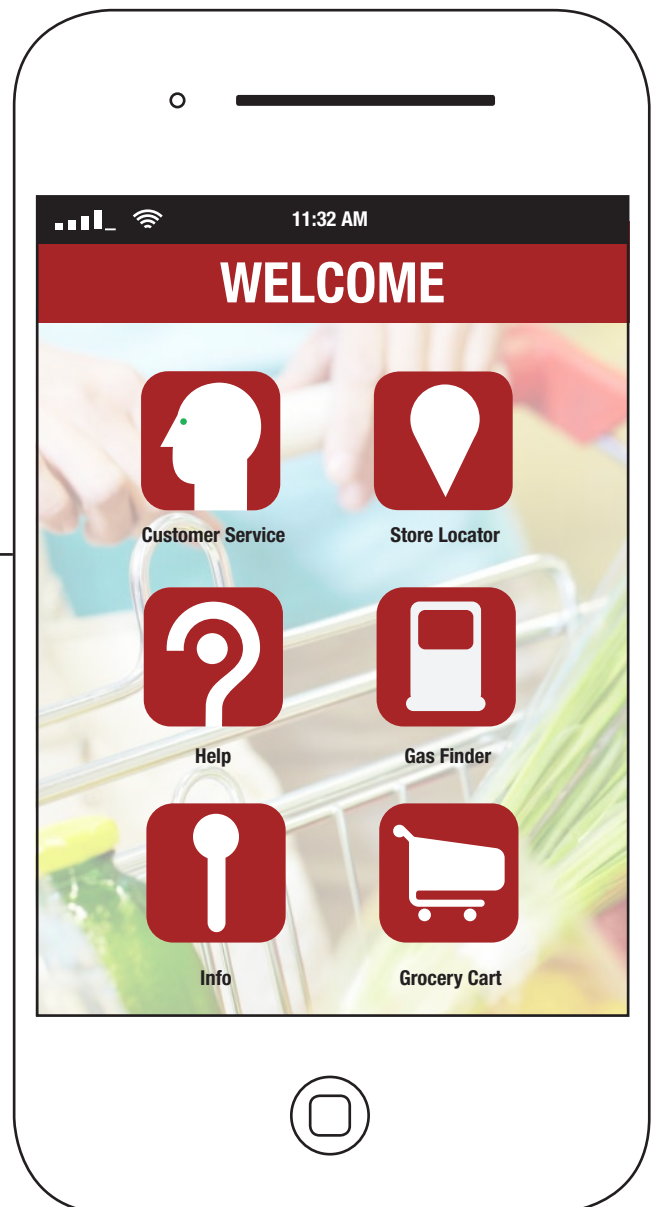


DIGITAL GROCERY COMMERCE: CONSUMER PERSPECTIVES ON GROCERY APPS AND DIGITAL TRUST: RETAILER OPPORTUNITIES FOR MAXIMIZING DIFFERENTIATION AND SUCCESS

THE PECK FELLOWSHIP YEAR THREE RESEARCH REPORT 2015

By Nancy M. Childs, Ph. D
Professor of Food Marketing and Gerald E. Peck Fellow
Saint Joseph's University



DIGITAL GROCERY COMMERCE:

Consumer Perspectives on Grocery Apps and Digital Trust:
Retailer Opportunities for Maximizing Differentiation and Success

The Peck Fellowship

Year Three Research Report 2015

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Consumer Perspectives on Grocery Apps and Digital Trust: Retailer Opportunities for Maximizing Differentiation and Success

An exploding era of internet activity continues to advance grocery shopping app opportunities which provide consumer personalization, convenience, and economic advantage. As this commercial intimacy increases, the consumer's perception of the balance between digital trust and digital risk is increasingly critical. As Peck Year Two research discovered, the grocery app user is an active, digitally savvy, high value shopper, and their confidence in the retailer app, and by transference the retailer, is important.

For this study addressing the use of grocery retailer shopping apps, digital trust pivots on the consumer's perception of the organization's utilization and management of their collected data from their purchase choices and shopping behaviors. It does not address concerns for the security of their financial data. Digital trust is defined as "*the confidence placed in an organization to collect, store, and use the digital information of others in a manner that benefits and protects those to whom the information pertains.*"¹ Consumer digital trust is essential for continued growth in consumer personalization and m-commerce provided by grocery apps.

Background

The Peck Fellowship explored consumer use and concerns with grocery shopping apps across three years. Using exploratory research and consulting with the Peck Research Expert Panel the first year identified the key grocery retailer app functions and concerns of grocery app users. Concerns focused on technical inadequacies, especially poor in-store signals, app glitches, and store personnel unfamiliar and unsupportive of the app's advantages.

In Year Two an extensive quantitative study examined preferences for app functions and concerns. IRI DigitalLink grocery consumer profile and size of shopping basket were examined. Four grocery shopper profiles were explored in depth for app preference, reported attitudes, and shopping behavior. Findings discovered that the most active app users have the largest shopping expenditures per trip and they prefer streamlined customized apps. Unlike other digital grocery shopping groups which are more focused on economic savings delivered by the app, the savviest "Future" digital shopping

¹ Mattias Lewrén, R Mudoch, P Johnson, The Four Keys to Digital Trust, Accenture, 2014. They identify four dimensions that need to be satisfied for a brand to establish digital trust: security, privacy/data control, benefit/value, and accountability.

segment has active interest in the app's added value of convenience for shopping ease. Since they are the shoppers with the largest grocery baskets, meeting their app preferences holds genuine promise for sales growth.

This heavy shopper, digitally savvy segment was also most aware of data privacy concerns yet ready to barter their information for the personalization it provides. They appeared to frame their relationship with the retailer's shopping app with certain expectations for this data exchange. It is important to understand the nature of this critical consumer contract which enables their pursuit of app use with higher levels of personalization. It is a point of competitive differentiation for retailers in the further development and promotion of their app.

The Peck Fellowship Year Three Research Project

The flexible digital grocery app mobile platform encourages app customization and user value through access to personal data. This occurs at many points on the path to purchase. The Peck Fellowship Year Three research examines consumer perspectives on grocery retailer mobile apps and digital trust. Qualitative research was pursued with active digital grocery shoppers, using grocery retailer apps, to determine their expectations for their access to the app's provision of convenience and savings enabled by the exchange of their shopping choices and behaviors. A quantitative Digital Consumer Sentiment investigation examined the social media posts of a larger on-line consumer audience of grocery app users. This included an extensive review of posted comments from consumers of eleven major grocery retailers with active app programs. The intent is to identify the mobile app's positioning and operations most conducive to promoting digital trust. Creating consumer assurance on digital trust, a potential area of concern, provides guidance and competitive differentiation to the retailer successful in their interactions with their active digital customers.

The most digitally savvy grocery shoppers, labeled the Future group in the Peck Year Two Research Report, paradoxically have the most privacy concern and the most commitment to grocery app use. They frame their "relation" with the retailer on this topic with certain expectations. Despite their larger privacy concerns, it appears they are comfortable bartering their data for access to services or a discount, as well as enjoying the self-gratification and validation that shopping with the app creates. The latter hedonic, or emotional gratification, emerges as an under-reported yet very important component of grocery shopping mobile app use. This alignment with gamification behavior indicates the powerful ability of apps to engage users and satisfy them on dimensions beyond economic benefit and convenience. Capturing these non-

economic dimensions offers affordable and sticky opportunities for interaction with desired shoppers.

Better understanding the expectations of the exchange of grocery mobile app shopping information for services or discount (especially the non-monetary exchange which appeals to consumers) identifies approaches useful for retailer competitive advantage. Staying in front of the issue of consumer digital trust and knowing how to frame it in positive terms for discussion with consumers brings added value to grocery retailers

Findings – Qualitative Research

Low concern for sharing personal data

Digitally active grocery shoppers are aware and knowledgeable of personal data sharing during app use. They express low concern for negative consequences. Digital sharing is an accepted practice and not a deterrent to use. It is not perceived as a violation of rights, infringement of privacy, misuse, or abuse of personal information. Ubiquitous sharing of personal data on Facebook is considered a norm for many consumers, so the personal data collected by grocery shopping apps is viewed as inconsequential.

Primary negatives expressed are not security related but the annoyance of increased pop-up ads and junk email. This indicates an annoying failure of the data exchange to add value, but rather create inconvenient intrusion.

Overall consumer opinion seems to be resignation to the inevitability of technology and the consequences of internet use. Respondent comments on concerns with grocery app data collection include:

I don't think about it

A little late in the game to worry about it

Nothing is private

If it is digital, it's out there

We gave into privacy a long time ago

Inevitable

Part of the world we live in

Though not technically defensible, respondents believe there is an assumed safety in numbers, the more subscribers to the app, the more likely the privacy issue is vetted and digital trust established. They feel confident in the security of their smartphones, more so than in personal computers and websites, and transfer that assurance to the apps.

Personalization and Privacy Paradox

Consistent with academic research on the topic, consumer concern is more sensitive to the person's past experience with digital security², their expectation for privacy³ as well as the person's likelihood to take action about their privacy concern⁴. Most important is their perceived benefit-risk perception when trading their personal data for reciprocal gain. This is known as the "Personalization and Privacy Paradox"⁵ where proclaimed on-line privacy concern is sacrificed for perceived personalized benefit. The benefits are cost savings, special alerts, and convenience. Convenience mainly is considered in terms of ease and speed of transaction (item selection and payment), simplification of the shopping trip, and added enjoyment and satisfaction in the effort. These comments from respondents align with the functional classifications identified in the Peck Year One research for grocery shopping apps. Respondent comments revealing these sentiments include the following:

Economics:

Never know what savings are in store for you

Don't have to comparison shop

Convenience:

Grocery store is brutal, now there's more targeted shopping

Grocery shopping is not a favorite (the app) makes it fun

Track what people want

² Mark J.Keith , S Thompson, J Hale, P Lowry, C Greer, Information disclosure on mobile devices: Re-examining privacy calculus with actual user behavior, Intl J of Human-Computer Studies, Dec 2013, 71(12):1133-1143.

³ Jialiu Lin, S Arnin, J Hong, N Sadeh, J Lindqvist, K Zhang, Expectation and purpose: understanding users' mental models of mobile app privacy through crowdsourcing, [UbiComp '12](#) Proceedings of the 2012 ACM Conference on Ubiquitous Computing, 2012:501-510.

⁴ Carina Paine, U-D Reips, S Stieger, A Joinson, T Buchanan, Internet users' perceptions of 'privacy concerns' and 'privacy actions', Intl J of Computer-Human Studies, 65 (2007) 526-536.

⁵ Heng Xu, X Luo, J Carroll, M B Rosson, The personalization privacy paradox: An exploratory study of decision making process for location-aware marketing, Decision Support Systems, April 2011, 51(1):42-52.

Personalization:

(the app) is fantastic, I want it to know me

Stay on our radar

App learns as you go and changes to know you

The consumer's connection is overt between personal data exchange and marketing. It is generally considered benign and accepted in today's digital world. Comments include:

An even exchange – we give them data, they give us discounts, Nothing is free

Marketing research in action, A marketing tool

Ok as long as they keep the coupons coming

You give up a little privacy to save money

We're giving data, they're not taking

A grocery app is the least of my concerns

Datamining is streamlining, it limits what's available

Consumers also understand app usage changes their shopping behavior and their shopping basket. They see it directing them to national brands, focusing them on specific categories and products, encouraging new products, and “*skewing their pantry.*”

Non-economic gratification

Consumers repeatedly mention the added enjoyment and satisfaction experienced when using grocery shopping apps. They describe a gamification effect from app usage with emotional and psychological gratification. Respondents report the longer one uses grocery shopping apps the harder it is to imagine shopping without their assistance.

Comments include:

Like a treasure hunt

Makes shopping fun

Deals drive adventurous behavior

How could I shop without this (app)

Hyperpersonalization

There is a tipping point where personalization from data exchange becomes too intimate and “creepy,” and is identified as hyperpersonalization⁶. This is the point where digital trust is undermined because of a lack of transparency and control. Lack of transparency of collected data and its intent and use can surprise and disturb consumers. Lack of control is their inability to both know and limit the data collected and its purpose. Control issues are further exacerbated when consumers believe they do not understand how their personal data is collected and protected, as well as access to control it.⁷

In particular there is a strong distinction between capabilities enabling convenience and location identification. As a respondent reported “*Knowing where you are is creepier than knowing what you bought.*” Consumers distinguish between the offers they have indicated an interest to receive versus those that are opportunistically triggered by location⁸.

Continuum of Concern

Concerns were raised by respondents about past purchases being visible to other family members, and concerns on who else has access to the data. Respondents were particularly annoyed with sidebar ads that continue to haunt them on products searched and even purchased, making their interest in the item more public.

On a continuum of concern where grocery shopper tolerance of data sharing goes a long way, it runs aground at the thought of data shared with the government, health insurance agencies, and employers. While respondents cavalierly said that financials are private, groceries are not, the thought of grocery purchases being accessible to health insurance programs and employers is disturbing. Respondents, half-jokingly, spoke of their concern if their “salt pork”, “Coca-Cola, alcohol, and tobacco” purchases were shared with their employers and insurance providers. There was discussion, universally, on not wanting their food purchasing and other personal details shared with government agencies.

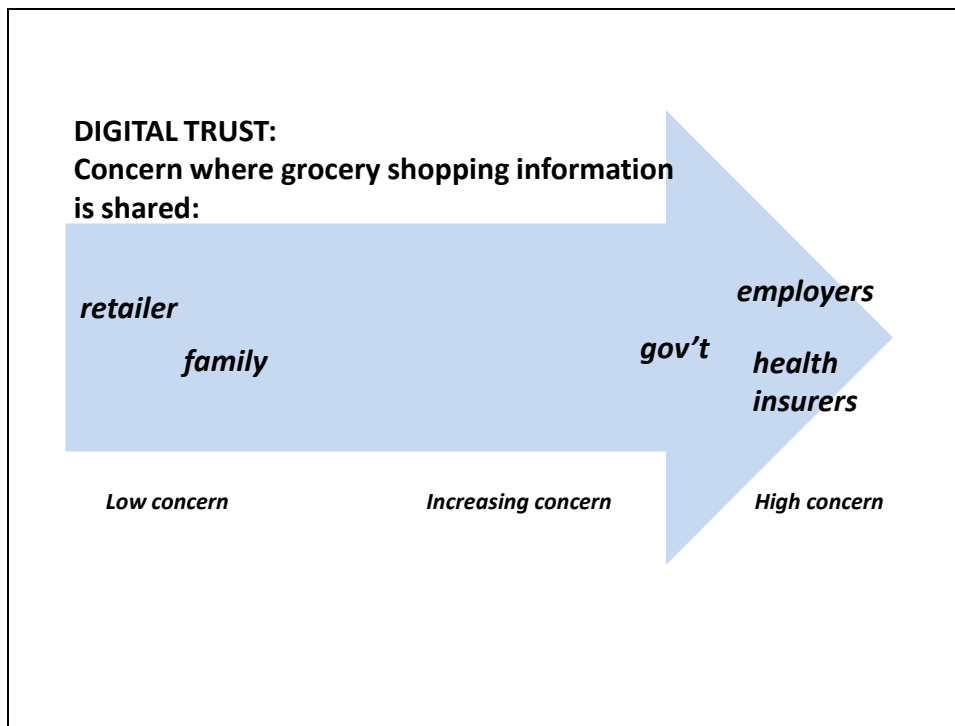
The reticence about health provider access to their data was voiced despite the existence of existing partnerships with some employers and insurers including a well-publicized arrangement with a large national retailer and HumanaVitality health insurer.

⁶ Paul Mahler, J Masket, B Walker, and D Nguyen, Retail Hyperpersonalization: Creepy versus Cool, Accenture, 2015.

⁷ Tamara Dinev, Why would we care about privacy?, European J of Information Systems, 2014, 23, 97-102.

⁸ Ibid, Xu, et.al.

In this case a HumanVitality plan member's purchase of products bearing the retailer's health icon earns rewards for their documented purchases of healthier foods.⁹



Though not top of mind, the thought of who is the app host or provider, if not the retailer, also gives pause. Consumers want transparent, secure, and trusted neutral hosts for the retailer's app. They volunteered Google, Amazon, and other trusted technology companies as acceptable examples as app hosts. The issue focuses on who owns their data, and is responsible for it.

Consumers expect that the grocery retailer owns the data, and not an undisclosed third party, and they have concerns for accountability of their data's use. When reflecting on this and realizing it may not be true they expressed some concern:

If (an app) is made by an outside developer I'm less likely to put in my private information, like my email address, give my credit card, or anything else asked for

(I wouldn't) necessarily trust a private entity as I would trust a specific named retailer or named food manufacturer.

I'm more likely to trust a regular known company (than an app developer)

Not (trust) somebody who has a stake in steering you towards them

⁹ <http://news.walmart.com/news-archive/2012/09/19/walmart-humanavitality-partner-for-first-of-its-kind-healthier-food-program> accessed May 15, 2015.

Desire for access and control of personal data

A repeated theme of the consumer discussion was the need for transparency and control over their shared personal data. Consumer ability to customize, or “auto select,” what is known of their shopping and purchase behavior is both important and reassuring. They desire access to their personal data and the ability to “opt out” and select what is shared and what isn’t. There is a tension that retailers have their personal data but don’t really know them as individuals and human beings. The desire for data control is repeated, both in this research and in multiple studies.

I want the ability to view (app data) like a credit report and to edit it

I want control over who gets it, how it’s shared, (how long is) the time it’s stored

(the data collector) is looking in the mirror without seeing our face, just our data

(the data collector) is behind a veil, they see us and we can’t see them

As identified by others, transparency is a cornerstone for digital trust and it is assured through flexibility, accessibility, and control.¹⁰

¹⁰ Consumers Want More Personalized Retail Experience, Progressive Grocer, March 9, 2015, accessed 3/10/2015. [http://www.progressivegrocer.com/node/77131?page=0%](http://www.progressivegrocer.com/node/77131?page=0%3A)

Findings – Assessment of Digital Consumer Sentiment

A quantitative Digital Consumer Sentiment investigation examined the social media posts of a larger on-line consumer audience of grocery app users. This included an extensive review of posted comments over two years from consumers of eleven major grocery retailers with active app programs. The intent is to identify the mobile app's positioning and operations most conducive to promoting digital trust.

Consumer sentiment for digital grocery shopping apps yielded the following word cloud:



Digital Grocery App Sentiment Word Cloud: 2013-2014, created 1/1/2015.

High consumer enthusiasm for successful grocery shopping apps

Consumers emphasize their engagement and pleasure with the apps and this resonates in their postings generating the word cloud. “Love” is the most frequently mentioned term, followed by “coupons,” then “easy” and “shopping list.”

Typical “Love” comments are similar to several messages below for a known and recognized retailer. The comments are enthusiastic and full of suggestions to further increase the app’s usefulness and value. These posts illustrate high consumer engagement, and provide useful feedback and positive word-of-mouth. Throughout this section, in accordance with FMI policy, individual food retailer names were replaced with: [FoodRetailer].

@[\[FoodRetailer\]](#) Please make a [\[FoodRetailer\] app](#) for Windows Phone, I would love to use your awesome little phone scanner at register for my [\[FoodRetailer\]](#) card!



@[\[FoodRetailer\]](#)-LOVE you guys! One suggestion for [\[FoodRetailer\] app](#): would love to save my own recipes so I could add them to grocery list. Thanks! [#bestever](#)



I love this [\[FoodRetailer\] app](#). It makes grocery shopping less of a hassle.



The next four most frequent terms are “amazing,” “cool,” “convenient,” and “useful.” In this more spontaneous format of posting on grocery shopping apps, the elements of excitement/satisfaction and convenience are strongest, and more immediate than statements concerning savings. This again demonstrates the opportunity of a successful grocery shopping app to provide competitive differentiation on a non-economic dimension. Examining the enthusiasm for apps with the tags “cool” and “amazing” generates more evidence illustrating the hedonic impact of grocery shopping apps. The examples indicate how the value of savings is transformed into excitement attributed to the app.

Oh my gosh the [\[FoodRetailer\] app](#) is amazing. Where have you been all my life



but mostly I credit all the savings to the [\[FoodRetailer\] app](#)....that thing is amazing!!!!



Just realized how awesome the [@\[FoodRetailer\] app](#) actually is. It's so user friendly and useful! [#GreatWork](#)



OMG - the [\[FoodRetailer\] app](#) is amazing! You make your list and it tells you what isle to find everything in!!! [#timeismoney](#)



@[\[FoodRetailer\]](#) mobile **app** is too **cool**. By far the most useful store **app** so far.



So because I'm so domestic, I downloaded the [@\[FoodRetailer\]](#) **app** and made my grocery list. It tells me what isle my stuff is on. **SO COOL**



Consumer desire for savings is displayed via their comments on coupons and discounts. The app user often recasts the savings acknowledging it as convenience. Note the use of hashtags further broadcasting consumer sentiment about grocery shopping apps:

No more clipping!!! [@\[FoodRetailer\]](#) mobile **app** makes shopping so much easier and **convenient**. #gotacoupon #gotifree #bzzagent



The [@\[FoodRetailer\]](#) mobile **app** is really well done. Loaded with digital coupons and other **useful** features.



Hey [@\[FoodRetailer\]](#), you're awesome & I love the new [#\[DigitalProgram\]](#) **discounts!** I saved **TWICE AS MUCH** w/my [#iPhone](#) [#\[FoodRetailer\]](#) **app** as I did before it!



Just went out of my way to download the [\[FoodRetailer\]](#) **app**, so I can get additional grocery **discounts**. Is this what grown up life is like? [#coupons](#)



Technology, w00t! Added the [#\[FoodRetailer\]](#) **app** to my iPod, now I have lists and **coupons** there! [#amshopping](#)



[@\[FoodRetailer\]](#) digital **app**, No clipping,organizing. Just click what you need.Get **personalized** coupons on your purchases & much more [#GotACoupon](#)



App concerns for digital trust, noted by the terms “tracking,” “privacy,” “permission,” and “trust” are minimal, reinforcing findings from the qualitative research discussed earlier. The tension of the Personalization and Privacy Paradox is evident in their comments:

@[\[TwitterUser\]](#) I know that [\[FoodRetailer\]](#) tracks purchases but I didn't think that was tied to twitter, but I do have the [\[FoodRetailer\] app](#) ...hmm [#privacy](#)
View conversation

Am I excited or terrified that [\[FoodRetailer\]](#) offers an [app](#) that lists every product I've ever bought there? [#privacy](#) vs [#efficiency](#)

@[\[FoodRetailer\]](#) I love that [\[FoodRetailer\] app](#) logs my previous purchases so I can keep [track](#) of my favorite products or find new ones! [#\[FoodRetailer\]app](#)
View conversation

Grocery shopping apps differentiate retailers

A diligent review of app comments on retailer shopping apps validates that a successful app differentiates a retailer and generates unsolicited enthusiasm through posting. The more successful retailers are amply represented in the sampling of consumer posts shared in this study.

Several of the retailers with successful apps succeed by differentiating their apps functionality. One retailer is noted for their app generating enthusiasm for customization and convenience functions, including deli pre-order, and for diligent management of their social media. Another retailer’s app stands out for personalized and easily accessed coupons and savings. A third example of differentiation is provided by a retailer recognized by consumers for their well-provided app including basics and use of how-to videos, and a successful customer engagement program on social media.

A large number of retailers have apps that were not seen as distinguished or exciting by consumer posters. Consumers mention some because the retailer’s app was too pedestrian, was difficult to use, or has poor performance in-store due to limited Wi-Fi connectivity or store personnel unfamiliar with their store’s app:

Fails you at point of sale

Problems at checkout...the scanner or the checker rejects you

Glitches, bugs, crashes

Recommendations for Retailers

The research leads to several recommendations for retailers regarding design, promotion and operation of grocery shopping apps.

Observation 1: Savings and convenience drive mobile app usage but are quickly matched with consumer enthusiasm over the experience of mastering the app as a shopping aid. Heightening the engagement and personal satisfaction derived from app usage will retain consumers more than the original attraction to savings.

Takeaways to Consider:

- Introduce gamification tactics to incent and reward app users in non-economic ways.
- Recognize for many consumers a major mass merchandiser's popular app is a point of reference for grocery shopping app users for saving and coupon functions.
- Consider *Passbook* or a similar application service to allow consumers to store retailer coupons.
- Social media activity spikes for a grocery shopping app right after an update. Be prepared for a timely response as this allows both opportunity for personalized interaction and feedback on the upgrade.
- Monitor commentary of your app to learn desired functions for app expansion
- Recognize that digitally savvy grocery shoppers use multiple devices. Design your app for cross-functionality across smartphones, tablets, notebooks, and laptops.
- Make your app accessible on platforms of iOS, Android, and Windows.
- Be sure in-store connectivity is functional and fast. Prepare employees to engage with their customers who use their digital app.
- Consider expanding the grocery app for m-commerce and in-store pickup, where available it's well received.
- Notification that an item on the shopper's digital shopping list is on sale will be well received.

Observation 2: Privacy is not a major concern of digitally active grocery shoppers. They accept as a norm the exchange of personal data on grocery purchases and shopping behavior for savings, convenience, and engagement. The Personalization and Privacy Paradox exists and can be tripped generating concern. Such circumstances should be avoided.

Takeaways to consider:

- Key factors to promote digital trust are the consumers' ability to view and control their collected data and have transparency of their data's use and how it's shared.

- Be cautious of the extent of hyperpersonalization which can “creep out” consumers with its intimate familiarity and prediction of personal preferences and behaviors. Allow the consumer to control the level of personalization offered.
- Location based technology needs to be consumer controlled for “opt in.” A location tracking function is a larger concern to shoppers than collecting their grocery purchases.
- Be overt that your grocery shopping data is not accessible to health insurers, employers, and government entities.
- Identify who hosts your grocery mobile app.

Observation 3: Issues of digital trust are continually evolving and offering opportunities for engaging consumers.

Takeaways to consider:

- Evolving opportunities near term for consumer digital trust include integration of Apple Pay, integration with iBeacon technology, and integration with the Apple watch platform.
- Be aware that shoppers using their shopping app within the grocery store may be subjected to a nascent low level of satire for their enthusiastic techy shopping behavior.

Observation 4: Digital trust in a retailer’s grocery shopping app will gain in importance. Transparency will be the strongest way to protect digital trust in grocery shopping app users.

Takeaways to consider:

- Digital trust is a major dimension for building competitive differentiation with consumers.
- Specific suggestions for addressing the multiple dimensions of digital trust gained via transparency are presented in the table on page 21.

Observation 5: Grocery apps are a sustainable innovation technology which blends and transitions grocery shopping habits from traditional behaviors to more personalized, intimately convenient, and self-gratifying digital experiences.

Takeaways to consider:

- M-assisted retailing provided through the grocery app aids the consumer on their path to purchase with many functions such as circular view, shopping list, price comparison, recipe rationalization, coupon selection, and pantry organization, among many others.
- A shopping app that is successfully designed, supported, and trusted increases consumer loyalty with their retailer. Increasing shopper confidence in the shopping app encourages pursuit of more personalized and specific app use further growing consumer loyalty with their retailer.

- Confidence is needed in both the operational accuracy of the app, and in the assurance of digital trust derived from transparency and consumer control over their increasing personal shared data.
- Grocery shopping apps, as a sustainable innovation technology, facilitate but are separate from the disruptive innovation of online grocery e-commerce.

Concluding Thoughts

The trilogy of Peck Research studies on consumer use of grocery shopping apps explored the preferred functions and concerns with grocery app use, the segmented consumer profiles of app users and their preferences, and the contract of digital trust between the app user and the retailer. The Peck research program began by determining that grocery shopping apps will evolve as sustainable innovation encouraging m-assisted retailing. This facilitates, but is separate, from the disruptive innovation of online grocery e-commerce from digital entities without store sites. The sustaining innovation of grocery shopping apps enables consumer engagement in non-economic dimensions and promotes retailer differentiation.

As originally explored in Year One, grocery apps are a sustainable innovation technology which blends and transitions grocery shopping habits from traditional behaviors to more personalized, intimately convenient, and self-gratifying digital experiences. Consumers are finding far more efficient, economically rewarding, and personally engaging experiences with their retailer as they transfer their many behaviors on the path to purchase, such as circular view, shopping list, price comparison, coupon selection, recipe rationalization, and pantry organization onto their mobile device through the app. For a shopping app successfully designed, supported, and trusted, this success encourages pursuit of more personalized and specific app use as the consumer increases confidence and loyalty with their retailer's shopping app, and with their retailer.

Trust Building Through Transparency for Mobile Grocery Shopping Apps

Suggested actions to enhance digital trust with grocery app operations.

<i>Dimensions of</i>	<i>Transparency:</i>	<i>Recommended action:</i>
MOTIVATION	Consistently show you understand and appreciate user issues and demonstrate that their interest comes first	Execute 'opt out' requests and address app host, and other questions in a timely manner.
DISCLOSURE	Share information that is easy to find and easy to access for timely decision making	Fully disclose what data is captured, how it is stored, who sees it, and how the consumer can access it for control, identify the app's host.
PARTICIPATION	Ask for user input, and make it easy to provide, acknowledge its receipt, and explain decision process	Make it easy for consumers to engage you with questions and suggestions. Consider a highly engaging, responsive, participatory and game-like app
RELEVANCE	Ask users what information is meaningful, demonstrate your understanding and provide what is relevant	Request feedback on app functionality and solicit ideas for innovation
CLARITY	Provide information and processes that are easy to understand and use	Make it easy for consumers to access and control their personal data
ACCURACY	Share information that is truthful, objective, reliable and complete	Keep your digital privacy policy current, simple to access, and easy to understand
CREDIBILITY	Admit mistakes, apologize, accept responsibility, engage critics and share plans for corrective action. Demonstrate care and show more than one side of issue.	Present the benefits and risks of data sharing on your app. Provide evidence of benefits, perhaps through gamification programs tracking benefits.

Adapted from The Center for Food Integrity's model for Trust-Building Transparency, copyright 2014. www.foodintegrity.org, for application for the management of grocery shopping apps based on consumer concerns and preferences.

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Methodology

Qualitative Research

Groups were conducted in Philadelphia in December 2014 with 20 participants. There was a mixture of ages, family composition, occupations, leisure activities, and ownership of a range of digital devices. All were primary or shared grocery shoppers who own smartphones and use grocery shopping apps several times or more in a two week period.

Grocery App Digital Sentiment Methodology

Research Objective: Explore terminology and collect a sample of the consumer sentiment in regards to digital grocery retailer apps in social media. Eleven major grocery retailers with active app programs were included in the research.

Process:

1. Identified consumer sentiment towards grocery apps in focus groups with heavy users, and exploratory search of social media mentions.
2. Met with digital search expert, Liz Caselli-Michael of the International Food Information Council, which yielded insight to successful digital research methods.
3. Defined sample Digital Grocery Apps list and Sample Key Words (see below)
4. Three systems were used to track mentions of grocery apps during selected time frame: 2013-2014.
 - a. Topsy: A social search tool *free*
 - b. TrackUR: A social media monitoring tool *free*
 - c. Twitter: The Twitter platform has a cumulative search function necessary to search specific key words *free*
5. Manual search through key word results was necessary to track mentions of terms, and gauge qualitative mentions.
6. Created to scale word cloud to visually demonstrate digital app qualitative sentiment using the free Java program <http://www.jasondavies.com/wordcloud/>
7. Identified key research takeaways, list of associated hashtags (publically searchable) and deliverables based on consumer qualitative mentions.

Key Words: independently selected and vetted by N. Childs and J. Robinson from the focus group discussions based on word use and discussion themes

- Privacy
- Permission
- Tracking (positive and negative)
- Wi-Fi
- Track
- Trust
- Easy
- Cool
- Useful
- Amazing
- Order Online
- Love
- Convenient
- Discounts
- Coupons
- Personalized
- Shopping list
- Slow
- Specials
- Health
- Control

Research Assistant: Joey Robinson '15

Gerald E. Peck Fellowship

In 1986, the National-American Wholesale Grocers' Association (NAWGA) established an endowment in recognition of the achievements of retiring NAWGA President Gerald Peck to support teaching and research in food wholesale management. The Peck Fellowship has evolved to a series of three year appointments of Food Marketing Professors from Saint Joseph's University in Philadelphia, PA, to contribute to the understanding of issues relating to food retailing and foodservice through research.

The current Peck Fellow is Dr. Nancy Childs, Professor of Food Marketing and National Representative for Food Marketing and Retailing Issues on the USDA Secretary's NAREEE Advisory Board. Her research appointment is with the Food Marketing Institute for three years concluding 2015.

She focuses on digital grocery commerce. In particular her Year One work focused on the potential for grocery shopping apps and mobile-assisted grocery shopping. The work uncovered grocery app functions and barriers critical to shopper success with the smartphone technology. She also examined the evolution of new growth opportunities with m-assisted grocery shopping apps from an innovation lens. The investigation concluded a sustaining innovation approach will advantage retailers. The Year Two Report examined four digital segments of grocery app users and investigated which app functions and barriers dominated in each segment. These quantitative findings help determine a retailer's best digital strategy for mobile app development. Her Year One and Year Two reports are available for download from the FMI Store at www.fmi.org.