# **Competitive audit**

NESTA R&D Project

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### 1. Introduction

This report surveys current engagement with mobile technologies by organisations within the arts and cultural heritage sectors. This is supplemented with an overview survey of mobile tools in use for complementary activities, namely in the areas of food and drink and other entertainment options.

Additionally it includes a brief survey of mobile interaction analogues in the area of mobile ticketing and mobile donation.

### 2. Executive Summary

#### 2.1 Arts and cultural heritage and the mobile web

Of all the arts and cultural institutions surveyed, including a selection of theatres and commercial music venues, only one quarter currently offer a mobile website. Arts institutions, i.e. those specialising in classical music, opera and ballet and cultural heritage organisations, i.e. libraries, museums and galleries demonstrate a tendency to use mobile websites to present location, events and contact information rather than using them as platforms for encouraging deeper engagement with their performances or collections. These websites are delivered in a number of forms, most commonly via a dedicated mobile-specific URL, device detection or responsive web design.

However, some institutions are demonstrating a different approach to the mobile web, employing it to deliver a more focused "app-like" user experience: one that is similar to that delivered by a native smartphone or tablet application. These types of experiences resemble native applications in terms of their interaction design, including the use of gestures such as pin-zoom and swiping, and their more streamlined goal-focused functionality. Two notable examples of this are the Rijkmusem's (Amsterdam) "tablet-first" website and the mobile website of the Baltimore Arts Museum (US).

### 2.2 Apps, not mobile web

Where institutions demonstrate a coherent digital strategy, as do for example the Tate and Victoria and Albert Museum, this has tended to focus on the delivery of native smartphone applications, the majority of which have been

designed only to run on Apple's iOS platform (i.e. iPhones, iPod Touches and iPads). Most of these apps are exhibition tie-ins, guides to the permanent collections or games. Many, but not all, of these apps take advantage of the more advanced functionality and greater usability offered by the native application environment. Some of the apps surveyed dated back to 2009 at which time the mobile web user experience was more limited than it is presently.

### 2.3 Mobile ticketing

A very small number of the surveyed institutions offered mobile ticketing functionality. Two notable examples in the United Kingdom that do are the ICA website and that of the Natural History Museum and further afield the Museum of Contemporary Arts in Sydney.

Outside of the area of the arts and cultural heritage the most fully mobileoptimised event booking experiences are those provided by event-focused ecommerce and travel companies, although the most advanced solutions are delivered in the form of native apps rather than being available via mobile websites.

#### 2.4 Mobile donation

Whilst some arts and cultural heritage institutions have an online donation facility, only a small minority of mobile websites facilitate mobile giving. One example of an institution that does support this is the Institute of Contemporary Arts (London), although the call to action to do so is somewhat buried within its "support" page.

Solutions beyond the sector again offer some analogues, notably the JustGiving mobile website. Some institutions have even taken advantage of the visibility of the website and its dedicated functionality and are listed as charitable causes to which users can donate. An in-app donation solution is offered by the Give On The Mobile Service that generates SMS messages rather than taking card payments.

#### 3. Methodology

#### 3.1 Survey of arts and cultural heritage institution websites

A sample list of key arts and cultural heritage organisations in London was compiled from reference to published lists<sup>1</sup> and personal knowledge. This was supplemented by a small sample of peer organisations outside London within the UK, across the rest of Europe and in the United States, Australia and Japan (sixty seven in total). Each of these institution's websites was examined to assess:

- Whether the website was optimised for small screen viewing—either by employment of responsive web design techniques or the delivery of a mobile-specific website.
- If a mobile-optimised version of the website existed, whether any mobilespecific functionality (e.g. location awareness) was leveraged in order to engage the user beyond a simple repurposing of desktop website content.
- Whether the website provided mobile ticketing and donation facilities.

http://en.wikipedia.org/wiki/List\_of\_museums\_in\_London and List of London Venues, http://en.wikipedia.org/wiki/List\_of\_London\_venues

See for instance, List of Museums in London, Wikipedia,

### 3.2 Survey of the current arts and cultural heritage app landscape

Where an institution's digital strategy extended to the creation of mobile apps these were examined with particular emphasis on platform availability, features and cost. This list was complemented by a list of other apps made by organisations not connected with an arts or cultural heritage institution but which have relevance to the area—e.g. those created by content creators such as the BBC and other media organisations or by content aggregators.

### 3.3 Survey of apps relating to complementary activities

A similar study was carried out in relation to apps operating in the area of entertainment beyond traditional arts institutions and to other complementary activities, such as live music, cinema, television and food and drink.

### 3.4 Survey of mobile interaction analogues

Two aims of the project are to implement mobile ticketing and mobile donation, two areas with minimal coverage amongst mobile web and app offerings within the arts and cultural heritage sectors. Therefore, a small sample survey of a range of appropriate interaction analogues was carried out, namely examining the areas of commercial ticket sales, mobile transport ticketing and mobile charitable fundraising and donation.

### 4. Summary of findings

### 4.1 Arts and cultural heritage institutions and mobile websites

### 4.1.1 In London

Total number of institutions surveyed: 43

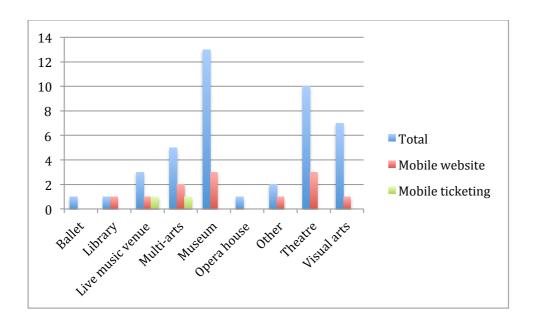


Figure 1: Summary of arts and cultural heritage institutions surveyed in London

### 4.1.2 Rest of UK

Total number of institutions surveyed: 3

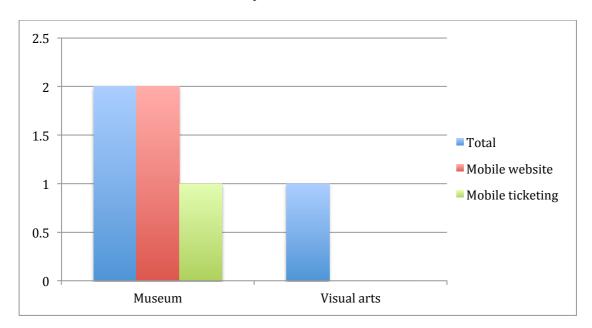


Figure 2: Summary of arts and cultural heritage institutions surveyed outside London

### 4.1.3 Rest of Europe

Total number of institutions surveyed: 16

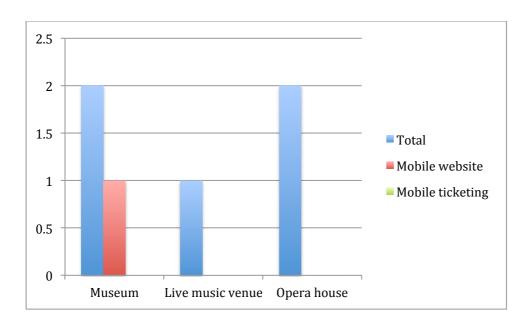


Figure 3: Summary of arts and cultural heritage institutions surveyed outside London

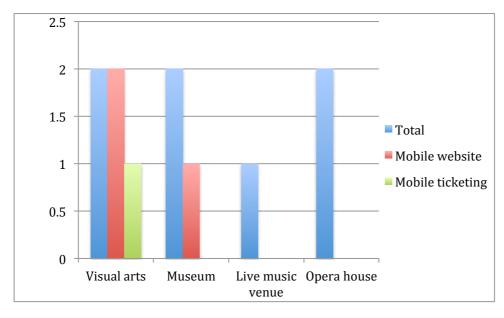
### 4.1.4 United States

Total number of institutions surveyed: 5

Figure 4: Summary of arts and cultural heritage institutions surveyed in the US

## 4.1.5 Australasia and Japan

## Total number of institutions surveyed: 7



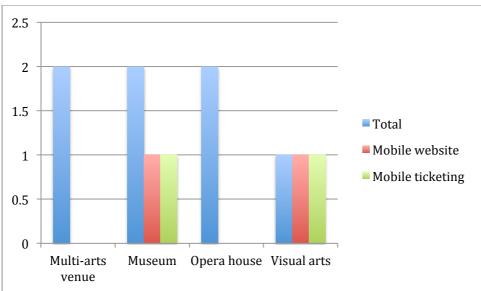


Figure 5: Summary of arts and cultural heritage institutions surveyed in Australasia and Japan

### 4.2 Arts and cultural heritage mobile apps

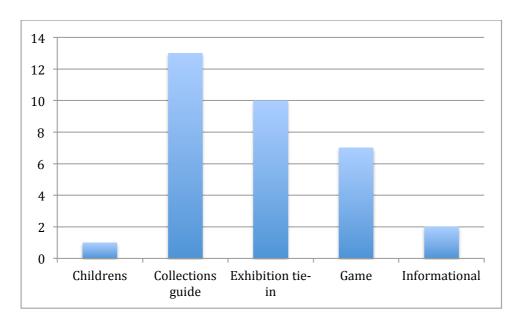


Figure 6: Arts and cultural heritage mobile apps surveyed by category

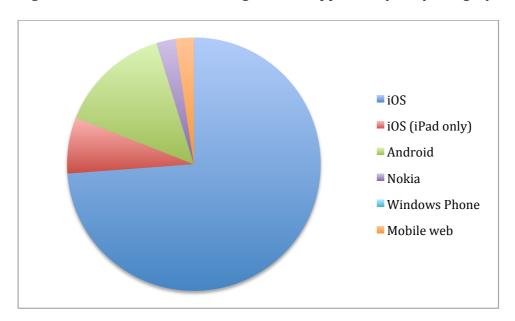


Figure 7: Apps by platform support

### 5. Arts and cultural heritage organisations and the mobile web

It is clear from the survey that only a small number of institutions currently have a website that is optimised for mobile, and of those that do, not all sections have been optimised. A smaller number still, only five, offer any kind of mobile-optimised booking system.

Notable exceptions to the rule are outlined below. All screenshots provided were

taken on an iPhone 4, unless specified otherwise.

Mobile websites are provided in a number of formats, the most common being:

Browser detection / cookie controlled: where delivery of an appropriate

website format is most likely controlled via a form of browser detection

script or storage of the user's preferences via cookies. The website's

domain remains the same in the browser's URL location bar whichever

device is being used.

Separate domain: the mobile website is served via an alternative URL, e.g.

m.english-heritage.org.uk.

Responsive design: the website uses responsive web design techniques to

dynamically control the layout and size of the website depending on the

size of the device's viewport.

5.1 **United Kingdom** 

**English Heritage** 

URL: m.english-heritage.org.uk

Site category: separate domain

English Heritage cares for and promotes understanding of historic properties in

England. Its mobile website offers a cut-down and focused version of its main

website and offers information about English Heritage and the option to plan a

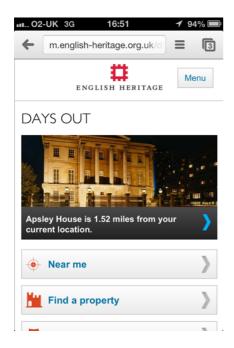
day out by locating nearby properties using the phone's geolocation

functionality. Users have the opportunity to switch to the standard desktop version of the site if they wish.

Geolocation in the English Heritage app



Asking the user's permission to use her current location



Selection of a nearby property based on the user's current location.

In addition to suggesting one main nearby property the site also provides a

complete list of nearby properties. The user can switch to the full desktop site if

she wishes to access information not covered in the mobile site.

The user can access information about membership, although there is no mobile-

optimised facility for doing so.

**Key features** 

Goal-focused: plan a day out (primary goal); membership information

(secondary goal).

• Use of geolocation.

• Clear, simple user interface, consistent with desktop site.

**Institute of Contemporary Arts, London (ICA)** 

URL: ica.org.uk

Site category: responsive design

The ICA's mobile website maintains the desktop's site minimalist aesthetic but

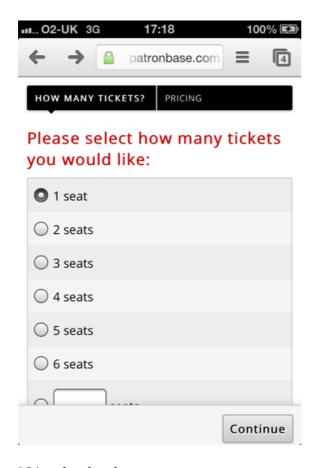
offers more limited functionality, concentrating on visiting information,

membership details, current events and an online shop. The shop and ticket

booking functionality are mobile-optimised (provided by a third party system).



ICA mobile site exhibitions screen



ICA ticket booking screen.

Users can also use the same payment system to make online donations, although

the call to action to do so is buried quite deep on the "support" page.

**Key features** 

Clear and minimal user interface, aesthetically consistent with main

desktop site. Typography focused.

Same content coverage as desktop site.

Mobile-optimised booking, shop and donation features.

**Natural History Museum** 

URL: www.nhm.ac.uk

Site category: browser detection/cookie controlled

The Natural History Museum's mobile website is plain in appearance with some

inconsistency with the appearance of the main desktop website. In terms of

content however, the mobile site is comprehensive as the desktop site; it is

reasonably rich, extending from basic informational content to educational

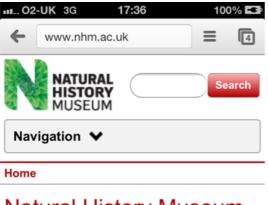
resources. The "Nature Plus" forums are linked to from the mobile navigation but

are not mobile-optimised.

The site also offers fully mobile-optimised ticket booking (offered by a third

party system) and some areas of the website which are not mobile-ready (e.g.

the online shop) are signposted to warn users.

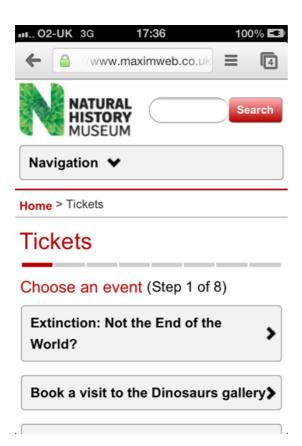


# **Natural History Museum**



Discover our new exhibition **Extinction**:

Natural History Museum home page



Natural History Museum mobile ticketing page, providing users with feedback as

to their progress in the booking process.

**Key features** 

Offers same content as desktop site.

Functional and usable.

Mobile-optimised booking facility.

Tate

URL: www.tate.org.uk

Site category: browser detection/cookie controlled

The Tate mobile website covers events and visiting information for the four main

Tate venues (Britain, Modern, Liverpool and St. Ives). The mobile website's

navigation differs from that of the desktop site indicating that the mobile site is

not simply a mobile screen-optimised refactoring of the desktop site. The mobile

site's primary navigation is based around common visitor goals, highlighting

current exhibitions and admissions information for the four venues. Icons

providing access to visiting information, exhibition details, search and a more

detailed browse menu are present on all pages.

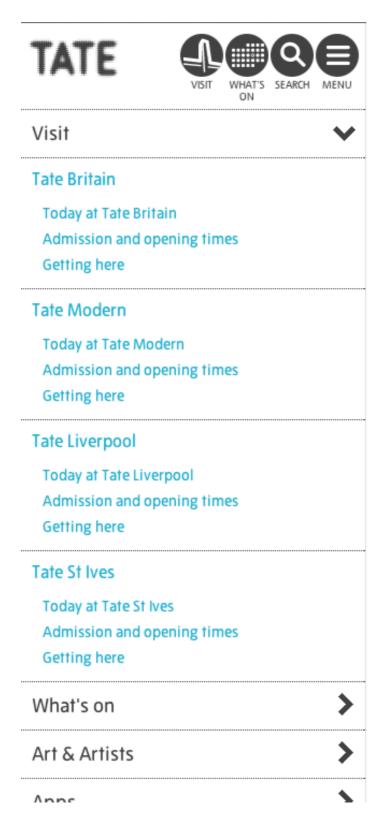
Interestingly the primary navigation also provides a clear link to a section about

the Tate's many app offerings which provide opportunities for greater

engagement with the institutions and their collections and makes a connection

between the different strands of the Tate's digital strategy.

The mobile site also provides access to the same audio-visual materials as on the main desktop site ("Channel" on the mobile site, "Context and comment" on the desktop website). Exhibition information contains clear calls to action to invite users to book tickets. However, the booking pages are standard desktop pages and not mobile-optimised.



Tate home page with primary navigation menu open. Screenshot taken on Safari on OSX 10.7 with the user agent set as iPhone. (iOS 5.1).



Screenshot taken on Safari on OSX 10.7 with the user agent set as iPhone. (iOS 5.1).

### **Key features**

• Clear and aesthetically attractive user interface.

Mobile-specific navigation.

Mobile-optimised search function.

Comprehensive content coverage.

Media "channel" offering audio-visual content.

Victoria and Albert Museum

URL: www.vam.ac.uk

Site category: responsive design

The V&A's responsive website provides a mobile-optimised version of the

majority of the desktop site. Some sections, notably the online booking, remain

desktop only. Similar to the Tate, the V&A offers a "channel" where users can

play audio-visual materials based around the collections and exhibitions.

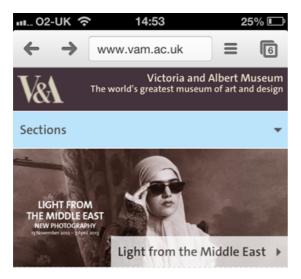
However, unlike the Tate's site the V&A's channel pages are not mobile-

optimised.

The V&A site also offers users the ability to search the online collections

catalogue which contains images, metadata and interpretative texual

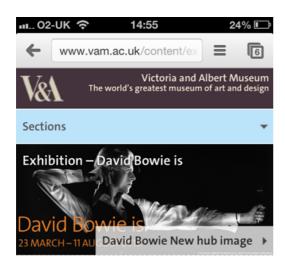
information.



Friday Late: Eat, Ride, Sleep, Repeat



Tate home screen on mobile.



23 March – 11 August 2013. The V&A has been given unprecedented access to the David Bowie Archive to curate the first international retrospective of the extraordinary career of David Bowie. David Bowie is will feature more than 300 objects that include handwritten lyrics, original costumes, fashion, photography, film, music videos. set designs and Bowie's own

Exhibition page.



V&A collections search results page

### **Key features**

- Responsive design: mobile website provides same content coverage as the desktop site (although not all sections are fully responsive).
- Clear and comprehensive navigation in page header and footer.
- Searchable and browsable catalogue of artworks, including images, metadata and interpretative text.
- Media "channel" offering audio-visual content.

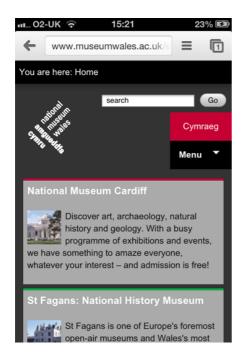
### **National Museum of Wales**

URL: www.museumwales.ac.uk

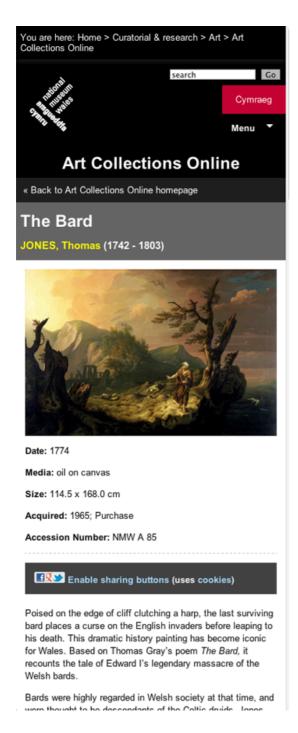
Site category: browser detection/cookie controlled

The National Museum of Wales' mobile website is a mobile screen-optimised version of its desktop website. Although it does not use responsive design the content is served from the same source as the desktop site and access to the mobile site is determined by a parameter in the website's URL. The mobile website has minimal formatting and is not altogether consistent with the design of the desktop site. However, it is clear and usable.

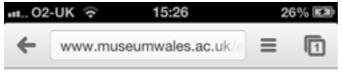
The "Art collections online" section provides a browsable and searchable catalogue of the museum's artwork which includes interpretative information, images and metadata.

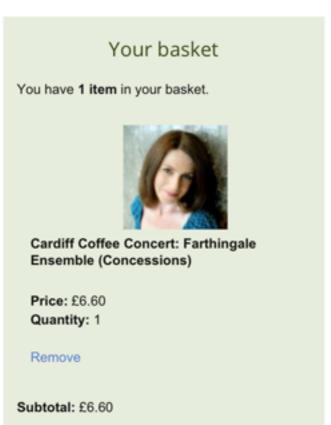


Museum of Wales mobile home page.



Museum of Wales catalogue search results page. Screenshot taken on Safari on OSX 10.7 with the user agent set as iPhone. (iOS 5.1).





Museum of Wales mobile-optimised booking.

### **Key features**

- Comprehensive content coverage.
- Searchable and browsable collections catalogue.
- Mobile-optimised booking.

### 5.2 Outside the United Kingdom

### Rijksmuseum

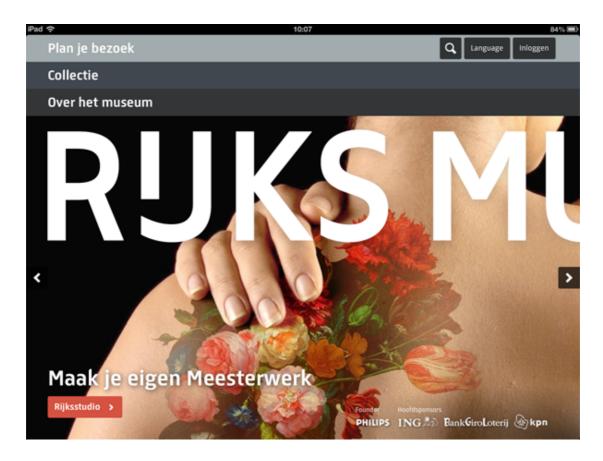
URL: <a href="www.rijksmuseum.nl">www.rijksmuseum.nl</a>

Site category: responsive design

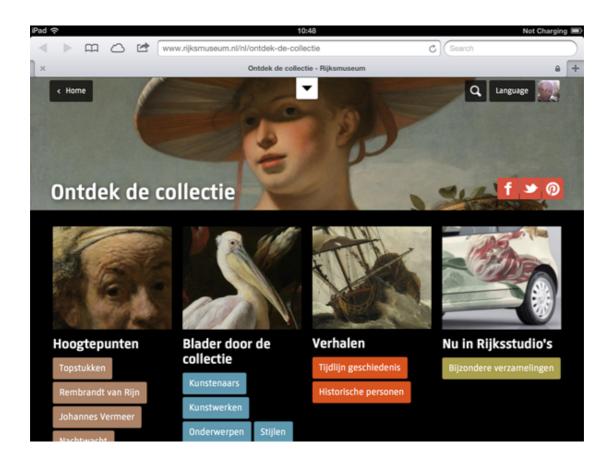
The Rijksmuseum in the Netherlands has been closed for ten years and is soon to be reopened. Prior to the physical reopening the museum launched a new responsive website, taking a "tablet first" approach but which works very well across any device and is aesthetically very attractive.

The website is "app-like" in its appearance and functionality. The primary navigation is split into three main sections: Plan your visit, Collection and About the Museum.

The centrepiece functionality is the "Rijksstudio", an area in which users can curate their own art collections from the museum's catalogue using high-resolution images. Native app gestural controls, including pinch-zoom to zoom in and out on an image and swipe are supported in the interface. Images are accompanied by interpretative text and can be downloaded for reuse or ordered as prints. Options are also available for sharing on common social networks, such as Facebook, Twitter and Pinterest. Images can be searched and browsed for, including a similar colour browse created from the image's colour palette. Users may create accounts with the site or log in with Facebook.



Rijksmuseum home page. Screenshot from iPad 3 (iOS6).



Collection search functionality. Screenshot from iPad 3 (iOS6).

Additional functionality includes mobile-optimised ticketing and sales.

**Key features** 

Responsive design built around a "tablet first" approach.

"App-like" functionality and design.

Support of native app gestures, including pinch-zoom.

Includes high-resolution images.

Mobile-optimised ticketing and sales.

**Baltimore Museum of Art** 

URL: <a href="mailto:artbma.org/gomobile">artbma.org/gomobile</a>

Site category: separate domain

The Baltimore Museum of Art's mobile website is another example of an "app-

like" experience delivered via the mobile web. It concentrates on three main

areas: "Connections" (sample images from the collections), "Galleries" (details of

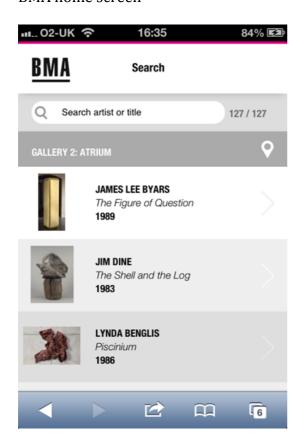
the Museum's galleries) and "Search" which enables users to search the

collections catalogue and view images. The site also has features that can be used

in-museum, including the ability to locate your position in the galleries.



BMA home screen



BMA search screen

### **Key features**

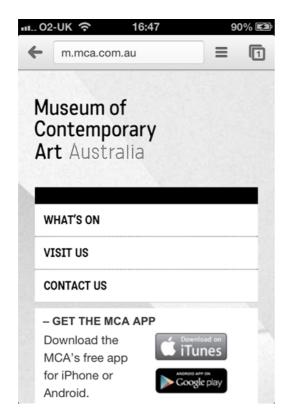
- "App-like" functionality and design.
- In-gallery geolocation.

### Museum of Contemporary Arts, Sydney

URL: m.mca.com.au

Site category: separate domain

The MCA's mobile website offers a cut-down focused version of the desktop website, concentrating on "What's on", "Visit us" and "Contact us". The site offers an app-like user experience, particularly in the "What's on" section in which users can filter events by date.



MCA home page



MCA "What's on" pages.

### **Key features**

- App-like functionality and design.
- Functionality designed around common user goals. Deeper engagement with the institution offered via the MCA Insight app.

### 5.3 Other arts and entertainment websites

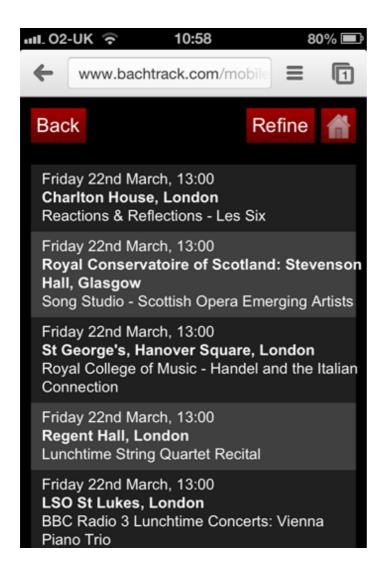
A number of mobile websites offered by not-for profit organisations, venues or commercial organisations are also worthy of some consideration. These include content aggregation websites, offerings by media organisations and listings and ticketing services.

#### **Bachtrack**

URL: <a href="https://www.bachtrack.com/mobile">www.bachtrack.com/mobile</a>

Site category: separate domain

Bachtrack is a listings and review website concentrating on classical music, including opera and ballet. It offers a way to search music listings based on location, composer, date and type of performance. The mobile version of the website has a minimal interface but is intuitive to use, quick to respond and makes use of the device's geolocation functionality.



Bachtrack's location-based search.

**Key features** 

Geolocation-based search.

• Simple intuitive interface.

**BBC** iPlayer

URL: <a href="www.bbc.co.uk/iplayer">www.bbc.co.uk/iplayer</a>

Site category: separate domain

Arguably the BBC's flagship digital product, the iPlayer offers on-demand access

to audio and video content broadcast by the BBC. The iPlayer is available in a

number of formats, including desktop browser, mobile web and mobile apps.

The mobile website version of iPlayer offers a slightly less functional version of

the service than its desktop and app counterparts, although it allows for the

searching and browsing for content and streaming of shows in-browser. The

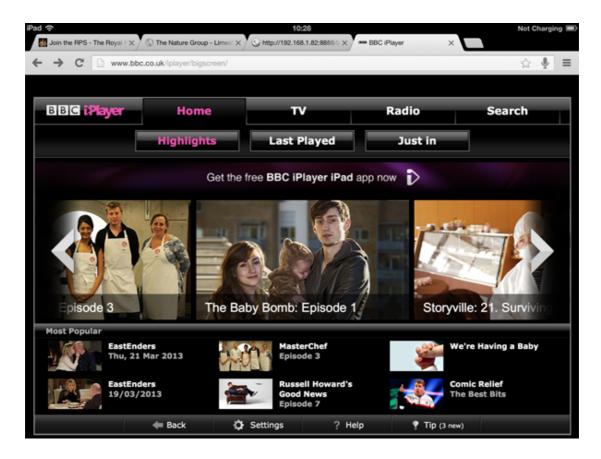
interface also supports native gestural controls such as double-tapping to zoom

in and swiping (e.g. on the home page carousel).

Despite offering core functionality via the web, users are invited to download the

app via a clear call to action on the home screen on the tablet version of the

website.



iPlayer home screen. Screenshot taken on iPad 3 running iOS6.



iPlayer home screen on mobile.

**Key features** 

Streaming of audio and video content in-browser.

Targeted tablet and mobile versions of the site.

Support of native app gestures in interface.

**Ronnie Scott's Jazz Club** 

URL: www.ronniescotts.co.uk

Site category: responsive design

With the exception of the cookie policy pop-up on the home page, a well

designed responsive website that provides the core functionality of the desktop

site, namely highlighting upcoming concerts and allowing users to book tickets

online. Online ticketing is fully mobile-optimised. Users also have the

opportunity to switch to the standard desktop website.



## **Key features**

- Clear calls to action to achieve primary goals, i.e. locating information about upcoming events and booking tickets.
- Mobile-optimised ticket booking.

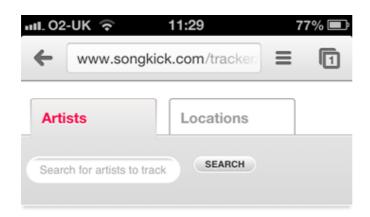
## Songkick

URL: www.songkick.com

Site category: responsive design

Songkick is a freely available service that allows users to track artists they are interested in and receive alerts of upcoming concerts. It also serves as an online archive of past performances.

As well as listings information Songkick provides links to online ticketing companies and also offers a small amount of ticket sales itself. Users can log in with Facebook and share their concert attendance on their timelines.



# 231 tracked artists



Songkick: artist tracking page.

#### **Key features**

Comprehensive concert listings and alerting service.

Synchronises with Facebook.

App version available which offers same functionality but also

synchronises with a smartphone's music library.

The Space

**URL**: thespace.org

Site category: responsive design

The Space is a joint venture between the BBC and The Arts Council that makes

available complete performances of arts events for free both live and on-

demand. The site covers all areas of the performing arts, including dance,

theatre, music and film. Small amounts of interpretative text are offered

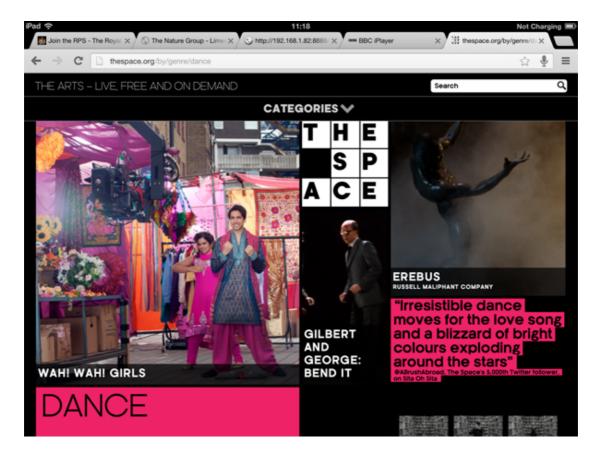
alongside audio and visual content.

The website was designed by the designer responsible for the iPlayer and has a

similar clear, high-contrast aesthetic.

In addition to running in mobile and desktop browsers The Space has also been

designed to run on connected televisions and on Freeview.



The Space dance category page. Screenshot from iPad3 (iOS6).

#### **Key features**

- Live and on-demand streaming of complete arts performances.
- Content accessible via multiple routes and devices.

#### 5.4 Other relevant mobile websites

#### **Toptable**

URL: <u>m.toptable.co.uk</u>

Site category: separate domain

Toptable is a restaurant booking service, available across mobile, desktop and in app format. It allows users to locate restaurants and make bookings online. The mobile website offers a very simple interface with the booking functionality

given prominence on the home page. Users can browse by location, although no geolocation feature is offered, restaurant name, date, or a combination of filters.



Toptable mobile home page.

#### **JustGiving**

URL: www.justgiving.com

Site category: browser detection/cookie controlled

JustGiving is an online fundraising service aimed at providing a platform for charity fundraisers to create pages for their fundraising efforts to which users can donate. The mobile website version offers a very simple interface inviting

users to find a friend to sponsor or a charity to donate to. The donation process is straightforward with users able to create a JustGiving account during the process rather than being led away to another screen to do so.



JustGiving mobile home page.



JustGiving donation page.

#### 6. Arts and cultural heritage mobile apps

The majority of arts and cultural heritage mobile applications, particularly those created by UK institutions have been designed to run on iOS only, with a smaller number also running on Android. Applications have been grouped into the categories, although there is sometimes some overlap between them. For instance, the Tate and the National Museums Scotland have both created gallery and collections exploration apps which have a competitive gaming element. For the purposes of this study apps have been categorised according to their primary focus.

The identified categories are:

- Collections guide: usually images and interpretative text relating to permanent exhibitions.
- Exhibition tie-in: guides to temporary exhibitions, also containing supplementary interpretative information.
- Game: educational games, built around the permanent or temporary exhibitions or collections.
- Informational: reference services supplying location, contact and eventy information.

#### 6.1 Tate

The Tate's digital strategy 2010-12<sup>2</sup> is publicised via its website and an update is available in the form of a presentation at UK Museums on the Web 2012.<sup>3</sup> The Tate has transitioned from providing a "brochureware" website through to offering a channel of multimedia content and integrating discussion and social features into the core of its digital offerings. Tate offers a number of mobile apps, mainly exhibition tie-ins, but also guides to the permanent collections, magazines and games.

#### 6.1.1 Collections guides

Tate Online Strategy 2010-12. http://www.tate.org.uk/research/publications/tatepapers/tate-online-strategy-2010-12

Tate's Digital Strategy: The Times They Are A-changin'. http://www.slideshare.net/museumscomputergroup/04-john-stack-tate-uk-mw2012-30-nov-2012

**Magic Tate Ball** 

URL: <a href="https://www.tate.org.uk/context-comment/apps/magic-tate-ball">www.tate.org.uk/context-comment/apps/magic-tate-ball</a>

Platform: iOS

Cost: free

Magic Tate Ball is an engaging context aware guide to the Tate's collections. It

uses information about the user's environment, including geolocation, time of

day, weather and ambient noise to select an artwork from the collection. The app

also makes use of the phone's accelerometer—users have to shake their phone to

reveal the artwork. Reasons for the artwork's selection are given, along with

interpretative information about the artwork and social sharing functionality.

**Key features** 

Context aware: uses environmental information available to phone,

including geolocation data, weather, time, date and ambient noise.

Interface uses accelerometer to start art selection process.

Images and interpretative information.

**Pocket Art Gallery** 

URL: www.tate.org.uk/context-comment/apps/pocket-art-gallery

Platform: iOS

Cost: free

The Pocket Art Gallery allows users to curate their own galleries from the Tate's

various collections. User can also use their smartphone's camera to "project" the

artworks against their surroundings.

**Key features** 

Images and interpretive information.

• Access smartphone's camera.

Social features.

**Tate Guide to Modern Art Terms** 

URL: www.tate.org.uk/context-comment/apps/tate-guide-modern-art-terms

Platform: iOS

Cost: £1.99

The Tate Guide to Modern Art Terms is a reference tool which allows users to search

for terms by a number of entry points, including artist, movement, technique and

trend. The app includes a small number of images (forty) and allows users to create

their own lists of terms.

**Key features** 

Reference guide.

Images.

6.1.2 Exhibition tie-ins

**Damien Hirst app** 

URL: www.tate.org.uk/context-comment/apps/damien-hirst-app

Platform: iOS

Cost: £1.49

A guide to the 2012 Damien Hirst exhibition at Tate Modern, designed to be used

both in-gallery and beyond. It contains images of artworks, along with contextual

information, including interviews with curatorial staff, interpretative commentaries

on the artworks and audio-visual material.

**Key features** 

In gallery guide.

Images and contextual materials.

**Gerhard Richter Panorama app** 

URL: www.tate.org.uk/context-comment/apps/gerhard-richter

Platform: iOS

Cost: £1.49

A guide to the 2011 Tate Modern exhibition. Designed to be used in-gallery but also

offering contextual materials which can be explored beyond the exhibition.

**Key features** 

Artwork images and contextual information, including audio-visual materials.

Miroslaw Balka: How It Is

URL: www.tate.org.uk/context-comment/apps/miroslaw-balka

Platform: iOS

Cost: free

An interpretative app to accompany Miroslaw Balka's exhibition in the Unilever

Series. Contains images and contextual materials, including the artist's notes and

also a game that is unlocked in-gallery.

**Key features** 

Images and contextual materials.

• Game (in-gallery only)

Gaugin Multimedia Guide and iPhone app

URL: www.tate.org.uk/context-comment/apps/gauguin-multimedia-guide

Platform: iOS

Cost: £1.79

A guide to the Gaugin exhibition at the Tate. The app contains images and contextual

materials, including audio commentaries.

**Key features** 

Images and contextual materials.

Miró Multimedia Guide and app

URL: http://www.tate.org.uk/context-comment/apps/miro-multimedia-guide

Platform: iOS

Cost: £1.79

Guide to the Tate's Miró exhibition. It contains images, contextual information such

as curatorial commentaries and audio-visual materials, including interviews with the

artist. The app also contains a timeline of the artist's life.

**Key features** 

Images and contextual materials.

Timeline.

Magritte iPhone app

URL: www.tate.org.uk/context-comment/apps/magritte

Platform: iOS

Cost: free

The Magritte iPhone app ties in with the Tate's Magritte exhibition. The app allows

users to take a photo using their smartphone's camera and apply an animation effect

inspired by the Magritte painting, Golconda. The resulting video can be shared on

usual social networks.

**Key features** 

• Uses smartphone's camera.

• Creates short video using a designed animation.

The Unilever Series at Tate Modern iPad app

App category: exhibition tie-in

Platform: iOS (iPad)

Cost: £4.99

The Unilever Series at Tate Modern features images and contextual information

relating to the artworks show in the Unilever Series over the last thirteen years.

Contextual information includes artist sketches, essays by curatorial staff and

installation photography.

**Key features** 

High quality images.

• Interpretative and contextual information

**6.1.3** Games

**Tate Britain Quiz Trail** 

URL: www.tate.org.uk/context-comment/apps/tate-britain-quiztrail

Platform: iOS

An app that "gamifies" a visit to the Tate Britain's galleries: users are invited to track

down certain artworks and answer multiple choice questions about them. Users can

also "unlock" discounts at the Tate shop.

Muybridgizer: Create Your Own Muybridged Images

URL: www.tate.org.uk/context-comment/apps/muybridgizer

Platform: iOS

Cost: free

An app that allows the user to create a video and then view it in the style of

Eadweard Muybridge's motion capture experiments.

**Tate Top Trumps** 

URL: www.tate.org.uk/context-comment/apps/tate-trumps

Platform: iOS

Cost: free

A game that uses the Tate's artworks as the basis for a game of "top trumps."

**Race Against Time** 

URL: www.tate.org.uk/context-comment/apps/race-against-time

Platform: iOS

Cost: free

Race Against Time is an arcade-style platform game in which the user plays a

chameleon collecting colour particles from different modern art movements.

6.1.4 Other

Tate etc.

URL: http://www.tate.org.uk/context-comment/apps/pocket-art-gallery

App category: magazine

Platform: iOS (iPad)

Cost: the app is free but magazine subscriptions cost £10.99 a year (free to

members)

Tate etc. is the Tate's magazine which features in-depth articles about upcoming

exhibitions and artists. It follows a subscription model with users able to purchase a

single issue or subscribe for a year. It features the full text of the printed magazine

along with audio and visual materials.

**Key features** 

Full text of printed magazine

Includes audio-visual media.

In-app purchasing.

*6.2* Victoria and Albert Museum

**6.2.1 Collections guides** 

Played in Britain: Modern Theatre in 100 Plays

URL: www.vam.ac.uk/content/articles/p/played-in-britain-modern-theatre-in-100-

plays-1945-2010

Platform: iOS

Cost: £7.99

Played in Britain focuses on resources relating to modern British Theatre in the V&A.

The app contains play texts and interpretative commentary, such as essays assessing

each play's legacy and impact.

**Key features** 

Play texts.

Audio-visual materials, including commentaries by performers and critics.

Medieval and Renaissance Gallery Guide

URL: itunes.apple.com/app/the-v-a-medieval-renaissance/id427911093

Platform: iOS

Cost: free

An audio guide to the V&A's recently opened Medieval and Renaissance galleries.

Also includes images of artwork.

**Key features** 

Audio-visual interpretative information.

Images.

Tipu's iTiger

URL: itunes.apple.com/app/tipus-itiger/id334681090

Platform: iOS

Cost: free

An app dedicated to one of the V&A's most peculiar objects, part automaton and

part musical instrument. It allows users to examine it in more depth and "play" it.

**Key features** 

3D visualisation of Tipu's Tiger.

6.2.2 Exhibition tie-ins

**Figures and Fiction** 

URL: itunes.apple.com/gb/app/figures-fictions/id431158485

Platform: iOS

Cost: £2.99

A guide to the Figures and Fiction: Contemporary South African Photography

exhibition held at the V&A in 2012. It contains the complete exhibition catalogue,

including all the texts and illustrations, video interviews with the curator and

audio interviews with a selection of the artists. It also features an audio guide to

the installation narrated by the curator.

**Key features** 

Images and contextual interpretative information, including audio-visual

materials.

John Constable's Oil Sketches

URL: itunes.apple.com/us/app/v-a-constable/id445604027

Platform: iOS

Cost: £8.99

A tie-in with an exhibition on Constable at the V&A. This app presents high-

resolution images, along with sketches that highlight Constable's working practices

and interpretative information.

**Key features** 

High-resolution images.

• Interpretative information.

Quilts, 1700-2010

URL: itunes.apple.com/gb/app/id364196267

Platform: iOS

Cost: £1.99

A guide to the Quilts 1700-2010 exhibition held at the V&A. It features images along

with interpretative information, including audio-visual materials.

**Key features** 

Images.

Interpretative information.

6.2.3 Informational

**V&A Calendar App** 

URL: www.vam.ac.uk/content/articles/v/calendar-tablet-app/

Platform: iOS (iPad), Android (tablet)

Cost: free

An events calendar for the V&A for iPad and Android tablets. It also features audio-

visual materials and visiting information.

**Key features** 

Event listings.

• Audio-visual materials.

**6.2.4 Games** 

**Hollywood Camera App** 

URL: itunes.apple.com/gb/app/hollywood-photobooth/id566959957?mt=8

Platform: iOS

Cost: £0.69

An app which makes use of the user's smartphone to use a photo of the user's body

with a costume from the Hollywood collections superimposed.

**Key features** 

Makes use of smartphone's camera.

• Sharing to usual social networks.

6.2.5 Other

Clara Button and the Magical Hat

URL: itunes.apple.com/gb/app/clara-button-magical-hat-

day/id543867176?mt=8

Platform: iOS (iPad)

Cost: £3.99

An illustrated children's story book about a visit to the V&A. It allows users to

record their own reading of the story.

**Key features** 

Illustrated story book.

• Features reading by the author or users can record their own readings.

6.3 **Imperial War Museum** 

**Collections guides** 

Scan and Share

URL: itunes.apple.com/gb/app/iwm-scan-and-share/id555940411?mt=8

Platform: iOS, Android

Cost: free

The Scan and Share app allows users to scan QR codes in the museum galleries in

order to find more about objects and to add their own comments and stories about

them. Users can collect objects into sets.

**Key features** 

QR code reader.

• Images and interpretative information.

**Great British Posters from the Second World War** 

URL: itunes.apple.com/app/iwms-great-british-posters/id488761472?ls=1&mt=8

Platform: iOS

Cost: free

A small gallery of images of British Second World War informational and propaganda

posters.

#### **Key features**

High-resolution images.

• Social sharing functionality.

# **Extraordinary Heroes**

URL: <a href="mailto:apps.toura.com/imperial-war-museum/extraordinary-heroes">apps.toura.com/imperial-war-museum/extraordinary-heroes</a>

Platform: iOS

Cost: £0.59

Stories of bravery in wartime. Includes high-resolution images.

## **Key features**

High-resolution images.

#### 6.4 **Museum of London**

#### Streetmuseum

URL: www.museumoflondon.org.uk/Resources/app/you-are-here-

app/home.html

Platform: iOS, Android

Cost: free

Explore historical images of London via a map or via an augmented reality feature by

using phone's camera.

**Key features** 

• Use of smartphone's camera (augmented reality).

• Geolocation.

6.5 Kew Gardens

Official Kew Gardens App

URL: <a href="https://www.kew.org/visit-kew-gardens/visit-information/garden-">www.kew.org/visit-kew-gardens/visit-information/garden-</a>

guides/mobile-app/index.htm

Platform: iOS, Android

Cost: free

This informational guide to Kew Gardens includes photos, an interactive map, exhibit

information, a children's trail as well as a QR code scanner.

**Key features** 

• QR code scanner

• Photos and contextual information.

6.6 National Museums Scotland

**Museums Explorer** 

URL:www.nms.ac.uk/our\_museums/national\_museum/museum\_explorer\_app.a

spx

Platform: iOS

Cost: free

A "gamified" collections guide which challenges users to track down nine objects

from the museum's collection.

**Key features** 

"Gamified" gallery explorer.

Provides photo frames for users to use on their own photos.

Users can unlock badges using codes displayed alongside the physical

objects in the museum.

6.7 Museum of Contemporary Art, Sydney

**MCA Insight** 

URL: www.mca.com.au/apps/insight

Platform: iOS, Android

Cost: free

MCA Insight is designed to be both an in-gallery guide to exhibitions to the MCA and

a more general browsable guide to its collections. It also contains visiting

information and a "What's on" guide to current and upcoming exhibitions. Users can

curate their own collections of art and can opt to receive an email from the museum

containing a link to an online gallery of their collection which can be shared.

**Key features** 

Browsable catalogue of collections containing images and interpretative

information.

Ability to publish a user's curated collection of favourite artworks to a public

URL.

Geolocation features that show users art nearby in the museum.

**MCA Publications** 

URL: www.mca.com.au/apps/

Platform: iOS (iPad)

The MCA additionally offers e-book versions of its exhibition catalogues which can

be downloaded via its MCA Publications app. The publications contain interpretative

information and "behind the scenes" interviews with curatorial staff and artists.

They also contain audio-visual materials. In structure and layout they are more

similar to traditional printed publications than the kind of exhibition guides offered

by the Tate.

**Key features** 

Enhanced e-book versions of exhibition catalogues.

6.8 **Sydney Opera House** 

Sydney Opera House app

URL: itunes.apple.com/au/app/sydney-opera-house/id529379927?mt=8

Platform: iOS

Cost: free

The official Sydney Opera House app provides information on current and upcoming

events and allows users to book tickets via a mobile-optimised ticketing system. In

addition to selecting preferred performance and dates the user can either select her

own seats or find the best available seats. In addition to listings and ticketing

functionality the app also provides visiting information, details about organised tours

and a selection of audio-visual materials covering all aspects of the Sydney Opera

House programme.

**Key features** 

Listings and in-app mobile-optimised booking.

Supporting audio-visual materials.

6.9 **National Institutes for Cultural Heritage** 

e-Museum

URL: itunes.apple.com/en/app/id413457009

Platform: iOS, Android

Cost: free

The e-Museum is a collection of over 1000 high-resolution images and interpretative

information from four of Japan's leading cultural heritage institutions: Tokyo

National Museum, Kyoto National Museum, Nara National Museum, and Kyusyu

National Museum. Users can search for items and bookmark their favourites.

**Key features** 

High-resolution images.

**7. Entertainment, media and content provider apps** 

**On-demand television** 7.1

**BBC** iPlayer

URL: <a href="www.bbc.co.uk/iplayer">www.bbc.co.uk/iplayer</a>

Platform: iOS, Android, Windows Phone (forthcoming)

Cost: free

The BBC iPlayer app offers the on-demand streaming abilities of its mobile web

counterpart but supplements this with live streaming and a download facility. In

addition to the main iPlayer app there is also a dedicated iPlayer radio app which

allows users to listen to BBC radio shows live and on-demand.

**Key features** 

Live and on-demand streaming of audio and video content from the BBC.

Shows can be downloaded to be watched offline.

4 On Demand

URL: www.channel4.com/programmes/4od

Platform: iOS, Android

Cost: free

Channel 4's own iPlayer equivalent provides access to a large archive of Channel

4 television shows available on demand. The mobile app version does not appear

to provide any additional functionality over the desktop website version, other

than being optimised for smaller screens.

**Key features** 

• On-demand streaming.

• Archive of television programmes, not just recent broadcasts.

**Demand 5** 

URL: www.channel5.com/demand5

Platform: iOS, Android, Samsung Smart TV

Cost: free

Channel 5's own on-demand streaming services provides access to recently

broadcast television programmes and films shown on Channel 5.

**Key features** 

On-demand streaming of television programmes and films.

• Broad device support: from mobile to smart TV.

**ITV Player** 

URL: <a href="www.itv.com/mobile/">www.itv.com/mobile/</a>

Platform: iOS, Android

Cost: free

ITV's own iPlayer clone offers access to recently broadcast ITV television

programmes but no offline download functionality.

**Key features** 

On-demand streaming of television programmes.

7.2 Commercial on-demand services

In addition to the major broadcasters there are a growing number of emerging

paid-for on demand streaming services that provide access to a range of

television drama series and films.

Lovefilm

URL: <a href="www.lovefilm.com/how-it-works">www.lovefilm.com/how-it-works</a>

Platform: iOS, Android, Nokia, games consoles, internet-connected TVs.

Cost: free (but requires a Lovefilm subscription)

Lovefilm is a subscription services that allows users to order rental DVDs to be

delivered to their homes or stream a selection of television and programmes to

their mobile devices. The app also provides access to reviews and the ability to

watch trailers.

**Key features** 

Broad device support.

• On-demand streaming of films and television programmes.

Netflix

URL: www.netflix.com

Platform: iOS, Android, Windows Phone, games consoles, smart TVs, Apple TV

Netflix is a more recent arrival in the UK but also offers on-demand streaming of

television series and films.

**Key features** 

On-demand streaming of TV series and films.

• Broad device support.

7.3 News media

The Guardian

URL: www.guardian.co.uk/mobile

Platform: iOS, Android, Kindle, Blackberry

Cost: free but users must subscribe on a monthly or annual basis

The Guardian's website offers the content of its current edition and a substantial

archive for free (supported by advertising). Its mobile website also offers a small

number of recent stories. Users can also subscribe and receive the full content of

each day's edition of the Guardian on a number of devices, with the content

optimised for each device. The iPhone app also incorporates some of the features

of the website, including comments and live blogging.

**Key features** 

Full content of the *Guardian* newspaper and access to an archive.

Audio-visual materials, including videos and podcasts.

Subscription model.

Broad device support.

**Guardian Eyewitness** 

URL: www.guardian.co.uk/eyewitness

Platform: iOS (iPad), Android (Kindle Fire)

Cost: limited free version or more fully-featured version for £1.49 per month

The *Guardian*'s Eyewitness app presents a curated selection of its photography.

The subscription version also offers live coverage of events. The images are

presented centre-stage with limited interpretative information.

**Key features** 

High-resolution photographs.

Free and subscription versions.

8. **Eating and drinking apps** 

**Toptable** 

URL: www.toptable.co.uk/page.aspx?pageid=3

Platform: iOS, Android

Cost: free

Toptable's app is a more fully-featured version of their mobile web offering. It

includes full geolocation functionality, including a map view.

**Key features** 

Geolocation to find nearby restaurants.

Mobile-optimised table booking.

9. Mobile ticketing analogues

Whilst arts and cultural heritage institutions and related commercial services

(e.g. cinemas and music venues) offer some mobile-optimised booking facilities,

a number of event ticketing and travel applications have also approached the

problem of mobile booking and ticketing, albeit from a different perspective.

**Arriva M-Ticketing** 

URL: www.arrivabus.co.uk/m-ticket/

Platform: iOS, Android, Blackberry

Cost: free

The Arriva bus company's mobile ticketing app which not only allows users to

buy single and season tickets but also provides them with an on-screen

electronic ticket which can be activated prior to a journey displayed to the bus

driver. The app's support pages emphasise the service's security.

**Key features** 

• In-mobile ticket purchase and ticket delivery.

• Very secure: the app boasts it is more than twice as secure as booking via

a website.

**TicketMaster** 

URL: www.ticketmaster.co.uk/ticketmaster app

Platform: iOS, Android

Cost: free

TicketMaster's app offers users the ability to search for events (including by

geolocation) and make fully mobile-optimised online bookings. It also syncs with the

user's iTunes library in order to create alerts for upcoming events by the user's

favourite artists.

**Key features** 

Event discovery and mobile-optimised booking.

iTunes library sync.

10. **Mobile donation analogues** 

A small number of arts and cultural heritage institutions offer an online donation

facility but few of those surveyed offered mobile-optimised donation. However, a

small number of apps exist for the purpose of charitable giving which may serve

as useful reference points.

Give on the Mobile

URL: www.giveonthemobile.com

Platform: iOS, Android, Blackberry, Nokia, Windows Phone

Cost: free

Give on the Mobile allows users to fundraise and donate to their favourite

charities. The service offers secure payment and takes a small percentage from

each donation (currently three percent). Donation is not made via the app itself,

rather it generates an SMS message to a dedicated number, along with a code.

**Key features** 

Secure system.

SMS generation to pay donations.

#### 11. Analysis

The findings of the survey have been examined and analysed in the context of the key project goals, i.e.:

- To provide a platform to deepen audience engagement with the Royal
   Opera House and its productions; namely via the production of multimedia digital programmes.
- To provide a mobile-optimised ticket purchasing process.
- To provide a mechanism for "digital philanthropy", i.e. in-app charitable donation.

#### 11.1 Engagement

It is clear from the survey that arts and cultural heritage institutions' deployment of mobile technologies is rapidly changing and yet to achieve maturity. Only around a third of organisations surveyed had a mobile-optimised website and of these a smaller number still provided mobile versions of all the main functionality offered by their desktop websites. In general, these websites mainly serve as sources of information about the institution. Where institutions have a clear digital strategy, initiatives for deepening engagement have been concentrated on native app development, in separate mobile apps for exhibitions, guides to the permanent collections or games. Naturally organisational digital strategy is dependent on a number of factors, from institutional culture and governance through to the availability of resources and an understanding of visitor needs. This information was not available in the majority of cases when compiling this report but would no doubt help clarify

why some organisations have engaged more fully with mobile as a medium and others have not.

However, some institutions' websites are not representative of the larger trend and offer focused, "app-like" experiences either through their interface design or via the leveraging of smartphone technologies such as geolocation. Notable examples focused on in this report include the mobile websites for English Heritage which takes a focused goal-based approach to the functionality it presents (i.e. plan a day out at a nearby property) and the ICA which provides a clear and usable website that not only provides informational content but also a mobile-optimised event booking facility. Whilst in many respects the Tate and V&A have the most comprehensive digital strategies their mobile websites suffer slightly from occasionally directing users to non-mobile-optimised sections. In the case of the Tate this is most notable in the "Art and artists" section and in that of the V&A the user is directed to a sub-optimal standard web page for bookings (although it must be noted that this booking page is handled by a third party system). Other institutional websites which have adopted a responsive design or similar approach by refactoring the main website for smaller screens offer quite successful mobile experiences even when aesthetically quite plain, namely the Natural History Museum and National Museum of Wales. In the case of the former it also includes mobile-optimised booking service.

Outside of the United Kingdom there are some particularly innovative mobile websites, most notably the Rijksmuseum's. In a recent presentation to the

Museums and Mobile 6 conference<sup>4</sup> the museum's digital communications manager spoke of the redevelopment project which took a "tablet first" approach, that is optimising the website display for users of tablet devices, although it also works successfully across any device. It is clear from the layout and navigation of the website that it very much has a native app look and feel. This is expanded upon by support of native app gestures such as pinch-zoom and swiping. The Rijksstudio facility enables users to engage more deeply with the museum's collections by being able to browse through high-resolution images (with accompanying interpretative information) and curate their own collections. Sharing of images via social media site such as Pinterest, Twitter and Facebook is also deeply integrated, encouraging users to share images they have found.

The Baltimore Museum of Art's (BMA) mobile website also presents a different model for the mobile website. Whereas the Rijksmuseum's site is primarily aimed at visitors not physically in the galleries, the BMA's provides a curated view of its collections in the form of images and interpretative contextual information and links this via geolocation functionality to the object's position in the galleries.

Again, the BMA mobile website has employed more native app design patterns in its interface design. These include app-style navigation, the support of swiping to

Museums and Mobile 6 website. http://museumcommunity.org/presenters/peter-

gorgels/

view content in carousels and gentle transitions between screens that avoid the problem of standard web-style page loads.

Although some institutions do have multi-media sections to their websites, most notably the Tate's and V&A's "channels", none of these offer an optimal user experience on mobile and certainly none compete with The Space or the BBC's iPlayer. The Space's coverage of arts performances is impressive and its responsive design is both usable and attractive on smaller screens, although arguably slightly more successful on a tablet-sized screen than a mobile screen. The Space is an example of a dedicated "outsourced" content hosting and delivery platform for arts institutions that circumvents some of the issues of delivering an in-house solution. A similar analogue in the museum world, although at a much larger scale is the Google Art Project which has not been covered in this report as it is not mobile-optimised, although it does offer an applike user experience on tablet devices (including support of swipe and pinch-zoom gestures).

Where institutions have an obvious strategy for digital engagement, this has mainly been delivered by apps and most notably apps targeted at Apple iOS devices. The Tate and V&A have the most comprehensive range of apps, some of which are up to three or four years old. The Tate has a demonstrated a trend to develop exhibition tie-in apps, although it also offers others that are more general guides to the permanent collections. Perhaps the most successful of these offerings is the Magic Tate Ball, an app that appears to be somewhat of a gimmick on first inspection with its "gamified" approach to collection discovery

but which reveals itself as an innovative use of mobile technology, namely its use of context awareness through geolocation, ambient noise detection, and processing of time, date and weather information. Other institutions have also adopted gamification as way of engaging users, notably the National Museum of Scotland's Museums Explorer app.

The nearest analogues to the type of e-programmes proposed can be found in the Tate's exhibition tie-in apps. As an example the Damien Hirst iOS app provides images of artworks from the exhibition, alongside interpretative text and audiovisual materials, including interviews with the artist. The Museum of Contemporary Art in Sydney's MCA Publications app offers a more traditionally "print-like" formatted and structured publication, although it is described as a "living catalogue", i.e. one that can be dynamically updated with new content pushed via an internet connection. It also offers embedded audio-visual content. Neither the Tate's apps nor the MCA Publications app appear to deliver native-app functionality that could not be replicated via a mobile browser.

#### 11.2 Mobile ticketing

Only two of the institutions surveyed offered truly mobile-optimised experiences for event booking online. The ICA and Natural History Museum use third party systems to process bookings (Patronbase and Maximweb respectively). The Natural History Museum's system offers a stepped process, providing feedback to users on how through the booking procedure they are. Commercial venues

and dedicated ticketing booking services (e.g. Ronnie Scotts, TicketMaster) understandably have more comprehensive support for mobile booking.

Outside the areas of arts, entertainment and dining some interesting work on mobile ticketing is currently being offered by travel companies. Clearly ticketing requirements for travel companies and event booking are quite different but some features, particularly those of the Arriva app which offers high-security transactions and in-app ticket delivery, are notable.

#### 11.3 Mobile donation

Although some of the institutions surveyed offered the opportunity to donate online, only the ICA's site offered a mobile-optimised facility, handled via a third party system (Patronbase). The call to action to donate is rather buried on the site however. Perhaps unsurprisingly the most mobile-optimised donation experience is provided by fundraising and charitable donation services. Of the two surveyed, JustGiving and Give On The Mobile, the former provides a clear and simple online donation facility on its mobile website, whilst its companion app is targeted at fundraisers rather than users wishing to make a donation. The Give On The Mobile app makes use of the phone's SMS functionality to send an SMS to a dedicated number. At present users can only donate between £1 and £5.

Some arts and cultural heritage institutions have accounts on JustGiving to which users can donate, most notably the British Museum and Museum of London. No museums are currently represented on Give On The Mobile.

#### 12. Conclusion

There are few "hybrid app" products currently being offered by the arts and cultural heritage sectors which in general have tended to divide their mobile offerings between informational mobile websites and native apps for deeper engagement. However, there is evidence for some development in this area with some institutions (both large and smaller-scale) creating mobile web products which resemble native apps in their interaction design and more streamlined and focused functionality. The most notable examples in this category are the Rijksmuseum website and Baltimore Museum of Art.

Whilst there is evidence of mobile-optimised booking within the sector, it is clear from the surveyed sites that this is largely dependent on the abilities of the institution's third party system.

Mobile donation is perhaps the most underdeveloped strand in all the offerings surveyed within the sector and one which has struggled to obtain much visibility on institutional websites. However, mobile optimised solutions for this do exist without the sector, most notably JustGiving, a platform on which a number of arts and heritage institutions have accounts.