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Hello, thank you Martine [[Posthuma de boer](#)] for the introduction.

I would like to add one more thing, my artistic background is in painting and visual arts, I then went on to do a Masters in [Multi-Media Systems at Trinity College in Dublin](#), and this is how I got introduced to digital technologies. After my Masters I worked with the [Media Lab Europe](#) for four years with [Glorianna Davenport](#) and the Story Networks Group. The [Story Networks group](#) explored applications in interactive networks and digital technology, and I specialized in the process of bring stories out into a real space.

Currently I am completing my PhD thesis, which has been jointly developed with Media Lab Europe and Trinity College and is based on the projects I will be presenting this morning. I hope to be finished with my thesis by September.

The project I'm working on at the moment is a linear film script for [Binger Filmlab](#). I felt that after so many projects in interactive narratives I should go back to the roots, and understand how to craft a linear story, because without a good story, you can use any technology you want but that won't make the story good. So for me it is a great privilege to be spending the next five months investigating what storytelling and scripting for films is all about.

On the screen are some pictures to help us begin thinking about the subject of place and stories and these pictures also show where all of this started for me. In my background I traveled a lot, my father used to move often, about every three years we moved, and this really shaped how I thought about my history and how that was linked to many different places and many different stories. As part of the moving process, when I would arrive in a new place I would think about that place and wonder what had happened in that place before I arrived. What kinds of people live there, what kind of stories had already happened in that place? If you refer to your handout and look at some of the quotes, these clearly begin to draw differences between a place and space. What makes the difference has to do with history. A place has a history, a personality, which can be thought of as layers that are made by the people living there and the stories that have happened.

The pictures you see now are pictures that I took when I was in Barcelona, before I went to Ireland. This is a building that was being torn down by my house. This image was a trigger for me, because I started to think about who had lived in that house, because you can still see the walls, the ghosted impressions of all of the rooms, the staircases that used to be there. You can see how this impression was obviously a bathroom, and here there used to be cupboards, and from this I started to imagine, in a sense like wallpaper, layers of experiences, people, and stories that have lived in this place.

This picture is from the old part of Barcelona near the Ramblas where they were tearing down the old buildings making way for the new Ramblas. One day I went out and saw these posters hanging throughout the area asking, "Do you know where your neighbours have gone?" This was a good question, because I didn't know where the people who lived there only a couple of weeks before, where they have gone. I started to think, how did this effect the place and community, when a building is torn down, when the fabric of a community is torn apart like in the picture, and how does the space change?

This whole idea of having all of these stories contained in houses was the basis of my first interactive media narrative project that I did in Dublin as my Master's thesis in collaboration with [Jo Briggs](#). The project is called [Weird View](#), and this really uses this idea of houses as containers for

stories. We chose this area because Jo was connected to some of the people living in the area, and it is a row of 20 houses just outside of Dublin, that just overlooks a weir. The place is really called Weir View, but the people from the area called it *Weird View*, and we thought that made a nice title.

These houses are built just outside of a village and were made for the workers of a woolen mill, which has been closed for 30 or 40 years. But the owners of the houses kept them in the family, passing them on from generation to generation. The families of the houses have also married into each other and through this they've formed a community. Jo and I went to the area and collected stories from people who are currently living there, as well as people who had moved away. We collected a total of 60 short articles, some true, some fantasy, we were not interested in making a documentary or a true story, we were interested in collecting what the memory of this community was.

The row of houses was the way we organized the stories, so each house had a number of people living in it, and we collected stories by talking to each member of the house and re-writing what we heard. At the beginning we used different recording devices, but this had a big effect on the people, they really froze up when we took out the tape recorder or the video camera. In the end we talked to the people, we met them in the pubs and in their houses, and through this way we got the stories they wanted to tell us.

The way the interface works is, for each house along the row you can click on different elements of the house, like on a door or a window, to access a story from that particular house. Another way to experience the stories is through the names mentioned within the texts. Each name is hyperlinked to other stories that share participants. This way of experiencing the project emphasizes the social network of the community. The project is the combination of the two. It is the spatial distribution of stories, the houses, which is an index of stories pertaining to each particular house, and it is the social network, the people, involved in the stories that break the boundaries of the houses, and this makes a web.

Now I'd like to show you some of the videos from the project. The audio is not included, but if you look to your handout you can find a URL for the site that has examples with audio.

For now I'll do the voice over for the examples.

This is the story of Mickey who used to have a motorcycle that he was so fond of he used to bring it upstairs to his bedroom.

The project had a one-day show in the town hall of the village which drew many of the people who lived in the area to come and also many people who didn't live there anymore came for the event. They heard about the show by word of mouth because we didn't do a big publicity campaign for it. The interesting thing about this gathering was the surge in new stories that came out once all of these people were back together.

Upon viewing the stories some of the community members were critical in how we depicted them, such as Mickey, who said his motorcycle was cooler than the one we used for the video, but once that passed people began asking why we didn't include other stories.

The response from this project gave me the inspiration to continue in the area of interactive narratives.

This, for example, is one of the people who lives in Weir View who gave us access to her house and from that we built this [QuickTime](#) panorama of her place. Along with the QuickTime, is her story about her and her husband who didn't have any kids. So her husband used to pick up the

kids from the street and bring them home, and they'd pretend that they were their kids.

In this story two sisters living on the second floor of this house, in the same room, used to have a fight over who could strip the nightgown off of the other one and then throw it out the window! Leaving the problem of getting the nightgown to the loser.

In this picture you see two girls who used to help walk this blind neighbour around town, but because she was blind, they would smoke cigarettes thinking that she wouldn't notice them smoking.

Now I am going to move on to my next project, but you can find these examples online.

After the *Weird View* project I started to work at the Media Lab Europe, and at the lab I did two location-based projects. One project was realized in an indoor setting called [Hopstory](#); it was developed in collaboration with the (Story Maker team), Allison Wood, and (Sean Flannigan) who did the technical development with supervision by Glorianna Davenport.

*Hopstory* is about four different characters that spend a day in the hop store building, which was the Media Lab Europe researchcenter.

The other project is [A Mediated Portrait of the Dublin Liberties](#), which is my most recent project and will be discussing later. This project is different from the *Hopstory* in that it uses an entire neighbourhood. This project was directly influenced by the *Weird View* project but now bring out the stories into real places, so this project is not screen based but location based.

The *Hopstory* was my first attempt to distribute a story in a space. The story develops in time, it has a plot that develops chronologically from 6:00 am to 7:00 pm, and uses the architectural layout of the building as a navigation strategy and interface for the story material.

In making this project I was very interested in having the re-enacted film and the experience of navigating the space in the same place, because a common problem with interactive narratives, when you experience them, is the disruption of being immersed in the experience. For example when you go to the cinema, or you read a book, you become completely immersed in the experience. For an interactive story, because you have to choose, or you have to click, or you are required to do something to progress the story forward that means you have to come out of the story world. At that moment you must make a decision as a viewer and then you have to re-immense yourself into the story. Viewing a collected story in a real place I thought would strengthen the sense of immersion, because you don't have to emerge completely from the story, you are still within the physical building of the story. Also you make a decision by walking around, rather than what I believe is the more rational act of clicking on a hyperlink.

Another progression from my last project was transferring the *Weird View's* architectural metaphor contained in the hyperlinked interaction and tries to make that literal, so distribute the story in real space.

The story I used was "closed"; it centers around four characters, taking the structure of a day in the life of these four characters. The plot is a loosely classical structure with a beginning, development, a climax, and an end, which is made up of 48 different segments, broken into "ambient scenes" and "character scenes". Character scenes are where characters make an appearance and ambient scenes are scenes that describe the place and history of the place. So you could actually learn a lot about the place during the story. However the ambient scenes by themselves can be quite boring to experience if you've collected to many of those. So there still needs to be enough action to propel the story forward.

The setting is a place where the story happens, which in this case is the real building. To integrate the story into the setting we separated the plot into six different locations in the building. The interactive story follows a multiple point of view structure, so you can follow the four character's points of views throughout the day.

This image is a schedule of the way in which we divided the story. There are six different locations, or posts, from one to six, and here there is the chronological time development from 6:00 am to 7:00 pm. So when you are experiencing the story you can stay in the same location and can experience what happened in that location throughout the day.

If you choose you can wander around the building moving between the six different locations and catch the different scenes, the different characters that are at that location at that time. The process of going through the building means that you edit your version of the story.

This project is like a grid or matrix where all of the different story fragments are happening. For example if you look at the schedule, in scene one, at post one, the character scene for the foreman is playing while at the five remaining posts an ambient scenes is being played.

Following the schedule, after two minutes in real time, 7:00 am, you have in the story the character of the boy taking post one, the foreman moving to post two, and the rest of the posts playing an ambient scene.

The technical installation used cardboard cut-out cats as visual indicators, one cut-out placed in each of the six different locations where people could retrieve a scene from the story. The audience could interact with the cats using a device called an [iButton](#), which is a little memory storage device that reads and writes data through a serial port of a computer. If you pushed the iButton against an iButton receiver you would collect a scene from that location. Depending on the time and the location you could collect different scenes.

A short audio fragment of the story indicated that you collected a scene. When you are finished collecting the stories you can go to the playback area and turn in the story you collected to view it. In the playback area it was interesting to watch a group of people who visited together, and see their reactions when they could see how each of their stories were put together differently, and then they would realize that depending on where they were and at what time effected the story.

This is an example of one of the scenes:

She was happier (unclear). Some days I was sure she would follow me into work and stand next to me all day telling me to do this or that in such and such way.

I was always asking to go see me father at the hop store. My mother would say, "Actually they'd just seal you up in a keg, and ship you down to the liffy". One morning though she had cold, so she sent me to take my father's lunch to him, he left it at home you see.

Oh yes, this was also the day of the terrible keg accident. At the time I was upstairs and hadn't a clue what was happening. I did wonder, what was that crashing noise? But I was busy working (unclear) away (unclear, might have some lunch?).

So the boy fell off the kegs and was lying on the ground like he was dead. Then me little daughter, me young one, pops up from Lord knows where. Said later she'd come to bring me me lunch but it never turned up. The boy ended up being fine, odd day you know?

This is an example for getting some of the different points of view of the characters.

We've taken what we learned from this first proto-type to build a second version of the *Hopstory*. What we did was collect comments from people that experienced the project during an open day at the Media Lab. This really depended very much on whether they focused on the story or if they were visiting the Media Lab and there to see other projects. If that were so, then they would pay less attention to following a particular story or character, but if they were following the story, they would go around looking for the cats, and they obviously had different reaction when viewing the stories in the playback area.

The method of distributing the story throughout the building was received very positively by the visitors. They were quite engaged in recognizing the place they'd been with the scenes that they had collected. So the connection was made that what they saw, was also where the story took place.

The simplicity of the interaction, basically just pushing a button was very important, because while engaged in the story and moving throughout the building to collect the story pieces, you definitely don't have the energy to workout complicated forms of interaction.

Projecting the stories at the end had a mixed response. Some people liked the fact that they could move through the space, gathering the story without having to pay too much attention to the story, and then at the end they could watch a more tradition type of story. But some people thought that it would have been more effective to experience the story in the location itself.

With all of this input the second version of the *Hopstory* used a [PDA](#) (personal digital assistant) and a map of the building, and instead of using the iButtons we used [BlueTooth](#) technology, which brought up a range issue, because nodes for scene downloads had a ten meter diameter. The node diameters forced us to use different floors of the building for distributing the scenes.

We noticed that some tours through the building yielded uninteresting stories, the plot wasn't intense enough because too many ambient scenes were collected. We added the opportunity to follow one character if they wanted. Through the PDA people could see which character they encountered, by collecting an icon for each character. Using this icon people could follow the movements of the characters. This addition to the project provided further combinations of scenes to be experienced.

This sequence is from the girl if you only followed her throughout the day:

I was always asking to go see me father at the hop store. My mother would say, "Actually they'd just seal you up in a keg, and ship you down to the liffy". One morning though she had cold, so she sent me to take my father's lunch to him, he left it at home you see.

I felt so important as I walked through those big iron doors to bring me father's lunch. Guinness is great! There are hundreds of men (running) around in their uniforms, and hundreds of machines everywhere. I believed my father was the master of all of them.

When I went in there was a young boy climbing to the top of (terrace) on a keg, he slipped and all of the kegs came crashing down on top of him. All of the men crowded around, my father among them. I got quite close too, and the boy looked right at me, and that was just before he passed out!

Then my father saw me in the crowd. Of course he had absolutely no idea why on earth his ten-year-old daughter should be there. So he got one of the lads to walk me out. I

had to leave so fast though, I completely forgot about the lunch. To this day he and me Mam think that I ate it me self.

Now I am going to move on to talk about my next project, *A Mediated Portrait of the Dublin Liberties*.

[Question]: Just quickly, when did you do these projects?

[Valentina]: The *Weird View* was in 2000, *Hopstory* was 2001 and in 2002 we released the second proto-type. And the *Liberties*, which completes a long process, was finished at the end of 2004 and that includes the second version of the software, and in 2005 I carried out a user evaluation project.

This is a (unclear) of the Liberties neighborhood.

[Video(s)]

This is a particular look at the community of the Liberties. The Liberties is a very old part of Dublin, experiencing highs and lows. In the 16th century the area became quite wealthy with a large immigrant population of [Huguenots](#) from France. These immigrants set up weaving industries and many breweries sprang up along the riverside. The area also experienced times of deep poverty especially during the Irish Famine when the situation reached its most desperate and the Liberties became a slum. Many people from (Gal?) and the west of Ireland would come to Dublin hoping to pass through on their way to England in search of food and work, but would get stuck in the Liberties. Through this experience the Liberties has assumed this persona of a poor but very strong community. The area was Gaelic speaking in the 18th century and still up into today some people still speak the Irish language.

Spending time in the Liberties, what strikes you right away is all of the older people know each other, and are knit into a very tight and very friendly community. Over the years the Liberties has seen many different developments. Large council flats have been built, and these flats were for all intents and purposes used to store people. These buildings were places to put disadvantaged people, who suffered from drug problems or lack of education. Incoming people to the Liberties were really stored in the council flats, and this group of people never formed a bond with the older community, so there exists a friction in the area. The older community doesn't feel safe in their neighbourhood any more, and these often folks reminisce about past times, when they used to leave the keys in doors and people knew each other better.

On the other hand this incoming community of disadvantaged people are finding it hard to integrate because of pre-existing problems that they have, but also that they are simply lumped together in council flat rather than distributed through the area in a more pleasant situation.

Recently a surge of young people with money have started to buy up the property. In addition to that the Liberties has been chosen, as the digital hub of Dublin, and the Media Lab Europe was the first initiative to set up in the area. You can now see that the area is beginning to change as more digital technology companies begin to add fuel to the redevelopment process.

This redevelopment was a reason why I wanted to do this project, in order to catch the stories and anecdotes of this older community before it disappeared.

The stories and anecdotes were the content to form a non-linear narrative. Each story can be viewed as a module to form a database of content. It doesn't need linear structure like the *Hopstory*, which did have a linear story, a chronological order that needed to be followed. Narratives of course are the ways to understand the world and to find a position in the world, so

using the database to generate non-linearity was an interesting way to understand and describe this place.

The digital media and [locative media](#) were the tools to deliver the non-linear narrative. At the end of the project we wanted to find out how the narrative was perceived by the community, and get feedback from the community. During the evaluation phase I enlarged the scope of the project to include tourists and experts to see how the project worked as an interactive narrative and what worked with people who were not familiar with the Liberties.

The project was very long and was broken down into phases, the first phase beginning in 2002, coincided with a plan to cover the area with wireless nodes from Trinity College to the Media Lab. The nodes would have stored the content of the project accessible through [WiFi 802.11](#) technology that connects to laptops and PDA's.

The Next was social research asking the question, how would people use this technology? In this phase I joined in as way to start getting to know the community, through this I discovered the many different layers that make up the areas social structure.

It was at this time when the plan to build the wireless nodes, which started from Trinity College, and was halfway completed stopped and the Media Lab closed! The wireless cover erected did not reach the area of the Liberties, so I had to change the technology to [GPS \(Global Positioning System\)](#), which meant adding an antenna to the PDA's. Now rather than the content being stored on WiFi nodes it is stored on the PDA.

Throughout the process software iterations were developed for the backend of the project. I must state here that I am not a technologist, so I worked with a software developer to program what we needed for the project. My focus was on researching the content and the production of the stories and storyboards, the production, the design and the interface and then the evaluation.

Researching the content was a very interesting and large part of this project. I started off by trying to talk to the people of the Liberties, trying to get to know them, like I did in Weir View, but this was a whole neighborhood, and being an outsider made it difficult to approach people on the streets to ask them for stories. After doing this for sometime I met a writer (Myron Johnson) who was from the area, and she wrote a book about the Liberties. It was based on her own family who'd move to the Liberties from Galway 200 years earlier. Through this story she integrated information about the history and the social conditions of the area. With her we went around the neighborhoods selecting stories I would use for the portrait of the Liberties.

After the collecting phase we scripted and storyboarded the stories, also using many different materials like old pictures from people who contributed stories.

Then we filmed and illustrated the production of the stories.

Producing the stories utilized three methods, one, is re-enacting the stories. Since the budget was next to zero, I used non-professional actors to reconstruct some of the stories. This method I liked very much because it gives a lot of creative power and interpretation to the author, to me, and in addition to that we could create sets on location in the area. Often this attracted the locals, who began to participate. This method was a great way to get involved with the community, and was a good lesson for filming stories.

On the screen is a picture from one of the sets and these two elderly ladies you see live in the same street that we were shooting. This drew them out of their houses and they wanted to participate in the filming.

These pictures are other shots of other re-enactments we did.

Another way I portrayed the stories was through the use of animation. Since I storyboarded most of the stories I ended up using some of the drawings, when re-enacting the story wasn't possible. These pictures are some of the drawings.

A method I would have liked using more often was blue screens. This would allow me to use old images and footage and superimpose our own characters into these images. We managed to do one story using blue screens. This way of doing things is good for heritage stories, where places have changed a lot, where perhaps the setting has totally changed, since the story took place.

Here are some examples of the stories.

During the mid 1870's (unclear) changed the face of (unclear). Great excitement started amongst my family when we started to see the nice neat red brick houses mushrooming around. We thought we (unclear) chance for being moved into one of the (unclear) dwellings, but our house was one of the six houses to be left standing in Tripoli. Even if our house had been demolished people were required to produce two references of good moral character: to be at steady employment, and not indulge in drinking. Whatever my granddad's moral character (unclear), unfortunately his employment was anything but steady, and he drank like a fish. The two references had to come from an employer and my granddad was self-employed delivering coal with his own cart and horse so he couldn't recommend himself. The lucky (unclear) were usually those who had served the British Army or employees of the Jacobs Factory, Guinness and other breweries or distilleries in the area.

(unclear) Mary, my grandmother, was born in December 1861 in number two Tripoli. She was christened in St. Catherine's Church. Either the priest of the God Mother must have been drunk that day because she was christened James after her father! This caused endless trouble whenever she was required to produce a certificate for official purposes. It wasn't until she reached the age of 70 before the name was corrected to enable her to get the old age pension.

This clip has my voice over footage, not really Irish.

Maggie (unclear) and I don't know how many times she saw a woman ghost all dressed in white, with red hair who appeared from nowhere as soon as she got as far as (unclear) door, and she would float silently along in view until she reach either (unclear) street or Pimlico depending the way you were going.

That's me acting.

This is just a quick look at the way the content looked for the story database. For each story we extracted the main characters, the location, the time when the story happened, and the main theme of the story. From this we built connections between the stories on the basis of characters, location, time and theme. However time is actually not implemented yet but we realized after the study that it is important to allow for the chance to have chronological order, not only association by themes, or characters, or locations.

The content is in [XML](#), which is a very straightforward markup language that can be used for a database. The backend program is made in [C++](#) for PDA's. If you have more interest in technical details I can get you in contact with the person that developed it.

This picture shows how I decided to present the stories to the audience using a map of the area

displayed on the PDA. When you arrive in a location where there is a story an icon pops up onto the displayed map. This is how you know that there is a story that relates to the place you are standing.

GPS is the means for placing stories. The PDA's antenna has a 15-meter range, which wasn't always ideal. The wide diameter meant that you could be pretty far from the location of the story. On that point it is very important to make clear that the audience interacts with the right location of the story. Sometimes audience members would be standing with their backs to the location of the story. For example this icon here is about the story of Mary, (unclear) and James, which took place in the church you see here. But sometimes people would have their backs to the church when the icon would popup onto the handheld and they wouldn't relate the story to the place. Later the people would tell me that it was a great story, but didn't know why I placed it in that particular location.

[Question]: How can you solve this?

[Valentina]: This can be solved in the story by having a narrator introduce the location and then proceed with story. With the PDA you can mark the location with images, for instance a panorama shot of the area that zooms into the right location. I haven't implemented these solutions but I think that would solve these complications.

Another solution lies in location aware technology, by using more accurate devices. You could use [RFID](#) tags, which have a very short range, and there are now PDA's that have GPS hardware that is equipped with an RFID reader. These techniques bring the proximity to the story very close to the location. It allows us to tag a location and use the GPS to give a wider range and then refine that range towards the RFID tag.

You could also use BlueTooth, but the range for that is ten meters and doesn't help that much.

At the end of my presentation I have a couple of slides listing the different kinds of location aware technologies. Also the new European GPS being released, [Galileo](#), is much more accurate than the American GPS system.

This image is an example of the PDA interface. This is a toolbar, which allows you to choose how much randomness you want to give to the experience. For example the green dots you see indicate stories, but you can turn the dots on or off, depending on if you want to have a treasure hunt type of experience having icons popup onto your screen without warning, or if you want to be more directed like a tour.

These broader circles represent regions that contain an unspecified amount of stories. On the display is pointer that indicates where you are. Since the map on the display is only a fragment of a larger map, below in the corner is a radar that gives you information about where you are on the larger map.

Then there are different icons for marking whether or not you've already seen a story. If you come across a story you've not yet heard, you'll notice it has a little play button with it. When you click the play button the story plays full screen on the PDA. Once you've seen the story, or if you are backtracking through the area, all previously viewed stories have a small "v" instead of the play icon.

Stories that relate to each other display these three little footprints that point you into the direction of the next story. It is also possible to choose different kinds of relationships to stories, which are the same as the subjects mentioned previously: characters, theme, and location. Based on these subjects you can navigate the stories.

Here is a picture of two people trying the project.

I used different ways to evaluate the project. At the beginning I had people going on single tours and with couples. But as the evaluation progressed it always ended up that the couples would split up, as each person pursued their own interests.

The groups worked best for the people from the area, rather than for tourist. This was especially so for the people from the more disadvantage parts of the area, who had no experience with this kind of technology and preferred to have somebody else around to show how everything worked. So these people often went with two, three, or four other people.

[Question]: Could I just ask a quick question? You were explaining the icons of the interface, but now you say you reset this filter to either have the location as a connecting theme, or the time, or the characters, and you would pre-set that and that would be the network of stories for the day?

[Valentina] You change the setting any time you wanted. For my study I checked all of the relationships. By listening to the stories, if you become particularly interested in one character and you want to follow that character, then you can set the filter to "character", and then you can follow that character around, but to be able to do that I would need a much larger collection of stories. The prototype that I have now, which are 21 stories, I had all of the relationships on, otherwise the content would be too thin to realistically do this.

During the evaluations I had a wide criteria to select people to try the project, people from the community, residents, non-residents, people from abroad, both out of the community and tourists, and then people who have had experience with media and interactive narratives before.

After doing this broad study I did another one with a smaller focus group. This group was made up of people who were born in the Liberties, those who were from Dublin but not the Liberties, and finally foreigners that live in Dublin but not Irish.

The results were that the community members really enjoyed this project. I was apprehensive about joining this kind of technology to this old community. I thought they would be scared or maybe not interested in using the interface. Some of the people were scared at the beginning, but after I accompanied them on a tour, then they developed an interest in the technology and were quite happy afterwards for overcoming their fear of the technology. It was also apparent that they felt pride by having their history recorded in this way, and all of them had many more stories to tell. This I think is one of the great potentials of this kind of project that you manage to start a catalyst for stories to emerge. Having said that, I think it is very hard to start this process from scratch.

It is important to consider the role technology; some of the people would have never used technology for accessing their memories, to get these stories. This also makes it possible for these people to leave their stories to their next of kin.

The group from Dublin, some related to the stories reminding them of similar stories from their own neighborhood, and some others who may not have been so open to new forms of storytelling didn't like how it was so fragmented and had trouble finding a story narrative. I think this has a lot to do with how much you are attached to traditional stories and how much you are open to engage in a different way of experiencing stories as an "atmosphere".

The foreigners were an interesting group to evaluate because many of them would never have entered into this part of Dublin, because it is quite disadvantaged now. One of the main comments I would get was, "You're going to get your iPod stolen." But it never happened. In contrast to this, when I was in the area working I had a very strong feeling of being safe in there, because everybody knew each other and they wouldn't really harm each other. It was different when I

walked through the area with people from outside of the neighbourhood, then I felt a little more edgy. Again nothing every happened. This experience encourages me to have projects located outside of the main tourist sectors and to try and have people view these places from a different point of view.

Some of the people wanted to have more of a tourist tour, they wanted more historical information, more dates, more architectural facts, some of the people expected to have stories attached to the prominent monuments and were disappointed by this.

[Question]: Do you think that using the PDA might have been a barrier for some people to get into the story? Not only the fragmentation of the stories, but also the technique? Because if you look at the picture you have there, you see people pointing to the physical object through the PDA. It is the same reason why I don't like to film my holiday, because my attention is squeezed through this small camera. Did people experience this?

[Valentina]: I think this didn't happen partly because people knew from the beginning that this would take place through the PDA, and I was surprised that many people enjoyed the format through which the stories were conveyed. There stories were both audio and video, and I thought that perhaps the video would be superfluous, because they would be hearing the story while looking around, but a lot of them liked the video because it would give them an interpretation of the location.

The fact that it is open air and you have to walk from one place to another gives you plenty of time to look around, to look at the architecture, to experience the place, and then when the icon pops up you can take your time to look around. The story doesn't start until you click the play button. So you can click play, listen to the story, look around again if you want. It really isn't taking away from the place.

I was thinking if the PDA was the right way to do this project. I thought maybe I should use mobile phones because they are more frequent, but on the other hand I was quite happy because a local center, the Digital Hub, now has two PDA's, and people can barrow them to look for stories. You can allocate time for the experience, and you do that. This way it is not intrusive, like your phone ringing telling you about a tour. It is bit like going to the cinema; you choose to take time to watch a film. It also makes a major difference in regards to the visuals.

What I've learned from these projects and especially from the mistakes, is how to use the real place, how to tap into the power of the real place. Making sure that the story is connected to the place while at the same time making sure the audience can connect to the place that story relates to. That gives a kick to the experience, because when you realize that the stories you are listening to happened inside that building you feel that you've gotten the point.

There was even one person who once he connected a story to a place he would immediately move on, he wouldn't even finish the story. For him it was more like a game, to go and get the story.

I think this way of experiencing a story, makes a story express more. You can express history, you can express atmosphere, and personality and like I said earlier it can be used as a catalyst for a community to start to reminisce on their stories.

A good follow up on this project would be to integrate the feedback back into the story system. So have a workshop with the community and insert new stories into the database, so that the database can grow and become a grassroots history for the place.

[Question]: Have you got some information about the place where it is possible to barrow the PDA's, and information like where are the people are coming from or...

[Valentina]: There are actually not many people going because I am not advertising at the moment, but I'm thinking about putting a notice in the tourist office. At the moment the people going there are people that are linked to digital media, and they are already familiar with the project and they go to try it in order to get ideas about doing their own project somewhere else. Some people from the community said they would bring others to try out the project but as far as I know that hasn't happened. In that sense the community is not using it.

Also the choice where the PDA's are located, the Digital Hub, they are the ones who could invest the money to buy two PDA's. If the PDA's could be donated to the library perhaps, or a communitycenter, then it might reach more people.

Here are some slides about location aware technology that you may already know about: GPS is a satellite-based system developed by the U.S. defence. It consists of 24 satellites circling the globe and there can be as many as eight satellites above us at any one time, and by triangulation the satellites can determine positions up to 10-20 meters. As I mentioned before, Galileo GPS will be more accurate than this.

Another locative technology is cell phone networks, the different cells that transmit mobile phone signals and has a range also of about 20 meters.

WiFi, wireless nodes can also triangulate in doors and outdoors, and are quite accurate.

BlueTooth, which is frequently on many mobile phones and laptops, is less accurate with a range of ten meters. At one time in Ireland, BlueTooth was thought to take over all wireless communication because you can form ad hoc networks, that don't need central bay stations.

The difference between WiFi and BlueTooth is the power, BlueTooth requires less power and has a smaller range, and they have conflicting protocols. So devices using WiFi may not necessarily use BlueTooth. So applications use one or the other.

This is a new one, the new (Phili-communication) it is a new technology developed by Philips and its range is down to one meter, and uses touch to communicate. The communication can switch between either WiFi or BlueTooth, and the good thing about this technology is you don't have to mess around with setting up the communication.

Then there is the (Sipi, CP Standard) that I recently found on the internet and it is interesting because it is a way to connect sensor networks, it is described as a network that once it is deployed it can be used in doors to detect smoke, or temperature, but I think you could harness the technology for stories as well, like detecting different kinds of weather, wind, humidity, light and you could use these sensors to control an effect or change a story.

RFID tags Radio Frequency Identification tags, which are; well Rob [van Kranenburg] is an expert in this field and can tell us more about it later. The RFID tag has a very short range, they are small tags that broadcast their ID and location to a receiver and the range depends on the antenna of the tag. Since they are quite small, their antennas are quite small and work with about a half-meter range. Right now these are used to tag packets of cloths, to keep track of where items are going but I think they can have good applications for other artistic uses.

[Question]: Do you know how much information can be stored on an RFID tag? Just location and ID?

[Valentina]: They usually work with a database so they transmit very small amounts of data, just coordinates for what needs to be picked up from the database.

[Question]: What did you use? Because I thought you said your content was on memory cards.

[Valentina]: I used GPS as a location aware application, and for the *Hopstory*, the iButton, was used as an RFID tag in a way. The iButton was only writing which scene to collect from the database.

I ended up using GPS, because I was thinking about using WiFi for the *Liberties*, but then the nodes were never built. So I couldn't use WiFi triangulation to download the content from the nodes, so I switched to GPS. Also these days PDA's come with very large storage capacity, up to one giga-byte.

I was also advised to use cell phone networks but I thought GPS was more interesting.

To end I'd like to read this quote that I like very much: "The voyage of discovery consists of not seeing landscape but having new eyes."

Thank you very much for listening.