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e-Content in a Flash: Delivering Digital Resources to Patrons Using NFC Technology

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FIU | Libraries

Florida International University
Green Library, Miami, Fl.

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How To Program NFC Tags

Step 1: Select Materials
Step 2: Design a Template
Step 3: Grab a Permalink
Step 4: Create a Short URL
Step 5: Generate a QR Code

Step 6: Program the NFC Tag
  a. Format the tag.
  b. Write to the tag.
  c. Secure the tag to discourage tampering by locking the tag or setting a password.
Step 7: Put It All Together

Background

What is NFC?

Near Field Communication (NFC) is a short-range, wireless communication technology that establishes a temporary peer-to-peer network to complete a small data transfer. While NFC's four-inch range limits its usability based on proximity, this feature also increases security. The peer-to-peer network is established for a single operation, the data transfer. There is no additional information served up to the NFC tag and there is no persistent memory. It will continue to operate as it was initially programmed. The data transfer is measured in bytes and kilobytes, and therefore limited to small snippets of text and hyperlinks.

NFC in Libraries

Librarians have explored the potential inherent in NFC technology to alter information delivery (Guevara, 2012). Several common applications for NFC enhancement include self-service operations like checkout, obtaining additional information, and access control at the user's point of need (Hoy, 2013). Many librarians who implement NFC technology report high user satisfaction and several advantages of NFC technology over other methods like RFID, barcode scanning, and QR Codes (Yusof, 2015). Consequently, if NFC becomes an ubiquitous standard in smartphones, it carries tantalizing potential to transfer library resources conveniently into every pocket from physical locations (Abram, 2017).
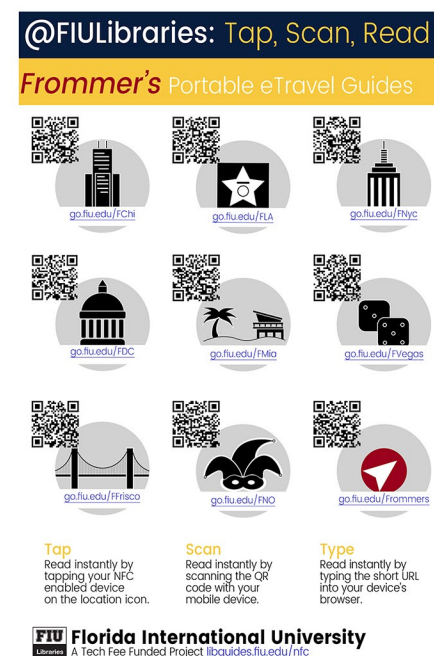
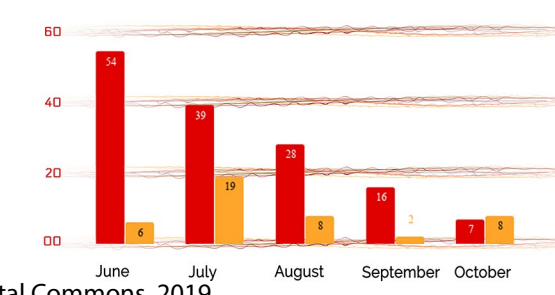## Advantages & Challenges

Advantages
- Low tech graphical display
- Physical browsing of digital resources
- Fast delivery

Challenges
- Users need their own device (BYOD)
- Transferability of search skills
- Accessibility & technical compatibility of devices

Usability Statistics

Harry Potter Display & Audiobooks Poster

3:1
Ratio of Ebook Hits: Physical Travel Guide Use

216
Hits on Rotating Displays Jun.-Nov. (5 Months)

25% of all Website Traffic is via Mobile

75% of all Mobile Traffic is on iOS

Application Examples

@FIULibraries: Tap, Scan, Read!
Library Research Help: History
- Subject Page — go.fiu.edu/HistoryGuide
- Primary Sources — go.fiu.edu/PrimarySources
- eBooks — go.fiu.edu/HistoryebooksebooksebooksBooks
- Help — go.fiu.edu/bschelp

Tap Read instantly by tapping your NFC enabled device on the icon.
Scan Read instantly by scanning the QR code with your mobile device.
Type Read instantly by typing the short URL into your device's browser.

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Subject Librarian Posters

Harry Potter Display

@FIULibraries: Tap, Scan, Read!
Frommer's Portable eTravel Guides
- go.fiu.edu/FCN
- go.fiu.edu/fra
- go.fiu.edu/Neer
- go.fiu.edu/Primco
- go.fiu.edu/NYC
- go.fiu.edu/Halu
- go.fiu.edu/IReise
- go.fiu.edu/Frommers

Tap Read instantly by tapping your NFC enabled device on the location icon.
Scan Read instantly by scanning the QR code with your mobile device.
Type Read instantly by typing the short URL into your device's browser.

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eTravel Guides Poster

@FIULibraries: Tap, Scan, Read!
Introducing: Audiobooks!

go.fiu.edu/audiobooks

Tap Search audiobooks by tapping your NFC enabled device on the icon.
Scan Search audiobooks by scanning the QR code with your mobile device.
Type Search audiobooks by typing the short URL into your device's browser.

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Audiobooks Poster

Next Steps

Analytics Data & Apple NFC Development

Based on our Google Analytics Data, almost 25% of our web traffic comes from a mobile device. Of these mobile interactions, for every phone/tablet running Android's operating system (OS), there are three running Apple iOS. Now that Apple allows developers to access the NFC chip when building apps, we expect to see more consumer familiarity and interest in NFC technology, leading to increased usage.

Beyond Library Walls

We are extending the libraries' presence throughout campus using strategic partnerships with academic units. Since NFC technology is not dependent on physical presence in the Green Library, we can apply it anywhere on campus to engage users beyond the library walls. We have plans to create more NFC-enabled posters with information about librarian liaisons, special events, and library collections, and place them around campus to meet users where they are.

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Project Site: library.fiu.edu/nfc

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