

# Emerging Media: collecting, preservation and access challenges

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Libraries Committee

1. Introduction
2. Case study - Interactive Documentary
3. Case study - Interactive Narrative
4. Panel discussion
5. Next steps

# Introduction

The background is huge **economic** growth and substantial **public funding** to incubate, innovate, train, develop audience engagement and creative capacity

1. Economic growth predictions – search ‘**Immerse UK report**’
  - \$1 billion in revenue in 2018
  - \$95 billion in 2025 (Goldman Sachs)
  - \$108 billion in 2021 (TechCrunch)
  - \$569 billion in 2025 (Citi)
2. Major UK government funding programme - search ‘**UKRI Audience of the Future**’
  - Industry Centre of Excellence (ICE) in Immersive Storytelling
  - Demonstrator programme for immersive innovation

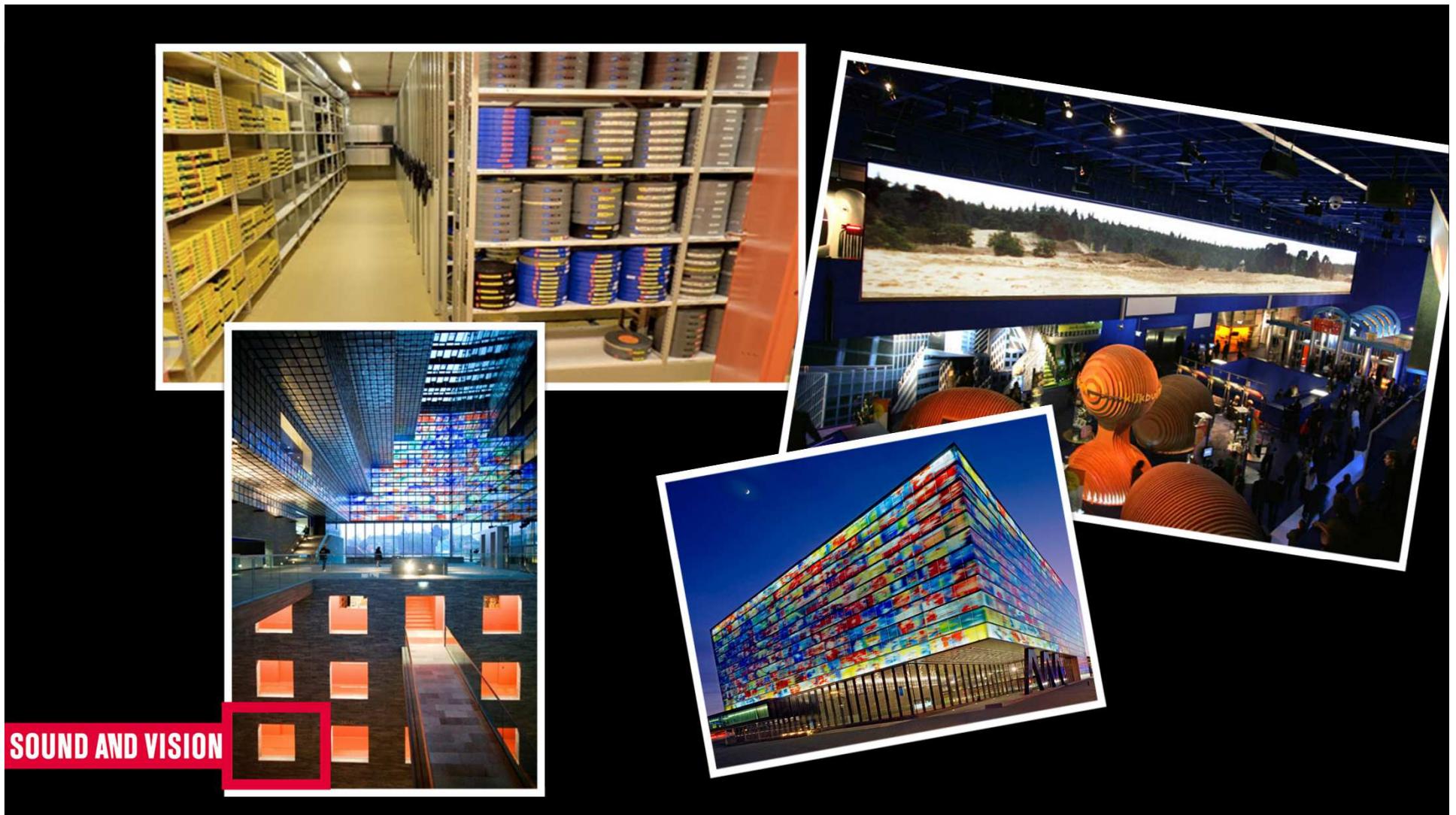
# A FESTIVAL APPROACH TO PRESERVING EMERGING & INTERACTIVE STORYTELLING FEATS

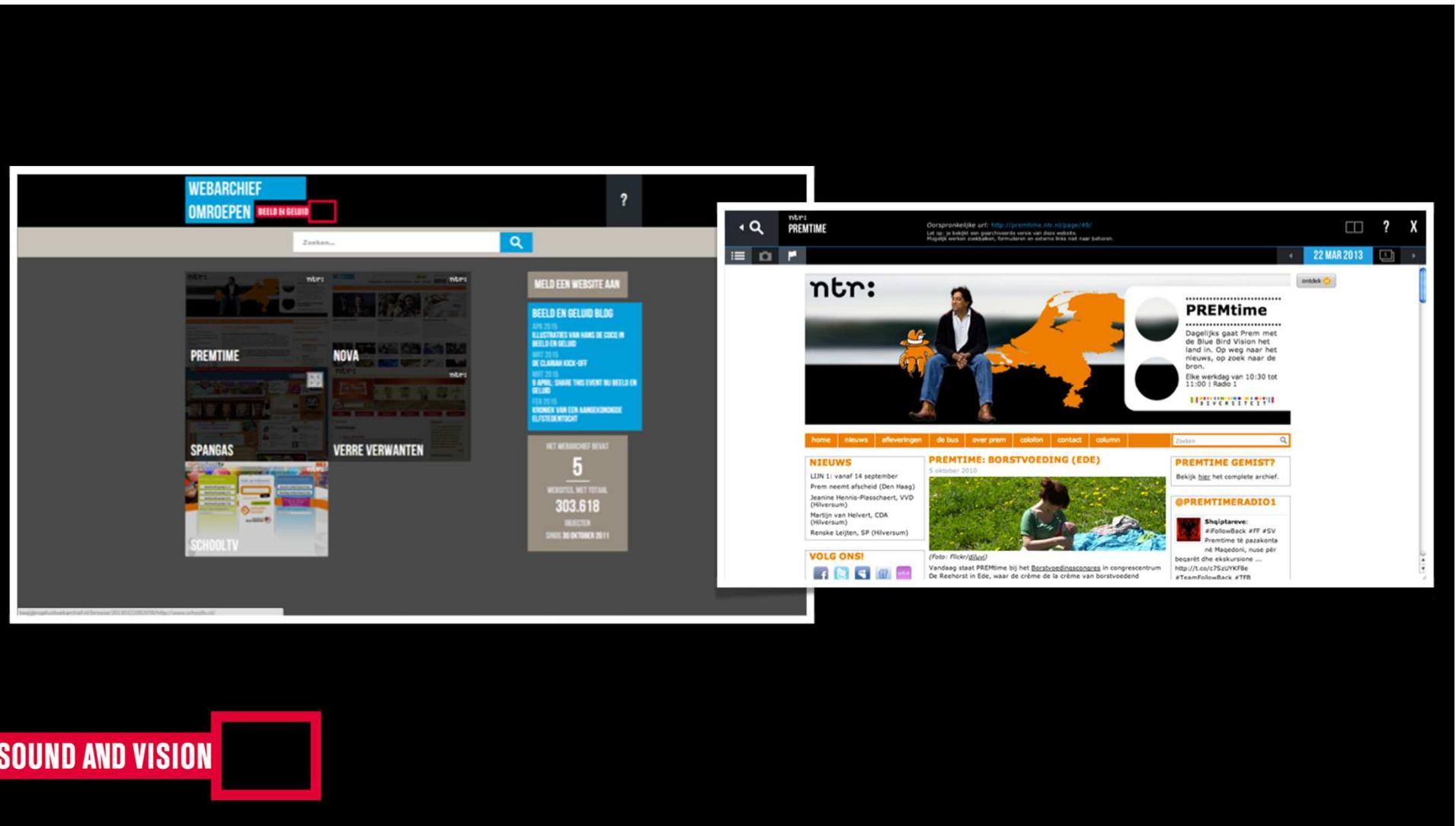
erwin verbruggen

netherlands institute for sound and vision

SOUND AND VISION







**BEELD EN GELUID**  **ZOEKEN ALGEMEEN COLLECTIES FORMULIEREN TARIEVEN**

U bevindt zich hier: [Home](#) > [Zoeken](#) > Beeld en Geluid catalogus

## ZOEKEN IN BEELD EN GELUID CATALOGUS

[Zoekresultaten](#)  [Opnieuw zoeken](#)

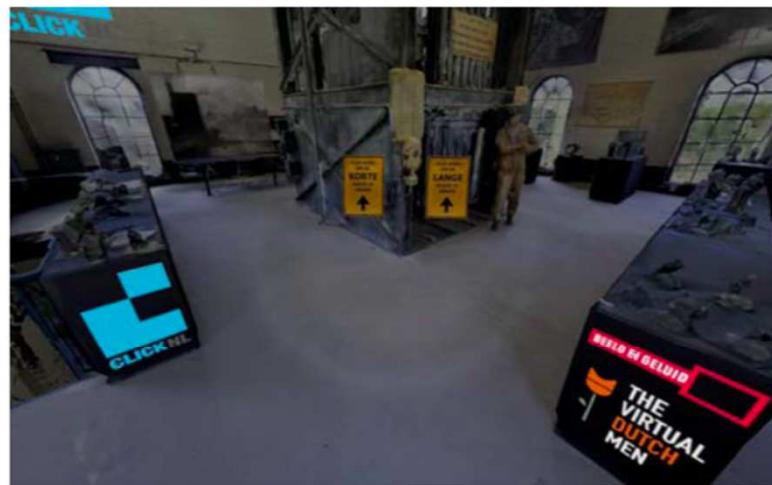
[Alles inklappen](#) | [Alles uitslaan](#) | [Print](#)

**INTERNETVIDEO**

Zendgemachtdate Uitrenddatum	NEET VAN TOEPASSING ; 09-01-2015;
<b>Titel</b> Afleveringstitel Publicaties	INTERNETVIDEO Amin Mousaoui #JesusisAhmed internet; 09-01-2015; NEET VAN TOEPASSING; 1' 57"
Type Uitrenddatum Tijdsduur	internetvideo 09-01-2015 1' 57"
Annotatie publicatie Distributiekanaal	Uploader: Documenten dus internet
Zendgemachtdate	NEET VAN TOEPASSING
Schone inlaag Dragers Samenvatting	Niet aanwezig Geen dragers beschikbaar De Rotterdamse Amin Mousaoui valt in dit filmpje uit tegen de extremisten die in Parijs (Frankrijk) een bloedige aanslag hebben gepleegd op de redactie van het satirische tijdschrift Charlie Hebdo. In zijn betoog zegt hij onder meer: "Ik accepteer niet dat bepaalde extremistische huffters telkens mijn religie als podium misbruiken". Hij pleit voor verbsnederiging: "schouder aan schouder, ongeacht de god waar je in gelooft". Mousaoui plaatste zijn betoog op Facebook, waar het massaal is gedeeld.
Genre Trefwoorden Geografische namen Besprok medium Rechten Taak ID:	internetaudios - antisemitisch aanvalen ; extremisme ; moslims Frankrijk ; Parijs internet Herkomst YouTube 5172889 <a href="https://www.youtube.com/watch?v=Blob6-aZY24">https://www.youtube.com/watch?v=Blob6-aZY24</a>

**SOUND AND VISION** 





BEZOEK COLLECTIE KENNIS

BEELD EN GELUID

# GAMESCANON



## JAZZ JACKRABBIT

jaar: 1994 ontwikkelaar: Epic Megagames platform: DOS

Jazz Jackrabbit is een computerspel voor de pc uit 1994, geproduceerd door Epic MegaGames. Het spel is geschreven in Turbo Pascal 7.0 door de Nederlandse programmeur Arjan Brussee en bedacht door Cliff Bleszinski. Het spel was zo populair dat er in 1998 een vervolg, Jazz Jackrabbit 2, werd gemaakt.

Van het spel bestaan verschillende versies. Allereerst was er de sharewareversie die bestond uit één aflevering. Een aflevering bestond uit drie werelden, elk onderverdeeld in twee levels en een 3D-bonuslevel. Verder zat er in iedere aflevering nog één geheim level dat bereikt kon worden door te schieten op een rood bord met een goud vraagteken. De aflevering eindigt met een Guardian

## Jullie herinneringen

+ VOEG JOUW HERINNERING TOE

XXL-clan rulez!

XXL-XXL • Gisteren 21:33

Yogho Yogho



**idfa**DOCLAB

**INTERACTIVE  
DOCUMENTARY  
CANON**



WE SPEAK A NEW AND  
POWERFUL LANGUAGE,  
CAPABLE OF SAYING THINGS  
NO OTHER LANGUAGE CAN  
SAY, BUT FEW HAVE REALIZED  
THIS, AND EVEN FEWER HAVE  
FOUND WHAT TO SAY.

Jonathan Harris









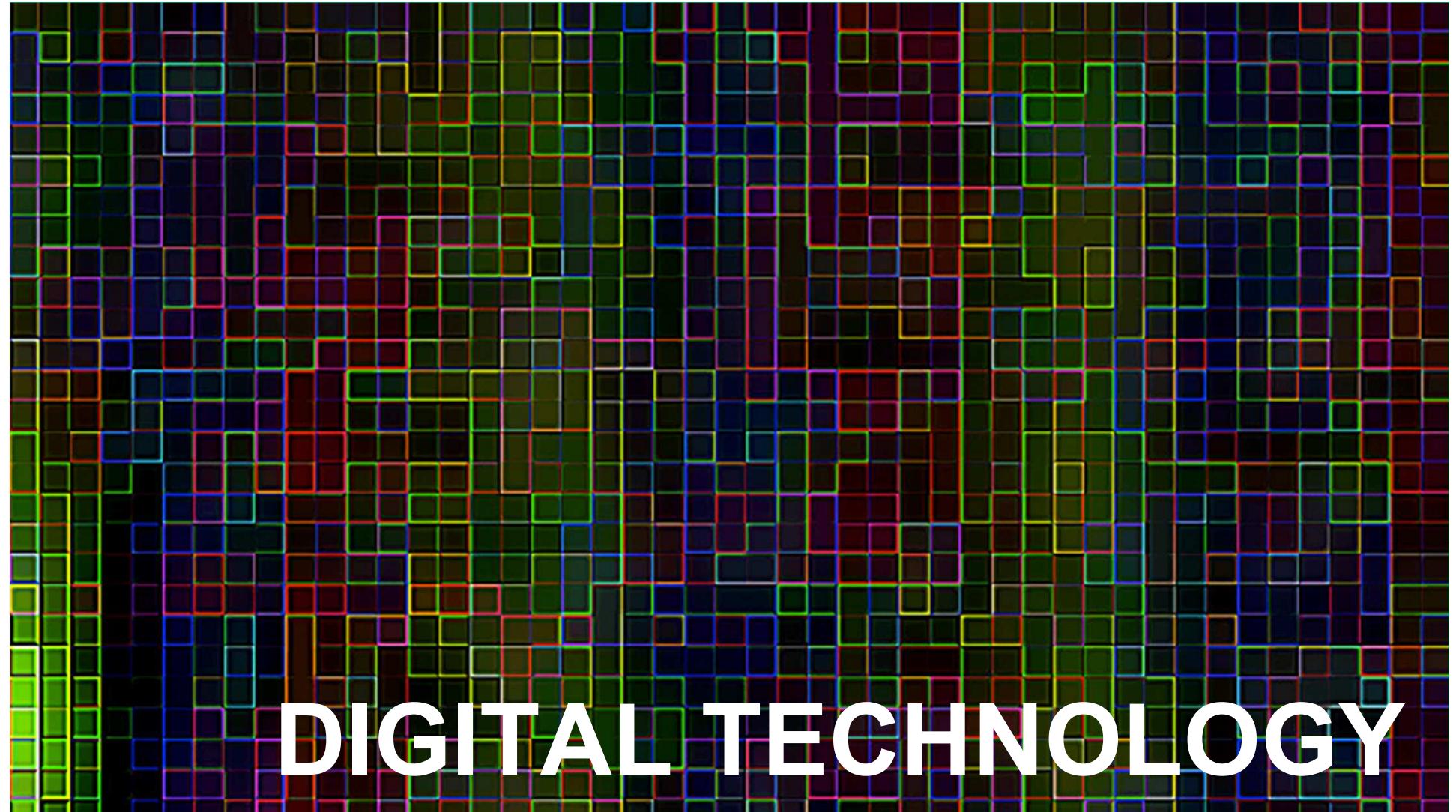
# MAIN INGREDIENTS



STORY



**INTERACTION**



**DIGITAL TECHNOLOGY**



CAPTURED REALITY



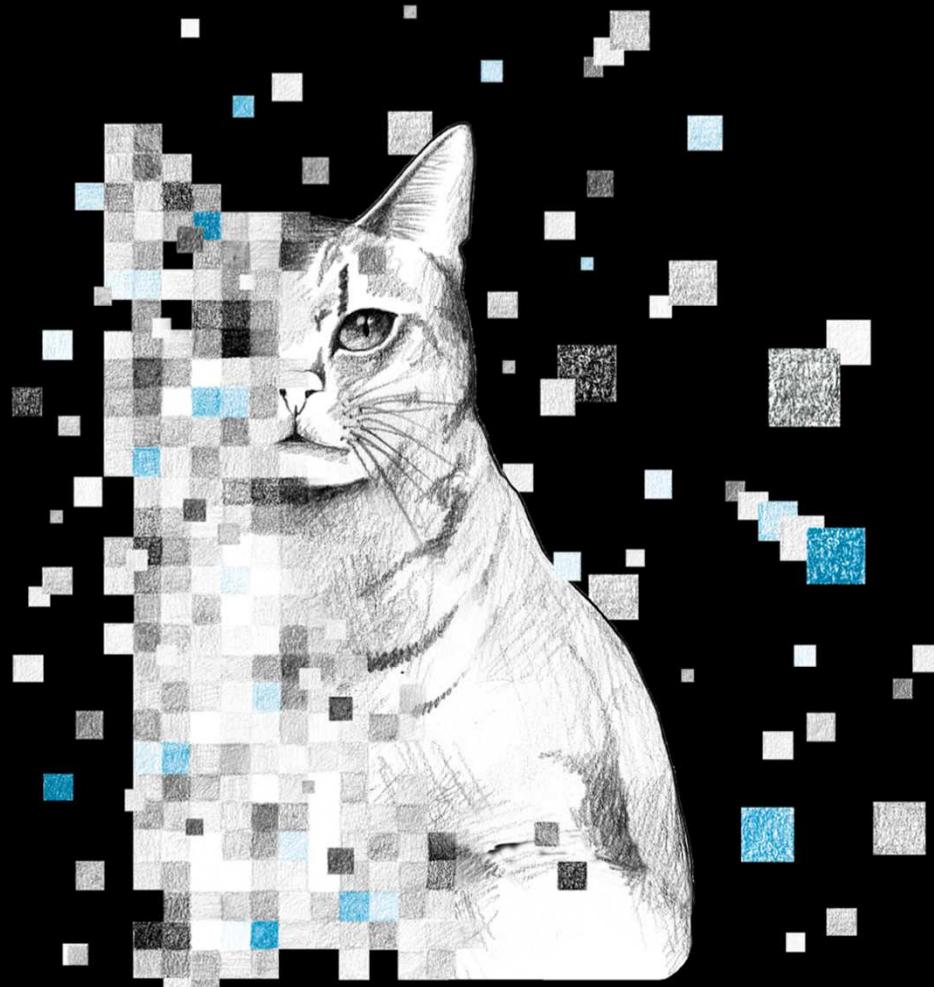
# idfa DOCLAB IMMERSIVE NETWORK

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Ministry of Economic Affairs of the  
Netherlands

Supported by







# idfaDOCLAB

EXPLORING DOCUMENTARY STORYTELLING IN THE AGE OF THE INTERFACE



## Past events



DocLab Live: Bloodless –  
Guided by the Ghost of a  
Korean Sex Worker

## Hieronymus Bosch, The Eyes of the Owl

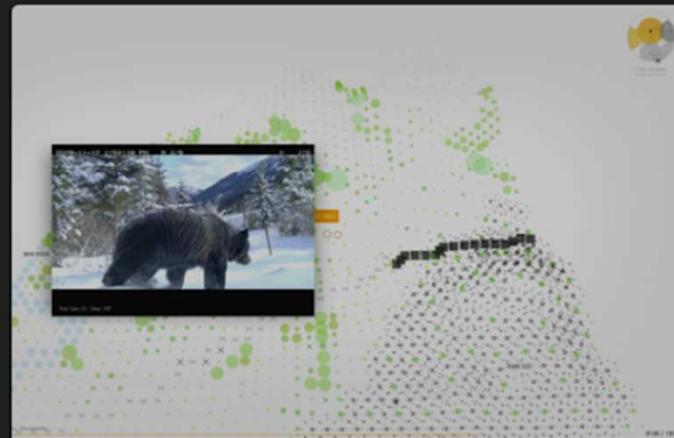
An innovative way to experience Bosch's most famous painting up close and personal.

Hieronymus Bosch, The Eyes of the Owl is a virtual reality

[Project details](#)

# I'M NOT HOME VIDEO

BY BERT HAMA



#### Past events



DocLab Live: Bloodless –  
Guided by the Ghost of a  
Korean Sex Worker  
25 Nov 2017 at 17:00

## Bear 71 VR

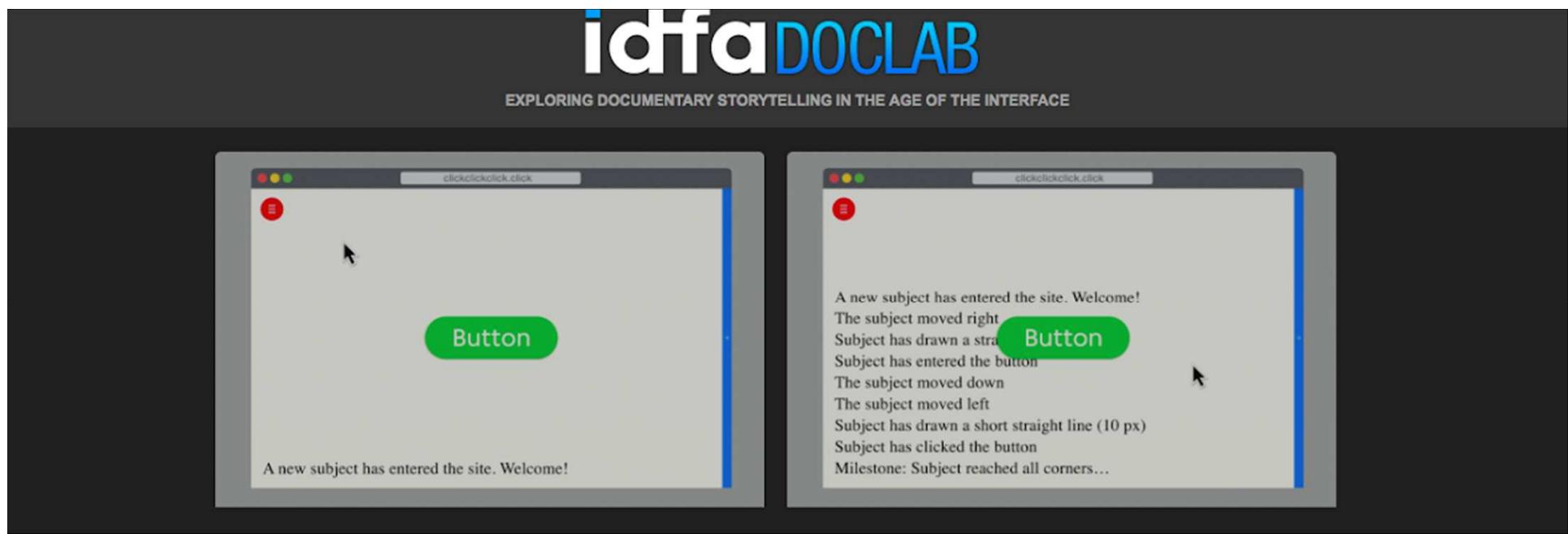
[WATCH PROJECT](#)

A seminal piece in the history of interactive documentary, reimaged and re-released as a virtual reality experience.

Bear 71 is a groundbreaking interactive documentary experience, told from the point of view of Bear 71, a female grizzly bear living in

#### [Project details](#)

Year of development : 2016



#### Past events



DocLab Live: Bloodless –  
Guided by the Ghost of a  
Korean Sex Worker  
25 Nov 2017 at 17:00

# Clickclickclick.click

**In a likeable, playful clickbait experience, you are rewarded for exploring all the interactive possibilities of your mouse.**

You and your mouse – an intimate relationship you seldom really think about. But your mouse behavior can betray as much of your identity as your search terms. With Clickclickclick.click. Studio

#### Project details

Year of development : 2016  
Created by: Luna Maurer, Roel Wouters



## Past events



DocLab Live: Bloodless –  
Guided by the Ghost of a  
Korean Sex Worker  
25 Nov 2017 at 17:00

Special presentation on VR installation  
*Bloodless*, in which director Gina Kim and

# Refugee Republic

## WATCH PROJECT

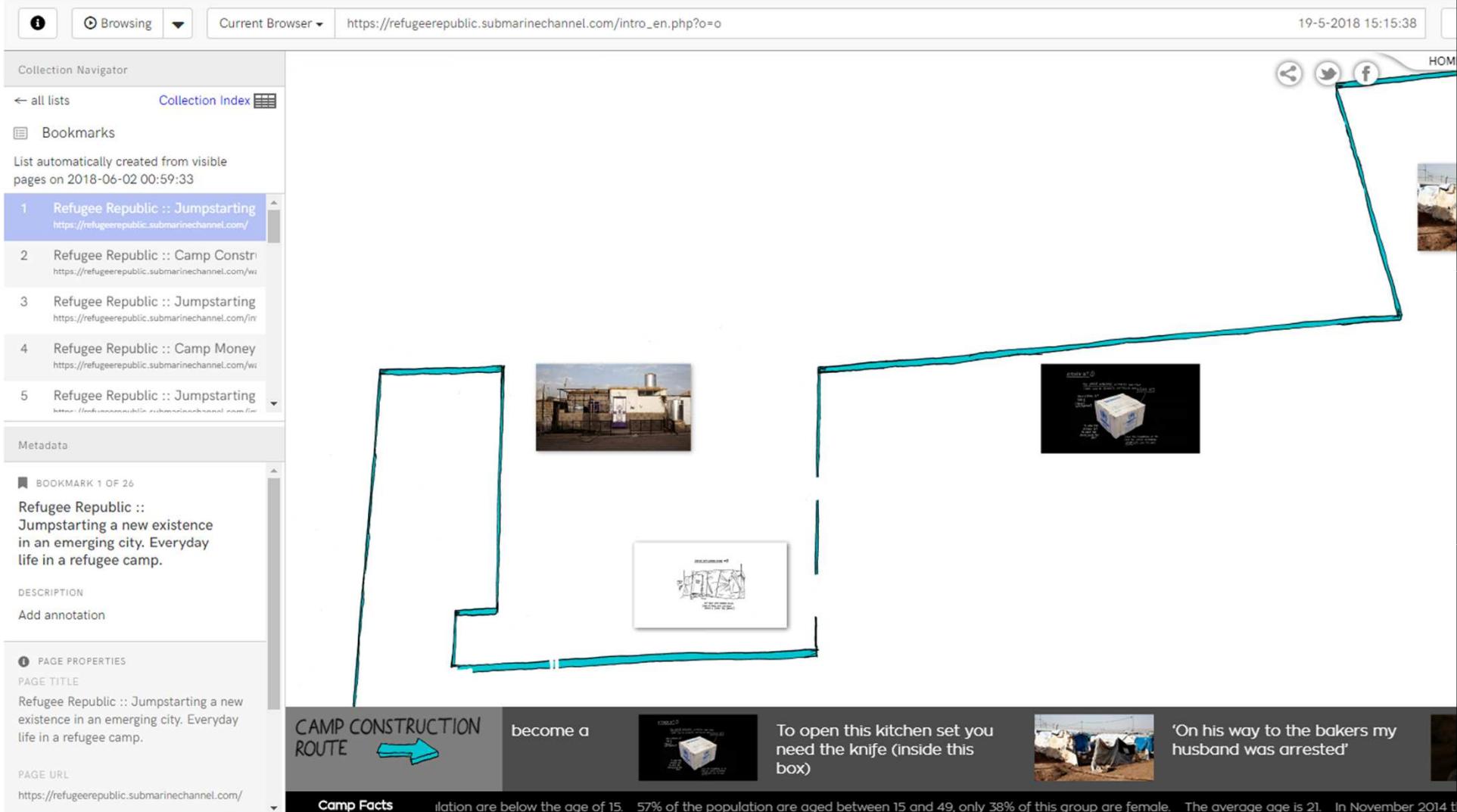
You think refugees are passive victims? Then spend some time in Domiz in northern Iraq and find out what everyday life in a camp is really like.

People desperately or resignedly waiting for help in the heat and the dust – this is the image most of us associate with refugee

## Project details

Year of development : 2014  
Created by Dick Jan Vosse, Jan




 Browsing Current Browser https://refugeerepublic.submarinechannel.com/intro\_en.php?o=0 19-5-2018 15:15:38

**Collection Navigator**  
 ← all lists Collection Index  
 Bookmarks  
 List automatically created from visible pages on 2018-06-02 00:59:33

- 1 Refugee Republic :: Jumpstarting  
https://refugeerepublic.submarinechannel.com/
- 2 Refugee Republic :: Camp Constr  
https://refugeerepublic.submarinechannel.com/wi
- 3 Refugee Republic :: Jumpstarting  
https://refugeerepublic.submarinechannel.com/in
- 4 Refugee Republic :: Camp Money  
https://refugeerepublic.submarinechannel.com/wi
- 5 Refugee Republic :: Jumpstarting  
https://refugeerepublic.submarinechannel.com/in

**Metadata**  
 BOOKMARK 1 OF 26  
 Refugee Republic ::  
 Jumpstarting a new existence in an emerging city. Everyday life in a refugee camp.

**DESCRIPTION**  
 Add annotation

PAGE PROPERTIES  
 PAGE TITLE  
 Refugee Republic :: Jumpstarting a new existence in an emerging city. Everyday life in a refugee camp.

PAGE URL  
 https://refugeerepublic.submarinechannel.com/

CAMP CONSTRUCTION ROUTE  become a   
 To open this kitchen set you need the knife (inside this box)   
 'On his way to the bakers my husband was arrested'

Camp Facts 

# Preserving Interactives

White Paper

May 2018

Author

Erwin Verbruggen  
Sound and Vision

# Server-side Preservation of Dynamic Websites

White Paper

July 2018

Prepared by Rasa Bočyté  
University Supervisor Annet Dekker (UvA)  
Internship Supervisors Erwin Verbruggen, Jesse de Vos (Sound and Vision)



<http://publications.beeldengeluid.nl>

# *Breathe*

## A Ghost Story by Kate Pullinger

*Caylin Smith, Legal Deposit Libraries Senior Project Manager*

*No Time to Wait, BFI, London, October 25<sup>th</sup> 2018*



TRINITY  
COLLEGE  
DUBLIN

# Outline

- Context

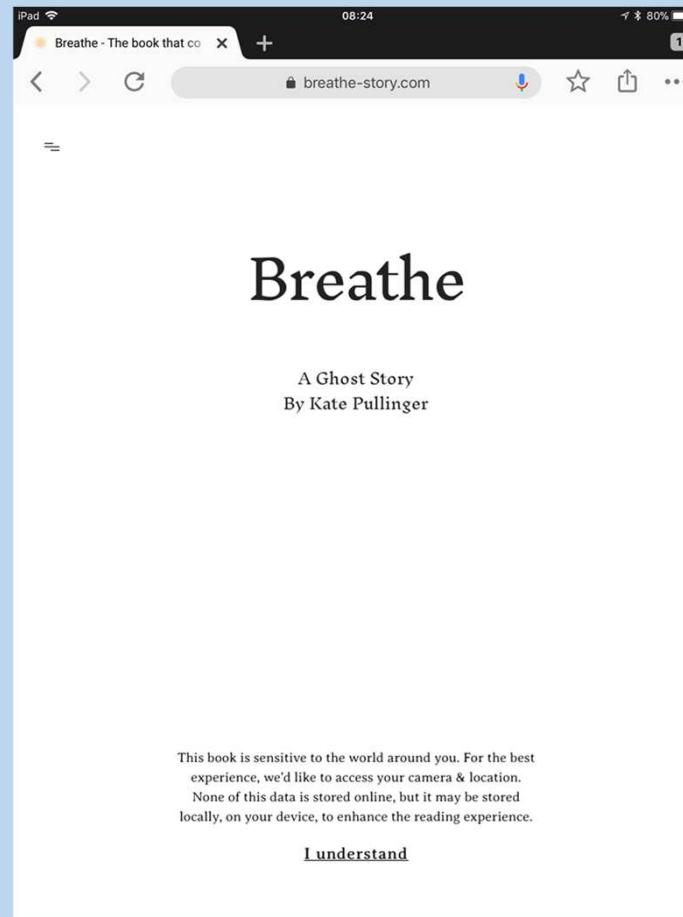
- UK Non-Print Legal Deposit
- Emerging Formats project

- About *Breathe*

- <https://breathe-story.com/>

- Capturing *Breathe* using web archiving tools

- Heritrix
- Webrecorder



# UK Non-Print Legal Deposit

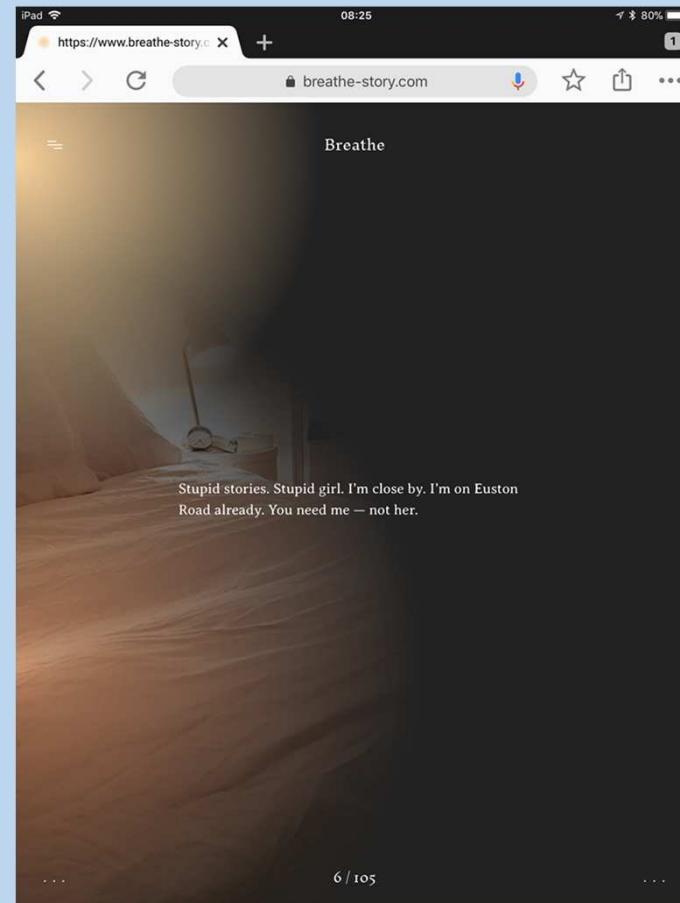
- Legal Deposit has existed in the UK in some form since 1662
- The Legal Deposit Libraries Act 2003
  - 1 copy of a publication sent to the British Library and any of the other libraries that claim it
- The Legal Deposit Libraries (Non-Print Works) Regulations 2013
  - Allowed the libraries to collect publications created in digital formats
  - Publishers must deposit a digital file that is suitable for long-term preservation
- Currently collect eBooks (EPUB and PDF), eJournals (PDF), maps (raster and vector formats), notated music (PDF), and the UK web domain (WARC)
- Preserved within the British Library's digital repository
- Access provided onsite on designated desktop terminals at each LDL

# Emerging Formats project

- Two year project (April 2017 – present)
- Identifying publications that are in scope to collect under legal deposit
- Exploring the collection management needs of more-complex digital publications
- Focused on three types of content
  - eBook mobile apps (e.g. academic books, dictionaries, children's literature)
  - Web-based interactive narratives (e.g. narrative games, ambient literature, literature written for platforms like Twine)
  - Structured data (e.g. statistics, official reports)

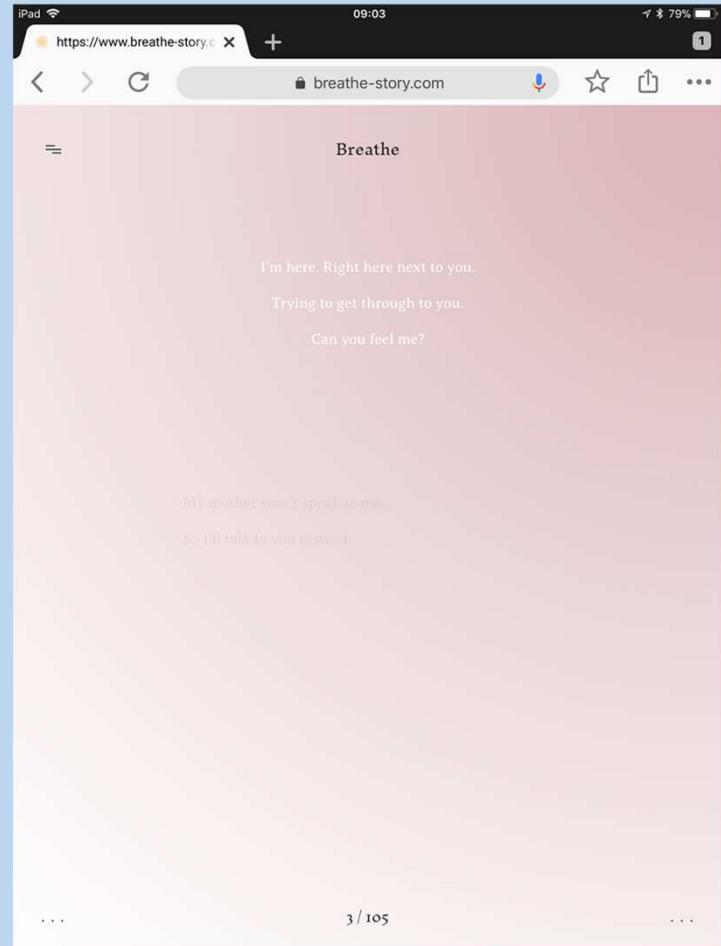
# About *Breathe*

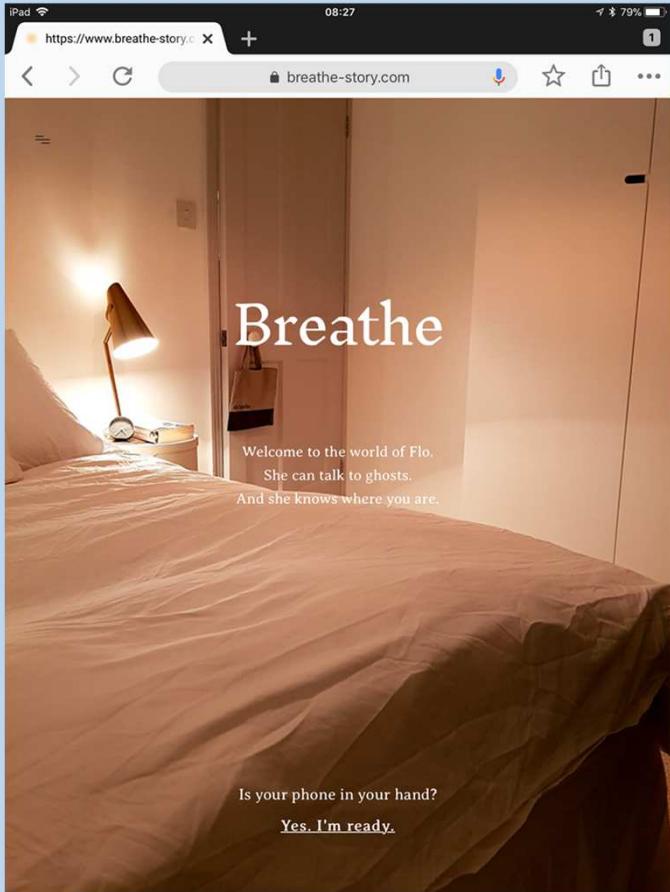
- Created by Kate Pullinger in collaboration with Editions at Play (Visual Editions + Google's Creative Lab)
- Read time 15-20 minutes; 105 pages in total
- Browser-based work of ambient fiction written in HTML that is best viewed on mobile devices
- Reader progresses the narrative by swiping left on their mobile device, or touching icon in bottom right corner
- Uses APIs to personalise the narrative to the reader's surroundings
  - Use of device's camera, GPS, and weather data
    - a “book that comes to you”



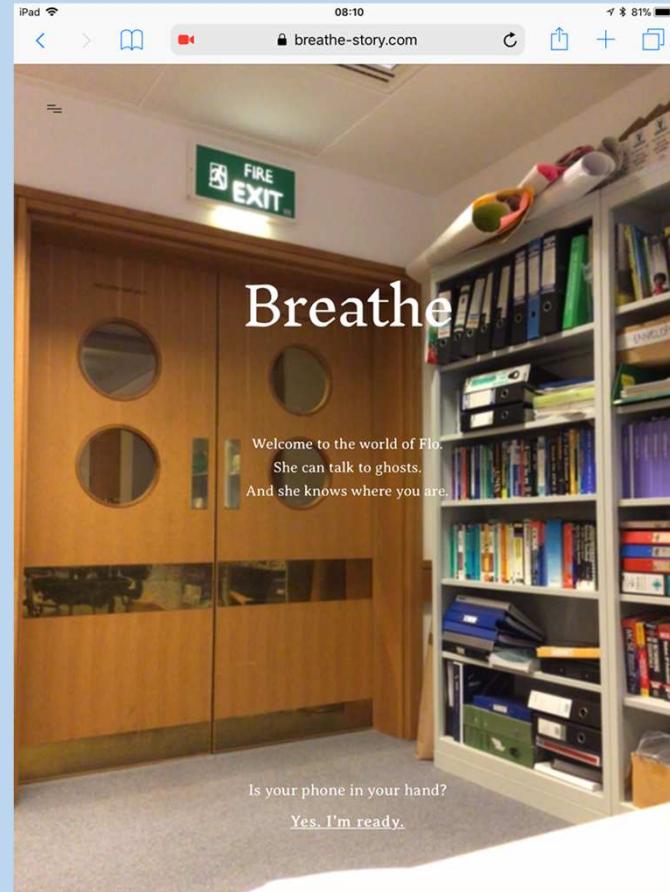
# Observations

- Mainly textual, but does include some images
  - Use of device's camera to create background imagery
- Different types of interaction (e.g. tilting the screen) are required to reveal the full story
  - The narrative does not always appear immediately onscreen
- Behavior is impacted by type of device (mobile phone, tablet), operating system (iOS, Android), browser





*Breathe* as displayed in Chrome



*Breathe* as displayed in Safari

# *Capturing Breathe*

- Heritrix
- Web Recorder

# Heritrix

## Targets > Breathe: A Ghost Story by Kate Pullinger

View Edit

Overview Metadata Crawl policy and Schedule NPLD scope (+) UKWA Licensing (-)

Watched Target

Title	Breathe: A Ghost Story by Kate Pullinger
Seed URL(s) (One or more URLs, separated by commas, including the http://)	<a href="https://breathe-story.com/">https://breathe-story.com/</a>
Aliases/Synonyms (If this content is also hosted at another URL, record it here. For example, if www.company.co.uk is the same as www.company.com)	
Record creation date	22-02-2018
Record last update	13-09-2018 10:01
Owned by	Nicola Bingham
QA Status	none
Live Site Status (If known, please add the current status of the site)	Still live
Hidden (Is this target hidden from public)	no
Key Site (Is this a 'key site', i.e. one of such significance that it requires higher levels of QA and archival management)	no
WCT ID	
SPT ID	
Keywords (Free text keywords, private to you)	

Instances

<https://breathe-story.com/>

- Search QA Wayback
- Search Open UK Web Archive
- Search Other Web Archives

Crawl Logs

<https://breathe-story.com/>

- Find URL in crawl logs
- Find all URLs with this prefix in the crawl logs

Screen capture of *Breathe* within the BL's Annotation Curation Tool, an open source, selective web archiving workflow management application

Provided  
by:

**BRITISH**  
**LIBRARY**

**UK WEB ARCHIVE**  
preserving uk websites

Archived August 2005 Archived November 2005 Archived May 2006 Archived June 2007 Archived March 2009  
Archived October 2004 Archived March 2005 Archived November 2006 Archived November 2008 Archived May 2009

You are here: [Home](#) > Open UK Web Archive

Enter Web Address:  All Set Anchor Window:  0 Results

Search Results for 1 Jan, 1996 - 31 Dec, 2018

Jan 1996 Jan 1998 Jan 2000 Jan 2002 Jan 2004 Jan 2006 Jan 2008 Jan 2010 Jan 2012 Jan 2014 Jan 2016 Jan 2018 -  
- Dec Dec 2019  
1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017  
0 pages 14 pages

[23 Feb, 2018 \\*](#)  
[24 Feb, 2018 \\*](#)  
[25 Feb, 2018 \\*](#)  
[26 Feb, 2018 \\*](#)  
[27 Feb, 2018 \\*](#)  
[28 Feb, 2018 \\*](#)  
[1 Mar, 2018 \\*](#)  
[13 Sep, 2018 \\*](#)  
[14 Sep, 2018 \\*](#)  
[15 Sep, 2018 \\*](#)  
[16 Sep, 2018 \\*](#)  
[17 Sep, 2018 \\*](#)  
[18 Sep, 2018 \\*](#)  
[19 Sep, 2018 \\*](#)

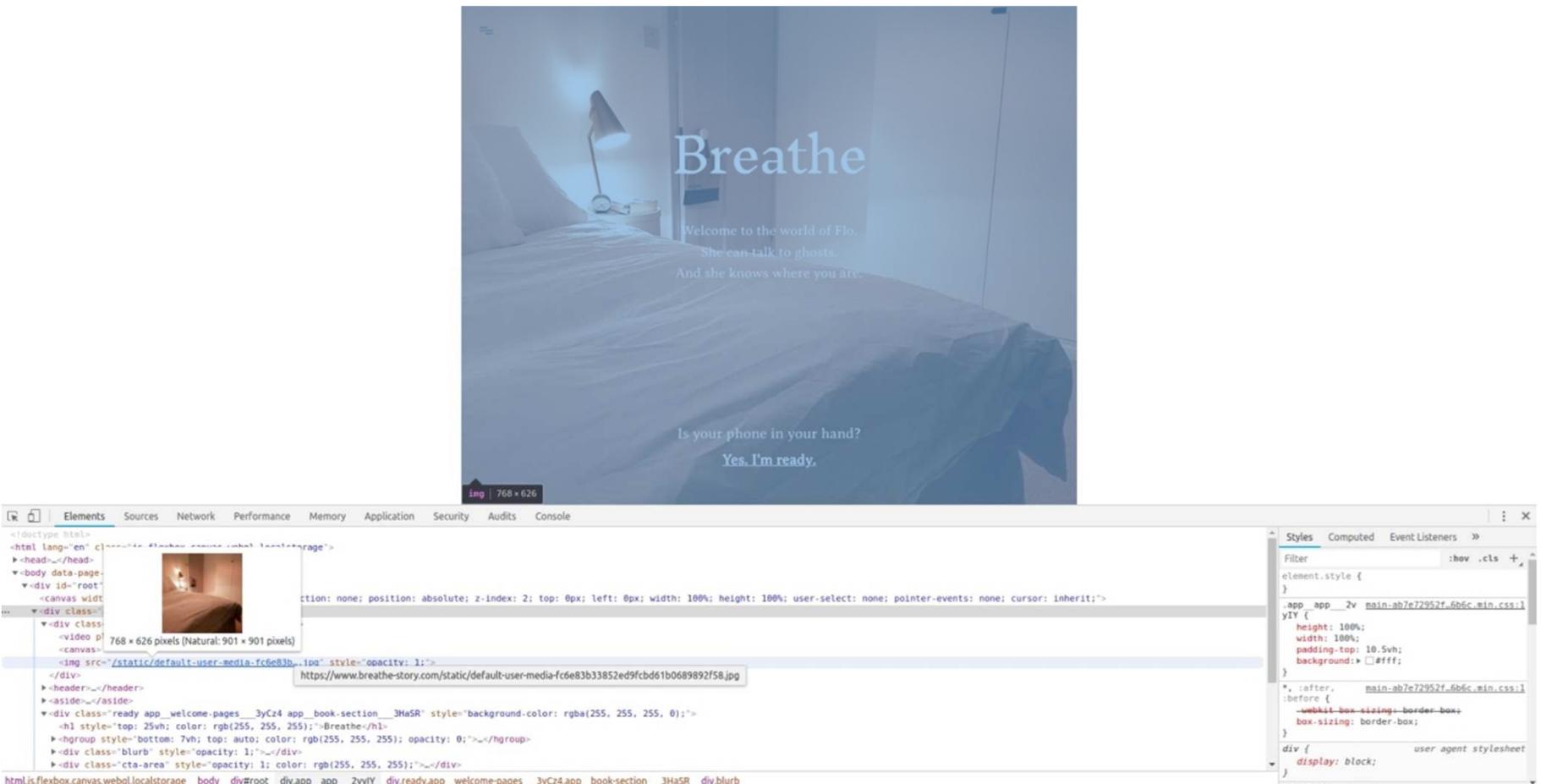
Copyright notice | Terms of use | Privacy statement

Screen capture of the UK Web Archive showing the amount of crawls for *Breathe*

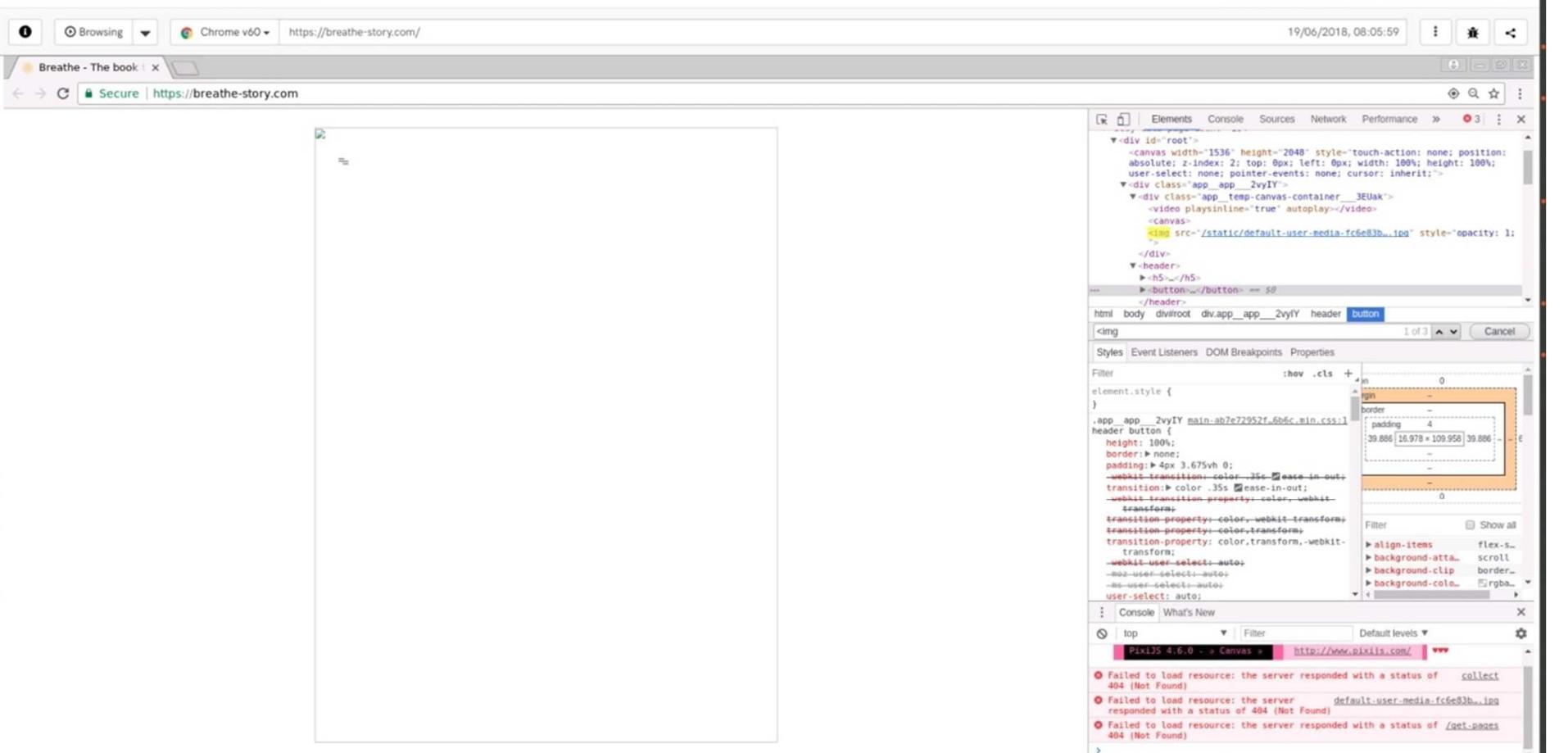


Screen capture of *Breathe* as displayed in the UK Web Archive

# Webrecorder



Screen capture of *Breathe* (cover page) in Chrome DevTools on Linux desktop computer



Screen capture of *Breathe* (cover page) within Chrome (v60) within Webrecorder Player

==

## Breathe

I talk to my mother at night, but she doesn't answer me. I listen for her, I wait for her, I do my best to let her in. I know she must be there, somewhere. But she does not speak to me.

1 / 105

The screenshot shows the Chrome DevTools interface with the 'Elements' tab selected. The left panel displays the DOM tree for the 'Breathe' page, which includes a header, aside, and a main content area with a class of 'app\_carousel\_\_Lo3R-app\_book-section\_\_3HaSR'. The main content area contains a paragraph with the text: "I talk to my mother at night, but she doesn't answer me. I listen for her, I wait for her, I do my best to let her in. I know she must be there, somewhere. But she does not speak to me." The right panel shows the 'Styles' tab, which lists the CSS rules applied to the current element. One rule is highlighted: '\*::after { content: 'main-ab7e72952f\_6b6c.min.css:1'; font-size: 1em; margin-left: 10px; }'. Other listed rules include 'div { user agent stylesheet }' and 'div.next.app\_panel\_\_2\_NwX { position: absolute; z-index: 1; width: 100%; height: 100%; }'.

```
</div>
  ><header>...</header>
  ><aside>...</aside>
  ><div class="app_carousel__Lo3R-app_book-section__3HaSR">
    ><div class="panels-container">
      ><div class="next app_panel__2_NwX" style="transform: matrix(1, 0, 0, 1, 0, 0);">...</div>
      ><div class="curr app_panel__2_NwX" style="transform: matrix(1, 0, 0, 1, 0, 0);">
        ><div class="inner">
          ><div>
            ><p>
              "I talk to my mother at night, but she doesn't answer me. I listen for her, I wait for her, I do my best to let her in. I know she must be there, somewhere. But she does not speak to me."
            </p>
          </div>
        </div>
      </div>
    </div>
    ><footer class="at-start">...</footer>
  </div>
  ><iframe src="/rotate" id="rotate-banner">...</iframe>
```

Elements Sources Network Performance Memory Application Security Audits Console

Styles Computed Event Listeners >

Filter :hover .cls +

element.style { }

\*::after main-ab7e72952f\_6b6c.min.css:1

:before {

  -webkit-box-sizing: border-box;

  box-sizing: border-box;

div { user agent stylesheet }

  display: block;

Inherited from div.next.app\_panel\_\_2\_NwX

.app\_panel\_\_2\_NwX {

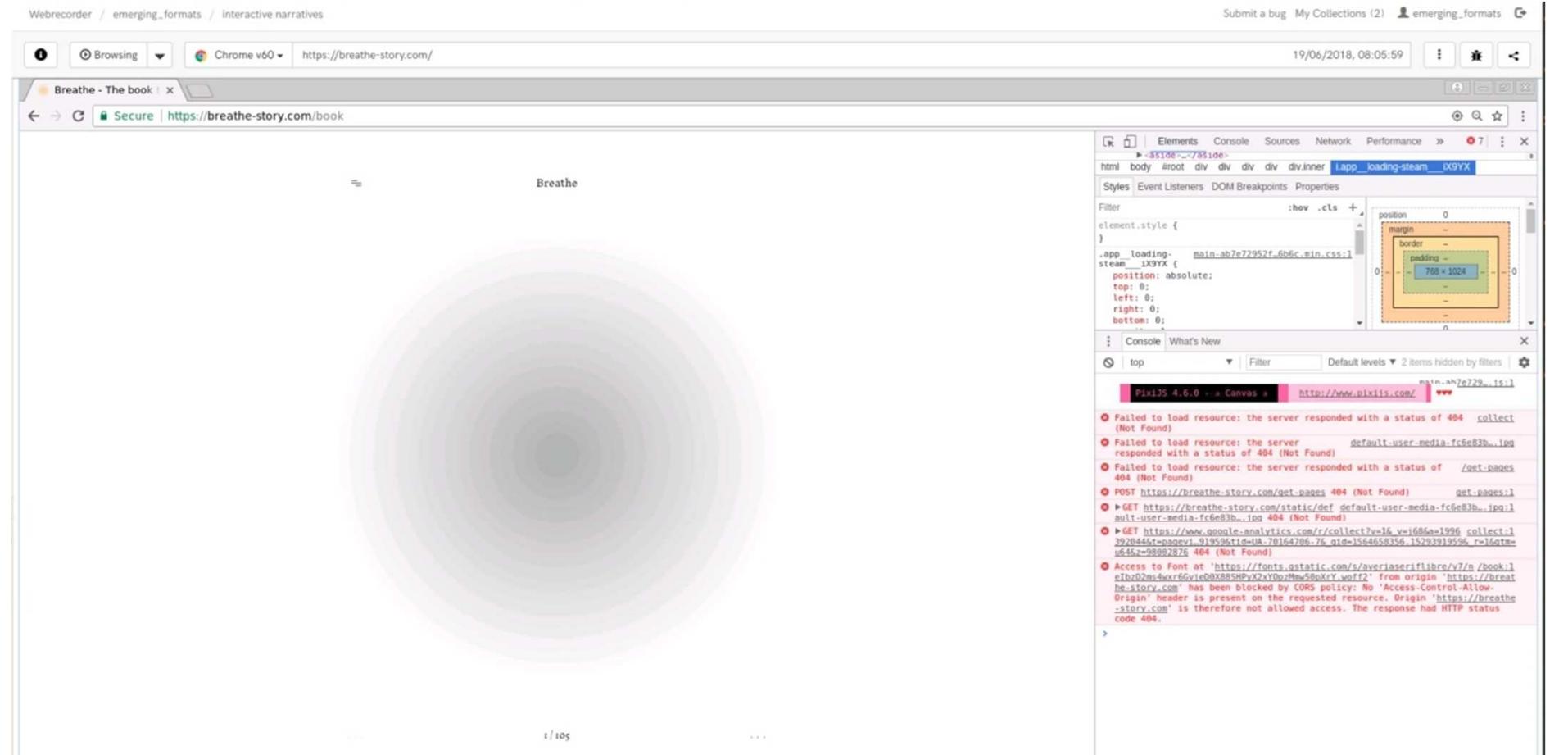
  position: absolute;

  z-index: 1;

  width: 100%;

  height: 100%;

Screen capture of *Breathe* (page 1) in Chrome DevTools on Linux desktop computer



## Next steps

- Identify URLs of individual pages to crawl with Heritrix
  - Engage with Editions at Play to better understand how *Breathe* was created
- Engage with Webrecorder community to see whether and how the text of the narrative can be captured

# Thank you!



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emerging-formats@bl.uk

Acknowledgements: Nicola Bingham, Ian Cooke, Maureen Pennock, and Adam Leggott

# Panel discussion

- Learning from previous experiences
- Creating a body of knowledge - with case studies
- Organising events to accrue knowledge, form networks
- Working with creators and industry, including tech companies
- Standards and standardisation:
  - how soon is too soon for standards?
  - opportunities for open source advocacy?
  - what is our role as preservation professionals?
- System suppliers and service suppliers
- Emulators and emulation for operating systems etc
- Leveraging developer tools for digipres outcomes

# Next steps

- Organise **events** to build knowledge and form networks
- Create **working groups** to co-ordinate activities in the networks
- Create **forums** for discussion by the networks - Slack workspaces / channels?
- Invite **industry / makers** to present their work / expertise
- Talk to creators about **preservation** - explain our work to them, in clear language

**Don't miss:** **9 March 2019**, CSM London - Vanishing Point: The Curation and Preservation of Virtual Reality

[http://bit.ly/VanishingPoint\\_CSM](http://bit.ly/VanishingPoint_CSM)