

**Methodological, ethical and practical challenges of using digital technologies: how is digital changing visitor studies practice?**

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**Visitor Studies Group conference  
5 March 2015**

# Case study I: First person video observation at the British Museum

## Research questions

- How do visitors experience museum exhibition narratives?

## Participants

- 16 visitor groups British Museum, PhD at UCL

## Exhibition

- Vikings: Life and Legend exhibition (6 March – 22 June 2014)

## Methods

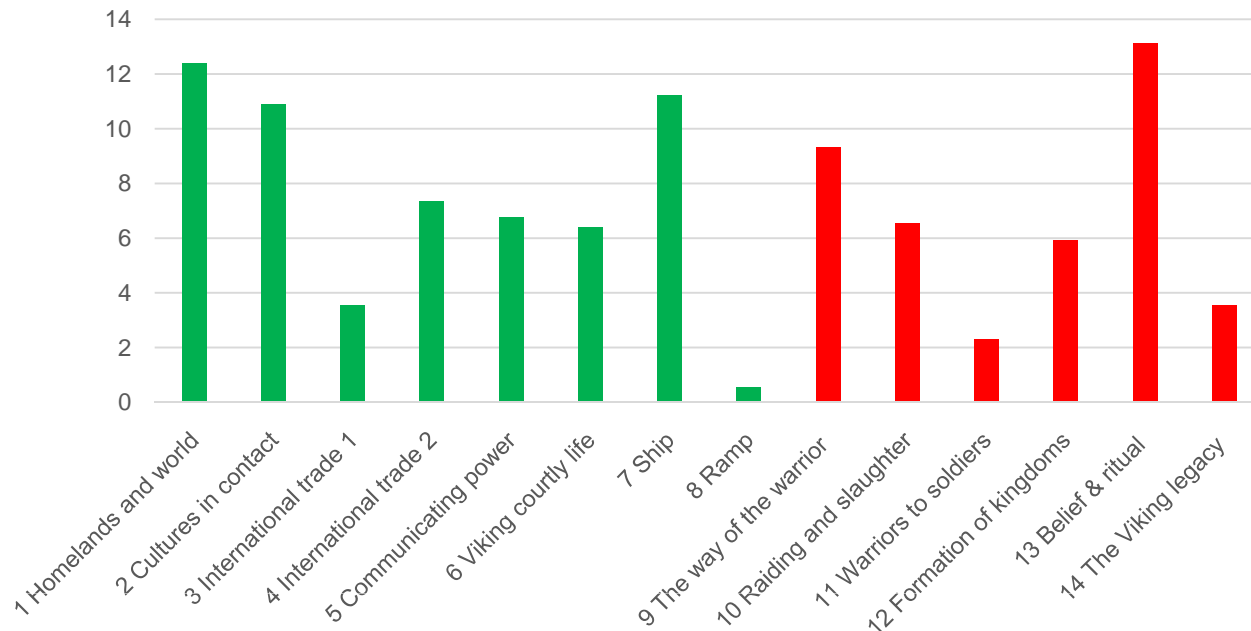
- Attach a video camera to one member of the visitor group (with their consent).
- Sit down exit interviews with the visitors (20 minutes to 1 hour)

## Data analysis – different approaches



- Dwell times
- Relating interviews to observation
- Embodied motivations

# Mean overall dwell time per section (%)

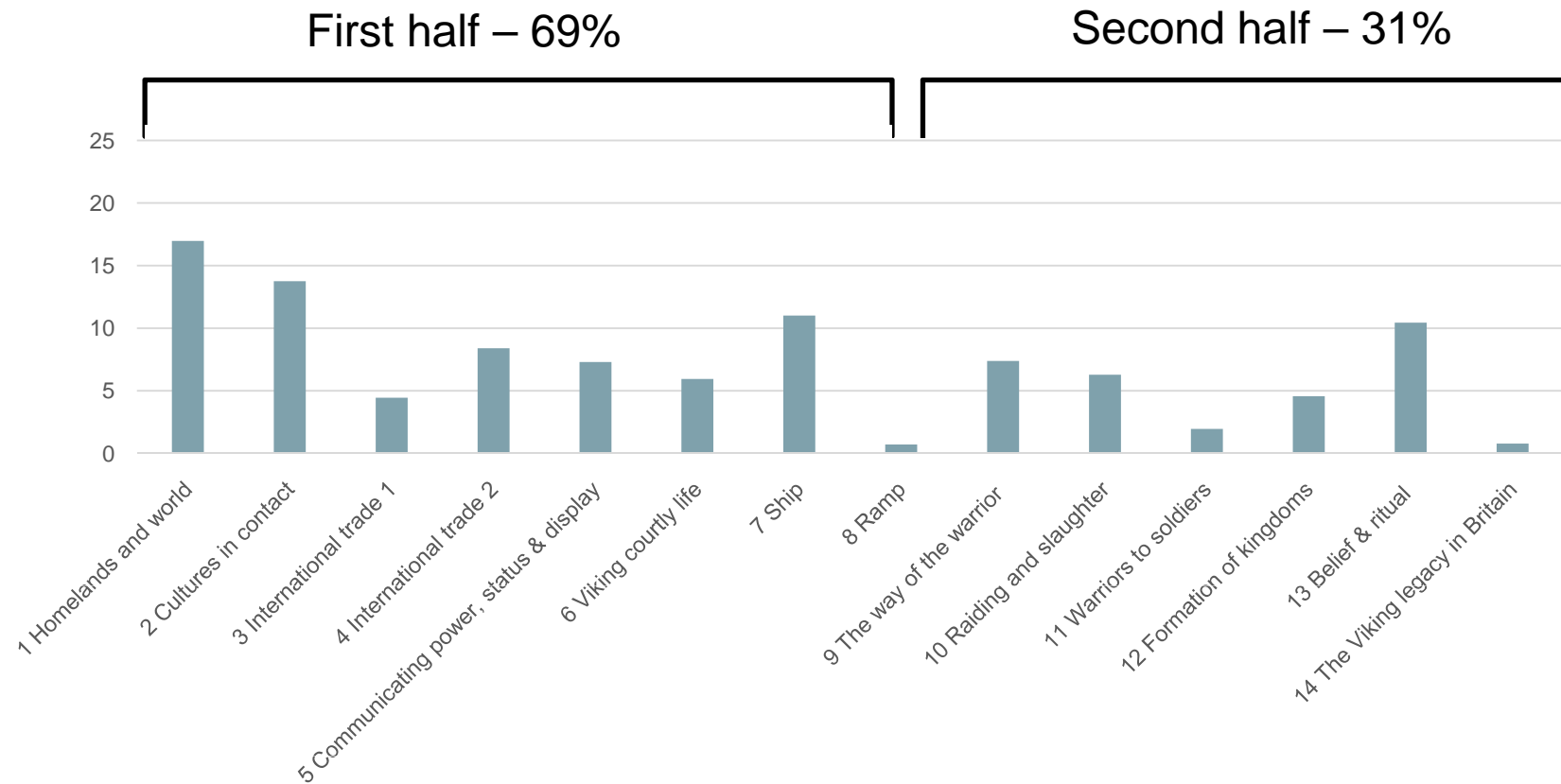


**Median dwell time = 73 minutes 57 seconds**

**First half 59%  
Second half 41%**

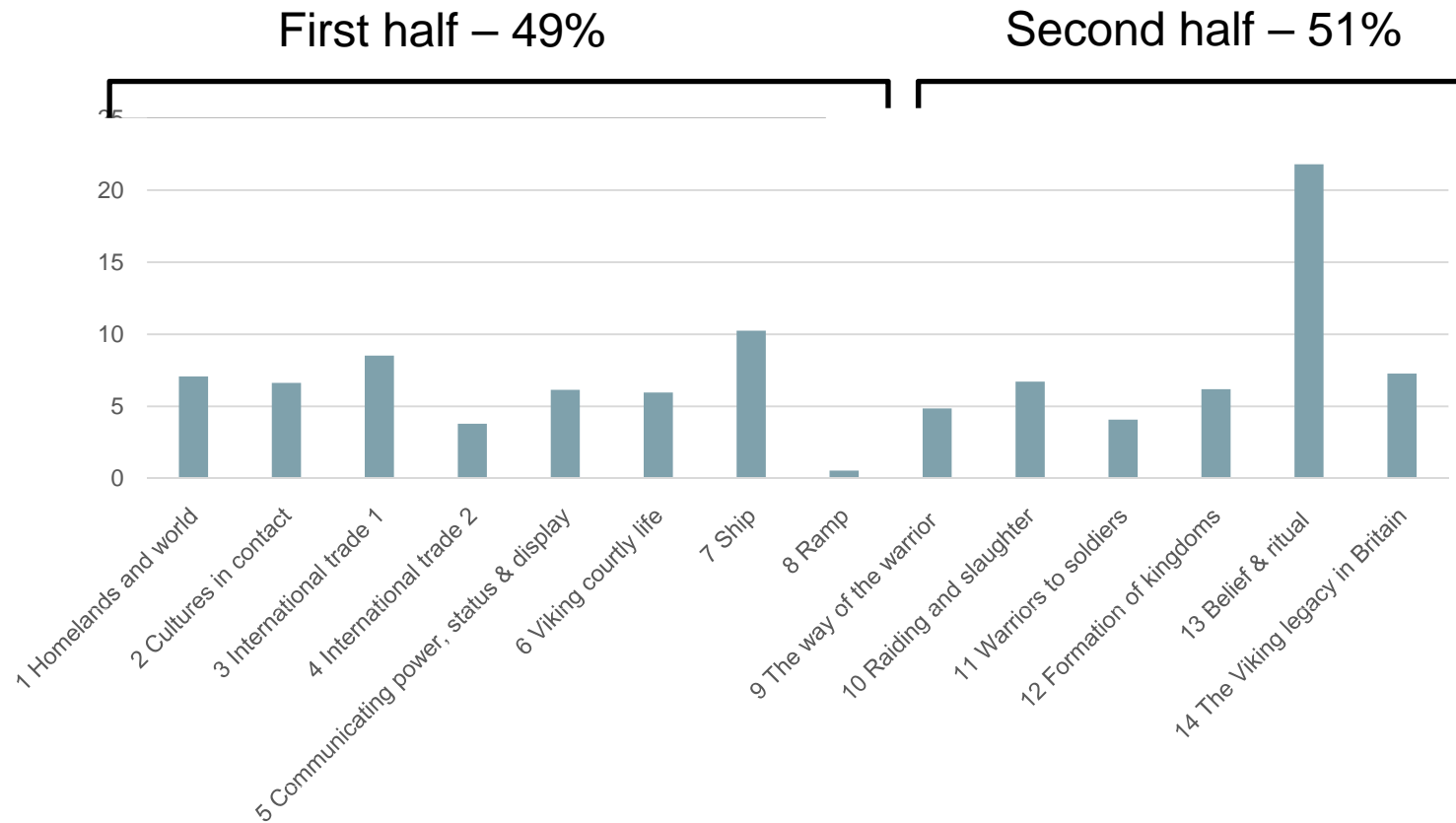


# Queuing and fading behaviour– Group D



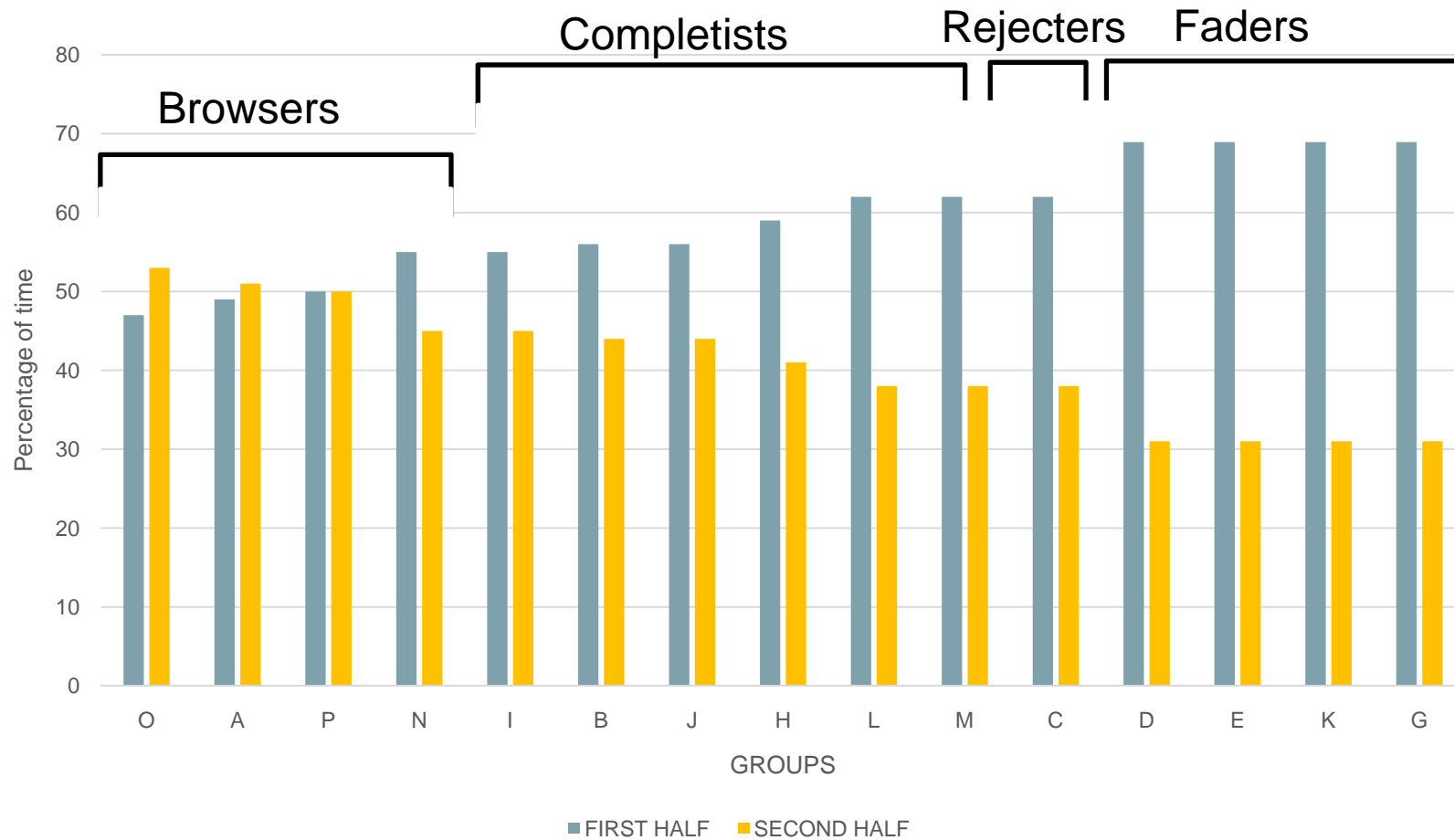
‘It maybe the American approach to exhibitions, we’re used to a free flow. But it was obvious other people expected you to get in line and stay in line.’ – Female, USA, 61

# Browsing behaviour – Group A



‘I much preferred the second part of the exhibition to the first part...The advantage of it being open is you can actually see the objects...There was a lot of polite queuing. I can't really be bothered to do that.’ – Female, UK, 31

# Spectrum of negotiating the exhibition



# Motivation and behaviour



Searching for context



Social strategy 1 – frequent conversations



Social strategy 2 - occasional meetings



Individual strategies – note taking



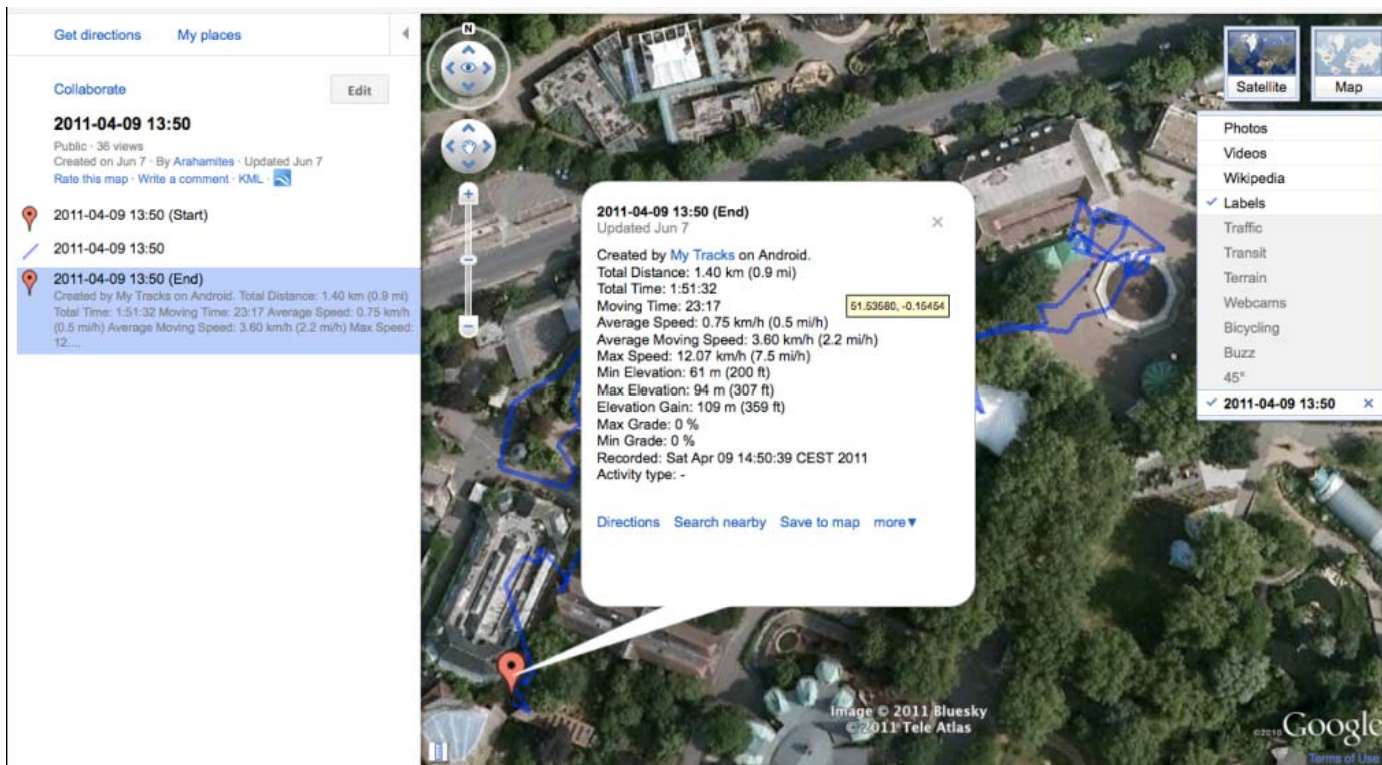
## Case study II: London Zoo

- Affect of motivation on observed visit strategies?
- 44 families = 115 individuals
- Pre-visit concept maps
  - imagined itineraries, expectations
- Motivations
- Tracking
  - points of interest & visitor flow
- Post-visit concept map
  - reconstructed itineraries

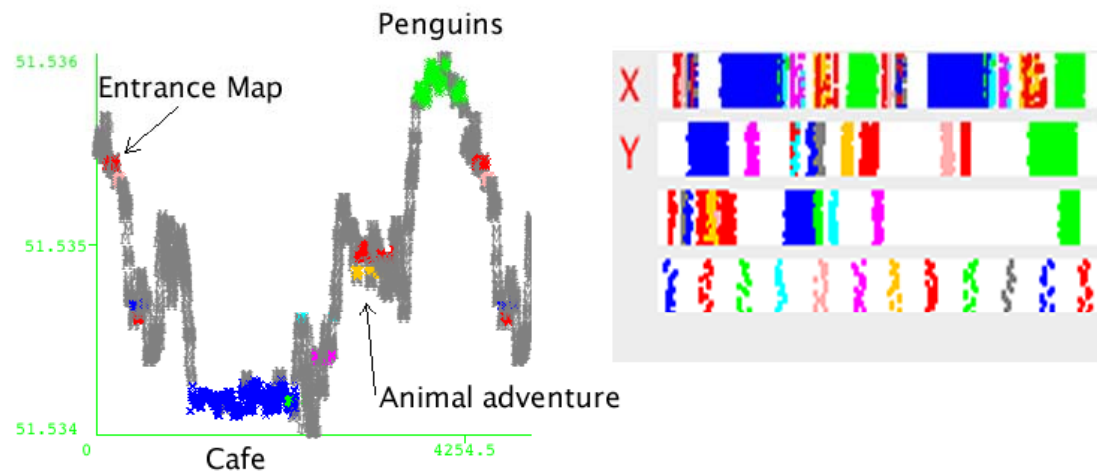
## Video



- [http://www.dcs.bbk.ac.uk/~gr/dev/demo/zoo\\_animation\\_tw.html](http://www.dcs.bbk.ac.uk/~gr/dev/demo/zoo_animation_tw.html)



# Family 1



## Data analysis

### Hypothesis

- Pre-visit imagined routes, expectations & motivations – amount of time spent looking at exhibits vs amenities

### Key Findings

- Education/participation motivation – zero time at cafe, shop, playground etc
- Social event & entertainment – average of 1/4 – 1/3 of total visit spent at cafe, shop, playground etc

## Case study III: NHM & V&A

- Pilot study funded by UCL/IOE Strategic Partnership Fund
- Combining motivation & embodied Interaction approaches

### Research questions

- How do digital technologies/exhibits shape family interaction?
- How does motivation relate to real-time interaction?
  
- 22 intergenerational family groups
- NHM
  - Treasures Gallery
  - Cocoon Gallery (Darwin Centre)
- V&A
  - ‘Digital Kids’ Activity Programme

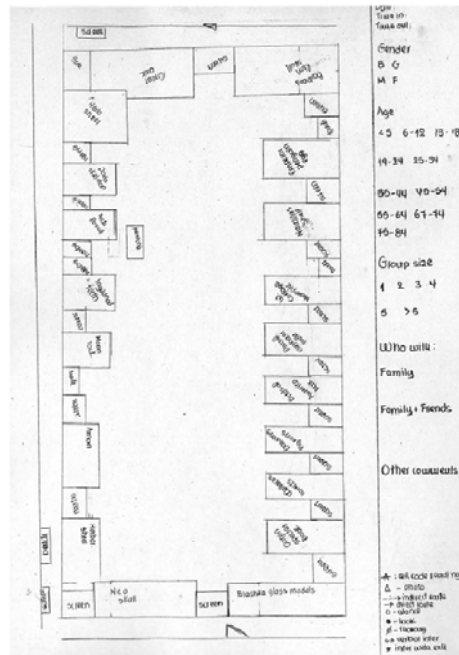
# Methods



Interviews



Video data

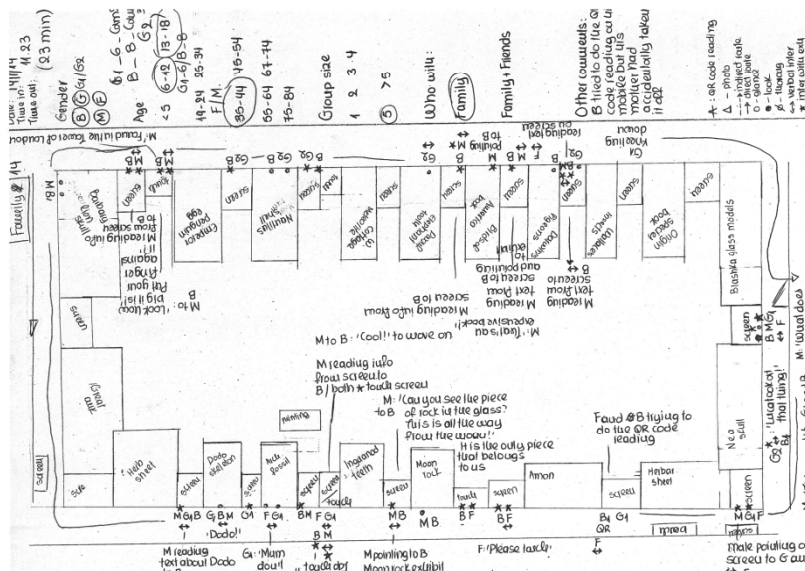


Tracking sheets



Autographer

# Analysis



<p>The boy responds to the father's call by placing his right fingers on the teeth of the lion. They both have their gaze fixed on the teeth of the lion feeling the edges of the sharp teeth. The boy continues feeling the teeth by rubbing his right thumb throughout the length of the teeth. The boy turns his gaze up to the father sort of giggling. The father has his gaze fixed on the touch object and starts placing his left thumb and index finger at the top of the lion's mouth, while at the same time, telling the boy 'at the top'. The boy touches with his right thumb and index finger at the top of the lion's teeth responding to the father's call. He goes on doing this, while turning his gaze up to the father and telling him 'oh yeah' (something like that - I cannot exactly make out what the boy is saying to the father). The father then places his small finger on the top of</p>	<p>Gesture/touch (son)</p> <p>Gaze/visual (father, son)</p> <p>Touch object as a prompt of interaction</p> <p>Gesture/touch (father, son)</p> <p>Gesture/touch (son)</p> <p>Gaze/visual (son)</p> <p>Intra-group verbal interaction</p> <p>Gaze/visual (father)</p> <p>Touch object as a prompt of interaction</p> <p>Gesture/touch (father)</p> <p>Intra-group verbal interaction</p> <p>Gesture/touch (son)</p> <p>Gaze/visual (son)</p> <p>Intra-group verbal interaction</p> <p>Gesture/touch (father)</p>	<p>E: And how did it feel touching it? How was it when you touched it?</p> <p>B: A bit weird when I touched it. It felt like, it felt like one the shell, it was</p> <p>G2: Smooth</p> <p>B: Yeah</p> <p>F: A little bit smooth</p> <p>E: Was it smooth then? The barbery skull? The lion skull?</p> <p>D: Yeah</p> <p>M: You like the lion, the skull of the lion</p> <p>B: Yeah</p> <p>E: Oh</p> <p>F: Yeah that's frightening</p> <p>M: The barbery lion</p> <p>E: What did you like about that?</p> <p>B: That it was interesting</p> <p>E: How, in what sort of way do you think? What was interesting about it?</p> <p>B: Well the teeth. One when I felt the teeth, one was nearly as big as one of my fingers so enamel was as big as one of my fingers</p> <p>F: Bad term isn't it? (box having difficulty spelling out the word enamel)</p>
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Key observation points:

- Modes
- Spatial configuration
- Touch types
- Leading interaction/ changes in lead
- Digital modes
- Touch object/modes
- Specimen/modes

# Findings

## Pre-visit motivations play out in the real time through micro-interactions

- **Education/Participation**

‘My wife and I [wanted] to look at parts of the museum that we normally don’t get to see’ (M, 35-44)

‘...to see the other facts of this museum...the new things’ (B, 8)

‘...I did find [the touchscreens] quite cool, but when I was reading, when I was reading through the facts, mmm, it was, actually I was quite surprised when I read through the facts I didn’t realise the stuff I didn’t know about, the facts’ (B,8)




## Video



## Digital technology in audience research: challenges & opportunities

- Opportunities for extending the depth and breadth of audience research
  - Full visit, 'micromoments', different perspectives
- Large amounts of observation data
- New visualisation techniques
- New patterns of behavior and meaning making
- Combined with other methods

## Options and ethical implications

- Visitors' own device
  - Multiple participants & more data
  - Privacy issues
- Device provided
  - Consistent data
  - Test software & devices  less error-prone
- Recording private behaviours
- Interdisciplinary partnerships & training