on the action and drown out the narrative.

This islands model did indeed seem to increase the listener’s sense of control, particularly when moving away from a scene and stepping back into the sea. However the loss of the clear geography provided by the individual soundscapes and boundaries was lamented and participants felt lost and literally ‘at sea’ in their search for the islands.

This emphasised a problem that had been reported in the Liverpool trials, that people were afraid they were missing important scenes and wanted to know where they were in ‘the story’. While such problems are to an extent inevitable when novel technologies are applied to a dramatic form which raises traditional expectations, a primary objective was to construct an experience that was dramatically satisfying. A solution was found which allowed the listener to navigate the space with greater confidence and simultaneously removed the need for calibration.

## 2. The return model

The theoretical importance of return to the design of translocational drama has been discussed above, and allowing users to discover that content changed on returning to a location, was always central to our intentions. However, our evaluation revealed that few users explored this option, even if it was explicitly suggested to them. It is likely that the underlying linearity of the layout and the development of the story itself discouraged this mode of use.

A version has now been created in which each space contains only one scene. Return to a space through a boundary replaces that scene with another, taking place in the same familiar environment and often involving the same characters. This allows the user to have clearer expectations of where to find scenes and more control over the movement of the story. The end of the narrative now takes place on return to the start-point forcing the listener to return to already visited areas.

Technically the spaces/scenes are laid out in concentric circles around the starting point allowing the user to set off in any direction (Figure 3). This solves most of the problems of calibration leaving distance as the only fixed parameter.

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## Conclusions

*Scratch* was perceived to be a positive experience. Listeners were excited by the possibilities of translocational drama, reporting they would like to experience more pieces like *Scratch* in future. The wider Locating Drama project will continue to investigate the implications of the medium in greater depth. In particular the following areas need further investigation.

### 1. A more Iterative approach to content development

The writing process, the layout and the interaction design should be intimately linked. In *Scratch* many interaction design decisions were made after the script had already been recorded. What is required is a more iterative approach in which interaction design and story development are intimately tied together.

### 2. Diegetic user instruction

The ideal of a plug-and-play experience in which users need no prior knowledge of the layout and modes of interaction has not been fully realized. We are interested in finding diegetic solutions to the instruction of users. How can the user be led through the story so that their role is clear to them and the interaction possibilities are suggested subtly but comprehensibly?

### 3. The relationship of the listener to the story

In *Scratch* the listener is frequently referred to and even addressed in the story, but not all listeners picked up on this. We will investigate further the roles of the listener as eavesdropper, witness and active participant in the narrative.

### 4. The overlay of the virtual space onto real space

The translocational approach establishes a relationship between the actual listening location and the story. Many listeners report moments when confluence of the real and the fictional occurs (e.g. a dog running across their path while the fictional characters are searching for their pet) or moments of dissonance where the real world intrudes on the virtual.

While serendipity will continue to play a major role in this, it may be possible to create deliberate points of contact either by devising dramas for particular generic types of location (e.g. beaches or cemeteries) or even by allowing the system to interrogate POI (points of interest) databases to find out more about the actual listening environment chosen by the listener.

The notion of translocational audio drama promises to open the field of location-aware media experiences to a wide public, retaining the physicality of the interaction and the strong association of place and aural memory without restricting access to a geographically limited area. *Scratch* has been a first step and opened up a vast range of possibilities for further development.

## References

Chambers, I., *The Aural Walk* (pp. 98 – 102.) in Cox, C., Warner, D., (eds.) *Audio Culture, Readings in Modern Music*. New York: Continuum, 2004. Print.

Koleva B, Taylor I, Benford S, Fraser M, Greenhalgh C, Schnädelbach, H, vom Lehn D, Heath C, Row-Farr J, Adams M, *Orchestrating a mixed reality performance* (pp.38 – 45). New York: ACM, 2001. Print. Proceedings of the SIGCHI conference on Human factors in computing systems, Seattle, Washington, United States.

Hansen F A, Kortbek K J and Gronbæk K, *Mobile Urban Drama, Setting the Stage with Location Based Technologies* (pp 20 – 31) in Spierling U. and Szilas N. (eds.) Heidelberg: Springer-Verlag, 2008. Print. Proceedings of the First Joint International Conference on Interactive Digital Storytelling, ICIDS 2008.

Boyd Davis, S., Moar, M., Jacobs, R., Watkins, M. and Capra, M. 2007. “Mapping Inside Out” in: Magerkurth and Röcker (eds) *Pervasive Gaming Applications: Volume 2*. Shaker, Aachen.(199-226).

Siegfried, W., Soundtracks to Reality, <http://www.ariarium.de/stracks.htm> (1996) Web. 21 Jun 2009.

Hewlett Packard Mscape: <http://www.msappers.com/>. Web. 21 Jun 2009.