

# Txting Disasters



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## Txting Disasters

- Background
- Investigation
- Implementation
- Evaluation
- Opportunities

## Project Background

- Geog. Dept. -> LTU for assistance
- Would like some form of simulation to help assess students on a new Applied Geomorphology course

## Project Background

- Needs to:
  - emulate natural hazard scenario
  - be in real-time
  - involve role-play
  - minimal staff intervention
  - run across Uni network
  - adaptable for other scenarios

## Project Background

- BTW
- No budget



## Design Investigation

- Collaborative Forest Fire Fighting Simulation Tool
- Flood Ranger
- Crisis Command
- I Love Bees
- e-MapScholar Virtual Placement

# Design Investigation



Collaborative Forest Fire Fighting Simulation Tool

# Design Investigation



Flood Ranger

# Design Investigation



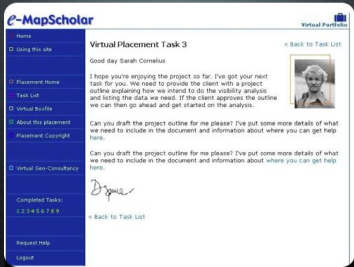
Crisis Command

# Design Investigation



I Love Bees

# Design Investigation



e-MapScholar Virtual Placement

# Design

- Alternate Reality Simulation

# Implementation



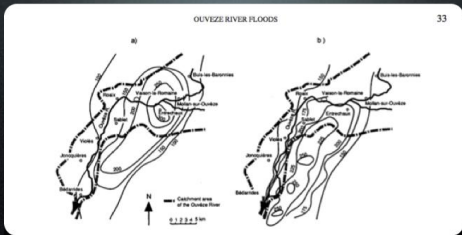
Vaison-la-Romaine

# Implementation



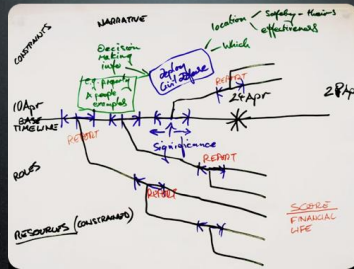
Scene of a flood disaster in 1992

# Implementation



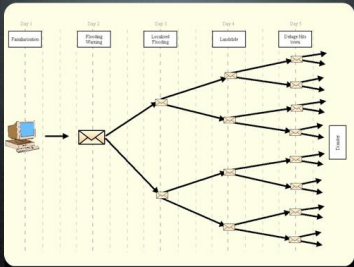
Disaster well documented

# Implementation



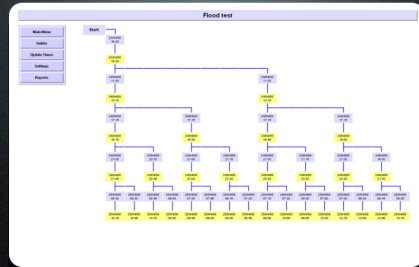
Develop an Event Narrative

# Implementation



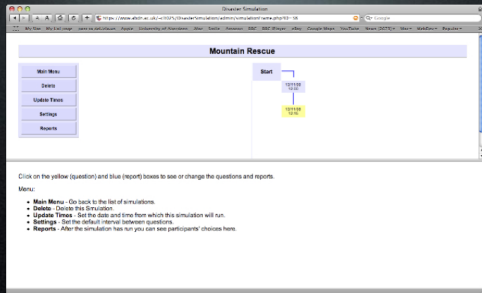
Develop an Event Narrative

# Implementation



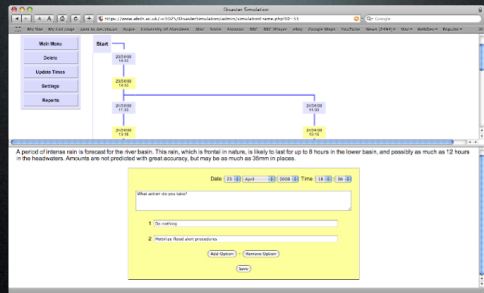
Develop an Event Narrative

# Implementation



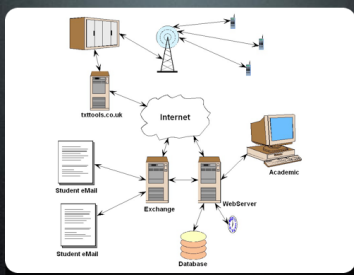
Architecture

# Implementation



Architecture

# Implementation



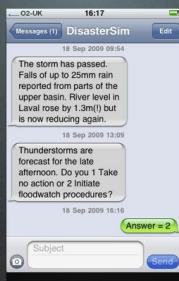
Architecture

# Implementation



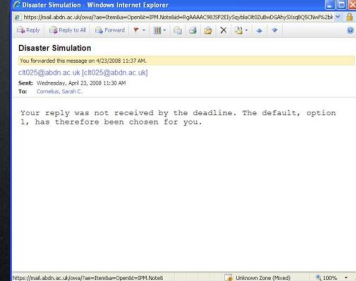
Delivery

# Implementation



Delivery

# Implementation

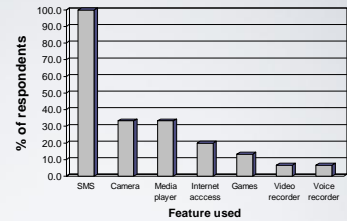


Delivery

## Learners' experiences

- Explored using mixed methods investigation...
    - questionnaire (n=19 (response rate 70%))
    - interviews (n=4)
    - artefacts (e.g. records)
    - previous evaluation findings
  - ...to find out about
    - communication, control and context
- (Survey design inspired by Sharples et al.  
• activity theory framework for mobile learning)

## Communication



- Respondents used phones for texting 100-2000 messages per month

## Communication/Control

	Likert Rating Average*	SD
I enjoyed the real-time aspect of the simulation	4.13	0.71
I found it easy to respond to messages	3.87	2.83
I looked forward to messages arriving	3.67	2.83
I found using my own mobile phone convenient	3.67	2.83

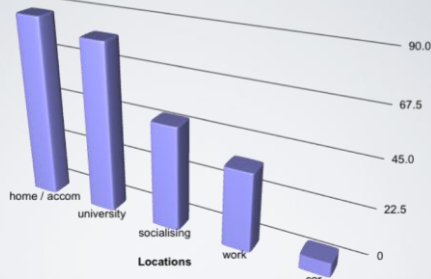
\* Likert scale: 5 = strongly agree – 1 = strongly disagree

- Learners enjoyed the innovative nature of the activity
- ...but wouldn't want too much mobile learning
- Suggested that more than two response options would be better

## Control

- Respondents mostly used SMS
- But also email options
  - as a back up
  - not all have access to email at place of residence

## Context



- "brought together university and outside"

## Context

- Activity undertaken independently within context of community of peers:
  - Evidence of 'sitting together waiting for the first message'
  - Texting friends about decisions made, finding out where they were up to
  - Discussions in corridors
  - Facebook 'jokes'

## Other findings

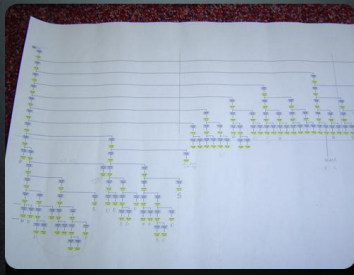
- **Respondents valued the innovative approach, especially to assessment**  
'it was not another boring essay'
- **Technical problems which led to delays were 'annoying' but accepted as 'just one of those things'**  
they may even have helped (by providing practice and improving confidence)
- **It was perceived as a realistic experience**  
60% of questionnaire respondents agreed or strongly agreed that it was a realistic experience of disaster management
- **Emotional involvement**  
enjoyment, involvement, excitement, frustration all reported. It was something a bit different which encouraged a different perspective on course content.

## Mentoring



Planning

## Mentoring



Exponential

## Differences

- **More complex situation**
  - different 'levels' of interest and engagement
    - as teachers, learners, mentors
  - perception of realism
  - less overall engagement
  - some similar technical issues

## Opportunities

Tele-presence  
Virtual Worlds  
Alternate Reality  
Published Literature  
Mobile Learning  
Virtual Context  
Augmented Reality  
Phil's PhD Research  
State-based Simulations  
Commercial Applications

## Questions

- Cornelius, S. and Marston, P. (In Press). Work-based simulations using text messaging and the role of the virtual context. In Pachler, N., Pimmer, C., Seipold, J. (Eds) Work-based mobile learning: concepts and cases. Peter Lang. Oxford (Due out Autumn 2010)
- Marston, P. and Cornelius, S. (In Press) Further development of the context categories of a mobile learning framework. Journal of the Research Center for Educational Technology (Due out Spring 2010)
- Cornelius, S. and Marston, P. (2009). Towards an understanding of the virtual context in mobile learning. ALT-J Special Issue 'Mobile and Contextual Learning'. ALT-J: Research in Learning Technology, 17(3), 161-172.