



## Smartphone technology – the future of customer interaction

With mobile web browsing costs and payment plans becoming cheaper almost by the month, Smartphone ‘contactless’ technologies are likely to be the future of customer interactions.

94% of the UK public own and use a mobile and 58% have a more sophisticated smartphone or device, such as an iPhone, Android or Windows phone, or iPad or tablet. All Smartphones have a built-in camera, can browse the mobile web when the user is out and about, and allow users to download suitable scanning applications from mobile ‘App’ sites like iTunes and Google Play.



The modern smartphone has evolved rapidly to become the mobile ‘hub’ from which users of all ages can run their busy work, social, leisure and family lives quickly and easily.

81% of smartphone owners keep them on all the time to browse the web, download applications, network with each other socially and use their smartphones to find out about almost anything and everything around them.

Rather than leaflets or information boards, QR code, Near Field Communication (NFC) Tags and Augmented Reality mobile scanning technology links are easy to site, on posters or small signs.

Smartphone ‘contactless’ technologies and mobile apps are the future of brand and event interaction, but there are several requirements of new mobile technologies, such as QR codes and NFC, to deliver effective benefits to users.

Key factors for ongoing QR code success are high public awareness, that they are simple and easy for people to scan and use, that the information they link to can be accessed using most mobile devices, and that they can link to a range of online and offline content perceived as being immediately useful to people at that time.

Use your mobile - please scan the QR code to find out more



Mobile web pages can also be linked with mobile apps, but the beauty of using individual mobile website pages each QR code or Tag links to is that, whilst the page links stay the same, the page content and images can be changed with packaging or updated with the seasons or other events.

Free mobile QR reader, NFC Tag and Augmented Reality ‘apps’ are available to download and, by using practical Mobi-Scan on-site guidelines these mobile scanning technologies offer significant benefit for fast, low-cost and effective user interaction at multiple points of interest.

For more information go to [www.mobi-scan.co.uk](http://www.mobi-scan.co.uk) and visit the ‘QR Codes NFC and AR’ website page.

## Quick Response Codes

Quick Response (QR) codes, the most popular contactless technology, are two dimensional barcodes that can be scanned by a smartphone's built-in camera and free QR reader application to access online or text based information.

With QR code scanning usually taking only a few seconds to link to online information via a mobile web connection, QR codes offer users instant information at any point of interest.



### How QR codes work

When scanned, a QR code can link to text or almost anything accessible over the web such as web pages, pictures, audio, videos, Google map locations or interactive games. With a few prerequisites, QR codes are easy to create and site, have low design costs and are distinctive to spot.



To scan QR code mobile users need just three things:

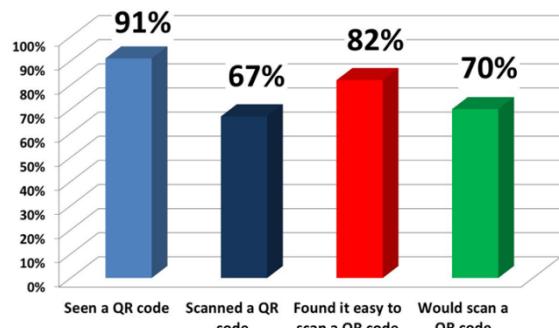
1. A mobile with a camera to point at the QR code
2. A small mobile 'App' installed to read the QR code
3. Web access to go to the content QR codes link to

### Using QR codes for brand packaging or at sports and entertainment events

There is huge potential in using QR codes to help users interact with brand packaging content and to navigate around and enjoy entertainment events.

A QR code trial was run in the South Downs National Park, to see exactly how QR codes could enable visitors to gain better appreciation of surrounding buildings, heritage and nature, and to help people to understand our history and culture better.

#### QR Code awareness and interest



**91% of people were aware of QR codes and 67% had scanned a QR code.** In connecting to text, web pages, video, audio and other online content, **82% found it fast and easy to scan a QR code.**



QR codes were placed at key points of interest all along the South Downs, with each mobile page link able to be visited directly from a QR code. In fact, once people knew what the QR codes were, what they linked to, and scanned them for the first time, they responded very favourably to them.

A new trial is under way adding NFC Tags and Augmented Reality to signs.

## Near Field Communication (NFC) Tags

NFC Tags are already in passports and Oyster cards and NFC scanning is available on latest Android, Blackberry, Windows 8 and Nokia mobiles.

NFC Tag data is stored on a pinhead sized chip linked to an antenna built into a paper-thin NFC Tag.

Scanning works by ‘tapping’ an NFC equipped phone on or near an NFC Tag (usually within about 1 to 3 cm).



- More than a million NFC-enabled Android devices are now being sold every week
- NFC Tags can link to text, mobile web links or be used for NFC contactless payment
- Google launched ‘Google wallet’ in 2011 so NFC can be used for instant mobile payments
- Android Beam lets users tap phones together to share contacts, apps, maps, sites etc
- Whilst Apple iPhones cannot scan NFC Tags, the new Apple Passbook uses NFC payments
- Many sectors are now starting to use NFC Tags, usually in combination with QR codes

## Augmented Reality

Mobile augmented reality is a new medium through which mobile users can interact with Augmented Reality or AR content over the mobile web. The mobile AR world consists largely of two different types of user experiences: geolocation and vision-based augmented reality.

Geolocation-based AR uses GPS, compass and other sensors in the user’s mobile phone to provide a ‘heads-up’ display of various geolocated points-of-interest. Suitable for use in cities.

Vision-based AR uses a mobile’s camera and AR app like LAYAR to virtually display online content icons in context with real-world objects, all by tracking individual visual features of these objects.



Augmented Reality adds a ‘virtual’ overlay to objects such as posters, maps, magazines, packaging, visual features, brochures, buildings and even unique individual objects. The AR images are ‘triggered’ based on a view through the mobile camera or GPS location.

AR can also add a historical context, overlay video, audio commentary or a virtual ‘what happens here’ aspect for sports and entertainment events, useful where the site is a featureless field, like a pop festival.

## About Mobi-Scan

The extensive QR code research on the South Downs, undertaken by Mobi-Scan, shows that visitors of all ages are keen on mobile scan technology. Mobi-Scan uses this detailed knowledge of user requirements and mobile scanning expertise to provide consulting and practical solutions for all organisations seeking to take advantage of the rapid growth in the use of mobile, smartphone and tablet devices by the UK public.

We help clients generate and maintain loyal users and get interesting information across in a practical way, for brands, services and indoor and outdoor sports, media, music and entertainment events.

Our smartphone solutions help people of all ages to develop a better awareness and appreciation of products and events and enable them to review, interact and share their experiences with other friends.

### **Mobi-Scan offers a full consulting and technology development service including:**

- Event consulting to improve event attendee satisfaction and online information access at key locations
- Advice and implementation of mobile technologies such as QR codes, NFC Tags and Augmented Reality
- Technology development including mobile website and content creation and application development
- Managing multiple technology, mobile app and interpretation vendors to deliver projects successfully

### **Current Mobi-Scan research and projects**

Mobi-Scan works with National Parks, NGOs, councils, heritage and conservation organisations and commercial clients involved with brand management, sports and outdoor entertainment events.

We work with clients to implement the effective use of QR codes, NFC and Augmented Reality (AR) to provide mobile web links to offers, information, map trails, social media, booking and payments. We also provide mobile scanning, mobile app, map and social media solutions for users at sports or live events.

These mobile technologies are only a few of a range of new, cost effective and practical online and offline solutions Mobi-Scan is researching and implementing, in order to stay ahead of mobile user trends.

### **Mobi-Scan Partners**

Mobi-Scan works with technology and business partners to deliver a range of mobile technology services:

- Mobile application development for Android, Apple iPhone, Windows, Nokia and Blackberry phones
- GPS, QR code, NFC Tag and Augmented Reality applications and optimised mobile website content
- Onsite printed visitor signage developed using recycled, aluminium, PVC, GRP or wood materials
- QR code, Augmented Reality and NFC Tag design, creation and mobile website content management

### **Other Mobi-Scan technology and consulting services**

Through our partner [KB consultants](#) we also offer website and intranet development, web application development and content migration, cloud solutions, accessibility and usability requirements, user training and mentoring, multiplatform mobile technology, branding, interpretation development, editing and copywriting, agency management, customer surveys and online statistical analysis and reporting.

To find out more visit [www.mobi-scan.co.uk](http://www.mobi-scan.co.uk) or see [www.youtube.com/user/Buildingconservation](http://www.youtube.com/user/Buildingconservation)

To run a mobile trial project call **Andrew Kerry-Bedell** on **07899 741939** or email [a.kb@live.co.uk](mailto:a.kb@live.co.uk)