

Master Dissertation in Informatics Engineering

Advisor: Dr. Valentina Nisi



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SANTA MARIA STREET

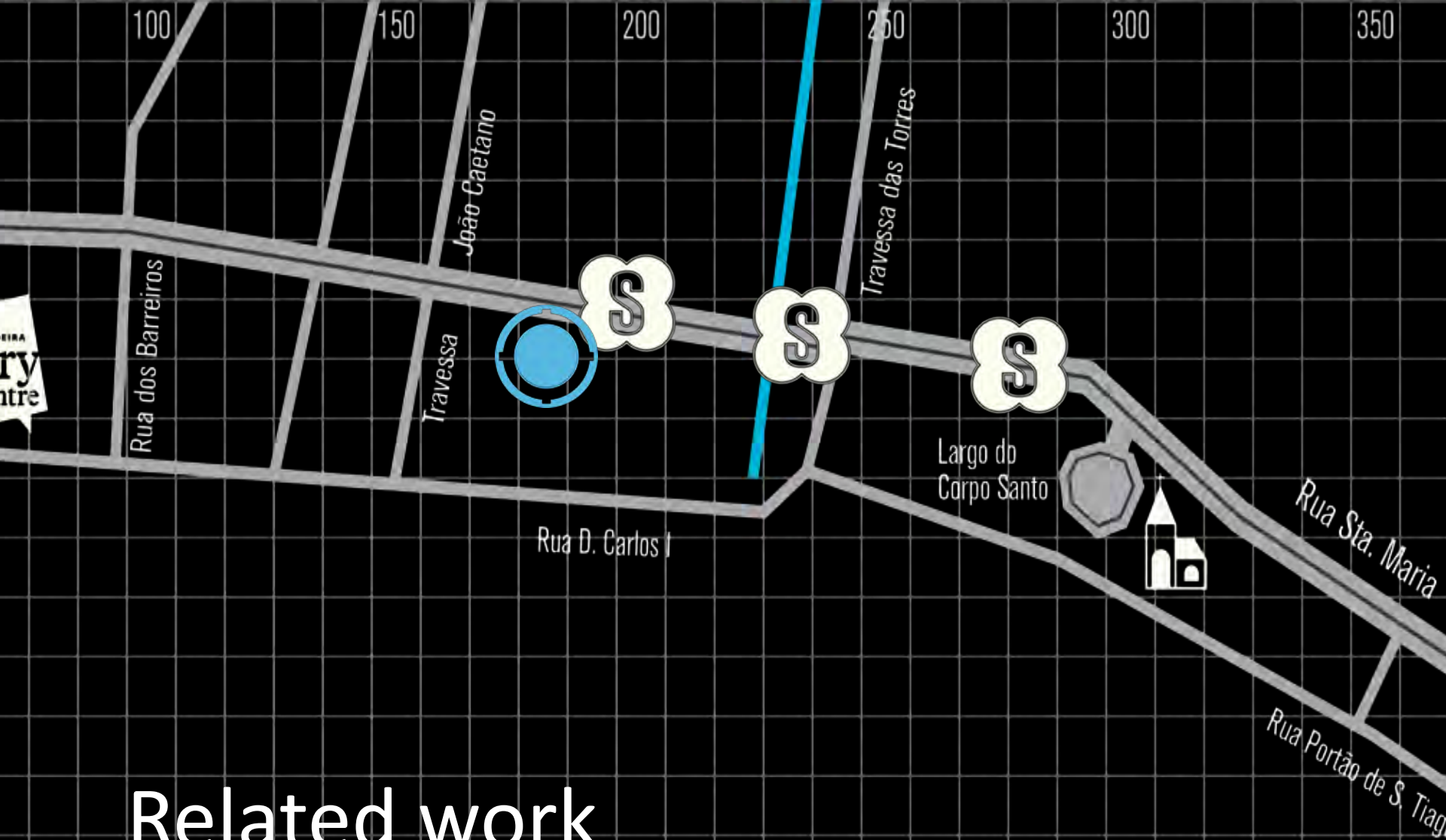
**STORIES**

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Mara Sofia Gomes Dionísio



The 7Stories experience enables foreigners and locals to discover Madeira's rich oral culture and folktales while they explore Rua Santa Maria. The experience is mediated through a location awareness mobile application.



Related work



of the greenhouse. The HU experience was evaluated through surveys

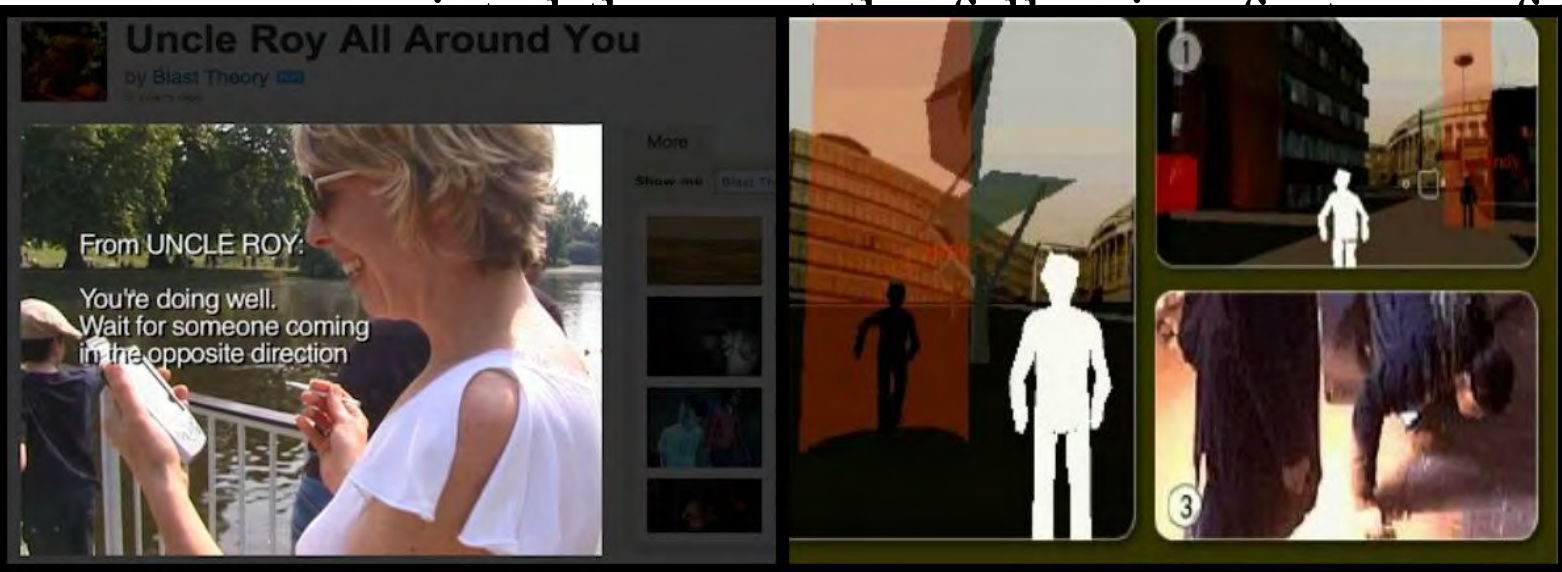
## *Uncle Roy All Around You by Flintham, M. et al (2003)*

interview

presentation

along

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of the project

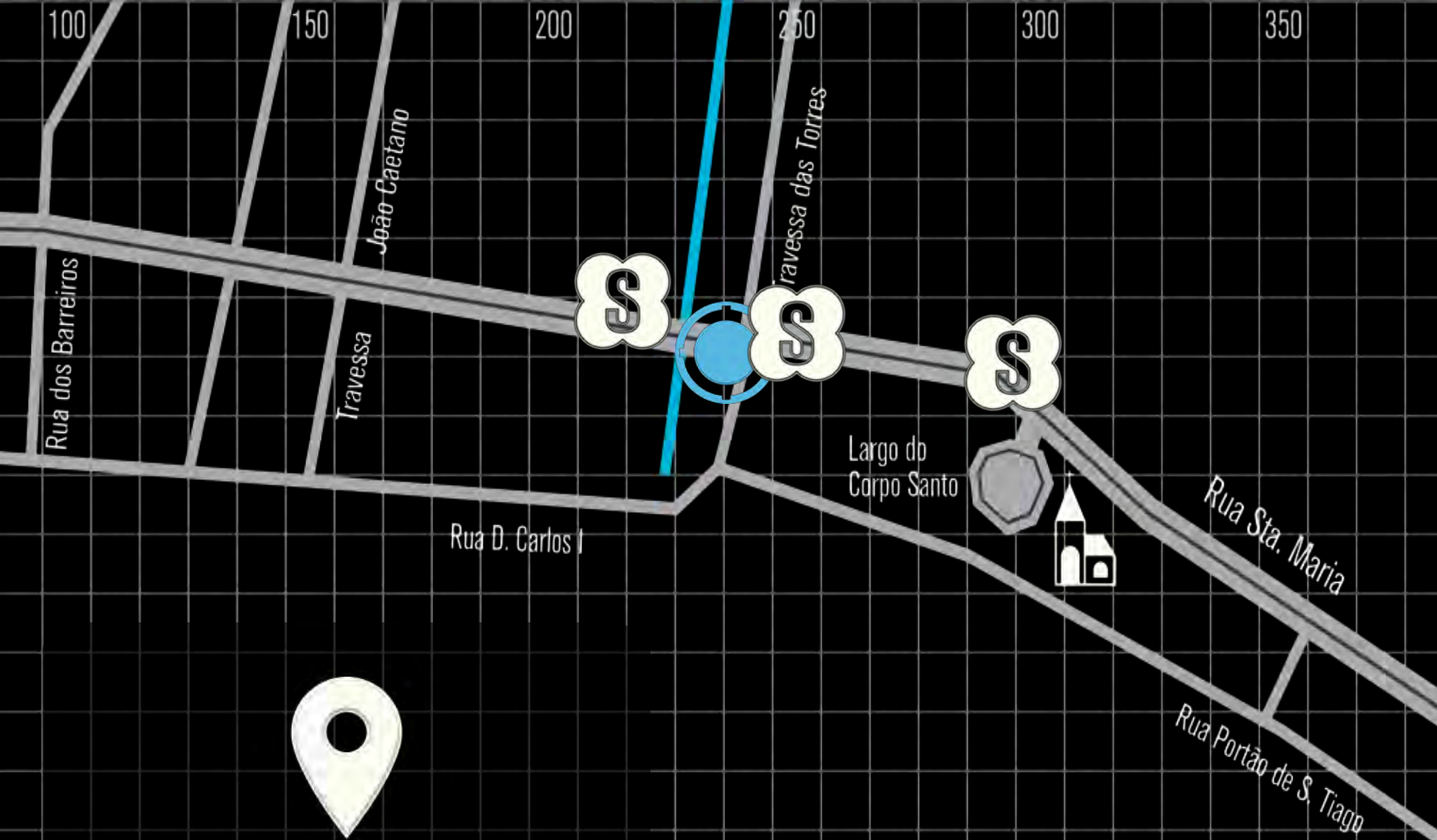
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## *History Unwired by Michael Epstein, and Silvia Vergani (2006)*





Initial Research

views lasted approximately 15 minutes. Notes were taken during the interviews (with the aid of audio-recording); these notes were used as a reference when the audience sees the story. The first study was an indoor setting where the audience sees the story.

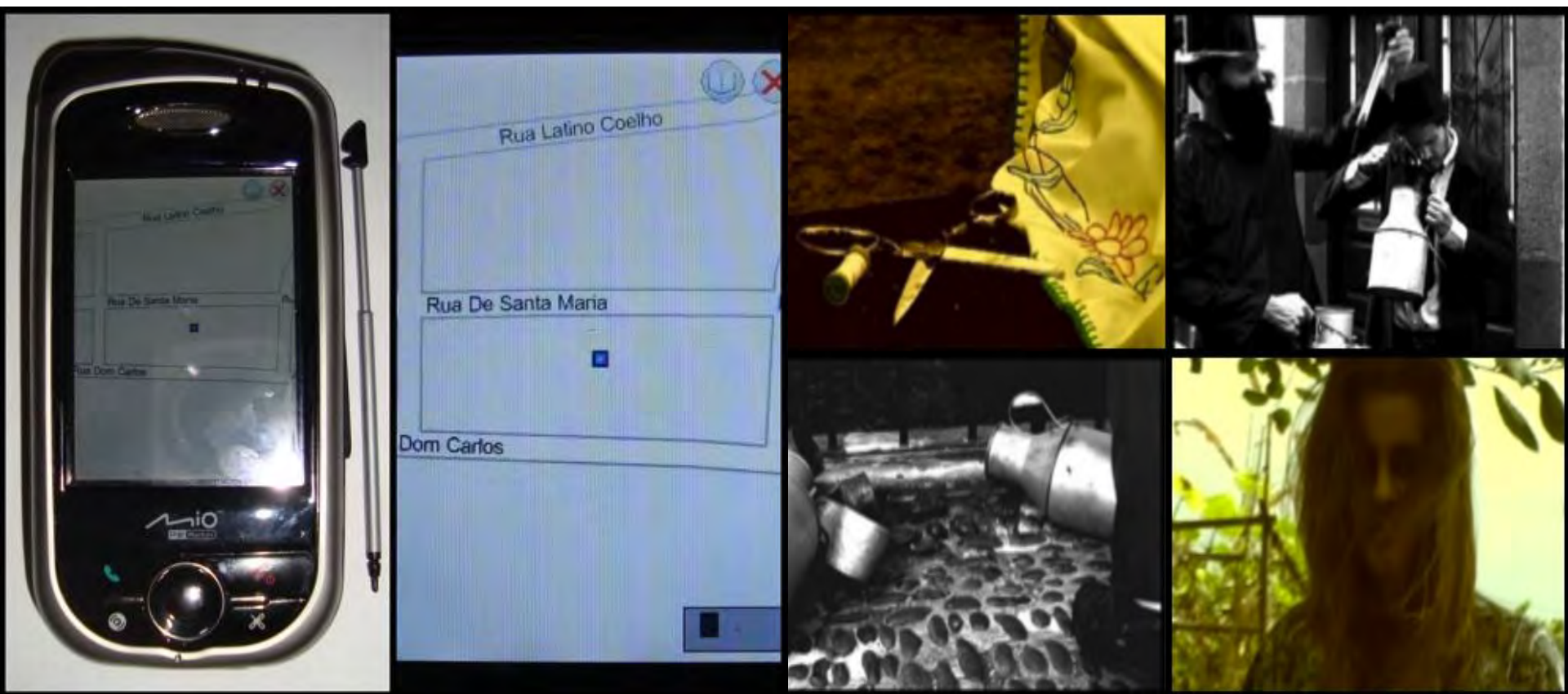


Figure 16. Screenshots from some of the stories produced from local folktales

5. Pilot User Study

# Evaluation Method



5 English-speaking users



Semi-structure interview



Shadowed participants  
Written notes



User Study: ~ 50minutes

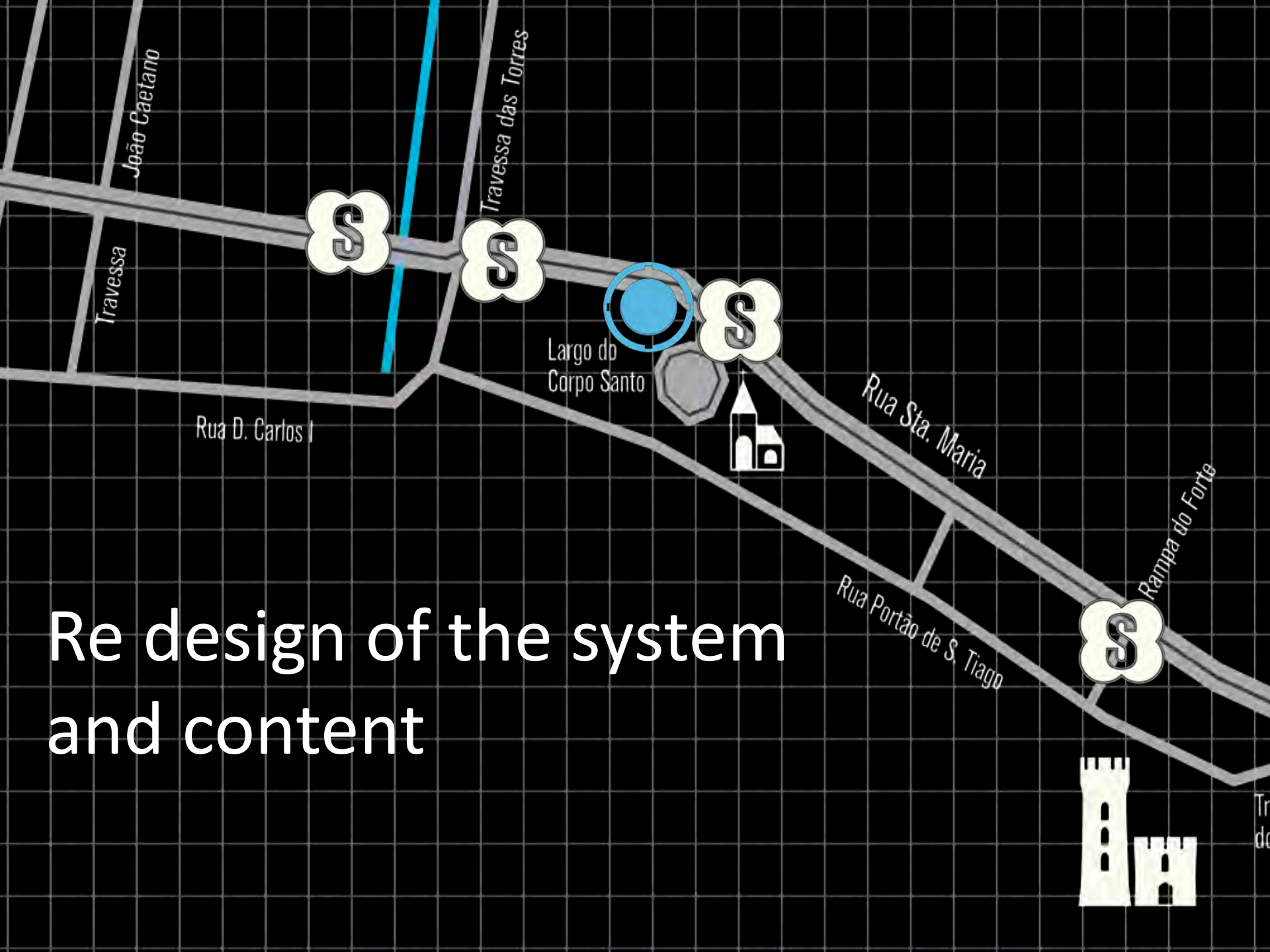


# Results

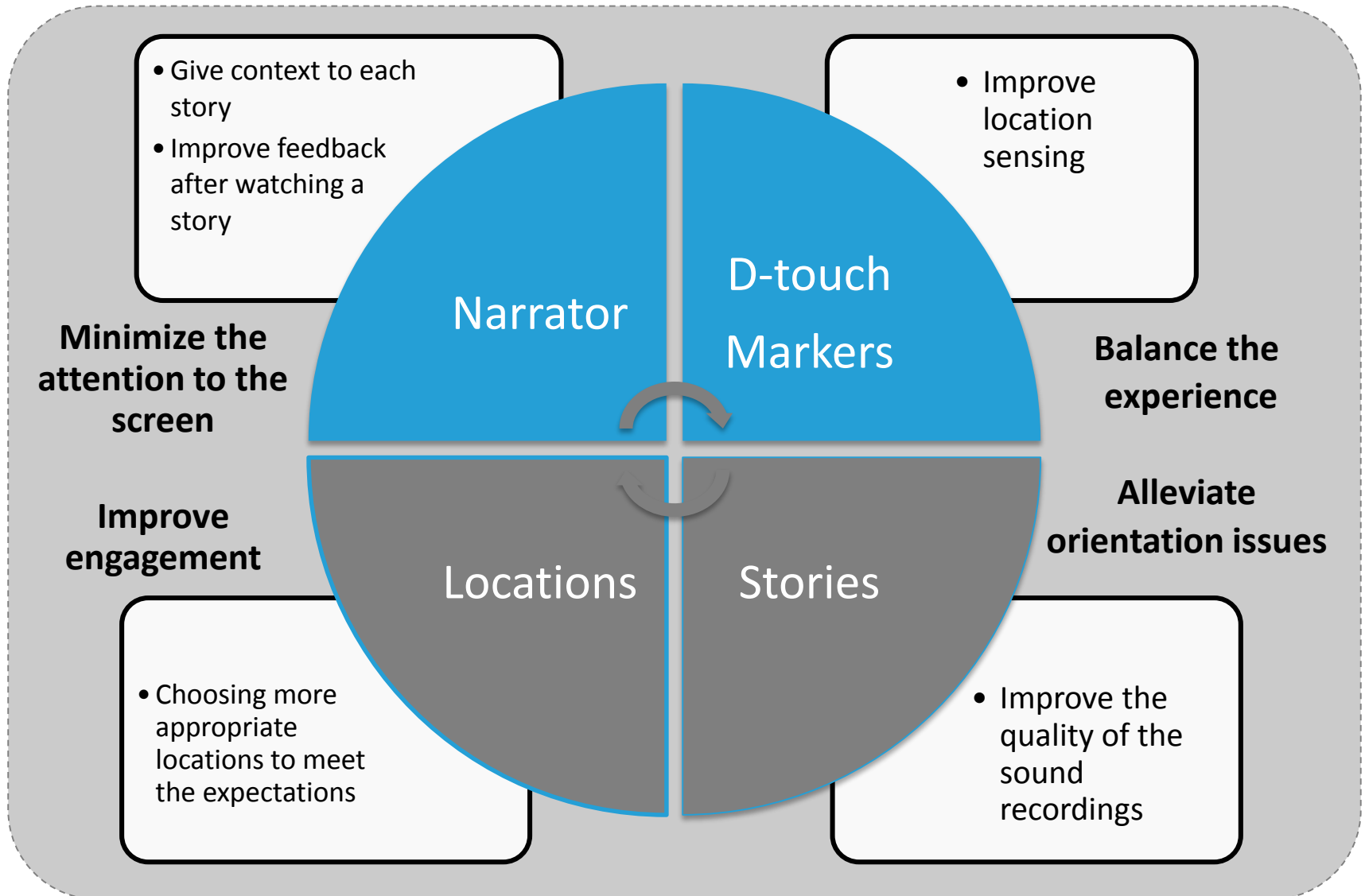
- Engagement:
  - Lack of context of the stories presented
- Location Sensing and Orientation Issues:
  - GPS did not work well in Rua Santa Maria
  - Lack of relation between the content and the location
  - Audience was confused about what direction to follow after viewing the story
- Screen Capturing Attention



# Re design of the system and content




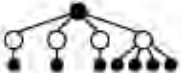
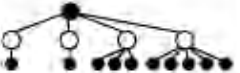
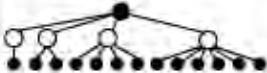


# Hypothesis



# D-touch Markers

- Developed by Enrico Costanza
- D- touch, is an open source system that allows users to create their own markers, and control their aesthetic qualities, by following some rules.

Marker			
Adjacency tree			
ID	1;1;1;4;black	1;1;3;5;black	1;2;4;6;black

analyzer is a cross-platform desktop application developed to help in the design of valid d-touch markers and it revealed to be a fundamental tool for this process for designing the markers. Once the drawing is inserted into the analyzer it returns whether it is a valid marker or not. In case of not being a valid marker, it helps out by pointing out what are the problems. In case of being a valid marker it returns the ID associated with marker. This ID is crucial so that we can later associate each marker in a unique form with a story, therefore we could not create markers with the same ID. In Figure 16, we can see a screenshot of the d-touch analyzer interface.

# Markers Design Process

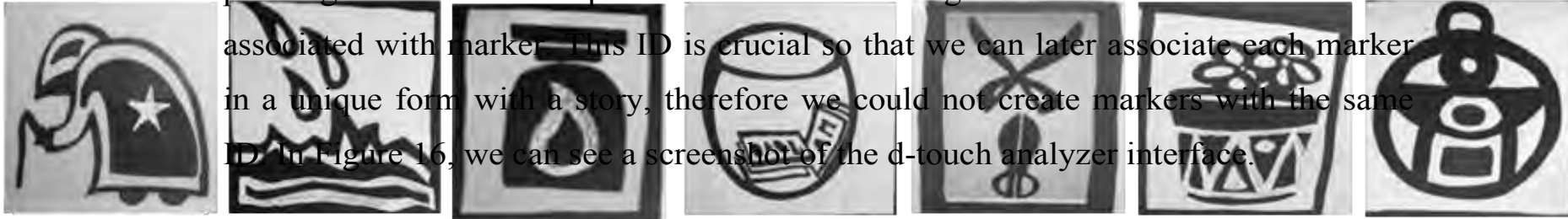
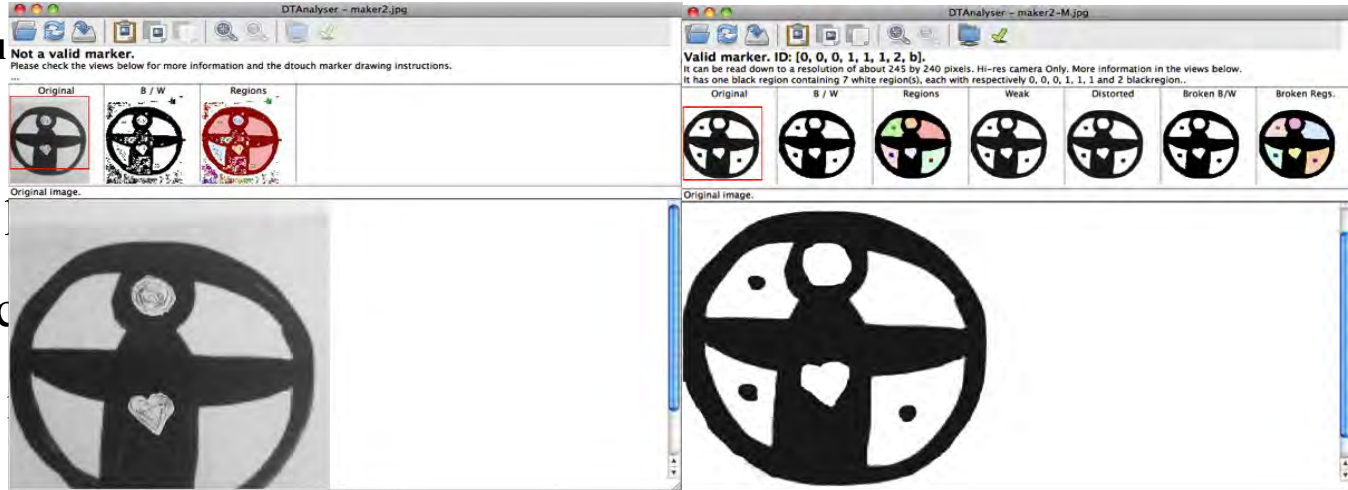


Figure 16



After this we  
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d-touch  
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 returns





# Markers <-> Stories

Witch1: Passing the power

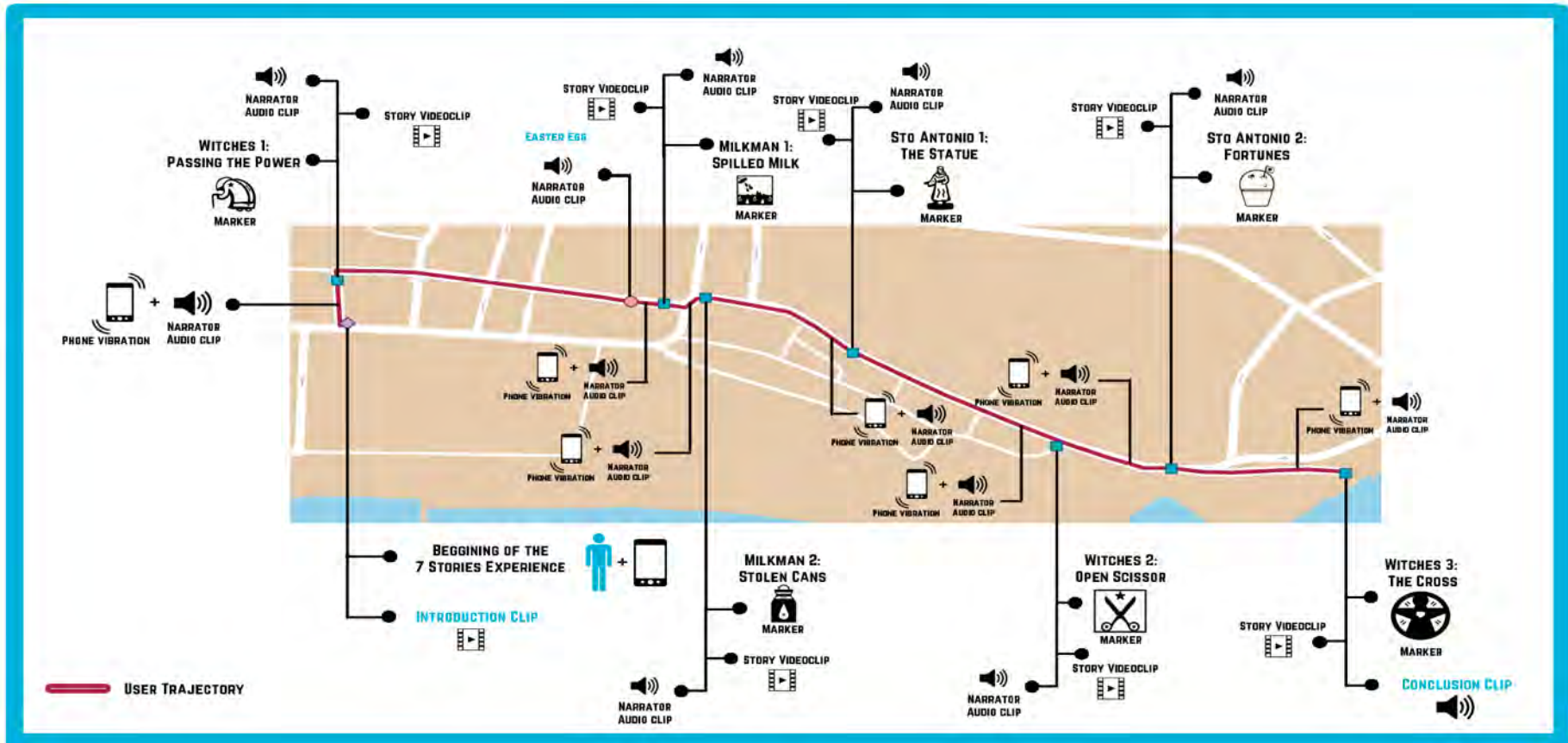


# Narrator

- Inspired real historical figure from Rua Santa Maria
- Introduces the system, helps the users to find the markers
- Sets the mood before the stories and reinforces aspects of the surroundings after the users watch the stories
- Audio Format



# Blueprint of the Experience Design









# High-Fidelity Prototype



These layers work together to accomplish the 7S  
**Implementation**  
We describe the modules from the core of the application to

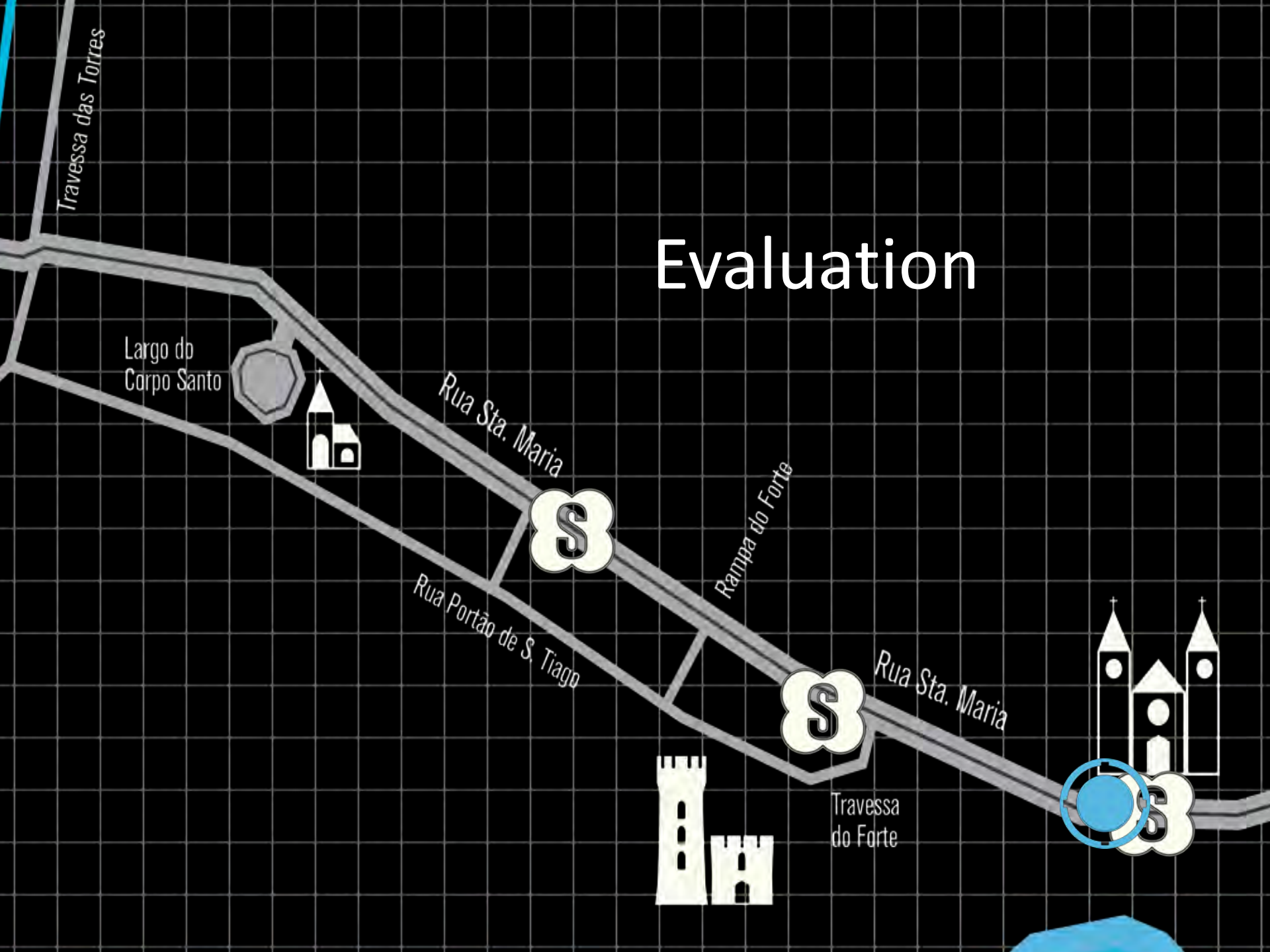


**Figure 38 - 7Stories mobile application modules**

# Main Functionalities

- The tracking of the user position uses only the GPS data – offline map;
- All content is stored on the device;
- Associates the location of the stories, with narrator audio, the ID of d-touch marker and the the video-clip of the story;
- Allows content change rapidly;
- Reproduction of video and audio clips;

# Evaluation





# Evaluation Method



12 English-speaking users  
4 locals and 8 foreigners



Questionnaire: 30 questions  
Semi-structure interview



Shadowed participants  
Written notes & Photographs



User Study: ~ 60 minutes  
(40min + 20min)

# Results - Engagement

- Users enjoyed and reported feelings of immersion in the experience;
- 11 users out of 12 of the users found the stories engaging.
- The user did not engaged with the story also wish that the experience was shorter.
- Average grade of the overall experience was 8 over 10

***“I will be waiting for new stories here or in another street.” – Lucas***

***“I learned about Madeira’s folktales and enjoyed it.” - Renata***

# Results - Orienting Function of the Narrator

- Positive response to the narrator indications
- Narrator was effective in orienting the users;
  - *“some of the stories could make even better use of the surroundings (through the narrator) like it happens in the Santo Antonio statue, when the narrator says: look up! That’s the balcony from where the statue fell from.” - Lucio*
- The narrator indications partially rely on the user being not too far from the story hotspot
  - *“Where is this window that the narrator mention?”*

# Results - Markers as tangible feedback and reward

- When participants find a marker, they smile or nod, as they experience joy or reward;
- Finding a marker becomes a treasure hunt experience;
  - ***“It looked like a treasure hunt with the videos (stories) as rewards”***– João;



# Results: Relationship between the physical space and the content

- There were no reports in terms of lack of context and lack of relationship between the space and the stories

*“It was very cool to see in the Milkman story (referring to Milkman – Milk in the Levada) that it was shoot almost from the same angle as from where I was standing”. – Nadia*

*“ The best part was to be where everything happened” - Lucas*

# Discussion

- Design around technology failures;
- Carefully design and place the markers role in the experience
- Achieve a **balance** between the digital and physical
- Design and produce **high quality and meaningful content** affect the overall experience
- Consider the **contextual and social aspect** of the experience carefully ( history, community, walking conditions, daytime, etc)

# Future work

- Efforts should be made so that the experience is available across all versions of Android and iOS.
- Experience would benefit by being developed for a tablet equipped with GPS
- The narrator is a rich avenue to explore in future projects to guide users through experience.
- Explore more the potential of using the markers in these sort of location aware experiences

## Open Issues emerging with 7 stories:

**Stories:** are authored form word of mouth or cultural heritage such a s folklore. How to keep the content Open?

**Technology:** open source but hard to “hack” or costumize from non technical people

**Markers:** open semantic content. The markers can be designed by the story tellers or neighbourhood community as something they would host in ther neighbourhood

**Privacy:** (Untested) Reaction of the local community to the narrator, as a real character, that people know and belongs to the life of the community. People would share stories with him, in his shop. Is it correct to share this stories with everybody, and specially with tourists? ( connecting t the barber issues...( privacy)



# Yasmine Adventures

A walk through the  
Mehringplatz neighbourhood



# Who are we?

## Futurefabulators.m-iti.org

Valentina Nisi, Mara Dionisio, Julian Hanna, Luis Ferreira, Paulo Bala, Rui Trinidad

Future Fabulators EU funded Project,  
Coordinated by Time's Up art collective



Education and Culture DG

Culture Programme



Time's Up



[foam]

# How did we get here

- Invitation from the Jewish Museum in Berlin through the Community Now? Symposium, Bianca and the Design Infrastructures group, part of the DRL UDK to produce an interactive mobile story to connect the museum to the surrounding neighbourhood
- **Challenge:** How to portray the neighborhood around the museum, as it is seen from the inside and expose it to the general international public of the symposium
- How do we make our audience care about the neighborhood and connect with its community and the issues that they care about?

# The Jewish Museum



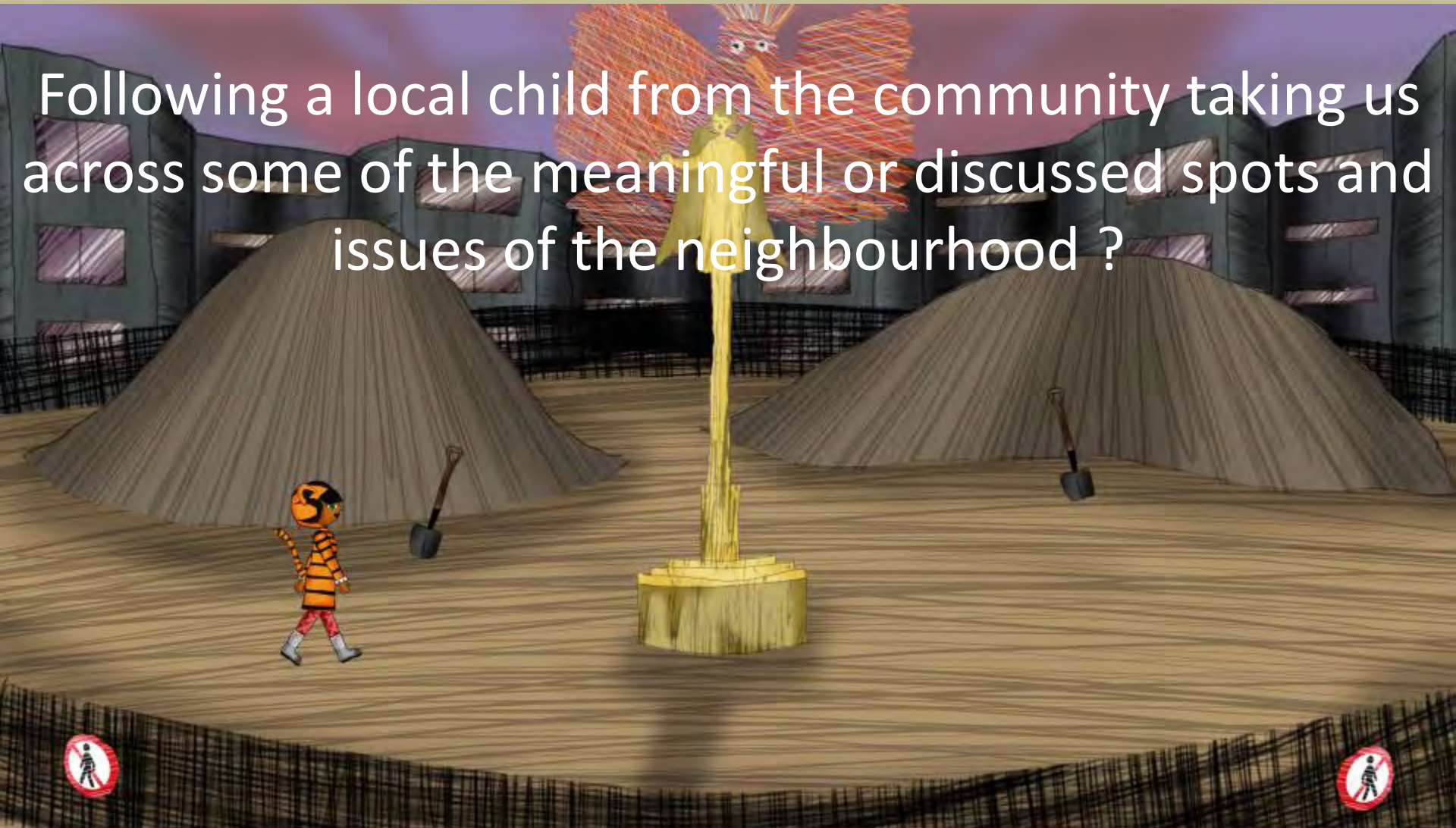


# Mehringplatz



# The idea

Following a local child from the community taking us across some of the meaningful or discussed spots and issues of the neighbourhood ?



# The neighbourhood through Yasmine's eyes:

Starting from the Pinpointing Mehringplatz workshop, identifying issues of the area by the community itself, we created Yasmine (fictional character): a local child that takes us on a walk of the neighbourhood from the Jewish museum to her home, in an attempt to run away from her teacher and go home on her own..



# How does it work ?











# Findings and Open Issues

- **Refinements to the content and application:** content, gyroscope instability, placing of markers
- **User study;** 20 users, tested for flow of the experience , connection to the neighbourhood and engagement with the story
- **Preliminary results** show that the application did connect the audience to the neighbourhood stimulating exploration and connections to it. More facts and historical news expected by some. Story found suitable for kids.
- **Openness:** Use of 3D landscape to allow more embedding of content in the landscapes, without creation of new markers and gyroscope calibration
- More potential for opening the content: **integrate community comments, expand Yasmine adventures with more locations**, but also just adding more info and comments

# MORE....

ICEC 2015 proceedings:

**Yasmine's Adventures: An interactive urban experience exploring the socio cultural potential of Digital entertainment**

Some articles about this project are still under review, but if you want to know more you can mail me and I can send them to you...