

## Three Approaches to Mobile Commerce

Mobile commerce is still very much in the try-and-see stage in North America, and a number of approaches are being explored. This open environment is fertile for innovation, but widespread adoption has been somewhat constrained because both technical and procedural standards are still evolving.

This module describes three of the more frequently seen techniques being used by innovative organizations.

Sources of additional information on these and other Mobile Commerce topics may be found in the accompanying Introduction section.

[Printed or Displayed Bar Code Symbol](#)

[Near Field Communication \(NFC\)](#)

[Direct Communication](#)

## Printed or Displayed Bar Code Symbol

### What It Is

- The symbol (bar code) is printed on, or otherwise applied to, a display object
- A URL encoded in the symbol directs the user to a website; QR Code® is a prominent example, although other symbologies are used (See QR Codes® and Other Symbologies section)
- Display objects are many and varied. They include newspaper and magazine pages and covers, in-store posters, transportation kiosks, bus and subway posters, retail shelves, cafe table mini-posters, and mailing envelopes
- At the website the user is directed to, information is displayed and, in some cases, action may be taken

### How It's Used

- Information that may be displayed by accessing encoded websites can serve to:
  - Advertise new products
  - Promote forthcoming titles
  - Present author biographies or link to authors' sites
  - Provide store locations or contact details
  - Provide product data and information about product availability
- Possible other actions include placement of orders or reservations for products or events

### Plus Points

- Symbol masters are inexpensive, and may be incorporated with other art in display object production
- The camera integral to most current mobile devices is adequate for this technique (no special equipment is required)
- Mobile device applications that capture the symbol, retrieve the encoded URL, and access the related website are widely available

### Cautions

- Poor original reproduction, weathering, and distance from the mobile device degrade symbol readability
- The lack of technical standards for applications can result consumers experiencing erratic performance depending on the mobile device in use
- Webpages not tailored for mobile device screens may result in a negative user experience
- In some instances, symbols are permanent (when printed in a book for example) and continual updates on relevant websites may be necessary to ensure that consumers aren't misinformed or frustrated

[Back to Page One](#)

## Near Field Communication (NFC)

### What It Is

- An unpowered microchip (“passive target”) is attached to a display object  
A URL is encoded in the storage of the target
- A mobile device with NFC capability held close to the target by a customer generates radio energy
- When the radio energy encounters the target, the target generates a radio signal containing the URL
- The mobile device receives the encoded URL and accesses the corresponding website
- This wireless technology is similar to, but distinct from, Radio Frequency Identification (RFID) used in applications such as inventory management

### How It's Used

- In contactless, paperless payment programs such as the Google Wallet
- Google Wallet customers tap their NFC capable device on a sensor at point of sale and charge their purchase to a pre-selected credit card

### Plus Points

- The target may be physically encased to reduce damage from wear or weather
- The technique is easy for the customer to use; it does not require as careful an orientation of the mobile device by the customer as when capturing a printed symbol
- The target does not require a battery and typically takes a very simple and versatile form such as a tag, sticker, or card.

### Cautions

- This capability is not yet standard on most current mobile devices
- Targets are more expensive than printed symbols and attachment requires a more complicated process than printing a symbol along with text

## Direct Communication

### What It Is

- E-Mail and text messaging via short message service (SMS) can be used for mobile commerce
- Hyperlinks in the body of the communication take customers to related websites in the same manner as other mobile commerce approaches

### How It's Used

- Communications are sent to customers who have opted-in to receive them
- Information displayed directly in the text body or upon accessing hyperlinked websites can serve to:
  - Advertise new products
  - Promote forthcoming titles
  - Present author biographies or link to authors' sites
  - Provide store locations or contact details
  - Provide product data and information about product availability
- Possible other actions include placement of orders or reservations for products or events

### Plus Points

- Sending e-mail or SMS text messages is inexpensive for organizations that already have facilities for broadcast messages of this sort
- This technique requires no special equipment on most mobile devices
- This technique is initiated by the business, and no action (other a prior opt-in) is required by the consumer

### Cautions

- An opt-in feature for this approach to a mobile commerce campaign is a vital requirement to prevent customer annoyance with unwanted communications (spam)
- Consideration should also be taken of potential per instance SMS message charges by wireless carriers to participating customers

[Back to Page One](#)