

Invisible environments: How to conduct qualitative research within digital spaces



Amelia Robinson

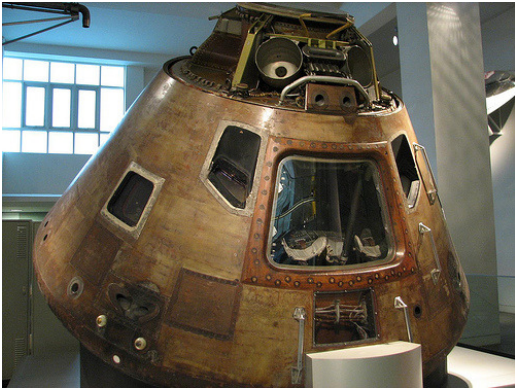
Audience Researcher and Advocate
Science Museum, London

February 2013

Today

1. What are invisible environments
2. Stages of digital testing
 - Wire frame testing, questionnaires, accompanied surfs
3. Useful example of why this is worth it
4. Top tips

The Science Museum is both a building and, in the digital age, an idea.



What is the role of an Audience Researcher and Advocate?

To help deliver cultural products such as exhibitions, interactive exhibits, resources, digital products and events that are **educational, enjoyable & accessible** for their intended audience...

through understanding visitors' **needs, wants and expectations**



Let's hear from you



What are invisible environments?



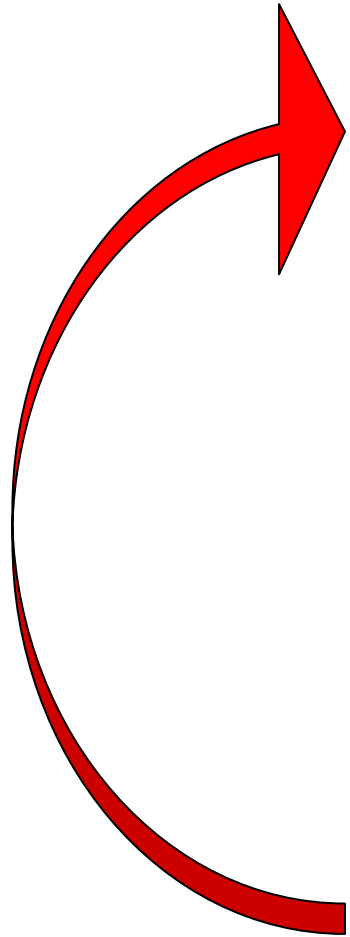
What are invisible environments?

- Websites e.g.
 - Institution websites
 - Collections websites
 - Educational resources
- Apps
- Online games
- Social media

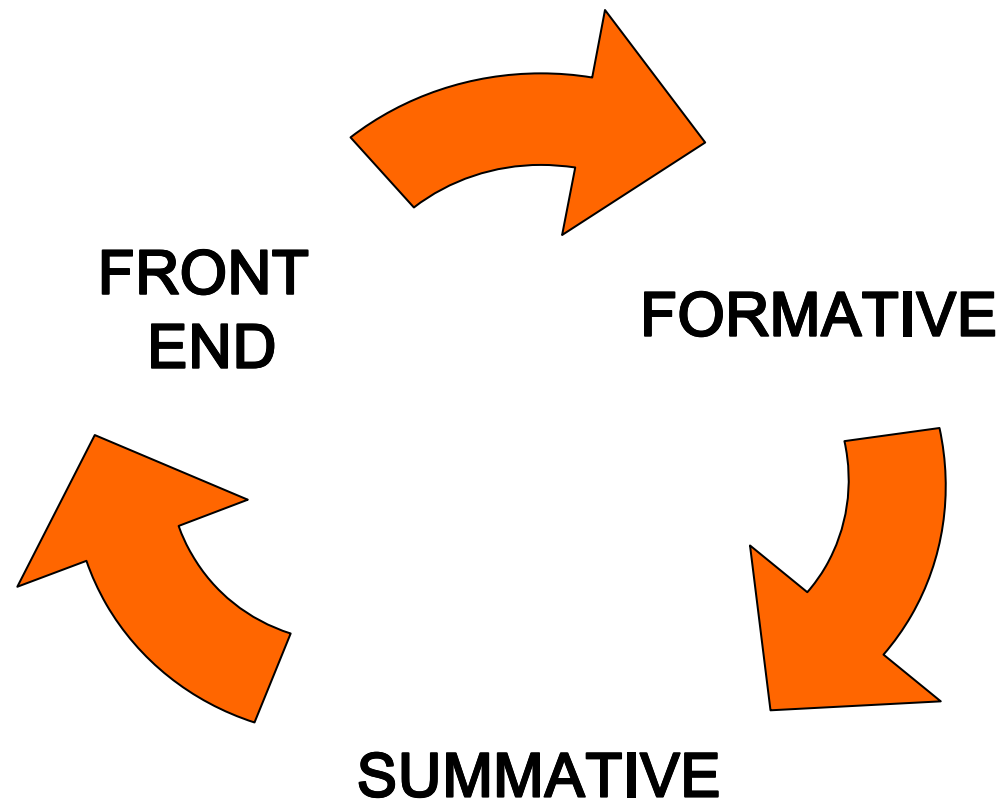


Seven Stages of Digital Evaluation

Seven Stages of Digital Testing

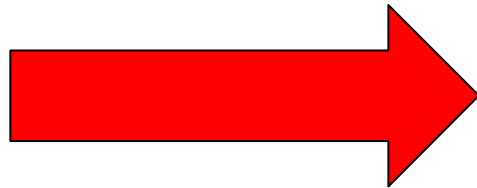


1. Front End
2. Information Architecture (IA) Wireframe Testing
3. Wireframe Testing of Subsections
4. Look and Feel (Design)
5. Functionality Prototype Testing
6. User Testing Full Prototype/Beta Version of Site
7. Summative Evaluation



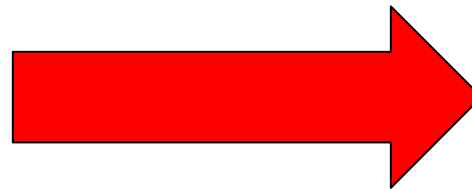
Seven Stages of Digital Evaluation

Front - End



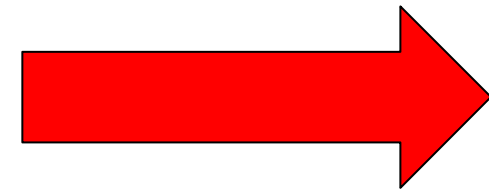
1. Front End

Formative



2. Information Architecture (IA)
Wireframe Testing
3. Wireframe Testing of Subsections
4. Look and Feel (Design)
5. Functionality Prototype Testing
6. User Testing Full Prototype/Beta
Version of Site

Summative



7. Summative

Qualitative Research Methodology

Wireframe testing

Accompanied surfs

Questionnaire writing

- Small numbers
- Low tech
- Practical research

Brought to Life

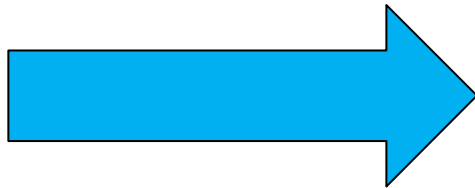
A website on the History of Medicine



Brought to Life

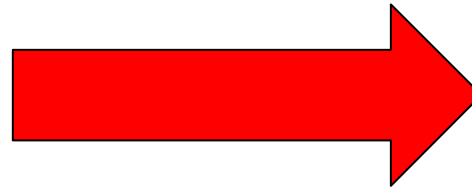
A website on the History of Medicine

Front - End

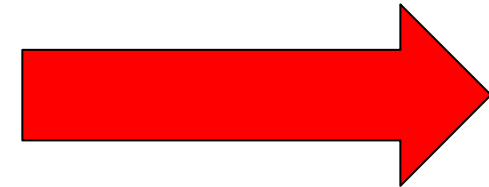


1. Front End

Formative



Summative



Methodology

- Focus Groups
- Desktop Research
- User testing similar sites

MAKING THE MODERN WORLD

Stories about the lives we've made

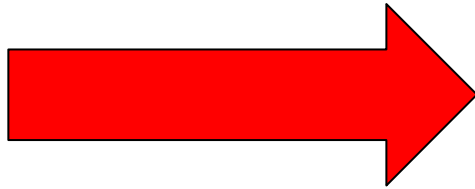
ingenious
Seeing things differently

ingenious
LEARNING

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A website on the History of Medicine

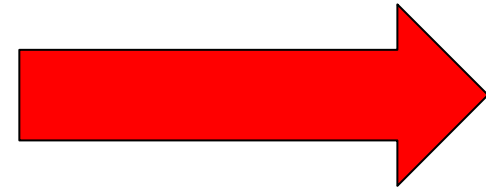
Front - End



Formative



Summative



2. IA Wireframe Testing

Methodology

- Wireframe testing

Sickness and Health website

History of Medicine Through Time

Home

Themes and Topics

People

Objects

Techniques
and technologies

Timeline

Search >

Welcome

Information about who the website is for and what they can find here.

About this project

Background info

[Read more](#)

Teachers

content tailored for teachers
please click on the links below

[Link 1](#) | [Link 2](#) | [Link 3](#) | [Link 4](#)

Collecting Medicine

Content on Henry
Wellcome and his
collection

Image

[The Wellcome Collections](#)

What it means to be well

Find out more about this subject

[Read more](#)

Image

Funded by:

Wellcome Trust

Logo

[About the Wellcome Trust](#)

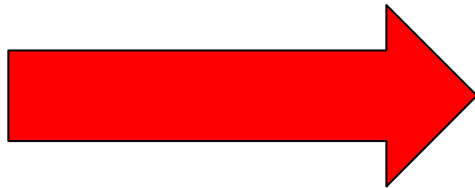
How did you find that?



Brought to Life

A website on the History of Medicine

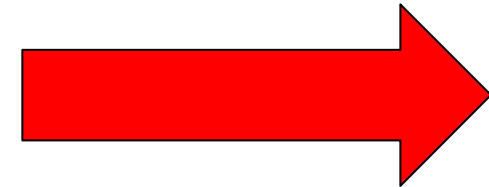
Front - End



Formative



Summative



2. IA Wireframe Testing

3. Wireframe Testing of Subsections

Methodology

- Wireframe testing with **task based questions**

Wireframe Testing of Subsections - Tasks

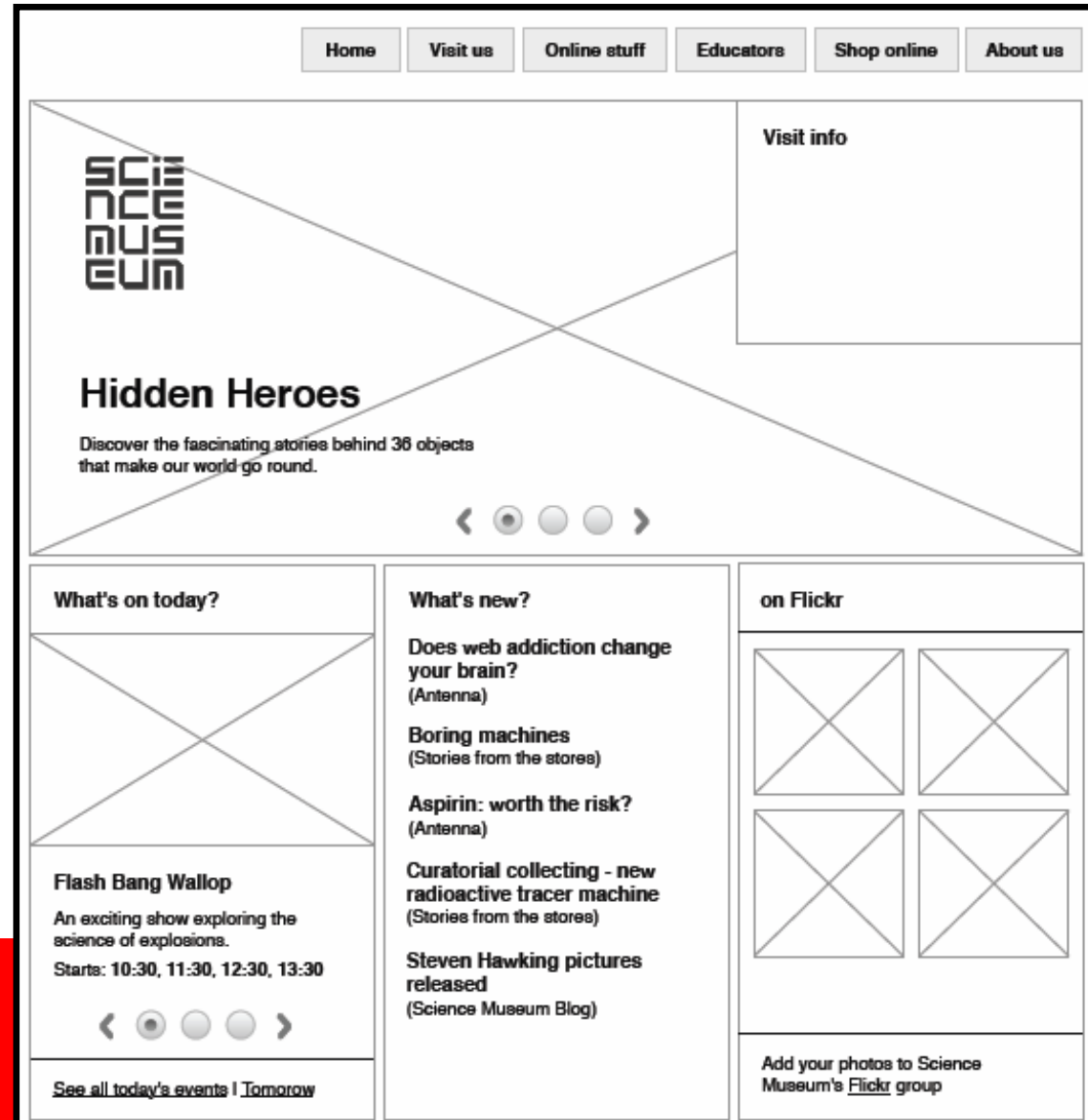
Teacher tasks:

- You want to prepare a lesson on the Black Death. Show me how you would use the site to gather information.
- You want your students to prepare a presentation on the life and work of Edward Jenner. Show me where you would point them to on this site to get them started.

Undergraduates:

- You are writing an essay on Paris Medicine. Show me how you would use this site to research your essay.
- How would you cite this site in your bibliography?

Think of two tasks to test a wireframe for a general visitor to a cultural organisations homepage



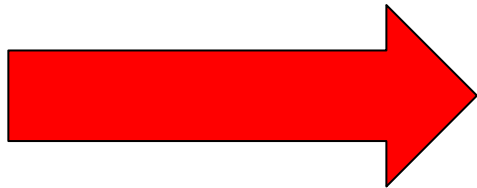
What tasks did you come up with?

- Some examples:
 - I would like you to plan your visit using the wireframe I have shown you?
 - How would you go about find out the opening hours of the Science Museum?

Brought to Life

A website on the History of Medicine

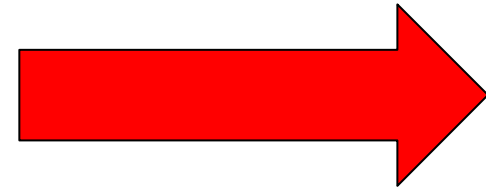
Front - End



Formative



Summative



2. IA Wireframe Testing

3. Wireframe Testing of Subsections

4. Look and Feel (Design)

Methodology

- Wireframe testing

Site display : Normal | High contrast | Text only Login/Register | My Science Museum | Help | Contact us

sciencemuseum

Home Visit the museum Online stuff Educators Shop online About us Search

Sickness and Health ⁺

History of Medicine Through Time

Home / Themes & Topics / People / Objects / Techniques & Technologies / Timeline / Search

Welcome to the Sickness and Health website, a great resource and online learning tool for formal learners, teachers and students. The site contains over 4,000 objects covering more than 3,000 years of human history.

[Read more about this project +](#)

What it means to be well

Find out more about this subject
[Read more +](#)

Collecting Medicine

Wellcome's eccentric collection of objects contain a wide variety of weird and wonderful objects.
[The Wellcome Collection +](#)

Teachers

For content tailored for teachers please click on the links below
[Link 1](#) | [Link 2](#) | [Link 3](#) | [Link 4](#)

Funded by:

This project had been part funded by the Wellcome Trust foundation.
[About the Wellcome Trust +](#)

Trepanning, the world's oldest surgical procedure
[More info +](#)

NMSI | Copyright | Enquiries / Freedom of Information | Site Map

Site display : Normal | High contrast | Text only Login/Register | My Science Museum | Help | Contact us

sciencemuseum

Home Visit the museum Online stuff Educators Shop online About us Search

Sickness and Health

History of Medicine Through Time

Home Themes & Topics People Objects Techniques & Technologies Timeline Search


Home > Themes & Topics > Models of the body

Browse:


- ▶ Belief and medicine
- ▶ Treatments
- ▶ Hospitals
- ▶ Medicine and technology
- ▶ Practising medicine
- ▶ Surgery
- ▼ Models of the body
 - Energy and balance
 - Renaissance Anatomy
 - Topic 3
 - Topic 4
- ▶ Medicine and science
- ▶ Disease and epidemics
- ▶ Public health
- ▶ Birth, death and medicine
- ▶ Controversies
- ▶ Diagnosing illness
- ▶ Medical Traditions
- ▶ Medicine in war
- ▶ Mental Health

Models of the body

Understanding how the body works has been one of the issues facing medicine since ancient times. While some medical traditions focus on ideas of energy and balance in the body, the European tradition has been very concerned with anatomy.




Anatomy
[View objects ▶](#)



Get inside the body
[Start interactive ▶](#)

Most early anatomical ¹ knowledge was discovered because of religious or philosophical questions. The Babylonians dissected animals, as they believed they could make predictions based on what they found. In Egypt ², the belief in the afterlife meant that people wished to have their bodies preserved.

This was done through a process called **embalming** ³ to create a mummy. Most organs were removed and stored in canopic jars. The heart was returned to the corpse, as it was considered to be the most important organ in the body, and the home of the soul.



What was Galen's most important

Questions about the nature of the soul were also important in Roman and

sciencemuseum
LEARNING

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A website on the History of Medicine

Look and feel questions

- What do you think about the way this webpage looks?
- What do like most / like least most about the way it looks?
- What sort of person do you think might use this website?
- What age group do you think this website has been designed for?
- What do you think that each of these words mean ?
 - Themes and topics / Timeline / Teachers

Brought to Life

A website on the History of Medicine

Look and feel questions

- Which of these words would you use to describe the way this looks – choose as many as you want?

Engaging

Boring

Exciting

Childish

Entertaining

Irrelevant

Fun

Trivial

Mundane

Surprising

Oversimplified

Motivating

Appealing

Adult

Confusing

Interesting

Informative

Disappointing

Uninspiring

None of these words

Any other word _____

Write 2 look and feel questions

Science Museum's educators website

SCIENCE MUSEUM ASTONISHING SCIENCE. SPECTACULAR MUSEUM.

Home Visit us Online science **Educators** Shop online About us

- Plan and book a visit
- Teaching resources
- Teacher CPD and events
- We visit you

Contact Us
For advice about planning a visit please contact us on 020 7942 4777 or [email us](#).

Educators E-News
Receive monthly updates about what's new from the Science Museum to support your teaching.
[Sign up here](#)

Talk Science blog
Our blog gives great ideas for promoting discussion about science in the classroom.
[Talk Science blog](#)

Educators

School trips, classroom resources, teachers' courses and events in your school that help students make sense of the science that shapes our lives.

Our new 3D film explores an underwater universe ruled by larger-than-life creatures long before dinosaurs conquered the Earth.

[Sea Rex](#)

Sea Rex 3D

Follow us on Twitter

Looking for new teaching resources?

SCIENCE MUSEUM Learning

Write 2 look and feel questions

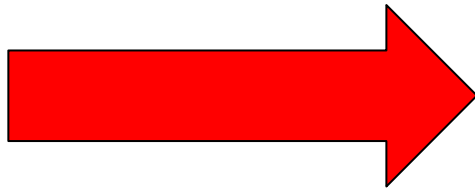
- Reactions
- Audience appropriate?
- Affect usability?



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A website on the History of Medicine

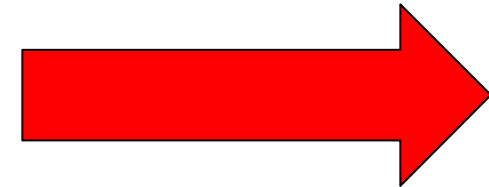
Front - End



Formative



Summative



2. IA Wireframe Testing

3. Wireframe Testing of Subsections

4. Look and Feel (Design)

5. Functionality Prototype Testing

Methodology

- Accompanied surf

Accompanied surf

- Observation – Task
 - Get them to think aloud!
- Usability / Navigation
- Appropriate for the target audience
- Reactions
- Recommendations / comments



Write your own accompanied surf

- BBC
- Guardian
- Telegraph



the **guardian**

Telegraph.co.uk

Write your own accompanied surf

1. Task
2. Navigation
3. Design
4. Audience appropriate
5. Reaction

Test it out!



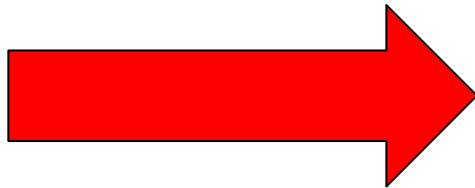
the**guardian**

Telegraph.co.uk

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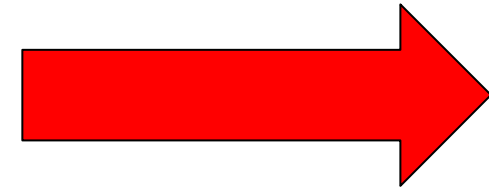
Front - End



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2. IA Wireframe Testing
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- 6. User Testing Full Prototype**

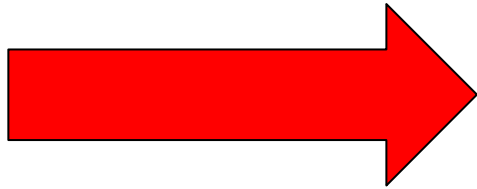
Methodology

- Accompanied surfs
- Robustness testing

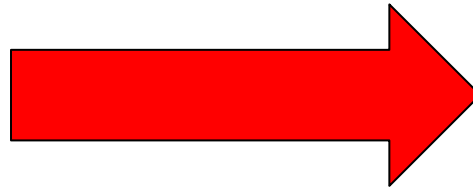
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A website on the History of Medicine

Front - End



Formative



Summative



7. Summative Evaluation

Methodology

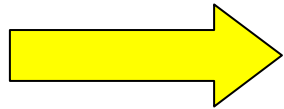
- Accompanied surfs
- Focus groups
- Online surveys

Evaluation Technology

The screenshot displays the Science Museum website. The main header features the text 'SCIENCE MUSEUM' in a stylized, grid-like font. A 'Menu' dropdown is visible in the top right. A central white box titled 'Web Lab' contains the text 'See the extraordinary workings of the internet brought to life.' Below this, there are several colorful geometric shapes and a 'BETA' label. A red circle highlights the 'Open and free' text, which is linked to the 'Visiting the Science Museum' section. The 'Open and free' section states 'Open every day except 24 to 26 December.' The 'Visiting the Science Museum' section provides the address 'South Kensington, London, SW7'. A video inset in the bottom right shows a woman with brown hair and bangs, wearing a striped shirt, speaking. The browser's taskbar at the bottom shows several open applications: 'Science Museum, L...', 'Microsoft Outlook ...', and 'Activate Your Value...'. The browser's address bar shows 'Internet | Protected Mode: On'.

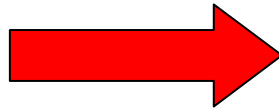
Futurecade

Front end

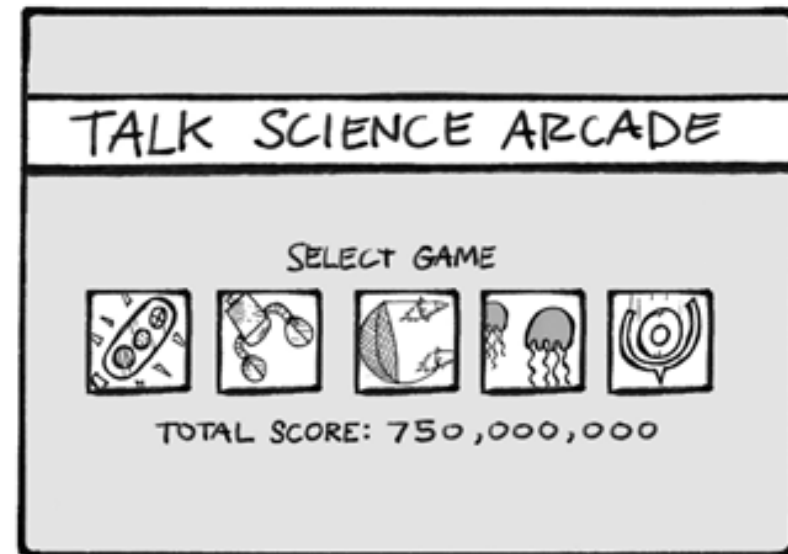
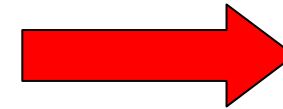


- Focus groups
- Review of past evaluations
- Literature reviews

Formative

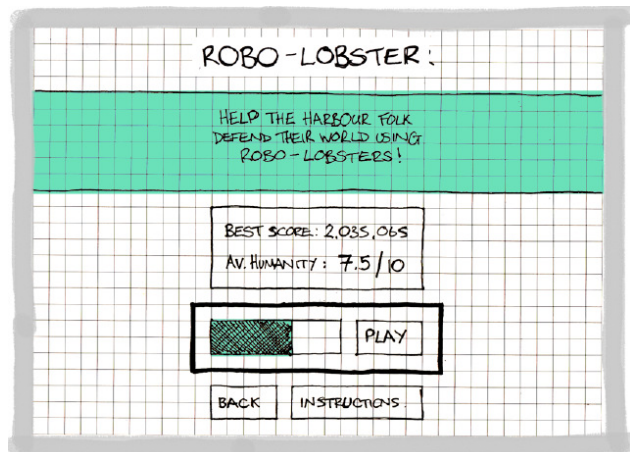
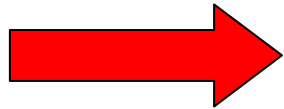


Summative

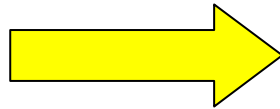


Futurecade

Front end

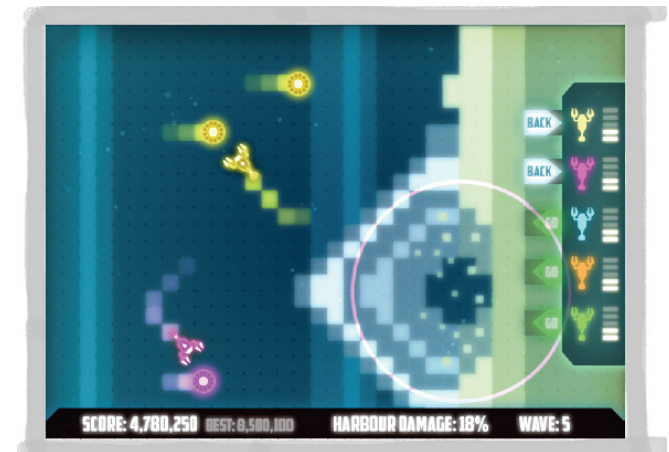
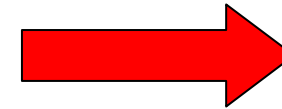


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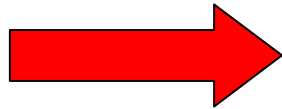
- Wireframe testing
- Prototype testing

Summative

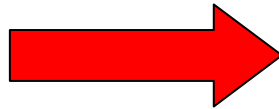


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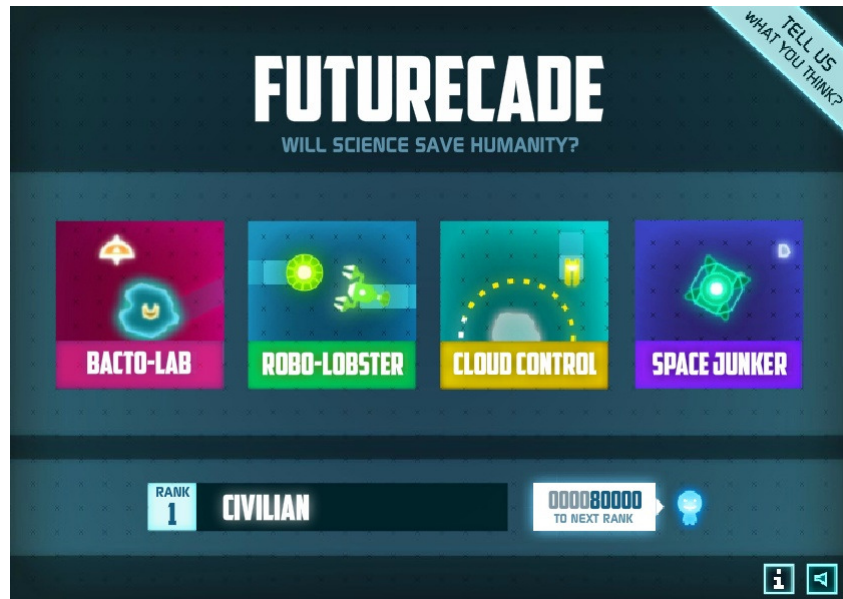
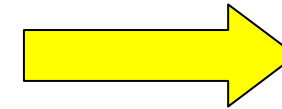
Front end



Formative



Summative



- Focus groups
- Online survey
- Social media comments

Digital Evaluation Top Tips

- Don't get distracted by the peculiarities of a **single user**. Quotes only to be used if they represent a trend.
- This type of **test is unnatural**, make some allowances.
- Users **need to be relaxed**. Websites make people tense.
- Don't be afraid to **prompt**.

Web Evaluation Top Tips

- You need to be an **expert** in the site before you start
- Make sure the user is constantly **thinking out loud** or you will miss out on vital information.
- **Pilot** your questionnaire before you start testing.
- Ensure designers and project team are informed about the **timings** required for testing.

Any final questions or thoughts?



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