

Mobile, Context-sensitive Cinematic Narratives

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New Narratives for Mobile Networks

We are on the cusp of a new generation of cinematic narratives. Mobile networks (such as 802.11, ad-hoc, cellular) combined with GPS and other sensing technologies provide us with a channel for navigational cinema that we are only just beginning to explore. Unlike the continuous experience of theatrical movie projection or a TV broadcast, the form and content of this cinematic experience will be shaped by the dynamic attributes of the viewing experience – we are moving around through space and time – and cultural desires for two-way communication.

Scenario 1:

You visit London on business. As part of your travel arrangement you are invited to subscribe to one or more location-sensitive narratives to be delivered to your mobile phone. You choose a program titled “the music makers of London,” a content set that presents you with characters, places and events that reflect great moments in London’s Music history. For the next two days, as you go about your business, you drop in and out of a cultural tale in which you meet Handel, Stravinsky, the Beatles and many others as they prepare for landmark performances in this urban metropolis

Scenario 2:

As summer pleasures beckon, you are invited as a family to visits cousins at the beach. Carrying your own personal communicators, you move out toward the beach. As they approach the dunes, the kids begin to receive segments featuring Barbar at the Beach. Segments include Barbar applying sunscreen and Barbar learning about undertow.

The kids use the camera on their communicator to capture images as they collecting crabs. These images are sent to the database and at sometime will be incorporated into a new segment. The adult version of this just-in-time story might include a comparison of sun-screen products, an up-date how to treat sever sun-burn and a set of segments on sailing.

We know from the emergence of previous media forms, the structure of expression is shaped at the intersection of culture and technology, as arbitrated by the transactions of the market place. No matter what surprising transactions emerge, the seeds of the experience are most likely present in the communication culture of today – the mobility of cell phones, the inspiration of SMS messaging, the sharability of URLs, the tradability of MP-3’s and the asynchronous viewing of broadcast TV enabled by TiVo.

Pushing these cultural modes of expression into the future, it seems probable that we will be continuously connected as we move around the world, and that we will be able to augment our experience of the world with movie and animation elements as well as with conversations using voice and email. Whether stepping off a plane in Istanbul or rock climbing in the Rocky Mountains, we will be able to participate in place through scripted as well as informal exchanges using our personal communicator of choice. Perhaps we will consciously select our media stories; more likely, they will be selected by our agents based on where we are in the world, what the weather is like, who we have spoken to most recently, what we are planning to do next and a myriad of other details about our current situation.

Given this vision of our communications future, it is appropriate to ask: How will anywhere connectivity, wearable cameras, small display devices and sensors best enable us humans realize our potential? How will cinematic narrative transform itself in this age of mobile ubiquitous communication? Can we create a mobile cinema that engages and inspires contemporary culture?

Just-in-time Stories

The “Just-in-time story” aptly describes a next generation content landscape in which the media we receive “finds us.” Based on contextual information about our immediate situation as well as profiled interests and active exchange, we are able to experience the world while we augment our knowledge and exercise our imagination. Accessing a database of short segments designed for entertainment and learning, our selection agent navigates fuzzy boundaries between historical, scientific, news and fictional narratives. Who makes these stories? How are they structured? How do we experience them? Who is the audience? How can they be incorporated in a business? These are questions we ask and try to answer in the Interactive Cinema Group at the MIT Media Lab and in the Story Network’s Group at Media Lab Europe.

Scenario 3:

You live and work in Boston. Your mobile communicator of choice is a small PDA similar to today’s IPAQ that communicates with a display embedded in your glasses. Today, as you stroll past a flower shop on your way to a meeting at Harvard, you drop into a video story. First scene: as she emerges from the flower story, a young woman drops her wallet. A passerby picks it up. Wait you want to call out. Amazingly the passerby stops and opens the wallet in front of you. Both of you both now know, that the woman who left the flower story has many identities. What to do? If you get involved you will be late or miss your appointment. But it seems important to find the woman.....

Scenario 4:

You are driving your family through a rocky area in Northern Pennsylvania. The kids in the back seats are joking around and flipping through the available tv channels. In a moment they pause, as they find a program that is introducing them to a weird fish-like creature, a fossil discovered 363 million years ago. All of a sudden they are quiet, looking out of the windows at the cut rock surfaces. Soon they are asking you whether you can stop so they can hike around these rocks. Their imagination has been stirred. You either stop or you trust that the storyteller will provide some learning spaces that will engage the children around this story.

Research to Date

Spatial cinema has been the focus of several past projects of the MIT Media Lab’s Interactive Cinema Group including the “Elastic Charles” which was developed well before the realization of mobile networks and more recently a Wearable Museum project which illustrated how movies, viewed on a wearable display, might augment the public’s appreciation of an art gallery.



Figure 1 M-Views Client

Recently the group fully implemented M-Views, client-server model for first mobile context-sensitive cinema. The first production, “Another Alice,” is designed as an entertainment whodun-it that takes place on the MIT Campus. Consumers who sign up for the experience receive a progression of video clips on their

IPAQ as they move from building to building following advice offered by the various characters. The characters only appear on the consumer's IPAQ when they are co-located with the consumer in time and space. By following these characters as they describe their future whereabouts, the consumer acts as a detective. The client-server architecture is accompanied by a powerful simulation tool that allows authors to pre-visualize relationships between content, time and the physical path of the consumer.

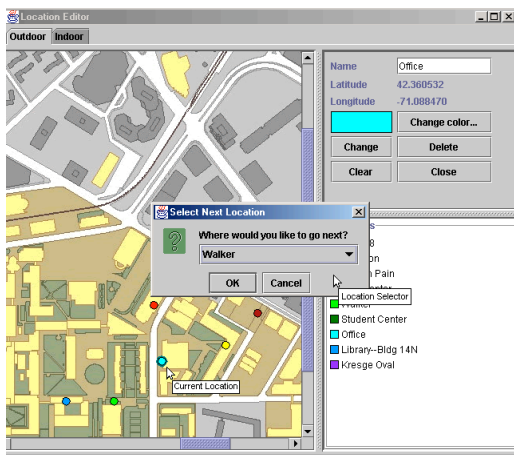


Figure 2 M-Studio

Another, context-sensitive cinematic narrative -- "HopStory" -- was constructed by a production team at the Media Lab Europe in January 2002. The "HopStory" provides the consumer with a fictional day in the life of 4 characters who could have been in the HopStore building 80 years ago, when the HopStore was part of the working brewery. This story added the idea of using a character driven state machine to modulate the story narration. While this story was not delivered on a PDA, the narrative idea would need little restructuring for this delivery platform.

Two new narratives are currently in production.

The Business Opportunity

We are currently thinking about the business models that could support content production and delivery of context-sensitive narratives. In pursuing a business approach, we need to be concerned about maintaining open standards for

publication. In our explorations, we see that this type of narrative can engage a new generation of authors and that these authors, as they mature, can provide help fill the content channel with interesting experiments and new modes of interacting.

Of the many industries that could benefit from location-aware movie content, tourism is perhaps the most salient. Narrative segments can be structured such that they appear to be embedded in place, providing a rich "Son et Lumiere" type experience for historic destinations. Fictional stories, bordering on a game-like experience can support theme-parks and other destinations. We also imagine product placement as well as special deals on communicator hardware can play a business role in launching mobile, context-aware cinema. We also imagine that story options could be provided by individual real-estate entrepreneurs as well as by traditional content moguls.