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Mobile social media: The new hybrid element of digital marketing communications

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Abstract

The powerful smartphone and other mobile devices have given birth to lots of social media applications and many more in the pipeline. This paper aims at throwing some light on the evolution of mobile social media, introducing the mobile marketing and mobile social media and various concepts and classification of mobile marketing. An extensive literature review of papers on social media and mobile phone applications is done to develop an understanding of the mobile social media usage. A discussion on usage of mobile social media for various corporate as well as marketing communications, sales enhancement and developing cordial relationships with the customer. Finally, recommendations on its usage and future of mobile social media. This article focuses on the importance of mobile social media applications in the current digital marketing arena. The article also develops valuable insights on mobile social media, which is of great value for mobile marketing and social media marketing managers in the near future.

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1. Mobile Social Media and Mobile Marketing-An Introduction

What will be your reaction if you induce to use Nokia 1100 instead of your Android phone? More than a decade has gone by since then mobile phone has become a part and parcel of our spirit. The majority of people feels that they

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are missing something if they forget their mobile phone at home. People barely remember that when it was the last time they were without their cell telephone. In the present scenario, it is difficult to imagine our life without a mobile telephone. According to Nielson Digital Consumer report (2014, p. 5), "Americans on an average own four digital devices and ownership of many digital, mobile and connected devices has reached critical mass. When looking at the average American household, HDTVs (83%), Internet-connected computers (80%) and smartphones (65%) are in a majority of households, with a near majority for digital video recorders (49%) and gaming consoles (46%)".

The very first location and mobile marketing equipped mobile device was Palm VII, a Personal Digital Assistant (PDA) which was developed by Palm Computing in 1999. This device allowed consumers to access weather and traffic information but was very costly, charging \$ 300 for each megabyte of data usage. There are 914.92 million mobile phone users in India (Highlights on Telecom Subscription Data as on 30th June, 2014, 2014) i.e. 75 % of Indian population use mobile phones. The first commercial GPS with location finder and restaurant guide was launched by NTT DoCoMo. But Mobile marketing revolution started in true sense in June 2007 with the iPhone. Apple has sold more than 500 million iPhones worldwide (Rogowsky, 2014). This provides users access to 250,000+ applications which enable them reading books (Kindle app), to search information (Wikipedia app), to purchase utility goods online (amazon app), to book trains and air tickets (IRCTC app), to remain connected with friends (Facebook & WhatsApp) and many more to name. After the iPhone revolution. With the emergence of iPhone various companies like Gowalla in 2007, Foursquare in 2009 sprang up in mobile marketing and mobile social media came into existence. Subsequent to these dedicated applications of giant internet companies, like Google latitude (2009), Facebook Places (2010) entered the mobile market. Presently Foursquare is considered as the market leader in mobile social media, with more than 45 million registered users. Foursquare enables users to share their location with each other by checking-in at various places. Mobile social media is distinct from conventional social media in many ways. This paper aims at throwing some light on the evolution of mobile social media, introducing the mobile marketing and mobile social media and various concepts and classification of mobile marketing. A discussion on usage of mobile social media for various corporate as well as marketing communications, sales enhancement and developing cordial relationships with the customer. Lastly, recommendations on its usage and future of mobile social media. The paper consists of four sections as follows:

- Section 1 defines mobile social media and mobile marketing.
- Section 2 of the paper focuses on the use of social media applications in business.
- Section 3 offers three recommendations about the effective use of social media mobile applications.
- Section 4 focuses on up-coming trends and threats of mobile social media

1.1 What is mobile marketing and what it is not

Mobile marketing applications are of many types and mobile social media is one part of it. According to Andreas M. Kaplan (2012, p. 130) "Mobile marketing as any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device". Three conditions are required to be considered as mobile marketing. Firstly, there should be an omnipresent network. Mark D. Weiser (1991), Chief scientist at Xerox PARC in Palo Alto, created this term omnipresent. Divergent to the belief an omnipresent network is not essentially a single network, but it is an amalgamation of different networks. For example, one can be linked at home via wireless local area network, which in turn switches to 3G when outdoors and further changes to WiMAX network in the workplace. The crucial factor is not the network but the inter-convertibility into different networks occurs easily and undetectably. Secondly, there should be constant user access to the mobile network. As far as mobile phones are concerned, this condition is a triviality, as the majority of individuals relies so profoundly on mobile phones that there is a rare chance of leaving mobile phone at home. On the other hand, for devices like tablet computers, continuous access is dependent more on the user rather on the technology as user has to make a decision that device has to be switched on continuously. Lastly, there is possession of personal mobile device. The mobile device can be defined as any instrument that enable access to an omnipresent network beyond one definite access gate. The classic example of a mobile device is commonly used mobile phone. A netbook can also be considered as mobile device if it has an access to various networks like WLAN, 3G etc. As far as mobile marketing is concerned, the mobile device possessed by the user should be personal and not a shared one. This means that every member of the household should be in possession of a separate personal mobile phone so that mobile devices

can be recognized distinctly, generally through a SIM card.

1.2. Taxonomy of mobile marketing applications

To classify mobile marketing applications two variables are been considered firstly the extent of consumer knowledge and secondly the trigger of communication. When we talk about the extent of consumer knowledge, personal usage of mobile devices enable companies to tailor their communication for an individual user, which is in conformation of one-to one marketing concept (Peppers, Rogers, & Dorf, 1999). However it is to be understood that it is not mandatory to customize entire mobile marketing. A distinction can be made between extent of consumer knowledge of the Internet service provider and the company initiating a mobile marketing campaign, because usually they are not similar. Trigger of communication is classified on the basis of two types of communications. First is push communication (Company initiated) and the second is pull communication (consumer initiated) given in Table 1.

Table 1. Taxonomy of Mobile Marketing Applications

		Extent of Consumer knowledge	
		Low	High
Trigger of Communication	Push	Strangers	Victims
	Pull	Groupies	Patrons

Strangers: Toyota teamed up with Fox Broadcasting to insert 10-second commercials into 26 short mobile movies, so-called 'misodes,' for the TV show Prison Break.

Victims: AT&T sent SMS text messages to 75 million customers suggesting they watch American Idol and vote for candidates using their AT&T phone.

Groupies: Calvin Klein used Quick Response codes on billboards in New York to allow users to pull up an exclusive 40-second commercial.

Patrons: Pop icon Britney Spears enabled fans to receive—for \$2.99 per month—Britney's Diary: a weekly text message about her life during a concert tour.

Source: Kaplan (2012)

Companies falling under the low knowledge/push group follow a strategy of broadcasting standardized messages to large audience/mobile users. Generally, when the firm is unable to know that which customers are being covered by the message, such group of customers a referred to as strangers. Second group comprises of low knowledge/pull, customers choose to obtain information, but do not recognize themselves when to do so. Hence the company is unaware of the definite clients it has dealt with or is dealing with, and this group is hence referred to as cohort groups. Third group which is high knowledge/push, comprises of companies who are aware about their customers and messages and information could be sent to them without the prior permission of the customers. This group is referred to as victims. Fourth and the last group which is high knowledge/pull comprises of circumstances in which customers willingly give their consent to give their personal information and to be contacted. This enables one-to-one communication without aggravating the clients and hence such group of customers are referred to as patrons.

1.3. What is Mobile Social Media: Taxonomy and definition

Before defining mobile social media it becomes important to define social media. According to Kaplan & Haenlein (2010, p. 61), "Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content". Keeping social media definition and mobile marketing into consideration, we define mobile social media as all Mobile marketing

applications that enable the formation of user generated content. Companies using mobile social media are often equipped with some information about consumers they are dealing with. Also, generally consumers agree to get knowledge from the company. When users Check-in at a specific location is a classic example of this. We have divided the mobile social media applications into four types, first on the basis of location sensitivity and the second is time sensitivity. Location sensitivity refers to account of definite location of the consumer and if the user receives and processes the information simultaneously or with some time lag then it is referred to as time sensitivity (Refer Table 2).

Geographic factors and location sensitivity are not an innovation in marketing, these factors have been previously employed in marketing for decision making. An example can be planning of the retail location (Inman, Winer, & Ferraro, 2009; Ozimec, Natter, & Reutterer, 2010) and demand forecasting (Yang & Allenby, 2003). However, in the current internet technology era exact location of any mobile device can be traced with the help of Global Positioning System (GPS), Global System for mobile Communications (GSM), and Radio-Frequency Identification. In the same way time sensitivity enables the companies to create and transfer messages on a specific time. For example, company offers 20% extra discount on its products for 3 hours, then it spreads this message to all consumers in a certain range. Applications which are neither location sensitive nor they are time sensitive are referred to as slow-timers. On the contrary applications which are not only location sensitive, but also are time sensitive at the same time are referred to as space-timers. Applications reflecting only location sensitivity, but not time sensitivity are known as space-locators and the applications, reflecting only time sensitivity, but not location sensitivity are termed as quick-timers. The most sophisticated social media mobile applications are space timers.

Table 2. Classification of mobile social media applications

		Time-sensitivity	
		Yes	No
Location-sensitivity	Yes	Space-Timers Exchange of messages with Table relevance for one specific location at one specific point-in time (e.g., Facebook Places; Foursquare; Gowalla)	Space-locators Exchange of messages, with relevance for one specific location, which are tagged to a certain place and read later by others (e.g., Yelp; Qype)
	No	Quick-Timers Transfer of traditional social media applications to mobile devices to increase immediacy (e.g., posting Twitter messages or Facebook status updates)	Slow-Timers Transfer of traditional social media applications to mobile devices (e.g., watching a YouTube video or reading a Wikipedia entry)

Source: Kaplan (2012)

1.4. Mobile social media: Theoretical fundamentals and inferences

Generally for any communication two parties are required one is the sender who shares some information and the other is the receiver who receives and listen to the communication. But two relevant questions arises out of it. First, why one should spend time to check-in at a particular location, just to share information about their detailed location? The answer to this question lies in the theory of self-presentation and self-disclosure (Goffman, 1959, Schau & Gilly, 2003). It states that people will readily share personal information if they have a firm belief that sharing such an information is consistent with their image that they want others to have about them. Second answer can be given impulsiveness theory (Ainslie, 1975; Hoch & Loewenstein, 1991; Thaler & Shefrin, 1981), according to this theory people continuously fight between demonstrating enduring control and giving into interim temptations. Hence people update their status and post it. Uploading videos about their working habits and style, buying candy from a drugstore, though it is against the healthier life regime.

The second question is why will others, i.e. friends and companies will pay attention and comment or reply to such

updates or information. As far as friends are concerned, they reply to such information to remain aware and to exchange information via various social media applications. By knowing a specific location where your friend has been accompanied by certain casual comments gives more information about a location as well a friend rather than a detailed email. Mobile social media enable companies to send location and/or time specific marketing messages. The enthusiasm that is generated from the termination date of these marketing messages can result into more Effective marketing communication. This concept is similar to the price promotions in which it is reflected that sweepstakes and contests generate more value to consumers through their character of entertainment (Chandon, Wansink, & Laurent, 2000).

2. Business use and potential of Mobile social media

It is explicit that conventional social media brings enormous opportunities for firms in various sectors. It is a truth for social media generally (Kaplan & Haenlein, 2010), micro-blogs (Kaplan & Haenlein, 2011a), and virtual worlds (Kaplan & Haenlein, 2009). Social media is considered to be the most powerful medium for viral marketing campaigns (Kaplan & Haenlein, 2011b), and also in launching new products (Kaplan & Haenlein, 2012). Use of these characteristics of mobile social media in different areas like marketing communication, loyalty programs, marketing research etc. will be discussed further.

2.1. Marketing Research

Social media applications on mobile provide important data on offline consumer habits. Firms can now easily get the check-in details of the consumer in their outlet and their experience can be seen by the comments of the customer. Social media applications have made it easy for the companies to get information on age, gender, how many times a customer checked in at a particular outlet, how many customers visited the outlet and who is the most frequent visitor and also which customer spends more time in the outlet. Information on which location or outlet gets the most consumer traffic. When this data is compiled efficiently with various data mining software, it gives an opportunity to grocery retailers various auction houses to manage their customers efficiently like giant online business companies like e-bay and Amazon. Generally it is claimed that social media gives more power to consumers, but social media applications on mobile give some power to companies to manage their business efficiently.

2.2. Marketing Communication

Communication through mobile social media is of two types one is from company's side to the consumer i.e. B2C communication and another is the UGC (User Generated Content). An example to B2C social media mobile communication is the promotion of an album titled Messy Little drops in 2010 by Cheryl Ann Cole with the help of Facebook Places (Hosea, 2011). When people used to pass from 114 poster locations in Cole's hometown and London, they were asked to check-in at billboard. When customer checked-in at that billboard location, they were directed to Cheryl's page on Facebook and were offered two free tickets for her X-Factor shows. Apart from this the checked-in location was shared on artist's timeline as well as on the user's timeline which could be seen by the friends of the user. This technique is a definitive case of viral marketing promotions. The second type of communication, i.e. user generated content. It is also an excellent promotion technique if a company does something extra-ordinary. There are chances that such a simple message can be converted into viral marketing promotions by the users (Kaplan & Haenlein, 2011b). In April 2010 Mc Donald's followed promotional strategy under which it extended 5\$ and 10\$ gift vouchers to 100 users who checked-in at particular Mc Donald's restaurant randomly. This campaign became so popular among users that a 33% rise in Mc Donald's check-in was observed by just spending less than 1000\$.

2.3. Discounts and sales promotion

Gone are the days when the hefty amount was required to get the coupons printed in the print media and consumer collected and clipped them. This is an era of digital consumers various mobile social media apps enable customization of promotions for specific customers and for a specific time as well. For new product promotion

Virgin America is a classic example. When it launched its California-Cancun service it started a promotional campaign using mobile social media that consumers checking-in through Loopt from one out of three selected Border Grill Taco Trucks in San Francisco and Los Angeles from 11AM to PM, August 31, 2010, had the opportunity to have two tacos at a price of \$1 and could also get 50% discount on Mexico flights. More 1300 people checked in just a window of 4hours, 80% out of these purchases tickets from Virgin America (Olson, 2011, Quinton, 2010).In the similar fashion a 'Barista Badge' is offered to consumers if five different locations of Starbucks was checked-in by them. Sales promotions are usually considered monotonous, but with the emergence of mobile social media applications, it has become really interesting, fast and cost efficient.

2.4. Customer loyalty programs and Relationships

Sustained business growth is the dream of every business organization. But it doesn't come through a sole purchase prompted by sales promotion initiatives, but it comes through repeated business transactions between the consumer and the firm through customer loyalty. For example Gold, silver or bronze status could be gained by a customer in Google latitude if they check-in at certain locations regularly. Similarly Foursquare awards the status of mayor to a customer who is regularly checking-in at that place from the last 60 days. Domino's Pizza offers to the mayor a free pizza every Wednesday. Tasti D-Lite a New York based company famous for its frozen sweets motivate consumers to link their Foursquare and Twitter accounts with their membership cards of Tasti D-Lite (Clifford, 2010). Consumers who give their consent to do so are awarded additional bonus points on every purchase they made and simultaneously it is updated on their Foursquare and Twitter accounts hence in turn increases the brand awareness of Tasti D-Lite. Hence it is beneficial for both consumers as well as Tasti D-Lite.

3. Recommendations for Mobile Social Media Applications

While innumerable prospects are offered by this innovative communication channel but firms adopting this channel should be aware of the risks/challenges associated with it. Hence we offer four pieces of advice to be followed while operating through social media. Firstly, companies should make their mobile social media applications so interesting that it becomes the part and parcel of customer's daily life and hence not monotonous and a nuisance. Secondly, such applications will become part and parcel of a customer's life only if those social media applications are being customized taking into consideration individual user interest and likings. Thirdly encourage user engagement by conversation and other loyalty programs. Fourthly, and lastly initiates user generated content creation and word of mouth, which enables stronger amalgamation of activities into consumer's life (Figure 1)

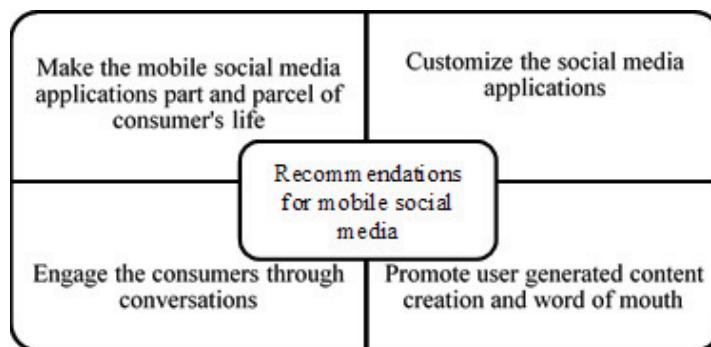


Figure 1. Recommendations for mobile social media applications

4. Mobile social Media in the years to come

Social media is moving swiftly and keeping into consideration this swiftness of social media it will be no surprise that the science fiction of today can become a reality of tomorrow. In the years to come mobile device usage will further increase and each and every individual will be in possession of a mobile device. The mobile device today

will get transformed into Star Trek parlance in the near future. This will bring both opportunities and threats.

4.1. Worldwide presence and touch

Mobile social media is a revolution in mobile marketing due to its omnipresence and global reach. The number of mobile phone accounts will supersede the 7 billion mark and thereby surpassing the population of the planet earth by 2014 (International Telecommunication Union, 2013). More than 50% of the cell phone accounts remain intact in Asia and hence it is the most potential market for growth. As of 2013 the penetration rate of mobile phones reached 96% around the globe which includes 128% and 89% for developed and developing countries respectively. The mobile phone will become a major connection instrument to the internet by 2020 (Pew Research Internet Project, 2008). If companies really want flourish and get popular in generation Z commonly referred to as net generation, then they should switch to mobile social media marketing, because this generation group generally don't refer newspapers. Apart from mobile devices information it cannot be ignored that social media is important of lives, Facebook, Twitter are impeccable mobile social media applications

4.2. Mobile device as crucial control center

Mobile phone today is not just a cordless communicating device, but has changed into a multi-function device performing versatile functions. It is bank on wheels, ticket Center, shopping center and a plethora of other functions which are performed through mobile web and mobile applications. A mobile payment program was launched by Starbucks, which converted a smartphone into a Starbucks card (Protalinski, 2011). This app provided by Starbucks enabled the users to just put their cell phone in front of the sensor and hence no Starbucks card was required. This inspiration came from Japan, where smartphones serve as Personal ID etc.

4.3. Virtual and Real Life integration

Mobile social media has played a crucial role in integrating the virtual and real life of individuals. Users update their status at Facebook and twitter, etc. Our friends now can easily know about our activities, what we are doing through our status updates. Our friends can easily know where we are through our check-ins on Facebook and google latitude. It was believed previously by researchers that the emergence of the internet will lead to low social involvement, low communication (Kraut et al., 1998). Presently, all of us are aware that the reverse is true (Kraut et al., 2002), and hopefully the mobile social media applications will enhance the communication and involvement further. Mark Zuckerberg intentionally launched a Facebook to remain in contact with his fellow mates. Due to the intermingling of virtual and real life motivates companies to create innovative ways of communications. The reason for company endorsing their products by famous celebrities (Petty, Cacioppo, & Schumann, 1983), and the consumer's attitude about the advertisement has an eminent place in research while examining the relationship between the exposure of the advertisement and the resulting intent of purchase (Mitchell & Olson, 1981; Shimp, 1981).

4.4. Forthcoming advancement of mobile social media

The prospects mentioned above comprise definite threats and hurdles that has to be taken care of. The most important among these is related to trust, privacy and security. Foursquare, Google latitude exposes this information making use of check-in data of the users. The real problem is the unethical and destructive use of this data. Some technology developers belonging to Netherlands developed a website named PleaseRobMe.com this site collected check-in data from Foursquare and posted it on Twitter simultaneously. After this process an algorithm finds out the home address and the current location of the user. When current location and home address become far enough, then, that candidate becomes most suitable candidate for robbery. These kind of applications and other similar application of this type will make the users reluctant in the future to share their personal information. In the US as well as UK Legislators are addressing and trying to deal with such problems from various perspectives. According to Do-Not-Track Online Act, 2011 in the US a company cannot store the online activities of any user without his or her permission. If any company is found to breach the terms and conditions of this Act then legal action is taken against such company by Federal Trade commission. According to the Personal data Protection Act, 2010 in the UK

a firm has to ask and take permission from the user before collecting any of his/her personal data. Also a 'right to be forgotten' is enjoyed by the users to get their data deleted, unless it is needed for some genuine purposes. Hence it can be concluded that it is necessary for firms entering the mobile social media world and planning to employ it in its marketing communications, have to move very cautiously keeping in mind all the rules and regulations of the game. Last but not the least company has to be more cautious in case of mobile social media as compared to other conventional media because of the vulnerability of brand equity through User Generated Content.

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References

Ainslie, G. (1975). Specious reward: A behavioral theory of impulsiveness and impulse control. *Psychological Bulletin*, 82(4), 463—496.

Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of Marketing*, 64(4), 65—81.

Clifford, S. (2010, April 29). That store loyalty card sure looks like a smartphone. *The New York Times*, p. B3

Goffman, E. (1959). The presentation of self in everyday life. *New York: Doubleday Anchor Press*.

Highlights on Telecom Subscription Data as on 30th June, 2014. New Delhi: TELECOM REGULATORY AUTHORITY OF INDIA. Retrieved October 10, 2014, from http://www.trai.gov.in/Content/PressDetails/22178_1.aspx

Hoch, S. J., & Loewenstein, G. F. (1991). Time-inconsistent preferences and consumer self-control. *Journal of Consumer Research*, 17(4), 492—507.

Hosea, M. (2011). How location tools are honing brand radars. *Marketing Week*, 34(2), 49—52.

Inman, J. J., Winer, R. S., & Ferraro, R. (2009). The interplay among category characteristics, customer characteristics, and customer activities on in-store decision making. *Journal of Marketing*, 73(5), 19—29.

International Telecommunication Union. (2013, February 27). *ITU releases latest global technology development figures*. Retrieved from http://www.itu.int: http://www.itu.int/net/pressoffice/press_releases/2013/05.aspx#.VFHPB1cjaVk

Kaplan, A. M., & Haenlein, M. (2011a). The early bird catches the news: Nine things you should know about micro-blogging. *Business Horizons*, 54(2), 105—113.

Kaplan, A. M., & Haenlein, M. (2009). The fairyland of Second Life: About virtual social worlds and how to use them. *Business Horizons*, 52(6), 563—572.

Kaplan, A. M., & Haenlein, M. (2011b). Two hearts in three quarter time: How to waltz the social media/ viral marketing dance. *Business Horizons*, 54(3), 253—263.

Kaplan, A. M. (2012). If you love something, let it go mobile:Mobile marketing and mobile social media 4x4. *Business Horizons*, 55(2), 129—139.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social media. *Business Horizons*, 53(1), 59—68.

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58(1), 49—74.

Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017—1031.

Mitchell, A. A., & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, 18(3), 318—332.

Olson, E. (2011, January 20). Restaurants reach out to customers with social media. *The New York Times*, p. B4.

Protalinski, E. (2011, January 19). Starbucks launches largest mobile payment program in the US. Retrieved from <http://www.techspot.com/news/42051-starbucks-launches-largestmobile-payment-program-in-the-us.html>

Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10(2), 135—146.

Peppers, D., Rogers, M., & Dorf, B. (1999). Is your company ready for one-to-one marketing? *Harvard Business Review*, 77(1), 151—160.

Pew Research Internet Project. (2008, December 14). *The Future of The Internet III*. Retrieved from <http://www.pewinternet.org: http://www.pewinternet.org/2008/12/14/the-future-of-the-internet-iii/>

Quinton, B. (2010, September 22). Sports Authority pitches check-in rewards via Loopt Star app. Promo. Retrieved from <http://promomagazine.com/incentives/news/sportsauthority-Rewards 0922/>

Rogowsky, M. (2014, March 25). *Without Much Fanfare, Apple Has Sold Its 500 Millionth iPhone*. Retrieved from [http://www.forbes.com/sites/markrogowsky/2014/03/25/without-much-fanfare-apple- has-sold-its-500-millionth-iphone/](http://www.forbes.com: http://www.forbes.com/sites/markrogowsky/2014/03/25/without-much-fanfare-apple- has-sold-its-500-millionth-iphone/)

Schau, H. J., & Gilly, M. C. (2003). We are what we post? Self-presentation in personal web space. *Journal of Consumer Research*, 30(3), 385

404.

Silicon India. (2013, January 2). *SiliconIndia Magazines*. Retrieved from http://www.siliconindia.com: http://www.siliconindia.com/magazine_articles/World_to_have_more_cell_phone_accounts_than_people_by_2014-DASD767476836.html

Thaler, R. H., & Shefrin, H. M. (1981). An economic theory of self-control. *The Journal of Political Economy*, 89(2), 392—406.

Weiser, M. (1991). The computer for the 21st century. *Scientific American*, 265(3), 94—104.

Yang, S., & Allenby, G. M. (2003). Modeling interdependent consumer preferences. *Journal of Marketing Research*, 40(3), 282—29