Millennial/GenZ Consumer Behavior with Mobile Technology

Colleen Twomey
Associate Professor
Cal Poly State University
San Luis Obispo, CA

Technical Association of the Graphic Arts
February, 2019
Why my interest in this topic?

Augmented reality: Designing immersive experiences that maximize consumer engagement

Joachim Scholz a, b, Andrew N. Smith b

a Orfalea College of Business, California Polytechnic State University, 1 Grand Avenue, San Luis Obispo, CA 93407, U.S.A.
b Girard School of Business, Merrimack College, 315 Turnpike Street, North Andover, MA 01845, U.S.A.

PRINT AND NFC

NFC – Print’s Digital Connection
Near-field communication (NFC) technology uses tiny, radio frequency (RFID) emitting tags to connect with digital devices like smartphones. When a smartphone comes within range of the RFID signal, its web browser displays the content stored in it. It’s that simple. There are no special apps needed or software to download. With Apple’s release of iOS12, virtually all mobile devices moving forward will provide NFC interactivity.

6 Places Consumers are Engaging with QR codes
15 MAY 2018 | Author: Nick Ponesse

QR codes are everywhere you look. Whether you are browsing online, commuting to work, or even looking through your pantry, you will find QR codes.

Mobile phone manufacturers and social media platforms are all taking notice. There is no longer a need to download an application to scan these 2D barcodes. You can find QR code scanners within your smartphone camera, through Snapchat, and even through your Facebook account.

Augmented Reality: Making Print Interactive

Sponsored by: Canon Solutions America
Speakers: Maarten Lens-FitzGerald, Co-founder and US General Manager, Layar; Alan D. Snyder, General Manager Fry DFSG, Fry Comm., inc.
Why my interest in this topic?

This is what I compete with every day....
Why my interest in this topic?
...and some stats...

**Millennials (1980-1994)**
- Technology Gurus
- Instant gratification/ FOMO
- Participation Ribbon
- Financially and emotionally supported
- Helicopter parents
- Online Dating
- Educated Generation
- Self-Esteem Movement

**Gen Z (or iGen) (1995-2012)**
- World Shaped By Internet
- Smartphone
- 9/11
- Economy Crash
- GPS
- Most Racially Diverse Generation to Date
- Tech Immersion
**COULD** we drive consumer behavior through interactivity?

- Setting the stage:
  - *March – June 2018 in Europe (MUAS)*
  - *September – December 2018 in the US (Cal Poly)*
- Choose a product “young” people purchase frequently
- Create interactivity with commercially available technologies and experiences
- Create a survey to collect data
- Involve students as senior projects
- Learn something new?!
Learn by Doing
Hypotheses

- **H1** - Millennials in the US/Europe prefer interactive packaging vs packaging with no interactivity (i.e. merely printed packaging)
- **H2** - Millennials in the US/Europe prefer AR over QR codes
- **H3** - Millennials in the US/Europe prefer NFC over AR
- **H4** - Millennials in the US/Europe will purchase packaged products based on their experience of interactivity
So it begins......

- Product chosen: Energy drink
  - 64% of Millennials regularly consume energy drinks (Mintel)
  - Easily shopped in FMCG locations (i.e. grocery store)
  - Strong social media presence
- Fictitious Brand
  - German, English
- Digitally produced shrink sleeves
  - MCC Labels, Napa, CA
- Nothing
- QR experience
  - QR codes as a means for marketers to bridge the gap between the physical and the digital worlds
- NFC Experience
  - A recent survey by Epsilon and GBH Insights found that 80% of customers are more likely to make a purchase when brands offer bespoke (custom) content.
- AR Experience
  - Augmented reality is most effective during the search and evaluation phases of the buying process.
Technologies

- No interactivity
- QR Experience
  - Link to website
- NFC Experience
  - Link to video on website
- AR Experience
  - Animation
Experiences

- QR code (Unitag) customized with “flame” design
- Link to “451” web site
Experiences

- NFC Tag (Qliktag)
  - Designed for metal cans that contain liquid
  - Software links to a video from the responsive website
  - No App
Experiences

- AR
  - HP Reveal App
    (formerly Aurasma)
  - Interactive Animation
Sample Size (Google Sheets)

Predominantly answered questions:
1. Do you carry a mobile device when shopping?
2. Where do you purchase energy drinks?
Results – Demographics (Gender)

- Europe

- US
Results – Demographics (Age)

- Europe

- US
When purchasing energy drinks, packaging influences me (scale of 1-5)

- **Europe**

![Bar chart for Europe showing package influences on purchase]

- **US**

![Bar chart for US showing package influences on purchase]
I often pick up and handle the package before purchasing.

- Europe

- US
I will often use my mobile device to interact with the package for more information (energy drinks)

**H1** Millennials in the US/Europe prefer interactive packaging vs packaging with no interactivity (i.e. merely printed packaging)

- **Europe**

  ![Graph showing in-store mobile interaction at purchase in Europe.](image)

- **US**

  ![Graph showing in-store mobile interaction at purchase in the US.](image)
Packaging with scannable codes gives me an interactive experience with the brand

(H4) Millennials in the US/Europe will purchase packaged products based on their experience of interactivity

- **Europe**

  ![Graph showing scannable codes an interactive brand experience in Europe](image)

- **US**

  ![Graph showing scannable codes an interactive brand experience in the USA](image)
Interactive Packaging Means Higher Quality/Price

- Europe

- US
Rate the packaging on how likely you would use the technologies in-store

(H2, H3) QR < AR, AR < NFC

- **Europe**

![Bar chart for Europe](chart.png)

- **US**

![Bar chart for US](chart.png)
Rate the packaging on how likely you would use the technologies in-store 

(H2, H3) QR < AR, AR < NFC

- Europe

- US
Rate the packaging on how likely you would use the technologies in-store
(H2, H3) QR < AR, AR < NFC

- Europe

- US
Rate the packaging on how likely you would use the technologies in-store

(H2, H3) QR < AR, AR < NFC

- Europe

- US
Rate the packaging on how likely you would use the technologies in-store

(H2, H3) QR < AR, AR < NFC

- Europe

- US

Breakdown of Tech Rank (Europe)

Breakdown of Tech Rank (USA)
Conclusions

- H1 - Millennials in the US/Europe prefer interactive packaging vs packaging with no interactivity (i.e. merely printed packaging)
- H2 - Millennials in the US/Europe prefer AR over QR codes
- H3 - Millennials in the US/Europe prefer NFC over AR
- H4 - Millennials in the US/Europe will purchase packaged products based on their experience of interactivity
Other things we learned…

- US and Europe have similar demographics but responses were different
- Anecdotal information was quite informative
  - Environment very important (i.e. lighting, internet)
  - Phone cases impede with NFC
  - Most young consumers of energy drinks don’t use an Android (another limiter)
  - Awareness of technologies generally low (other than QR)
Anecdotes

- **QR Europe**
  - *Cheap, does not appeal to me*

- **QR US**
  - *Okay*
  - *Good to learn about product*
  - *I’m most familiar with this*
  - *No one uses QR codes unless they are in their 50s!*
  - *Never scan those*
  - *Need a call to action*
  - *Did not work on iPhone X (!!)*
  - *Don’t want to install reader app*
Anecdotes

- NFC Europe
  - I’d maybe use at home if I was bored
  - When I’m bored
  - Cool design
  - Don’t have android
  - No app! Great!

- NFC US
  - Would use for nutrition
  - Don’t have an android
  - Didn’t know it was possible
  - Seems interesting
  - Intrusive
  - Not environmental
  - Cool, but I would never use it
  - Don’t have free hands while shopping
  - Interactive
Anecdotes

- AR Europe
  - Awkward
  - Wouldn’t use it to buy, but would watch at home
  - Funny
  - Senseless

- AR US
  - Takes effort to pull up app
  - Fun and cool but unnecessary
  - SO COOL
  - Not needed
  - Liked that it was a game
  - Cool but I don’t have 3 hands
  - Gives better view of product
**Recommendations**

- The use of technology needs an incentive for Millennials and Z-ers (why should they interact with the package?)
- Experiences with the technology need to be memorable and relevant
- Don’t expect Millennials/Z-ers to pay more for interactivity
- Technology needs to work on all mobile platforms
- Millennials/Z-ers don’t have the attention span to wait for technology to work – if the technology takes too much time, they have already moved on
Thank you