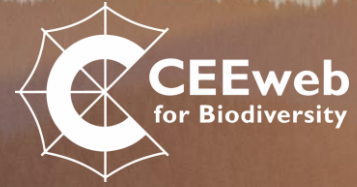


VIMOMA

Experience design and nature conservation via Visitor Monitoring and Management in protected areas

25-26 April 2023

CEEweb for Biodiversity



QR technology for protected areas

Technology overview and recommendations

- Visegrad Fund

This project has received funding from the Visegrad Fund under grant agreement No. 22210176

QR TECHNOLOGY (QR CODES)



Brief Introduction

- QR (quick response) codes are 2D images that, when scanned, prompt the smart phone to open a web-page or display an image, video, or text. (Coleman 2011)
- Types of QR codes: Static and Dynamic
- QR codes are easy to use and cost-effective (Billing is preferential-based)
- Easy to create (e.g. QR Stuff & QR Tiger)



<input type="radio"/>	12 Months <i>Billed annually</i>	34% discount	US\$21.42 <small>(€19.50)</small> / per month
<input type="radio"/>	6 Months <i>Billed semi-annually</i>		US\$26.92 <small>(€24.50)</small> / per month
<input type="radio"/>	3 Months <i>Billed quarterly</i>		US\$32.41 <small>(€29.50)</small> / per month

Value Added Tax not included in the amounts.

Change plan

Source: QR Stuff

Differences Between Static & Dynamic QR Codes



	Dynamic QR Code	Static QR Code
Size	Small, lightweight	Large, dense
Editing Ability	Can edit and update	Cannot edit and update
Usage Metrics	Can track usage and scan data	Cannot track usage and scan data
Ideal Use Cases	Menus, hospitality, marketing, business, government	Personal use, one-time use

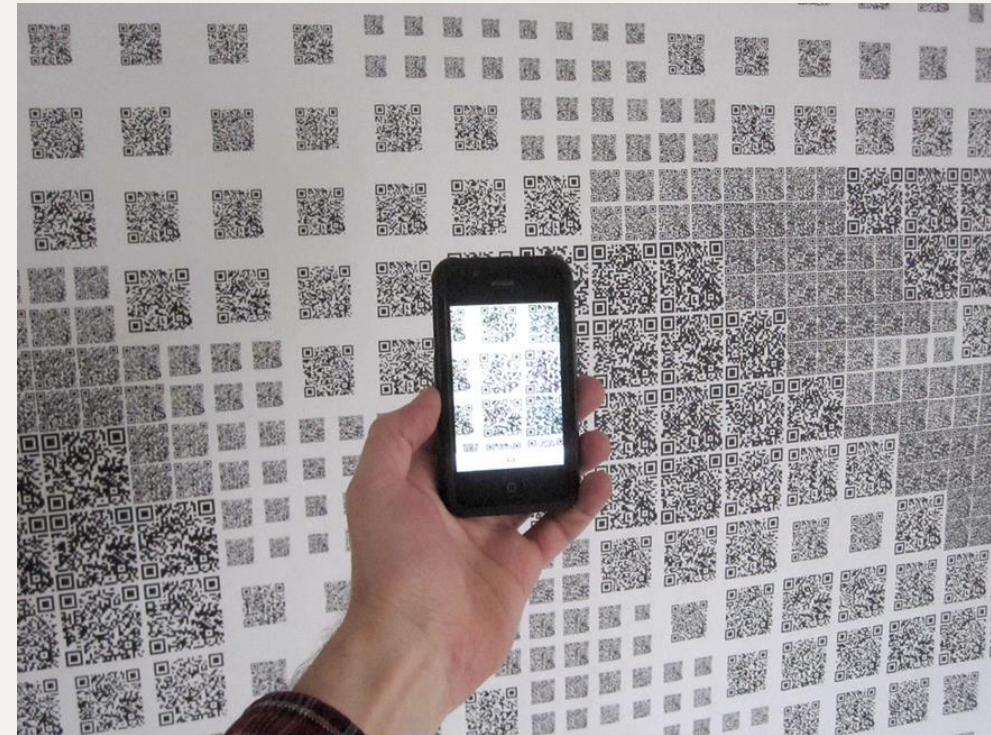
Source: SproutQR

Benefits of the Usage of QR Codes at Visitor Centres/Areas



For visitors:

- Allows quick access to information
- Easy to use
- If giving a map, allows for visitors for constant checking of routes/paths chosen
- Recordable information (URLs stay in the phone browsers for later check)
- Increases involvement levels
- Improves visitors' experiences



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Benefits of the Usage of QR Codes at Visitor Centres/Areas



For managers/management of the centres:

- Provides data of visitors' interest points
→ **traceability**
- Makes it easy to communicate necessary information to visitors (in real time)
- Makes it possible to communicate in diverse formats – texts, videos, audios & images, etc.



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Empirical Case Study in Italy & Poland (Solima & Izzo, 2018)



Royal Palace of Naples in Italy



Wilanow Palace in Warsaw in Poland

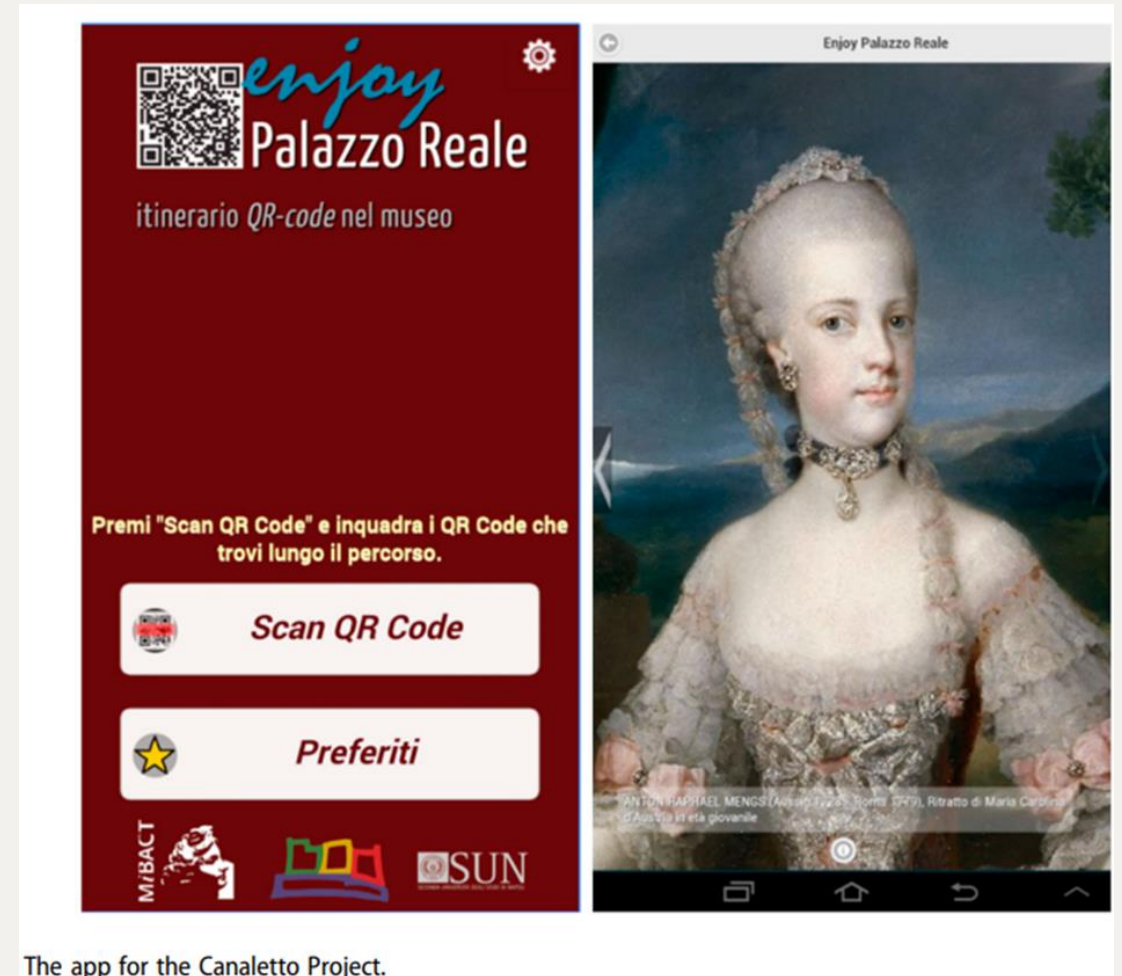


Case Study Background



- The Canaletto Project
- Both areas are historic places but with peculiar cultural histories and target market
- Overall objective: to test the use of QR codes in museums and evaluate their use
- Visitors were engaged with a questionnaire after their tour at the two
 - places

- Visegrad Fund



The app for the Canaletto Project.

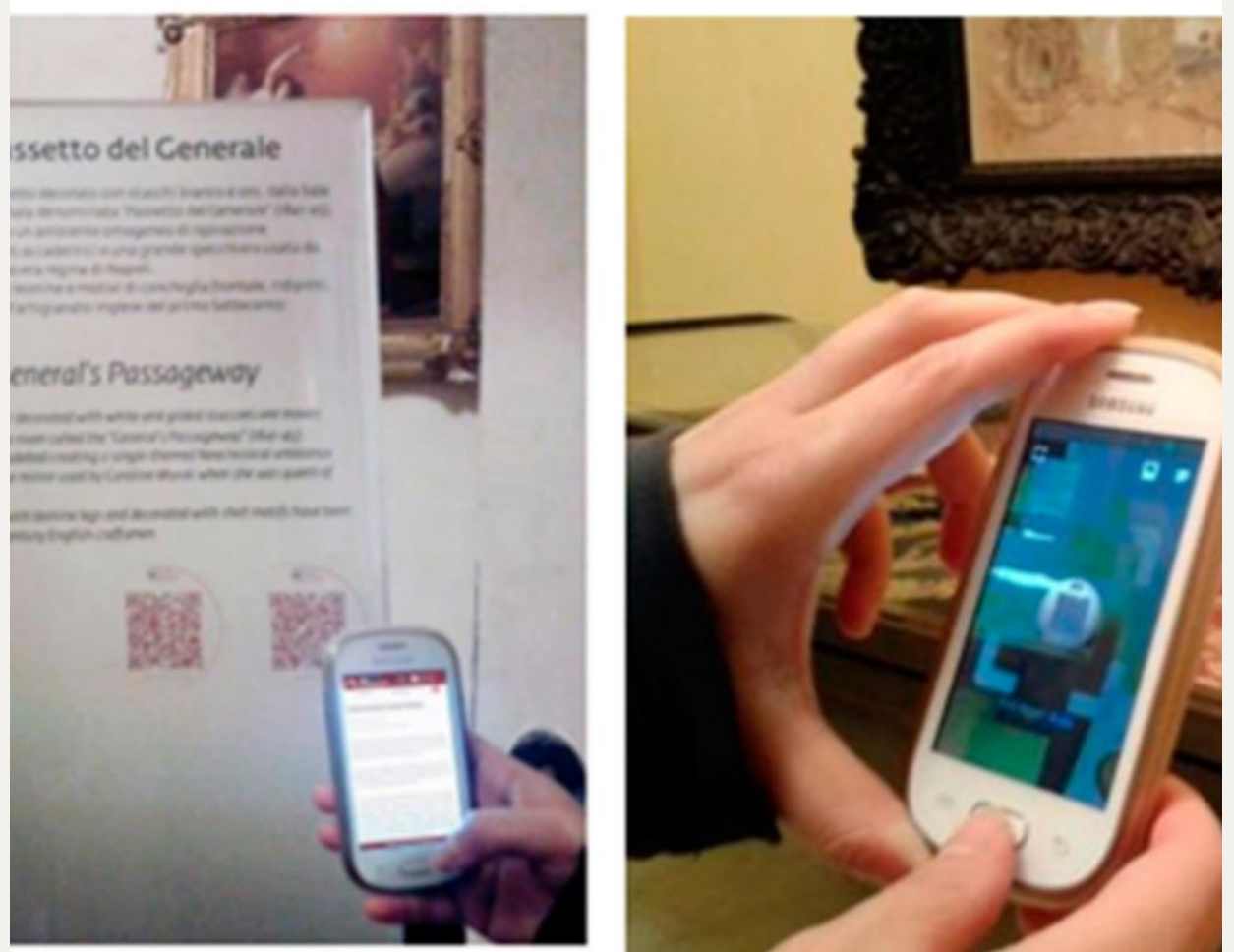
The Case Study



The scanning of the QR codes led to further information, such as:

1. Map of the places
2. Additional information about objects at the places

NB: this was used to easily identify the *points of interest* of the visitors.



The Case Study – Major Results



- **Access to additional information** was the major reason for visitors' use of the QR codes (70% in Poland, 48.7% in Italy)
- **Majority** of the visitors were **satisfied** with use of the QR codes (84%)
- 79.2% of visitors in total intended to use similar system in a future visit (90% in Poland, 65.2% in Italy)
- Majority of visitors wanted to repeat the visit as a result of a satisfied experience



The Case Study – Conclusions & Insights (I)

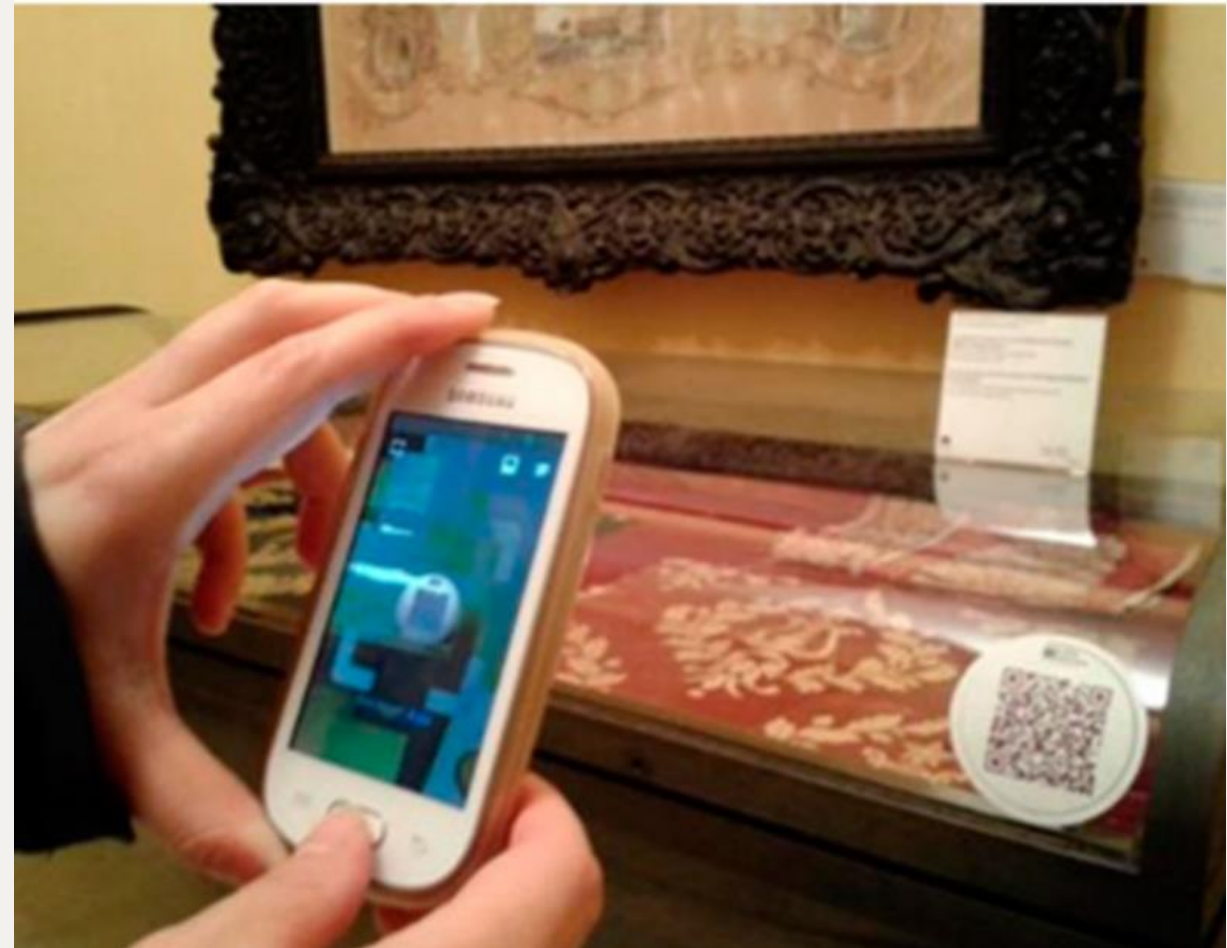


- A significant impact of the QR codes were recorded at the two places
 - **Visitors got much information** (e.g. maps) through the scanning of the codes
 - The QR code system was made known to the visitors at the entrance of the places through the app.
 - The QR codes were placed/displayed visibly and accessible to/by all (internet accessibility was free – Wi-Fi)

The Case Study – Conclusions & Insights (II)



- Other QR codes were attached/placed close to the museum objects
- The QR codes were accompanied with brief description of its content
- QR code is a new **technology with low investment to leverage on** (i.e. cost effective)





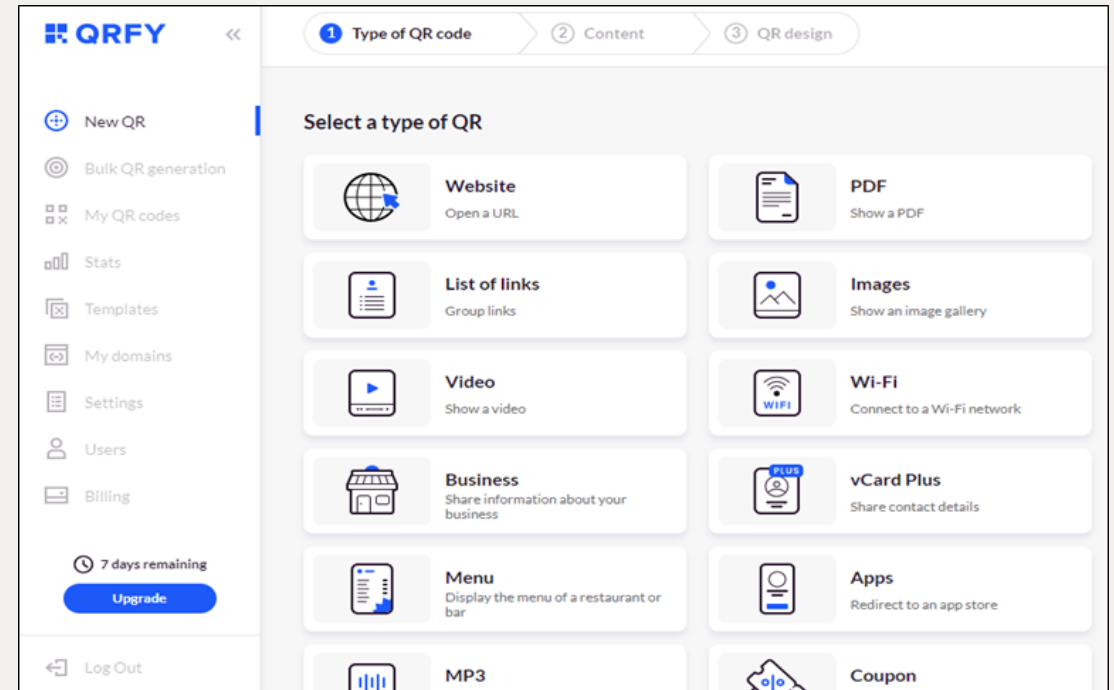
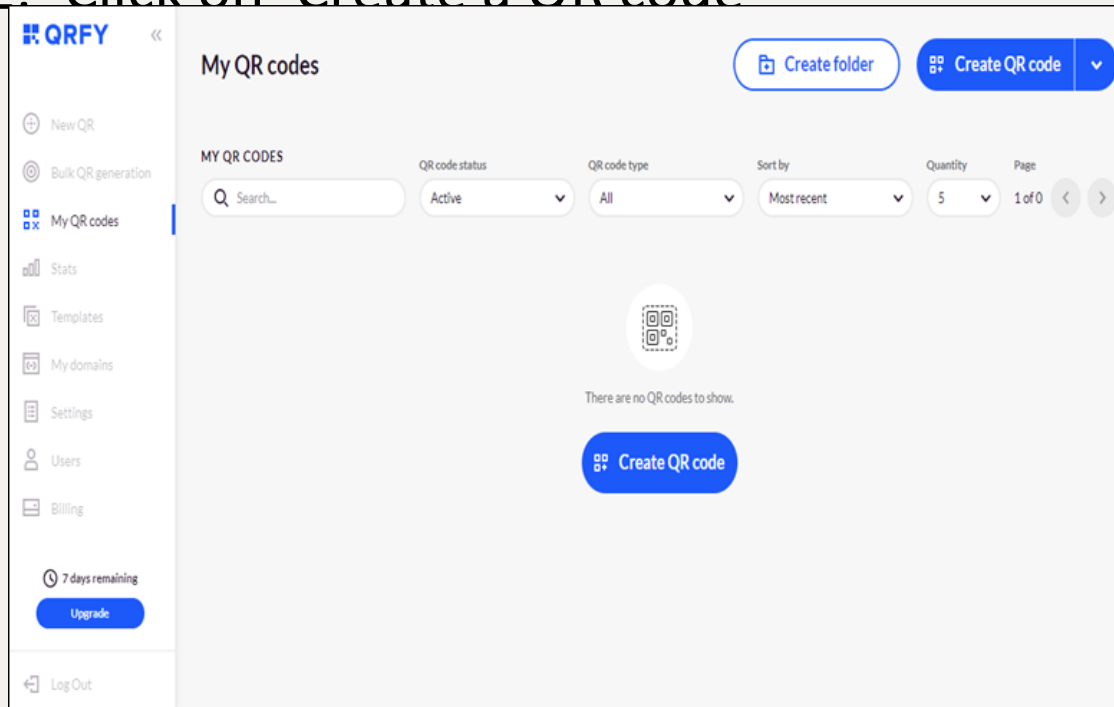
Now, who has experience creating QR codes?

How to Create a QR Code



1. Go to any of the online QR code platforms (QR stuff, for example) and sign up
2. Click on 'Create a QR code'

3. Select the type of QR (e.g. website)



How to Create QR Code



4. Fill in the necessary details for the QR

This screenshot shows the 'Content' step of the QR code creation process. The interface includes a sidebar with navigation options like 'New QR', 'Bulk QR generation', and 'My QR codes'. The main content area is titled 'Complete the content of the QR' and contains several input fields: a text box for the QR content (filled with 'The Visegrad Fund'), a 'Website information' section with a 'Multi-Language Support' toggle, a 'Website URL' field (filled with 'https://www.ceeweb.org/article.php?id=679'), and 'Domain' and 'Password' fields with expandable arrows. A '7 days remaining' timer and an 'Upgrade' button are visible in the bottom left.

5. Select your preferred designs

This screenshot shows the 'QR design' step. The interface is titled 'Design the QR' and offers two options: 'Personalized design' (selected) and 'Templates'. A 'Save template when finished' checkbox is present. Below, a 'Frame' section displays a grid of various QR code designs, with one design highlighted by an orange border. On the right, a 'Website' preview shows a QR code with a 'Scan to Know More!' button. A '7 days remaining' timer and an 'Upgrade' button are in the bottom left. A 'Complete' button is in the top right.

6. Click on 'Complete' and click to download your QR code for print out

Recommendations: Use of QR Codes at Protected Areas – Visitor Monitoring



***NB:** Dynamic codes are more efficient because of their qualities*

***NB:** The printed QR codes should be protected (e.g. against weather conditions)*

1. The Positioning of the QR Codes

- Internet connectivity
- Entry points
- Various points/locations of the area

Recommendations: Use of QR Codes at Protected Areas – Visitor Monitoring



2. The Content/Components of the QR Codes

- Adequate information (all necessary)
 - Detailed map of the area
 - Rules/regulations of the area
 - Brief information on various points of the area (e.g. biodiversity)
 - Connecting routes
 - Possible recreational activities
- Check-in feature
- Feedback/review feature