Handheld Learning 2008 - Research Strand

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Our City, Our Music: using mScapes to map new narratives

Hewlett-Packard's mScape platform allows people to package up audio, images and movies along with geographical information to make interactive maps [Stenton 2007]. When downloaded to a location-aware device these media-maps trigger content based upon specific locations, story elements or more interactive game play. *Our City, Our Music* has been selected by b.TWEEN08 to develop a location-based album using the mScape platform. This paper presents our project as a case study for the educational potential, creative and social possibilities of this locative media technology.

Media Maps:
As the technology for accurately detecting location to within a few meters outdoors has become more accessible, inexpensive and more effective, the field of augmented reality and location-aware gaming has begun to explore the pedagogical and entertainment value in placing interactive media into urban and natural spaces [Facer 2004]. However it is recent toolkits like HP's mScape system that allow a much wider audience of educators, students and the general public to become creators and consumers.

The mScapes are designed to be easy to use by a non-technical audience. Similarly, the software for creating these interactive maps offers a gentle learning curve; the experience is not too dissimilar to designing interactive on-screen work in applications such as Flash or Director. In this instance however the mouse pointer is replaced by the carrier of the handheld device in order to activate the scripted content of each mediascape. Making a map of a certain area such as a guide to a castle or a story along a canal, with media files attached to 'hot-points' along the route is as easy as dragging the files on to an online map. Accompanying software allows for more complex logical interaction to be created and tested before they are loaded in to a location-aware device.

While a number of location-aware mobile devices exist within vehicles, GPS is enabled in an increasing number of mobile phones, such as the Apple iPhone 3G, and the Nokia's N96, etc. The mScape system currently runs on a limited number of Windows Mobile operating systems, such as HP's iPaq plamtop devices with the scope that it will be usable across platforms. The recent release of the a beta experimental version of the mScape software looks to the future of user experience by testing its application with sensors including RFID, Bluetooth, Infra-red… The addition of these technologies will expand the located area of the journey to include continued access to content within buildings, where satellite global positioning is unobtainable.

Features and Limitations:

- successful mScapes include adventure games, historical guides, local resident recording, walking tours, physical field sports, etc.
- hardware limitations – limited processing and real-time graphics on most location-aware devices.
- low screen visibility in the sun on mobile devices makes outdoor viewing of fine detail difficult.
- media assets and map are pre-loaded on a device before going outdoors.
- mScapes are not designed primarily to interact with other devices in an area (making communal game play trickier to mediate technically)

Case study: *Our City, Our Music*
The first location-based album will be realised in Leeds, where 12 groups of emerging musicians will be selected to represent their city. Each group will choose an urban location to perform live (a café, a railway bridge, a street corner, a chip shop). Music videos will then be shot on location by emerging cinematographers. Both the musicians and the cinematographers will be paired with

mentors to help them produce the content for the platform. As the mScape experience is based on moving from location to location the artists will also contribute vocally towards leading the way, creating a personal guide to specially selected spaces within the city. These videos combined with audio interviews will form a narrative guide on the mScape platform and become the basis of an invisible archived journey across the city.

The album will be produced over a short period of time (January – June 2009), fostering a sense of excitement and event. The young, up-and-coming musicians mix a strong DIY entrepreneurial spirit with an active engagement within the local community, this will add enthusiasm to the project. While fans may be aware of the quirky locations and social history associated with a location *Our City, Our Music* will open these spaces up to a greater public, setting new trends and unexpected events.

Location based media can sometimes feel like disposable elements that garner interest only in the context of a festival, research project or special event. Big city games for example bring a large level of interaction and value to those involved from the start, but it is difficult in practice to seek out 'viral' participation from those initially unconnected. There are also locative projects that are intended to be permanent – lasting many years and tied to a particular place. Walks and guides often fall into this second category. These can, at times, lack a feeling of spectacle, and can find it difficult to build initial ground swell. *Our City, Our Music* will straddle this spectrum, with the manifestation of a sense of event, the creation of a lasting artefact marking a time and place, and the use of an accessible and user-friendly platform for a growing number of handheld GPS enabled devices.

This project aims to make the technical side of GPS fade into the background, while highlighting the subject content in the foreground. This method of access will contribute to a rich experience of the culture through a technology-mediated system. While mobile technology design is actively working towards user interface ease this ambition is not new. Marc Weiser (1991) articulates the importance of rendering the technology invisible here:
'The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.'[1]

A launch event during summer 2009 will enable the public to celebrate the music and video talent and to experience the *Our City, Our Music* mScape in action. It is in physically experiencing the mScape journey that the attributes for learning become truly apparent, as it actively stimulates the existing memory maps of the brain while playing with visual and auditory remixing of time and space. It is a showcase of local identity, social history, and community creativity encountered through associative geography which will forever place the narrative within the location.

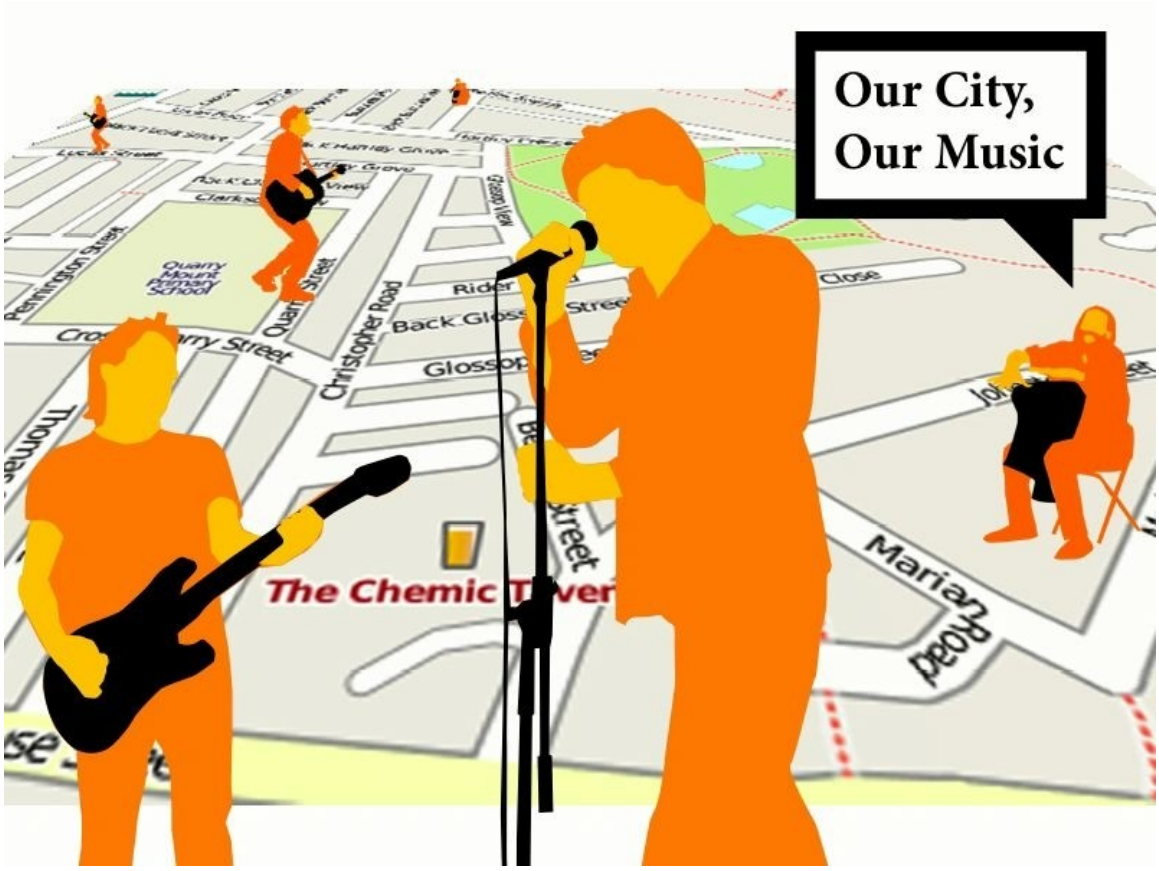
Future directions:
In attempting to navigate, what can be, chaotic urban spaces people take ownership of their journeys through daily patterns in these spaces. Technology has acted to mediate interaction within these spaces, in many cases, by distancing the user from experiencing location. Cars, walkmans, mp3 players, are devices that displace people from the city. With the emergence of location-aware devices people are now given the opportunity to re-engage with these spaces through games, guides and maps that can deliver the kind of rich digital media experience that was previously restricted to a desktop computer.

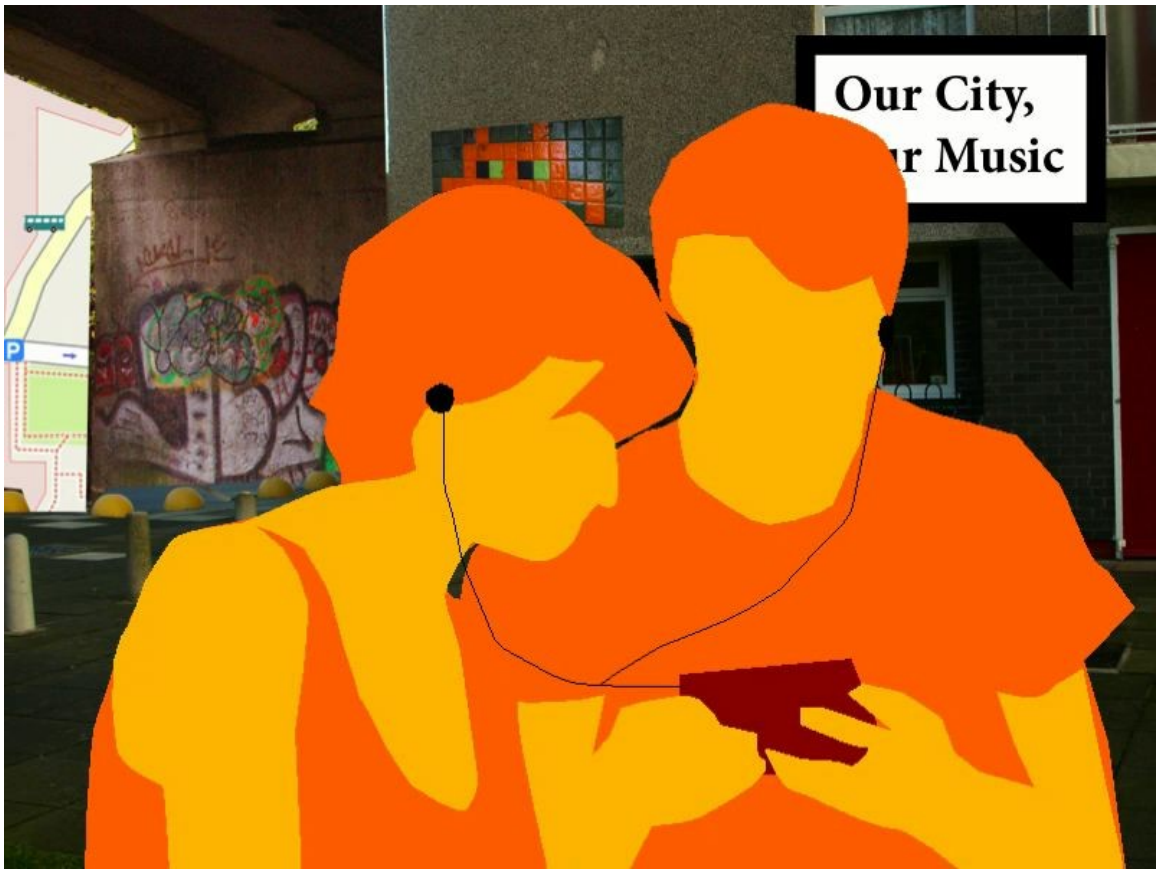
In the *Our City, Our Music* case study opportunities for learning are clear – in live audio recording, small screen video editing and digital media production. However, the scope for educational applications of media-maps is much broader. At all ages of education, the ability to place story elements and media artefacts into the 'real worlds' to be discovered by learners using these devices (like metal detectors looking for buried treasure) opens up a range of unique educational experiences. Story telling about a place or event allows for complex subjects to be examined without over-simplification.

The tools of construction for mScapes and similar mapping environments enable a level of usability that permits non-technical learners to tell their own location-specific stories whether it be historical, personal biography, fiction, tourism, artistic or whatever the future of mapped narratives may include. Within current theoretical debate Denis Cosgrove (2006) bonds actions of mapping and journeying as symbiotic experiences and then continues to emphasise the creative potential and social implications of created place:

“Urban space and cartographic space remain inseparable; as each is transformed their relationship alters. Current visual technologies mean that the opportunity for creativity in shaping and recording urban experience is greater than ever, as too is the need for critical attention to the making and meaning of both public and private urban spaces.” (Cosgrove 2006 : 157)[2]

The use of portable global positioning devices to record and illustrate past, present and future events provide a means to experience fact in new ways by comparing perceptions of location, sharing narrations, and by staking claim to concept of place. *Placemaking*, a term borrowed from Urban Planning and Architecture, has a poetic resonance in the activity of geo-locating within the digital domain. By testing these platforms and devices and looking at human interaction through the use of social networking systems there is an original contribution to knowledge in the form of research into technology enhanced experience and learning for creative space. These platforms form a space to engage with others and hence can help to assimilate people into new environments, while encouraging others to take part, gain confidence, and to explore new ground.





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