Accessibility for All in Museums: Applying Technology to Audio Description

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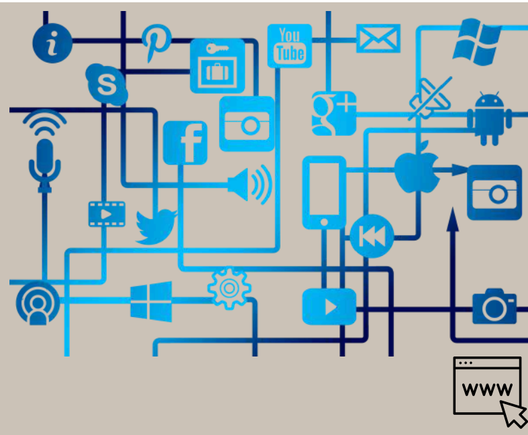
Technology and Museums

Maxwell L. Anderson
Whitney Museum of American Art, New York



1993: the World Wide Web (**www**) opens to the public

Audiences in the future will become impatient with the static nature of works of art and material culture and seek nourishment elsewhere (Anderson 1999, 129)

The instantaneous retrieval of information globally [...] is transforming the experience of the original object as well as the prefatory and subsequent experiences of learning about it. (129-130)

While I am persuaded of the enormous potential of networked information for museums, and not fearful that it will prove a disincentive to visiting them, I am also leery of its impact on our attention spans and curiosity. (130)

Technology in Museums

Handheld devices
QR codes
Mobile apps
Websites

Digitalisation

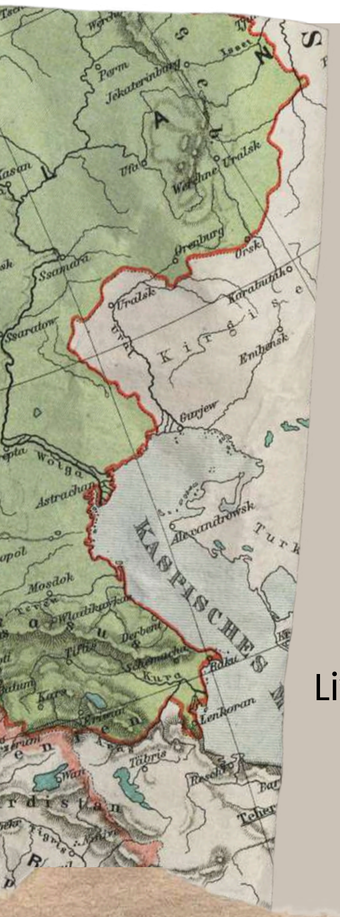
Immersive experience

Augmented reality

Virtual reality

3D prints

Holograms



Granting Accessibility

Though accessibility for museums has been an issue for many years, with increasing use of technology—especially via the Web, and now through mobile access— *technological barriers have become as important as physical barriers*. (Lisney et al. 2013, 353)

Accessible websites and venues

Targeted devices

QR codes

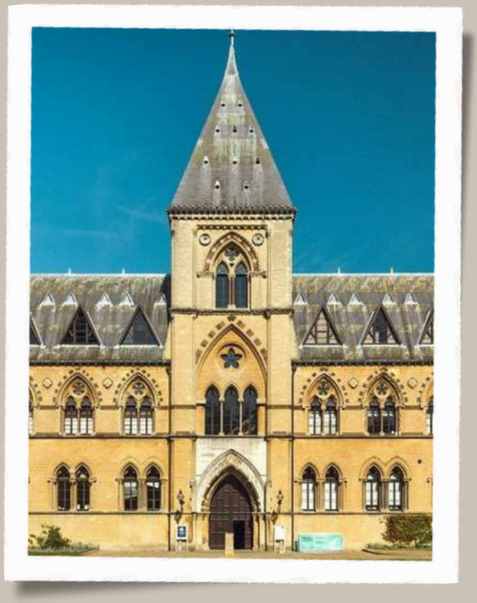
Live or pre-recorded guided tours

Are they really accessible?

SCAN ME

Lisney et. al (2013).
Museums and technology: Being inclusive helps accessibility for all

The Museums



LONDON, THE SCIENCE MUSEUM

Audio Eyes (app)

Handheld tracking device
developed using iOS technology
and Bluetooth beacon technology

OXFORD, THE PITT RIVERS MUSEUM

NaviLens (QR code)

Accessible QR Code: a colour box code
that does not need to be perfectly focused
to be scanned with the smartphones

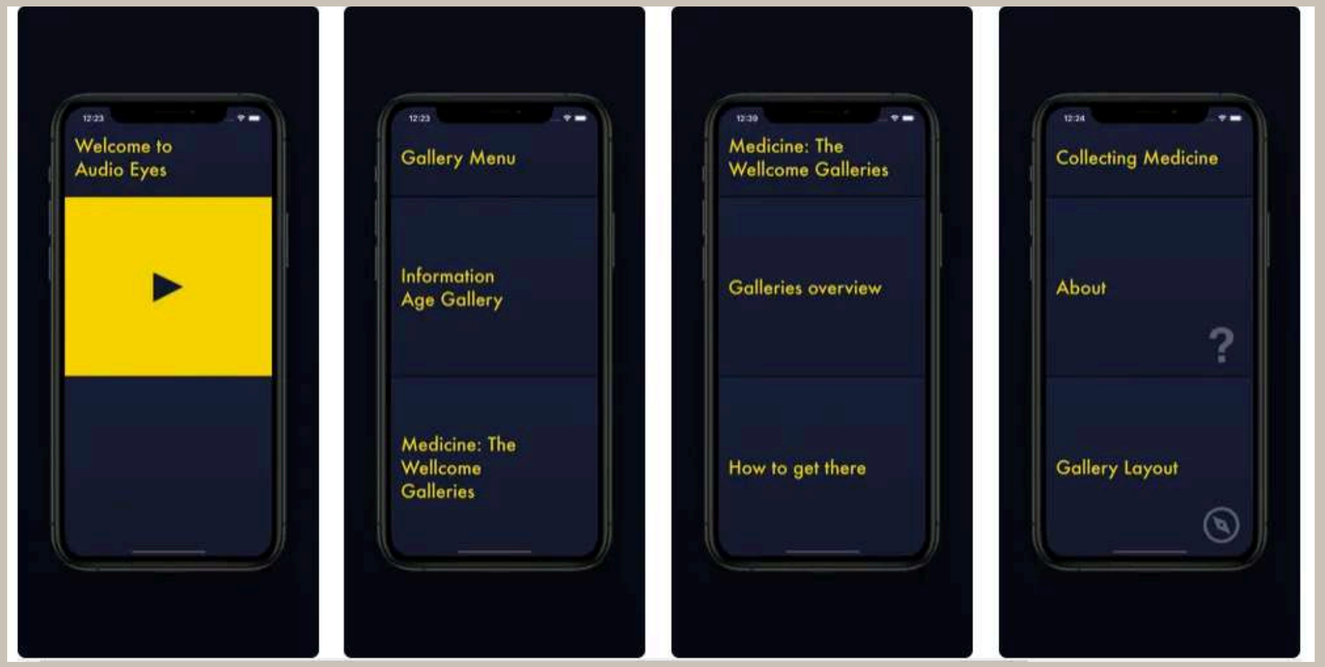
The app provides over 100 audio description tracks for
Medicine: The Wellcome Galleries on Level 1
Information Age Gallery on Level 2

It can be accessed via iPhone **or** an handheld device developed with iOs technology

The app picks up Bluetooth signals around the gallery

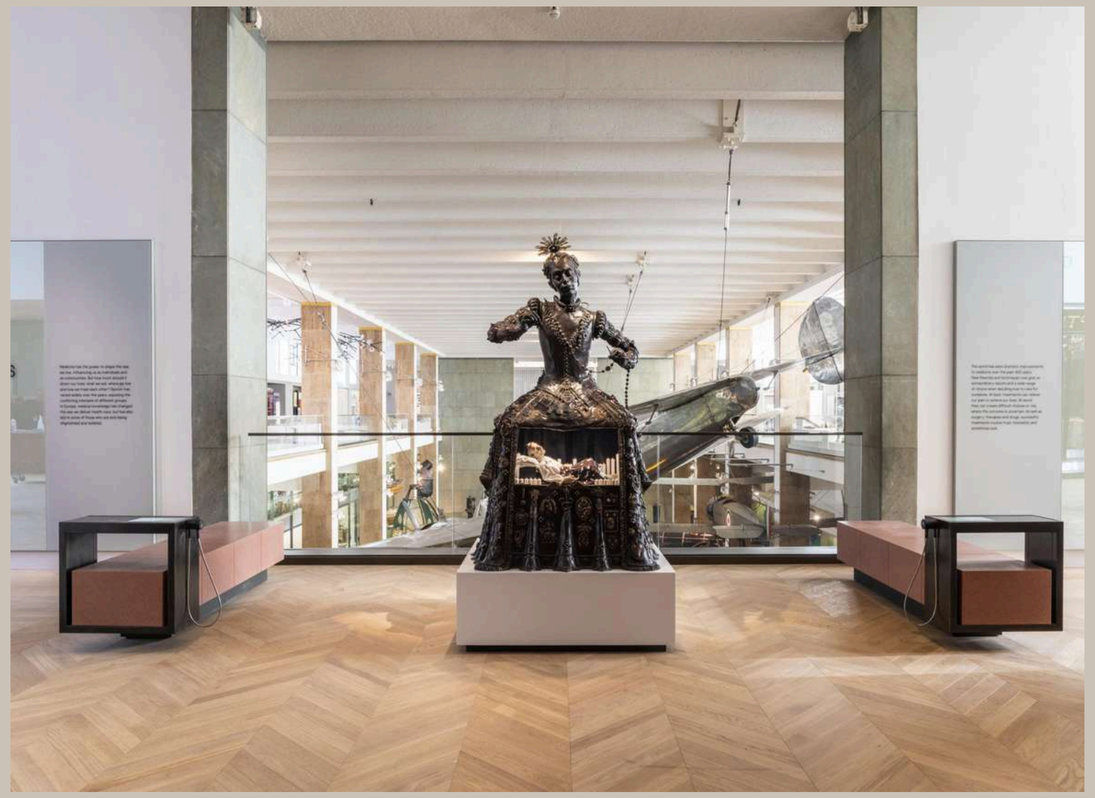
It triggers audio notifications on iPhones or on the devices

It plays the track of the nearest audiodescribed object

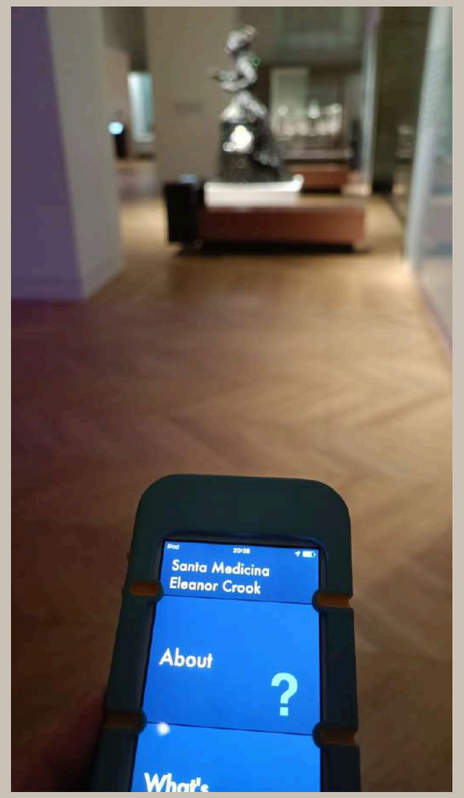


- Inclusivity
- Independence
- Signal

Source: Audio Eyes, on App Store



Santa Medicina, by Eleanor Crook
© The Science Museum, London



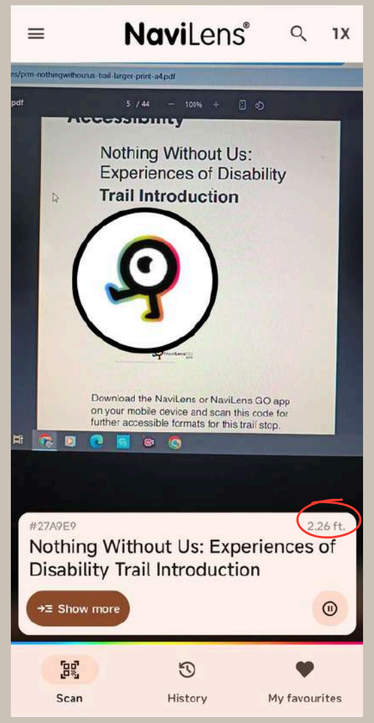
Martina Maggi, November 2023

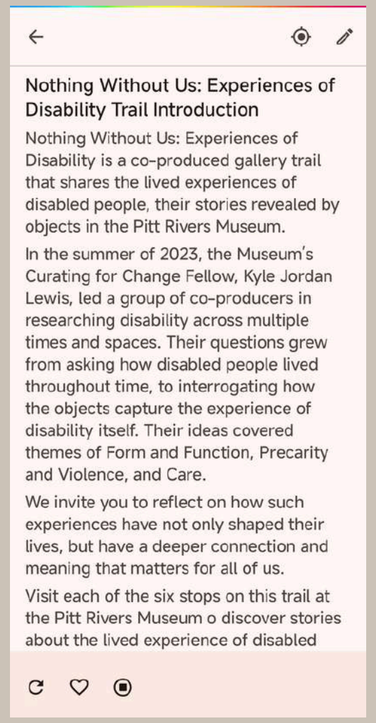
The app should trigger the device when the visitor is near the statue

The statue is a tactile object

There are two benches near the statue

Nothing Without Us: Experiences of Disability





QR Code NaviLens

Source: [Pitt Rivers Museum]

- Unfocused = easy to scan
- Provided in different languages (AI)
- It does not provide directions

Martina Maggi, June 2024

London, The Science Museum, Audio Eyes

The app is available for both smartphone and handheld devices

Instructions manual for the use of the device provided

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The signal and/or the Internet connection might vary

The device needs to be picked up at the Information Desk

It does not provide translations

Oxford, The Pitt Rivers Museum, NaviLens

The app notifies the distance of the QR Code from the visitor

The QR code is easy to scan

A translation of every pre-recorded track is provided

→

No offline system is provided

The translations are mostly AI-generated

Both Independence of the visitors; No directions

Future Improvements

Museums made accessible
≠
Museums born accessible

Making existing museums accessible is more challenging than designing museums that are accessible from the start.

- The NaviLens QR Codes might be paired with an offline system
- The installation of (adhesive) tactile floor lines could be considered
- The directions could be integrated into the pre-recorded audio description tour

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Thank you!

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