

MOBILE MARKETING STRATEGIES FOR EDUCATIONAL PROGRAMS

Mary Beth McCabe, National University Richard Weaver, National University

ABSTRACT

Today's wireless mobile devices have changed how the world behaves and how education is distributed and promoted. The research reviewed mobile marketing through promotion and place of educational programs to understand how brands are behaving and the effect on consumers. The authors considered the following two questions: In what ways does mobile marketing deliver value to customers? How is mobile marketing used to differentiate the brand? The authors identified a select set of educational organizations who were providing similar services based on their websites at the time. The authors, learned about a range of examples on how mobile marketing can be utilized to promote and distribute educational information services. The authors assessed what contributed in providing value to the user. The criteria the authors assessed were: satisfaction, learnability, accessibility, efficiency and usability. A list of which websites have the most impact on the mobile screen is provided. A suggested model for degree of optimization includes four levels of mobile marketing progression: PC computer-based, progressing, partially optimized, and fully optimized.

JEL: M30, M31, M37

KEYWORDS: Mobile Marketing, Optimization Digital Marketing, Smartphones, Marketing in Education Programs, Strategy

INTRODUCTION

The radical shift in the ways people access the Internet via mobile devices has dramatically changed the ways that marketers choose to reach their target markets. In 2018, mobile ads will capture more than a third of total US Media Ad Spend, surpassing TV for the first time. By 2022, mobile's advertising share will be at 47.9% (eMarketer, 2018). It is predicted that nearly 70% of digital advertising will go to mobile formats.

In 2017, 42.4% of North American webpage views were accessed using a mobile device. World-wide, the percentage was even higher, 49.7% (Share of mobile, Statista, 2018). These mobile device percentages are expected to increase over the next few years, with a decline in desktop computing access. Marketers have expressed concern that people will not recall advertisements on mobile devices such as tablets or smartphones to the degree they would when viewing an ad on a laptop or desktop computer. A survey in 2015 found no significant difference between the impact of ads on the smaller vs. larger screens (Mobile video advertising, Statista. 2015). Marketers must respond to a shift in computing access or risk losing contact with their customers. They must adapt to new ways of presenting information and interacting with customers to succeed in this new environment.

Organizations that serve the k-12 (kindergarten-12th grade) educational needs are not keeping up with this critical technical and social change. Traditionally, the organization's websites have been warehouses or specialized libraries for information needed by their customers. The organizations made the transition to

digital files from analog to the Internet to display content on desktops and laptops. Educational organizations demonstrated various levels of marketing creativity in how they promoted their organizations on digital media (McCabe & Weaver, 2018). The mobile environment offers a very different set of constraints and opportunities compared to desktop or laptop computers. Businesses lack a mobile marketing plan, in four out of ten instances (Vermes, 2016). Brands, including those serving the k-12 educational industry are faced with the choice of: 1) customizing their content to mobile as a first priority, 2) allowing their desktop/laptop computer-oriented website to display in this default mode, or 3) some approach in between.

Of particular interest to these researchers were educational marketers offering services in the following areas: establish a positive school culture, increase academic performance, improve safety, decrease problem behavior, and creating physically active classrooms. This research will explore what services and information these organizations offer via mobile devices. The authors asked the following: How is the organization and its services presented on mobile and, does the organization utilize mobile media? This paper addresses which educational programs provided value to customers, and what organizations are doing to promote the brands via mobile devices, and then evaluate/explain how that message is being communicated.

LITERATURE REVIEW

According to Mirkowich (1940), Schumpeter's theory of economic development regarding new value creation and technological innovation has been around since 1940. This theory distinguishes between business cycle concepts and economic changes. There was a logical and systematic meaning to how these cycles of technology and innovation made advancements in business and the welfare of society (Mirkowich, 1940). The structure of information and access is changing as the mobile device has become mainstream (Ghose & Han, 2011; Andrews, Luo, Fang et al, 2015). Through mobile technology, innovation, and expansion beyond production can move toward promotion and open communication. The focus on promotion in society assists the process of transforming communications (Hartman, 2014).

Gupta & Hilal (2011) studied adapting to new technology. They found that since mobile phones are replacing personal computers, users are browsing the internet with a different experience. That experience is now people are spending more time with personal smartphones and interacting with them from when they wake in the morning until they sleep at night. They have more access to information than ever and the digital experience includes security and quality of the data to be considered.

Hopkins & Turner (2012) refer to e-commerce options for mobile strategies, creating a mobile version of the website, so the user is routed to a mobile page, or a dedicated application (app) that is the optimal display on the device used to view the content and provide customers with a direct and ever-present link to a company's products. These are available through the Android Play store and the Apple App store. Most apps are either for purchase or free, and in that case, require permission to collect user data. The app stores have millions of choices available for download.

Marketing via mobile is a major marketing challenge for most businesses, including marketing mobile apps. (Becker and Arnold, 2010; Becker, Berney et al, 2018). Mobile games are increasingly used to engage with customers using apps. For a business to be sustainable more than 3 years, they needed to have social media, networks and mobile games available (Waller, Hockin & Smith, 2017). Mobile apps are used in education for marketing and recruitment of new students (Pechenkina, 2017). Mobile apps have made education more convenient. Students have found that this gives them more time to study, solidify the content of lectures, self-test their knowledge and collaborate. However, there are gaps in the research about which types of apps are most common in higher education. Augmented reality and virtual reality apps are emerging. Concerns for safety, student support, privacy and equity have been raised (Pechenkina, 2017).

Values that are created by apps include perceived ubiquity, an element that includes the always on interactivity, immediate, portable and searchable (Kim, Wang & Malthouse, 2015). Value and convenience come as a result of apps. Among other things, apps create awareness, attitudes, intentions and behaviors (Kim, Wang, & Malthouse, 2015) and this study reports that among other things, branded apps increases purchase behavior.

Mobile Experience and Branding

Kotler & Armstrong (1999) looked at what differences in brand should be promoted: Important – delivers the greatest value to customers, Distinctive – competitors do not offer the difference, Superior – difference is superior to other ways customer can obtain the same benefit, and Communicable – difference is communicable and visible to customers.

David Aaker defined brand equity as "a set of assets (and liabilities) linked to a brand's name and symbol that adds to (or subtracts from) the value provided by a product or server to a firm or that firm's customers." He claims that brand relevance threats are always lurking. The brand relevance is never immune from fading. There is a risk of damage to a brand when it becomes faded instead of stronger. This loss of relevance can happen even if a brand is popular. If people stop buying the category or sub-category of product, it can become irrelevant (Aaker, 2013).

Kotler & Keller (2006) conceived of brand equity as a bridge to connect with customer and potential customers. They considered the Brand Promise as: "the marketer's vision of what the brand must be and do for consumers. At the end of the day, the true value and future prospects of a brand rest with consumers, their knowledge about the brand, and their likely response to marketing activities as a result of this knowledge." Kotler & Keller created the well-known Brand Asset Valuator (BAV) later developed by Young & Rubicon advertising agency as a tool to value the brand in monetary currency.

Kotler & Keller (2006) also presented a BrandDynamics[™] Pyramid developed by Millward Brown, which include: Presence, Relevance, Performance, Advantage, and Bonding. Keller's Brand Resonance Model's Brand Building Blocks are depicted in pyramid form from low to high levels: Salience, Performance, Imagery, Judgements, Feelings, and Resonance. "Brands are one of the most valuable intangible assets that firms have" (Keller & Lehmann, 2006).

METHODOLOGY

The authors used key words for outcomes of these educational programs, based on what users would be searching for. The authors looked at these criteria: 1) Establish a positive school culture, 2) Increase academic performance, 3) Improve safety, 4) Decrease problem behavior and 5) Encourage physically active classrooms/education.

The authors searched keywords which were educational outcomes, based on DePorter, Reardon & Singer-Nourie (1999) research in k-12 education. Then, they visited each website, the social media associated with each website, and finally the mobile websites were examined on multiple devices.

The authors considered how these organizations used these terms for promotional messaging, a form of branding the organization. They considered the product or service that the organization was promoting in the analysis. Independently, the authors built Excel spreadsheets and viewed how organizations presented on mobile websites. The next phase of the methodology was to review the mobile experience of the promotional elements. The authors visited the websites on mobile phones and gathered data on the visual elements of the promotion. They also looked to see if there were any downloadable apps for the selected organizations.

Using the following rubric, they created a ranking system based on the following factors. Higher scores meant that the mobile experiences were interactive (Aziz & Kamludin, 2014). The criteria were: 1) Usability – effectiveness – degree user can complete goal, 2) Efficiency – resources needed by user to complete goal, 3) Accessibility – can everyone access what is necessary to complete goal, 4) Learnability – how easily user can learn to interact with website, and 5) Satisfaction – how comfortable user is with interacting with website. Websites were explored on mobile devices on October 11, 2016, November 26, 2017, and August 7 & 8, 2018.

The authors created Table 1 to collect data for judging mobile website experiences. They did not see any mobile apps for any of the educational brands considered in this study. Why there were no mobile apps caught their attention. The authors reviewed a mobile website, Kargo (https://www.kargo.com), which they consider to be a benchmark for today's marketers, based on optimized content delivery and impact. This website is attractive and engaging, providing a benchmark for a systematic comparison to the websites found in the education industry and as described in research conclusions.

Mobile Marketing Delivers Value to Customers

The initial research questions considered value criteria for mobile functionality including: Place (channels of delivery, ex., and a digital space via internet) and Promotion evaluation: Satisfaction, Learnability, Accessibility, Efficiency, and Usability (Aziz & Kamludin, 2014). The authors independently collected this data in August 2018 and then compared with the other researcher. The metrics were clearly visible during the research process. The authors used rubrics with specific outcomes and then gathered in spreadsheets and added qualitative comments.

A second research question considered how mobile marketing is used to differentiate the brand. The study methodology considered how organizations differentiate in marketing. The researchers considered Promotion- positioning brands. Service–order ease, customer training and consultation. The authors also considered what actions the users could make on the mobile web pages.

The research considered the ways that branding promotes differences: Important – delivers the greatest value to customers, Distinctive – competitors do not offer the difference, Superior – difference is superior to other ways customer can obtain the same benefit, and Communicable – difference is communicable and visible to customers (Kotler & Armstrong, 1999).

Cutting edge indicators were selected based on priorities. The researchers looked at national trends, including a CDE digital school districts survey: Top 10 for 2017-18. The three top trends were 1) Personalized Learning, 2) Digital Content, and 3) Professional Development/Skills Training (Castillas, 2018).

RESULTS AND DISCUSSION

In Table 1 the criteria for evaluating the mobile website experiences is presented. For each of the five criteria (effectiveness, navigation, learnability, open access, and satisfaction) the websites were rated on a scale of 4-1, highest to lowest rating.

	4	3	2	1
Effectiveness	All information sought	Most information sought	Some information sought	Cannot find information sought
Navigation	Quickly see links on landing page to information sought	Must explore multiple pages to find information sought	Must use site search tool to find information sought	Cannot find information sought
Learnability	Site intuitively obvious to first time visitor	Navigation is productive after some trial-and-error	Navigation is challenging but can be learned	Navigation is a barrier to learning how to navigate site
Open access	Has access rights to all information sought	Has access rights to some information sought	Must join organization or pay fee for information sought	Cannot gain access unless a part of target group
Satisfaction	Visit exceeds expectations	Visit meets expectations	Visit short of expectations	Visit fails in addressing expectations

Table 1 presents the criteria used when judging the experience of visiting the mobile websites. The scale is 1 is low and 4 is high value.

Table 2 presents the ratings based on the criteria presented in Table 1. The organizations are presented in alphabetical order. It can be noted that there was quite a range for these organizations both within particular criteria and for the overall rating.

	Effectiveness Ease of Navigat		Learnability	Open Access	Satisfaction	Total	
ASCA	2	1	3	2	1	9	
ASCD	3	2	3	3	3	14	
Edutopia	3	3	4	3	3	16	
FISH	2	2	3	3	2	12	
Greater Good	2	3	3	3	3	14	
NAESP	3	2	3	3	3	14	
New York Dept. of Ed.	3	2	3	3	3	14	
Safe Support	2	2	3	3	2	12	
Success for All	2	2	3	1	2	10	
We Are Teachers	3	2	3	3	3	14	
Total	25	21	31	27	25		

Table 2: Mobile Marketing Display Evaluation

Table 2 indicates the totals in the right hand column represents the different each website reflected the criteria listed.

Table 2, right side total, has a top potential of 20 points, and the highest scores were 16 and 14, so websites are ranked in the evaluation. Edutopia was a leader in the category. Most of the results were in the midrange. ASCA had the lowest score, with a 9. Table 2 bottom totals, views the pages collectively. How did the mobile web displays perform using this criteria? The displayed pages performed best on Learnability and the worst on Ease of Navigation. The highest category of the five selected, was 31 out of a potential 40 points for Learnability.

Assessing the ease of navigation was a challenge. Navigation issues include: scrolling vs. expanding images and text, clicks vs. first page viewing ability, access, and techniques of pinch vs. expanding pages with fingers for readability.

Establishing an Organization Brand in Mobile

The purpose of branding is to communicate to the target market how the organization understands the needs of the customers and responds effectively to those needs. Done well, branding creates the perception that the organization understands the customers' needs and can quickly satisfy those needs. The desired outcome for the brand is for it to be the preferred choice for the customer and to encourage loyalty to the organization to solve their needs. The authors examined the aspects of Importance, Distinctiveness, Superiority, and Communicability. Table 3 presents the criteria for judging branding.

	4	3	2	1	
Important					
Benefits from search	Information on landing page	Information within two clicks	Information within four clicks – path not obvious	Could not find information sought	
Cutting edge	All three indicators of cutting edge*	Two indicators of cutting edge*	One indicator of cutting edge*	No indicators of cutting edge*	
Distinctive	Significantly more of expected than competitors	More of what was expected than competitors	pected than expected than expected		
Superior					
Access to desired benefit	Easy to access desired content	Somewhat easy to access desired content	Somewhat difficult to access desired content	Difficult to access desired content	
Loading speed	Much faster than expected	Faster than expected	Slower than expected	Much slower than expected	
Communicable					
Clarity	Immediate clarity of match	Some clarity of match	Eventual clarity of match	No clarity of match	
Design elements/ video	Visual elements are effective – use video	Visual elements are somewhat effective, some use of video	Visual elements are less effective, marginal video	Visual elements are not effective, no video	
Text Text is complementary with other elements		Text is somewhat complementary with other elements	Communicates primarily through text	Communicates entirely using text	

Table 3: Criteria for Judging Branding

*The three cutting edge indicators were personalized learning, digital content and curriculum, and professional development/skills training (Castillas, 2018). Table 3 presents the criteria used when judging the branding efforts of the websites. The scale is 1 is low and 4 is high value.

When looking at the education-related websites, it was clear that some of these websites were making conscious efforts to promote their brand while others appeared to be less attentive to this process. These judgements were the result of evaluating the websites presented by the selected organizations using the criteria proposed by Kotler & Armstrong (1999). This is what the authors found and rated: Importance, Distinctiveness, Superiority, and Communicability. Using these criteria, different approaches to branding became apparent, as indicated in the results of this qualitative study. Table 4 presents the data on branding assessment.

Overall, Edutopia scored the highest (28) on this branding assessment evaluation. They especially excelled in having cutting edge content that was often not offered by the competition. The Edutopia content was available without fees or other commitments such as adding an email address or becoming a member. The website loaded quickly on mobile devices. This contrasted with the website for the New York State Education Department (12). On this website, it was a challenge to finding the content being sought. Although there was extensive information, it was older and dated. Similar content was found on other websites. Access was difficult, made more so due to the website loading slowly. The design of the New York State website was not be optimized for mobile. It appeared to be the same as a desktop experience displayed on mobile devices. FISH! (27) and the Association for Supervision and Curriculum Development (ASCD) (26) were quite close to Edutopia in branding performance.

	Important		Distinctive S		uperior		Communicable		Total
	First Page/ # of Clicks	Cutting Edge	Offering	Access	Speed	Clarity	Design/ Video	Text	
Am School Counselor Assoc.	2	2	1	1	3	2	3	2	16
Assoc. Supervision & Curriculum Dev.	3	3	4	3	4	2	3	4	26
Edutopia	3	4	4	4	4	3	3	3	28
FISH!	3	2	4	3	4	3	4	4	27
Greater Good Science Ctr.	3	2	3	3	3	3	3	3	23
Nat Assoc of Elem School Principals	3	2	2	3	2	2	3	3	20
NY State Education Dept.	1	1	2	1	2	2	2	1	12
Safe Supportive Learning	4	2	2	3	3	3	2	2	21
Success for All Foundation	2	4	3	2	3	3	3	3	23
We Are Teachers	2	3	2	3	3	3	3	3	22

Table 4: Branding Assessment Evaluation

Table 4 reports the results of assessing branding related content, appearance, and navigation on websites. The scale is 1 is low and 4 is high value.

It was informative to look at how the different websites approached each of the areas that were examined. In looking at Importance, which was the apparent value provided to the customers, two indicators (immediacy of desired content and the degree the content is on the cutting edge) were examined. Cutting edge content was determined by the presence of personalized learning, digital content and curriculum, and professional development skills. The New York State Education Department's website had a home page that was focused more on regulations than content for improving education. It took clicking through multiple pages to find the content and the content was dated, literally with material dated from five to ten years earlier. This contrasted with Safe Supportive Learning which had a large number of links on its home page so the content was quickly available but required extreme zooming to read and activate the links. Success for All Foundation had cutting edge content that had a fresh perspective.

Distinctiveness was a determination of what was not available on competitive websites. Content was compared to content among the other websites in this study. The Association for Supervision and Curriculum Development, Edutopia, and FISH! had content that was unique to their websites. The American School Counselor Association had the least unique information on its website.

Superiority was defined as meeting the needs of the customers in better ways. In this study, the degree of or barriers to access to the content plus speed that websites loaded were deemed to be indicators of superiority. Edutopia made all of its content accessible to visitors. Barriers to access were often requirements that a visitor become a member of the organization sponsoring the website on professional organizations or expecting payment for the commercial sites. Several websites required enrolling with an email address but no fee was expected. This approach was viewed as a lessor barrier. New York Department of Education and The American School Counselor Association provided the greatest barriers to access. Association for Supervision and Curriculum Development, Edutopia, and FISH had the fastest loading times for their websites.

Communicability addressed the how easily the value to customers was experienced. In this category the clarity of the navigation was rated. Additionally, the overall design of the website, including use of graphics and video were considered. Finally, the dependence and helpfulness of the text on the site was assessed.

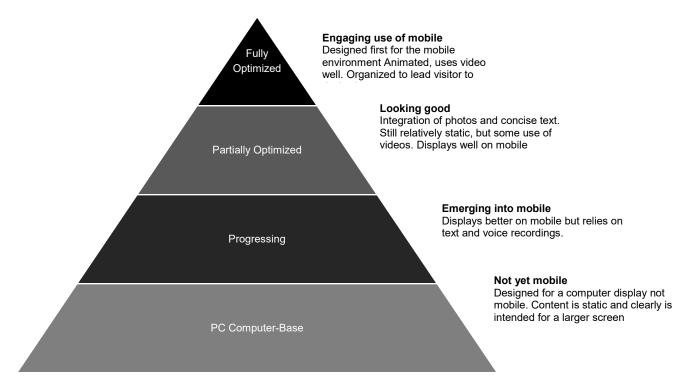
Again, the New York State Department of Education was the lowest rated in each of the three areas. Edutopia was rated the highest in each of the three.

Overall, the authors evaluated the public space that people will be able to see the brand for free on the internet. The researchers saw what the organizations have created for their constituents, their market segments and to communicate their messages. The authors did not have access behind any firewalls or gated content.

Mobile Optimization

An important lesson learned from this research was that adapting to the mobile environment is a challenging process to both conceive how to best utilize this environment and to master the technical requirements for this transition. The websites examined reflected differing progress in this conversion. These websites could be categorized at three levels of adaptation to mobile: 1) Still offering a website that is designed for display and PC computer-based. Content tends to be static with little engaging aspects. There is a dependence on text and photos. 2) Progressing with some elements intended to function well on mobile. Still more reliant on text, some use of voice recordings and videos to provide content. 3) The website is partially optimized for the mobile environment. It is looking good, more engaging with the use of videos beyond the presentation of content. 4) Full optimization for the mobile environment is evident. Striking images and colors display well on a mobile device which engages a visitor. Text is at a minimum, used to guide. See Figure 1 for a depiction of degree of optimization for mobile environment.

Figure 1: Degree of Optimization for Mobile Environment



Evaluating the websites in this study using this approach leads to these assessments: New York Education Department presents a PC Computer Based mobile experience. American School Counselor Association, Greater Good Science Center, National Association of Elementary School Principals, Success For All Foundation, and We Are Teachers at the Progressing level. Association for Supervision and Curriculum

Development, Edutopia, and FISH! are Partially Optimized. None of the websites reviewed fit the fully optimized degree, with the benchmark of Kargo.com as fitting this level.

As one additional evaluative step, each of the websites was compared to a website that had been identified as an example of cutting-edge use of the mobile platform. This site, kargo.com, offers web design services for organizations wishing to improve their web presence on mobile. As Kargo's primary initial sales tool, it models the various approaches to use this mobile environment more effectively. The site used short videos and attention-grabbing images to draw visitors into the content they wished to share. The website loaded quickly and was easy to navigate. Only Edutopia and FISH! Philosophy began to approach this high standard as each had important areas for improvement of their branding.

Organizations have very different approaches to using the mobile environment as a means to communicate with their current and potential users/customers. Brands can differentiate their competitors and cut through the clutter of unclear distinction. Some view their websites primarily as an archive, a repository for documents. These websites were minimally optimized for the mobile environment. An apparent challenge is to recognize just how differently web pages appear on a mobile device and how differently people navigate on these devices. Other organizations were more attentive to this challenge of communicating effectively in this environment.

What distinguished the higher performing organizations was most often their offering of the most cuttingedge content, they presented their content in the most distinctive manner, there were few barriers to accessing information sought, the webpages loaded quickly, and there was effective use of video.

All of these organizations had room for improvement when we compared them to the referenced mobile website Kargo.com that was deemed to be at the cutting edge of utilizing this mobile environment. Kargo is a commercial company offering services to organizations wishing to migrate to mobile and improve their presentation in the mobile environment.

CONCLUDING COMMENTS

This research explored the transition of organizations to utilizing the mobile environment for promoting themselves and their services. The transformation to operating in this mobile environment is a dynamic process that is proceeding at greatly varying paces. The importance of branding should not be overlooked because getting the audience's attention is critical to being effective in a competitive environment. These researchers chose to examine the websites of organizations offering services to individuals and organization in the K-12 education field. Similar studies in other industries, especially the service industries such as travel, transportation, and energy would also be fruitful. Subject organizations in this study were identified using specific search criteria that had previously been identified as highly valued by educators. The study utilized criteria for both judging the experience and branding effectiveness. Organizations are examples for other organizations to follow. The limitations for this study included its pioneering nature and the narrow market studied. Obviously, studies in other industries would need appropriate search criteria for the chosen industries. This research was initially conceived as how websites were presented on computers. With the explosion of the use of mobile, the study morphed into looking at how the branding via websites were presented on mobile devices.

Further research should be considered regarding the technology adoption curve. For example, is the experience much different when comparing the mobile native vs. the mobile immigrant? The challenging balance for the brands in educational programs is to use the latest technology and still be able to keep the early adopters involved.

Mobile website user skills for easy navigation should also be researched further. Some users may prefer to scroll through the pages vertically or horizontally vs. expanding images and text. Clicks vs. first page viewability was discussed. Navigation of the websites could be studied, for example, pinch vs. zooming in on pages with fingers for readability.

Other researchers may use the new model (Figure 1: Degree of Optimization for Mobile Environment) in their studies of effective branding and have a more quantitative approach to their data collection. There may be some correlation with the levels of customer loyalty and net promoter scores and how the mobile websites are optimized for the brand.

Limitations of Our Study

As mentioned in the literature review, the validity of rater matters, and your experience may vary. Rater capability of the user makes a difference in how to find websites and to navigate once on the mobile page.

REFERENCES

Aaker, D. (2013) Three Threats to Brand Relevance: Strategies That Work, John Wiley & Sons, Incorporated, 2013. ProQuest Ebook Central, https://ebookcentral.proquest.com/lib/nu/detail.action?docID=1166314.

Andrews, M., Luo, X., Fang, Z. & Ghose, A. (2015), "Mobile Ad Effectiveness: Hyper-Contextual Targeting with Crowdedness," *Marketing Science*, 35 (2), 218–33.

Aziz, N.S., Kamlindun, A., (2014) Assessing website usability attributes using partial least squares International *Journal of Information and Electronics Engineering*, Vol. 4, No. 2, March 2014.

Becker, M. & Arnold, M. (2010). Mobile Marketing for Dummies (1 edition). For Dummies. Retrieved from https://www.amazon.com/Mobile-Marketing-Dummies-Michael-Becker-ebook/dp/B00452V4FY/ref=sr_1_1?ie=UTF8&qid=1490079770&sr=8-.

Becker, M, Berney, P. Hanley, M., & McCabe, M. (2018). Mobile Marketing Essentials. Stukent. Retrieved from https://www.stukent.com/mobile-marketing-textbook/

Castillas, E., (2018). Center for Digital Education k-12 Priorities Report. 2017-2018 CDE Digital School Districts Survey. http://www.govtech.com/education/k-12/2018-digital-school-district-survey-respondents-use-technology-to-put-students-first.html Accessed Nov 10, 2018

DePorter, B., Reardon, M., & Singer-Nourie, S. (1999). *Quantum teaching: Orchestrating student success*. Needham Heights, MA: Allyn and Bacon.

Emarketer: https://www.emarketer.com/corporate/coverage/SixTrendsYouNeedToKnowNow (Aug 22, 2018).

Ghose, A. & Han, S.P. (2011), "An empirical analysis of user content generation and usage behavior on the mobile Internet," *Management Science*, 57 (9), 1671–91.

Gupta, N. & Hilal, S. (2011). Extraction of web content to adapt web pages for mobile devices. *International Journal of Computer Science Issues (IJCSI)*, 8(2), 609.

Hartmann, D. (2014). Economic complexity and human development: How economic diversification and social networks affect human agency and welfare. *Routledge Studies in Development Economics*. April, 2014.

Hopkins, J., & Turner, J. (2012). Go Mobile: Location-Based Marketing, Apps, Mobile Optimized Ad Campaigns, 2D Codes and Other Mobile Strategies to Grow Your Business (1 edition). Wiley.

Keller, K. & Lehmann, D. (2006). Brands and branding: Research findings and future priorities. *Marketing Science*, *25*(6), 740-759. Retrieved from http://www.jstor.org.nuls.idm.oclc.org/stable/40057218.

Kim, S. J., Wang, R. J. H. & Malthouse, E. C. (2015). The effects of adopting and using a brand's mobile application on customers' subsequent purchase behavior. *Journal of Interactive Marketing*, *31*, 28-41.

Kotler, P. & Armstrong, G. (1999) Principles of Marketing 8e, Upper Saddle, NJ::Prentice Hall. P. 224.

Kotler, P. & Keller, K. L. (2006). Marketing management 12e. Pearson: London.

McCabe, M. & Weaver, R. (2018) Marketing effectiveness of educational services on websites, *Business Education & Accreditation*. Vol. 10, No. 1, 2018, pp. 49-58.

Mirkowich, N. (1940). Schumpeter's theory of economic development. *The American Economic Review, 30*(3), 580-580. Retrieved from http://www.jstor.org.nuls.idm.oclc.org/stable/1807588 Mobile Video Ad Recall USA Device (2015). Retrieved from Http://statista.com/statistics/452835/mobile-video-ad-recall-usa-device)

Pechenkina, E. (2017). Developing a typology of mobile apps in higher education: A national casestudy. *Australasian Journal of Educational Technology*, *33*(4), 134-146.

Share of mobile internet traffic in global regions (2018). Retrieved from http://www.statista.com/statistics/306528/share-of-mobile-internet-traffic-in-global-regions/ Vermes, K. (2016) http://www.komarketingassociates.com/industry-news/survey-41-brands-say-no-mobile-marketing-plan-place-3024/.

Waller, T. C., Hockin, R., Smith, G. (2017) Marketing strategies of mobile game application entrepreneurs. *International Journal of Applied Management & Technology*. 2017, Vol. 16 Issue 1, p1-14. 14p.

BIOGRAPHY

Dr. Mary Beth McCabe is a full-time Professor at the School of Business and Management at National University, where she is the Academic Program Director for Marketing. She has a Doctorate in Marketing from Alliant International University (San Diego) and MBA in Marketing from DePaul University (Chicago). Her research is concentrated in the fields of Hispanic Marketing, Media and Sustainability.

Dr. Richard Weaver is a full-time Professor at the School of Business and Management at National University, and has a doctoral degree in Human and Organizational Systems from Fielding Graduate University (Santa Barbara) and MBA in Marketing from Wright State University (Dayton, OH). He is also the Academic Program Director for the Masters in Global Management Program and teaches Management and Strategy courses.