

Printing Tips

YOUR GUIDE TO UNDERSTANDING PRINTING



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QR Codes: Here They Come, Ready or Not

Quick Response (QR) codes are a very new idea in cross promotional marketing. QR codes have been popping up in television ad campaigns, in magazine display ads, on real estate signs, and even on menus. And now that major corporations have begun using QR codes, public perception is accelerating. We expect that some time in the next 12 months, we'll reach the tipping point where QR codes become firmly established as an information source.

QR codes are a two-dimensional (2D) graphical representation of information – often of a URL (uniform resource locator – the Internet address of a web site) but also phone numbers, e-mail addresses or other bits of data. Developed in 1994 by the Japanese manufacturer Denso-Wave, the first use of QR codes was inventory tracking of vehicle parts. Early on Denso-Wave, who holds the patent and name trademark, freely shared the code specification, allowing others to expand the use of QR codes to other applications. The specifications for QR codes were adopted as ISO standard 18004 in 2000.

In the United States and Canada the introduction and adoption of QR codes has been slower than in Japan and Europe, mainly due to immature technology for mobile communication. Compared to Japan and Europe, there are a smaller number of camera phones as a percentage of all mobile phones. Also, QR reader software must be obtained from third-party vendors (rather than coming installed in mobile phones) and is device-dependent. According to a survey conducted by North American Technographics of a



***Scan our code
for a chance to win!***

randomly selected sample of 42,792, less than 1% of mobile phone owners used a 2D barcode scanner in Q2 of 2010.

Predictions are that this is about to change. In 2010, some major US marketers, including Calvin Klein, Chevrolet, Allure Magazine, Verizon Wireless, Heineken, Entertainment Weekly, The Weather Channel, Starbucks, Nike and Warner Home Video, all had campaigns based around QR codes. And as camera phones increasingly replace older mobile phone instruments, the use of QR codes will spread.

Uses for QR codes

A few months ago, QR codes were a novelty, attracting attention mainly because of their unusual appearance. But during 2010, the use of QR codes by a growing number of marketers has raised the public perception of how to use the codes and the value they bring to a buying decision.

Idea Corner

A QR code is a type of 2D code with a wide range of uses, including displaying text, initiating e-mail or SMS text messages, opening a browser on a mobile phone that leads to a specific web site, and tracking the download of an audio track or video stream.

All these activities have potential applications for marketing and advertising.

- Display text: send information to a mobile phone. Example information is a coupon, a promotional announcement, or a location.
- Initiate e-mail: send an e-mail that is prepopulated with text.
- Initiate an SMS message: display a message with an instruction or suggestion for action.
- Initiate a browser session: link directly to a specific web site home page, and track who visits the site and what they do while there.
- Initiate a download of an audio file or video stream: provide information or entertainment directly to the mobile phone handset.

One important thing to remember is that since the content will be viewed on a mobile phone, it may be necessary to adjust the graphic display and amount of text accordingly.



A QR code is a different kind of marketing tool. Not only does a QR code store data of all types – text, numbers and graphics – in a compact manner, it also provides a means of measuring response rate. A QR code is a mobile hyperlink to additional information that frees the information seeker from his desktop computer, and allows the marketer to reach potential buyers anywhere, any time.



The QR code glyph is so versatile that it can be deployed in small versions on business cards, brochures and post cards, and in large versions on buildings, billboards and large-screen television. The glyph is forgiving enough to be readable when printed on a t-shirt or on a delivery van.

QR codes can be used for event ticketing and tracking, contests, trade show management, surveys and couponing. They can be incorporated into a direct mail marketing campaign, menus, in-store display or e-mail marketing. They can direct the audience to a personalized URL, an online instruction manual or a recipe that uses a particular ingredient. QR codes can take users to an online testimonial video, to YouTube, or to a short commercial.

Provide a QR code on a trade show name badge, and other attendees will gain access to contact information without having to exchange business cards. Include a QR code on static advertising like a magazine display ad and take readers to a multimedia site.

Add a QR code to each product listing in a catalog and link to complete product specifications or a demonstration video of the product. A QR code on an in-store display can include a coupon for a discount or promotion on a related item. Put a QR code on a product label and link to a recipe that uses the product.

QR codes appearing inside a book cover can link readers to reviews or a web site about the author. A QR code on a prescription drug label can provide dosage information and warnings about side effects.

Recent uses of QR codes:

- In 2010, the Fox television network sent promotional messages for its popular shows *Lone Star*, *Fringe* and *Glee*, all leading up to the fall premiers. Users were given access to insider content, videos, first-look photos, show secrets, behind-the-scenes footage and exclusive cast interviews, all displayed on mobile phones.
- Lake County Tourism & Business Relations in Groveland, Florida uses a QR code on billboards, magazine ads and direct mail. The codes can be customized to the audience. For example, an ad in a fishing magazine incorporates a QR code that takes the reader to a podcast showing fresh water fishing in Lake County.
- Ralph Lauren includes “How to shop from your phone” with instructions under the QR tag in a display ad or on a direct mail piece. The QR code is connected to an e-commerce site where visitors can shop directly from their phones, view the Ralph Lauren collection, and read articles in RL Magazine.
- In September 2009, Dick’s Sporting Goods broadcast a QR code on the JumboTron during a football game at the Dallas Cowboys stadium. Fans who took a picture of the QR code were taken to a mobile web site and offered \$10 off on a \$50 purchase.

Q&A

What do I need to read a QR code?

Your ability to read a QR code and thereby gain access to the information it represents depends on two things: a camera phone and a software application for it.

- *Camera phone:* camera phones may be either fixed- or auto-focus. For reading QR codes, auto-focus is best. A fixed-focus camera may require holding the phone at the right angle and distance from the QR code, while an auto-focus camera will adjust to the situation.

To ensure a good read, the QR code itself contains positional alignment indicators and internal orientation calibration as well as code redundancy. This means that a QR code can be read whether right side up, upside down, rotated 90 degrees, or even wrapped on a curved surface.

- *Software application:* camera phones require QR code reader software to decode the QR code. Newer versions of the Google Android and Nokia Symbian operating systems come with a QR reader application installed; other phones require the user to locate the app on the Internet and install it.

Since there is no universal standard or complete consistency across all camera phone operating systems, mobile phone owners must determine the best reader for each individual device. Two web sites – www.getreader.com and www.mobile-barcodes.com – have a list of readers. Enter the URL into the browser of the camera phone and a self-detecting utility will identify and download the best reader for that specific device.

- In 2006, McDonald's began using QR codes on its packaging in Japan. Using the code provided nutritional information – calories, sodium, fat, carbohydrates and possible allergens – on the meal.
- Google uses QR codes as part of its program *Google Places*. In 2010, 100,000 businesses selected by Google as a *Favorite Place* were sent a QR code printed on a decal to display in their window. A viewer who uses the QR code is taken to the business's Google Place Page – a way for people to get information about the business even if it is not open. And with Google promoting QR codes, they could become important in search marketing. Google suggests that if your web site contains a QR code, search engines will see a new image and index it, and might in the future index the content in the image.

Why QR codes are important to local organizations

To date, most QR code use is by large, national advertisers who are combining mobile communication with traditional print and other media. These advertisers are breaking new ground and developing the information base that will later filter down to local businesses and organizations.

Right now this is an emerging technology with some barriers to use, so it is difficult to predict how long adoption will take. But one thing is certain – QR codes are destined to become part of the marketing tool kit.

Vocabulary

2D code: a two-dimensional barcode; the dimensions are *horizontal* and *vertical*. 2D codes can store up to 7,089 characters, as contrasted with 1-dimensional barcodes that store 20 characters.

Barcode: a sequence of vertical bars and spaces that represents numbers and symbols. A bar code typically consists of five parts: a quiet zone, a start character, data characters (including an optional check character), a stop character, and another quiet zone.

EZcode: a proprietary quick response code developed by The Swiss Federal Institute of Technology Zurich (ETH Zürich) and exclusively licensed to Scanbuy in 2006. Also known as *ScanLife*.

Microsoft Tag: a proprietary quick response code developed by Microsoft. Microsoft Tag can be published in a colorful format, black/white, and also in a custom format, and it provides an interface to manage all generated tags and track consumer activity.

Module: the smallest square dot (pixel element) of a QR code.

Quiet area: a four-module wide buffer of white space surrounding a QR code. Promotes readability of the code.

QR code: an acronym for Quick Response; a two-dimensional barcode symbology that is the world's most widely adopted open standard.

ScanLife: a mobile communications application and web based code management platform. The code management platform allows users to create and manage their 2D codes, including tracking codes to see number of scans, users, location, and other data.

SMS: an acronym for *short message service*, the method of sending text via a mobile phone or other mobile communication device. SMS is the most widely used data application in the world.

URL: an acronym for *universal resource locator*, the address on the Worldwide Web

ZXing: an acronym for Zebra Crossing, Google's open-source, multi-format 1D/2D barcode reader library implemented in Java. Used to support decoding of QR codes among other 1D and 2D codes.

May I have a word?



Randy Greathouse
General Manager

Since we first introduced QR (Quick Response) codes to our readers, their use has spread significantly, particularly among Fortune 500 companies that advertise nationally. In 2010, Calvin Klein, Chevrolet, Verizon Wireless, Heineken, Starbucks and Nike all had advertising campaigns based on QR codes. As this month's issue title claims, QR codes are in everyone's future.

Except for local realtors using QR codes on "for sale" signs, you may not have seen as much use locally as in national advertising. Don't let that fact keep you from learning all you can about these new codes and from brainstorming about how they can be integrated into your own marketing and advertising campaigns. Mobile communicating is already popular with young consumers, and these will be the business buyers of tomorrow. Meanwhile, we'll do our best to keep you informed and share our observations about how to make these new QR codes work for your business or organization.

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Tips & Tricks

In October and November of 2010, the advertising firm of Austin & Williams Unplugged conducted a survey to determine how aware consumers are of QR codes. The survey was conducted using both online and offline methods and included 400 respondents. Most respondents were adults aged 25-54 living in the United States; 41% were male and 58 female.

Here are the findings of the survey:

- 52% of respondents had seen or heard of QR codes.
- 28% had scanned a QR code with their mobile phone
- 33% of respondents stated they "almost never" scanned a QR code.

- More than 40% had seen a QR code in these places: on the Internet (40%); printed on ads (48%); printed on brochures (45%); in newspapers or magazines (45%).
- 62% scanned a QR code to go to a web site; get information or a coupon (30% each) or get contact information.
- 6% said that use of the QR code led directly to a sale.

The findings of this survey confirm that though it is still early in the development of QR codes for advertising, public perception is rising.



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