

How iPhone innovators changed their consumption in iDay2: Hedonic post or brand devotion

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ABSTRACT

Using netnographic evidence on iPhone usage, this study suggests that devoted and innovative consumers adopt and use new technology for hedonic experiences and social positioning, which generates experiential outcomes. This article presents an interpretive analysis of consumption behavior of iPhone users after their experience with iPhone v1 and its successive iterations, prior to the release of Apple's latest model the iPhone 4. The day the iPhone v1 was released was dubbed iDay1 by Apple brand aficionados, and the anticipated release date of the iPhone 4 iDay2. While the original iPhone v1 was seen as very cutting edge, successive releases (the iPhone 3G and iPhone 3GS), were far less innovative. Each successive iPhone release has not had as devout a following as the original. This raises the question: will innovation seeking consumers abandon the iPhone for a newer, more technologically innovative device? This study suggests that innovators prefer really new products instead of upgraded ones, because they cannot see the advantage of using an upgraded version of a product which has already been widely adopted.

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1. Introduction

New products in the market are initially evaluated by early adopters who define, test, and ultimately approve (or not) the product's value and type of usage for later consumers. Looking at technological adoption, preference, and usage, consumers desire both hedonic and utilitarian product attributes. Even when products are positioned as purely utilitarian devices (e.g. notebooks) their features, attributes, and usage are often connected to multiple benefits beyond just the utilitarian ones. Katz and Sugiyama (2006) found that in the case of mobile phones, these devices provide not just functional benefits but also enhance enjoyment and provide ways to signal social status. Social benefits are seen as an important positioning for communities that desire attention and differentiation (Schau, Muñiz, & Arnould, 2009) from others who define their self-worth from possession of these devices (Mittal, 2006).

Consumers have different perceptions when the product is a really new product (Hoeffler, 2003) as opposed to an upgrade or new release in which there are few perceived additional benefits (Dahl & Hoeffler, 2004). Technology designers have worked hard to develop not just innovative designs for new devices, but also new usage concepts that provide benefits to various user segments

(Danaher, Hardie, & Putsis, 2001; Gill, 2008; Harris & Blair, 2006; Kim, Lee, & Koh, 2005; Mukherjee & Hoyer, 2001; Nunes, 2000). Some benefits can be readily perceived by consumers when the product design has elements that enhance productivity, profitability, performance, or result in cost reductions. This in turn engenders customer satisfaction and loyalty to the brand (Gemser, Jacobs, & Cate, 2006).

In the updated versions of the iPhone, there were no substantial changes and thus did not motivate or create enthusiasm in their old consumers as the original release had done. The first exposure for consumers to the iPhone device was the haptic communications with the product in the Apple Stores, wherein consumers could touch, play with, and produce an experience with the new device without pressure from sales people. The iPhone was the first mobile phone with a touch screen which enabled this haptic experience. These tactile experiences were important in the decision making process as consumers use their hands to explore and evaluate products based on their material properties prior to making a final purchase (Peck & Childers, 2003). With later releases of the iPhone, the haptic experience was the same as there were no modifications to the touch screen.

The first version, the iPhone v1 reached two kinds of consumers: (1) the devoted – known as Apple acolytes (Belk & Tumbat, 2005), whose loyalty to the brand is so strong that they will ignore any performance problems of the new model (Pimentel & Reynolds, 2004); and (2) social users who define their mobile technologies as tools to integrate into their body and social roles (Katz & Sugiyama,

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2006) and who engage in rhetoric and “meaning-making” which occurs during social interaction amongst innovative early users (Arruda-Filho, Cabusas, & Dholakia, 2010).

Heath and Soll (1996) found that when consumers can assign an expense to multiple categories, consumers would assign some of them to hedonic categories. This enables consumers to determine which features and attributes of new products derive them hedonic enjoyment, and thus enable them to make better purchasing decisions when new technology is developed.

Extending Arruda-Filho et al.'s (2010) research, this article analyzes whether or not iPhone consumer behavior changed, and how their preferences changed, during the period in which the iPhone was upgraded and updated. The interpretive analysis using netnography creates a timeline of iPhone usage after its initial launch. This timeline was developed in order to determine if consumers continued to anticipate and were enthusiastic for new releases, or if they no longer considered the new releases innovative and therefore undesirable.

Three sections follow this introduction: first, the method used in the study, netnography, is described and relevant literature to its applicability to the study of diffusion of innovation is cited. Second, seven categories with a few subcategories are developed by qualitative interpretation of the netnographic data. These categories explain consumer devotion and other psychological consumption patterns. Third, the paper concludes with a discussion and conclusion section about the relevance of hedonic and social factors in the marketing of innovative technological products whose multi-functionality and quality is recognized by consumers.

2. Methods

Midgley and Dowling (1978)'s research and Bass (1969)'s framework for analyzing acceptance and adoption of new products in the technology sector is deployed in this study. The iPhone was selected for research because of its unique combination of innovative and integrative attributes, and the rapid updates made to the original iPhone model over a relatively short period of time. Taken from the literature, existing studies about iPhone usage were used as a reference point to analyze the context, prior experiences with the device, and how consumer behavior is influenced by their devotional and hedonic preferences to version 1 (v1) of the iPhone (Arruda-Filho et al., 2010; Weber, 2007, 2009). In these previous studies, the iPhone was seen as a robust device, with innovative and cutting edge mobile technology. This engendered a high degree of pre-launch anticipation and a great success in the market immediately after its introduction.

2.1. Selection of netnography as research methodology for diffusion of innovation

In the past few years, a number of researchers in the areas of sociology, anthropology, and marketing have written about the desire to better address the uniqueness of consumer behavior as expressed on the internet by adapting existing ethnographic research techniques to the large number of communities and cultures that are emerging on the internet (Grossnickle & Raskin, 2001; Hakken, 1999; Kozinets, 1997, 2002; Slater & Miller, 2000). Kozinets (1999) asserts that the cosmopolitan nature and varied cultural composition of internet based communities requires ethnographic-based approaches in order to better yield understanding of the meanings which are common to a given internet community, such as those found on a product user website.

The term “netnography” (later abridged to netnography) was first introduced to the literature by Kozinets (1997) in his study of consumption patterns of fans of the television show “The X-Files”.

In a pithy play on the title of the television series, Kozinets' article entitled “I Want to Believe”: A Netnography of the ‘X-Philes’ Subculture of Consumption” is valuable for inadvertently developing a new research methodology.

In order to understand this consumer group, Kozinets and his researchers initially attempted deploying traditional methods of ethnographic studies by using questionnaires at a comic book and television show fan related convention. With many of the subject participants dressed in costume, this method was a dismal failure as the researchers were seen as obtrusive and treated with derision and suspicion. Seeking alternative means for data collection, Kozinets discovered an internet based, online “X-files” fan users forum from which he was able to successfully gather his data and thus coined the term “netnography” (“net” + “ethnography”) to describe this approach. In this and subsequent studies (Kozinets, 1999, 2002) this researcher espoused on the efficacy of this research methodology as it was a non-intrusive and cost effective method for conducting research, while acknowledging its potential limitation of self-selection.

Since this time, this anthropological method of netnography has been gaining popularity in consumer research, sociology, cultural studies, and assorted other scientific fields (Grossnickle & Raskin, 2001; Hakken, 1999; Kozinets, 1997, 1999, 2002; Lesser & Fontaine, 2002; MacLaren & Catterall, 2002; Slater & Miller, 2000).

In all these varied uses and explanations of netnography earlier concepts of the diffusion of innovation as developed by Rogers (1983) are deployed. In this work, *Diffusion* is defined as “the process by which an innovation is communicated by certain channels over time amongst the members of a social system” and that *Communication* is “concerned with new ideas”. *Communication* is defined as “a process in which participants create and share information with one another in order to reach a mutual understanding”. In the case of online communities, the channels are the individual discussion threads written within these websites and the “new ideas” are the topics of discussion, in which mutual understanding is gained by all participants.

Chen, Gillenson, and Sherrell (2002) in their analysis of technology acceptance amongst consumers shows that the analysis of data from online consumer communities can be especially valuable as it is grounded in the knowledge of the local and specific products, and thus can aid in the analysis of technology diffusion. This is in accordance with Glaser and Strauss (1967)'s ground breaking work on qualitative methods in which the findings of the researcher are based upon or “grounded in” in the responses of the research subjects. It is for all these reasons that netnography was chosen for data collection for this study.

2.2. Data collection

Data for this study was collected from the website forum Everythingicafec.com, which is a site that offers a platform for Apple fans to communicate with other consumers who are also passionate about Apple products or are seeking information about them (Table 1). The researchers found that this forum was the central website for discussions by iPhone users, as confirmed by consultations with technology enthusiasts and the nearly 1,000,000 postings about the iPhone in the last 3 years made by users or possible consumers. Approximately 25 pages of written postings about the iPhone – containing consumers' preferences, feelings, slang terms, expressions of satisfaction and dissatisfaction, and other expressions – formed the basis for the interpretations of consumption behavior at 4 major points in time: (1) after the v1 launch, (2) in the 3G launch, (3) analyzing the 3GS moment and (4) prior to the launch of the iPhone4.

Data for this study came from seven threads that contained keywords such as “awesome”, “fashion”, “useful”, “beautiful”, “pretty”

Table 1
Data for the iPhone netnography study.

Name of website	EverythingiCafe (Apple's Forum about theirs products)
URL	http://www.everythingicafe.com/
Date of research developed	From January 15 until January 30, 2010 and from May 22 until May 30, 2010
Total threads checked	6 Threads about satisfaction, beauty, fashion and correlates arguments from iPhone
Keywords searched	Capacity, Satisfaction, Useful, Quality, Update, iDay

and “quality”. The 218 comments were downloaded between January 15 and January 30, 2010 and a second consult to change a thread that the authors thought not adequate to this research was made on May 22 and May 30, 2010.

Table 2 shows the threads chosen based on their relevant content and unique postings of variously visited discussions. Combining social and hedonic literature (Katz & Sugiyama, 2006; Okada, 2005; Park, 2006; Turel, Serenko, & Bontis, 2010; Van der Heijden, 2004; Wang, Baker, Wagner, & Wakefield, 2007) the relevant threads were analyzed, and the interpretations about consumer preferences were connected with consumers’ desires and the relevant literature.

Non-participant netnography was used to allow researchers to capture the spontaneous and available flow of communication amongst consumers, which had “sufficient descriptive richness” (Kozinets, 2002).

Posters to these threads were estimated to be approximately 70% men and 30% women, with ages from 15 to 55, and were very likely to be students or business people who like to use technology in their daily lives. Most of them were very knowledgeable about technology usage and are quite cognizant of the available products in the marketplace.

Two researchers independently coded the data, in two separate phases. This was done so as to ensure the validity of the categories chosen for use in the entire data set. For each important consumer behavior presented in the text, a primary categorization of the consumer group based on a specific product was made (Kozinets, 2002). After these categorizations were complete, they were compared with contexts in the literature. This was done so as to explain which different groups (group themes) were present, and how these themes described consumer preferences for products with both different and bundled features (Gill, 2008; Harris & Blair, 2006; Kim et al., 2005).

3. Key emergent themes: technology communities and group preferences

These 26 pages of textual data created many possible interpretations and connections. For this purpose we extracted 7 main categories from the dataset, based on representative and repetitive responses in the different discussion groups. Even small groups of

Table 2
Thread details collected from the Apple website.

Serial number	Name of thread	Subject line	No. of unique posters	Total of postings	Words
1	Usage Positioning	Blackberry is for men, iPhone is for women	17	30	1091
2	Updating	3G iPhone vs original iPhone	13	24	1755
3	What is different?	3G owners. What would make you buy new iPhone?	26	43	2445
4	And now what to do?	3GS Help!!!	13	26	1602
5	iDay one more time	Why June 24th?	30	59	1457
6	More capacity is important	Any news yet about iPhone 32 GB?	18	36	2950

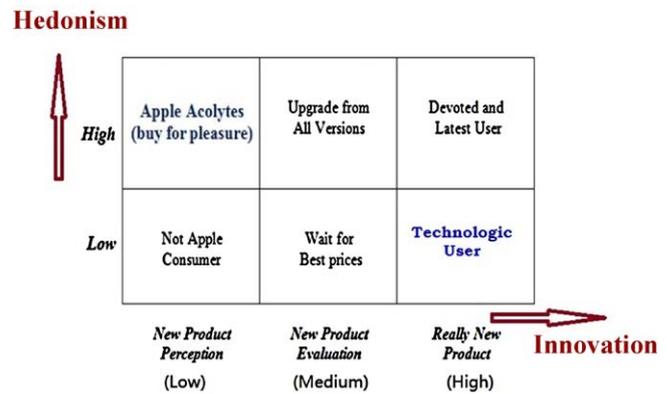


Fig. 1. Matrix of hedonic behavior to new technologies launched. A comparison between Apple users and technology consumers.

devoted consumers or hedonic/social users have different conceptions of use and value. The data was therefore analyzed on levels of both devoted and non-devoted users, at each stage of the launch of the new versions. Consumers who were devoted and anticipatory before the first release were later constrained or insecure in their purchase in subsequent releases.

The purpose of the study was to understand if iPhone consumers during the first release were purely hedonic users, who sought pleasure and satisfaction from the new product, but whose preferences changed with the subsequent releases of the iPhone, in which few new features were added and its image as an innovative product had faded.

This article proposes the following hypotheses:

H1. Usage by devoted users is still highly influenced by hedonism and social aspects.

H2. For innovators that are not devoted, usage is negatively influenced when they don't have enough information as to whether the product has enough new beneficial features to justify their hedonic preferences.

Non-devoted innovators prefer instead to wait for a new, more robust version of the product in order to guarantee their satisfaction. The article further proposes that more generally speaking:

H3. All categories of iPhone users have made hedonic related posts which express their preferences for bundled features in order to justify their usage.

By looking at the entire context of preference for technology innovation within multiple categories (integration), it is clear that the more hedonic or social the product is, the higher the usage will be because of the preference of consumers in the main target market for products that have both hedonic services and numerous integrated features (Okada, 2005). Fig. 1 shows the integration between hedonism and technologic consumers.

Following Fig. 1, the categories which demonstrate consumer behavior, and the justification for product preferences, will be shown for each separate group. Some comments identify the

consumer positions directly, as the comments explain the consumer's needs for, and uses of, the product. Other comments explain justifications for their consumer preferences. When making a categorization, the researchers had to be discerning of which perspective was applicable, because some consumers displayed guilt or lack of confidence in justifying their own preferences.

The following narrative describes the 7 main categories, with supporting comments made by consumers. Each comment is identified using page and line numbers, drawn from the collected data in order to explain the hedonic behavior matrix (Fig. 1) and technological preferences.

Based on the constructs designed from the data set, information from each category engendered three possible subcategories. In nearly all of the categories, there were the same three subcategories. The first subcategory confirmed the category selection. The second subcategory described the justification for purchase by the consumer, and included attempts at explaining their preference due to brand loyalty, which was often strong enough to excuse product shortcomings. The third subcategory described consumer preferences for multiple-functionality, and how consumers determined the usefulness of the product based on its resources and integrated features (i.e. bundled product).

3.1. Hedonic preferences

In accordance with the work by Dahl and Hoeffler (2004) and Hoeffler (2003), early iPhone v1 users expressed hedonic reasons for purchasing the products, as they were devoted Apple users who wanted the latest in innovative technology:

"well im a gadget guy so ill buy the new iPhone when it comes out regardless. surely it cant be worse than what we have now". P12, L63–65.

"...and I have to say everyone who is saying that they are going to wait. ... *don't* you all feel like me and want that phone so bad. I think we are all denying the fact that we want one and are trying to convince ourselves otherwise, lol". P15, L51–54.

Consumers trying to justify their preferences and usage posted many unnecessary details to explain their motives for choosing the device, which were based on a sense of guilt. This justification concurs with other consumer research (Chitturi, Raghunathan, & Mahajan, 2007; Okada, 2005).

"Sorry, I respectfully think you're wrong. I SERIOUSLY use my iPhone for all sorts of things, all the time. I use it for running my own company, and for all my communication needs, as well as having a lot of music and tv episodes on it for my spare time.". P23, L40–43.

"I still give myself presents of course lol. Well this would be my dream version.". P9, L31–32.

Consumers also posted about the multiple uses of the device, which may indicate the possibility of different target markets:

"speed the 3g speed also when you on the internet they can call you, also when you send and receive e-mail they can call you. Multitasking men". P10, L5–7.

"...to be honest i would upgrade just to have the latest iphone regardless of what they change, my wish list however would be. - Front facing camera, better rear camera, larger storage, face that doesn't shatter as easily, fingerprint recognition, face recognition, longer battery, bigger screen, faster CPU, faster WiFi, faster 3g". P11, L6–19.

Harris and Blair (2006) and Paulson-Gjerde, Slotnick, and Sobel (2002) in their analysis of consumer preferences for bundled fea-

tures support these expressed desires for a variety of features in the iPhone, all packaged as one product.

Okada (2005) explains that expensive hedonic items that generate enjoyment create a sense of guilt because of the high price connected with a non-utilitarian use. The consumer has to justify his consumption in order to explain why his purchase was necessary. Brucks, Zeithaml, and Naylor (2000) found that price and brand image are indicators of quality, so consumers mix both factors to justify their choice of high-priced products.

3.2. Positioning the iPhone user

The iPhone users kept constantly updating their phones with new services and Apps-small software applications designed to work with the iPhone hardware (Dahl & Hoeffler, 2004). Yet these users continued to rely on older functionality (e.g. the older phone model), and so it created a conflict between the perceived value of the existing product and the actual need for a new model (Yung-Cheng & Chih-Wei, 2007). Therefore the positioning of the user is very important. The devotion to the brand may make consumers desire the new product regardless of its functionality, and instead desire the product in order to be seen as special amongst other users of the brand (Zhu, Wang, Yan, & Wu, 2009).

"Guys love to hack and jailbreak, so almost all of the iPhone owners I know are men." P2, L25–26

"I have never liked Black Berrys. I thought I wanted the BB Storm and started to kick myself when it came out but my boss got one and she couldn't even find where to check her text messages until I showed her. I loved my iPhone just a little bit more after that." P2, L45–48

As previously mentioned, we estimated that 70% of our respondents were men, as indicated by usage of misogynistic language.

"it's like picking up a stapler and being angry that it's not a pencil sharpener. What the iPhone is, and the machine you want - it sounds like they're just two different things. If it's not what you need - get something else." P23, L49–53

As previously seen in this category, consumers made comments to justify, and make excuses for their iPhone user position. This can be seen in the next two comments in which consumers expressed their concerns about the quality of the 3GS:

"3GS may be "unimpressive" if you have a 3G, but the speed upgrade from a v1 user is blindsiding." P15, L 11–12

"I actually think it's being released on a Thursday to account for any problems with shipping. If there is a slight delay, you could still get the phone on Friday and have it for the weekend." P18, L2–4

Consumers explained in their posts their positioning, by seeking to demonstrate that they were different from other users, as they were especially concerned with the multiple uses and integration of functions in the device.

"For people like me who use this phone as their truly all-in-one device. I'd love to have 32GB to carry more music with me. It's nice to have one device that does everything. If I wanted to carry an iPod with my phone, I'd have an iPod and a regular cell phone. No joke, the iPhone has made me an apple believer." P21, L8–12

Harris and Blair (2006) describe the proportion of consumers that choose bundled over separate components is higher for consumers with high knowledge uncertainty. Because of this uncertainty, many consumers do not know how to use the vari-

ous integrated features. However, they also believe that by having these features available to them, they may come to use them in the future as they become more comfortable with using the device.

3.3. Disappointment with device upgrades

Unlike any previous mobile phone on the US market, the iPhone combined multiple services in one device – a mobile voice system, an MP3 player, email, and internet access, amongst other features. The integration of data, voice, and image made it easy to use as compared to previous devices, and thus a new kind of convergent technology was started in the market. At the time of an upgrade, the iPhone was no longer considered a really new product (Herzenstein, Posavac, & Brakus, 2007; Hoeffler, 2003). While new interactions and integrations were developed in these upgrades, they satisfied only a small number of consumers.

At the time of the iPhone v1 launch, the device was practically incomparable to those already on the US market. This was similar to the iPad's launch in May of 2010 (Castelluccio, 2010). However, currently there appears to be not as high a level of consumer satisfaction, based on claims of problems with the newer versions:

"My Wife & I made the same switch from 8GB V1s to 16GB 3G's, but it was a difficult decision for us, and now that we've made the switch I do have some regrets. We got our V1's about 6 months after original iDay and had them for a little over a year before we sold them on Craigslist for \$330 each. For the record we never had a single problem with our V1's ever." P5, L27–32

"Quality is an issue with these new 3G's. As I stated before, our V1's never had any issues (both JB). I'm on my 3rd 3G. My first had micro cracks on the white case backing. My second had the glass screen seal come loose and the glass started to lift up and let all kinds of dust in. So far my third has been great. My Wife 3G has some micro cracks also, but she hasn't bothered to replace it. If it gets worse she probably will." P5, L48–54

"I am returning my upgrade today! The battery does not hold a charge and I have to charge it at least twice a day! Not worth it!" P7, L40–41

And yet, even when dissatisfied, devoted consumers still justified their purchase of the device by expressing their innate desire for it, which allowed them to ignore any problems (Belk, Ger, & Askegaard, 2003).

"I made the switch to the 3G and haven't really regretted it since. I don't like the new "warmer" screen still but the 3G speed is just awesome." P6, L8–10

"Better camera is nice but won't get me to splurge on a new phone. Larger storage like a 60gig phone would be sweet." P8, L59–61

"I'm happy with what I got. I just want them to update the phone i have to what other 'competitors' already have on the 50 dollar phone." P9, L57–59

Because of the low level of changes in integrations in successive upgrades, there were few posts which cited changes in multiple uses of features and services (i.e. bundled products) as justifications for changes in purchasing behavior.

Kim et al. (2005) presents how important convergences in mobile devices are, which represents an important trend in information technology (IT). All the features that had been previously integrated had engendered an expansive group of users with different needs. Yet no integration was sufficiently developed to

guarantee high consumer satisfaction. Consumers did have good impressions, however, based on speed of connection and the diffusion of innovation inherent in their device (Danaher et al., 2001).

3.4. Waiting for some real benefits

In previous research by Arruda-Filho et al. (2010) it was identified that most of the postings about iPhone v1 discussed the phone's features, with few consumers mentioning the phone call quality or coverage. In this current study, consumers were found to be more concerned about device quality and which specific changes or improvements were made to the device, in order to justify their purchase of an upgraded iPhone as opposed to waiting for a brand new product. The advanced design, and aesthetic appeal of the product were the main points considered when determining whether a product was a new innovation (Gemser et al., 2006).

In this study consumers who already possessed an iPhone v1 preferred to wait for a newer, innovative product, rather than purchase an upgrade with few new features. In contrast, some consumers did not wait for the new product and instead purchased the upgraded models. However, they were conscious of the upgrades' shortcomings:

"I think you should wait till 2011 for the 4G phones to come out. . .nobody know if the 3GS is faster, they don't have it yet. . .nobody can even get a confirmation if the new processor is faster or if its the same as the 3G. . .id say wait till at least next year by then they may have a whole new redesign" P14, L21–25

"wait till next year, when there's a chance of 4G, a chance of it being on Verizon's network, a chance of a redesign. . ." P14, L52–53

"I was expecting the announcement on MacWorld for the iPhone 32 GB, but was disappointed that it didn't happen." P20, L35–36

Taken together, these statements support the conclusions found by Kristiansen (2006) in the field of industrial economics in which buyers will play a "waiting game" for research and development to catch up to their desires for additional features in new products.

In contrast, some consumers justified their preference to wait to purchase only a new and truly better device, rather than an iterative model, because of their satisfaction with their existing purchase:

"I am not one to go out and buy the latest model when it first comes out, though tempting, but I resist the temptation and wait till it becomes cheaper or I find one for cheap." P7, L50–52

"I see no reason to get one right away. Memory is also not that big an issue either, I only have the 8GB right now, but it rarely goes over 50% full and even then it never gets to the point where I have less than 3.25GB available." P12, L24–27

These last statements, made by most categories, complement the justification of purchase based on multiple features and integration of features and is supported by earlier research (Harris & Blair, 2006; Paulson-Gjerde et al., 2002).

"The new phone is faster, adds voice control, a better camera, and a few other neat things. It still runs the 3.0 software. I don't know if I would pay the full price for it though. I had a hard time swallowing the 399 I paid." P13, L50–53

According to Tripathi and Siddiqui (2010), service providers could gain valuable information about consumer preferences, and thus determine the objectives of their products based on which attributes of their products were deemed of importance by con-

sumers. Accordingly, Apple consumers who were not satisfied with the attributes of a particular iPhone model still had the choice to wait for a better product or newer release.

3.5. What has changed in iPhone consumers?

The reasons for innovators to be the first adopters include: (1) devotion for the brand, (2) to have the latest in technology in their community, (3) to be special, innovative, and different, because these consumers are looking for recognition, distinction and positioning amongst their user community (Belk & Tumbat, 2005; Mittal, 2006).

But in the later versions, particularly the third iteration, the iPhone 3GS, there were relatively few changes as compared to the first and second iPhone versions and the competing mobile phones already on the market. Thus the impact was not the same as the initial release, and so did not cause the same excitement, ecstasy, or purchase motivation (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003; Chitturi et al., 2007; Herzenstein et al., 2007).

Another important factor was the timing of upgrades. Each upgrade had its launch in a relatively short period of time. Thus there was not enough innovation to appeal to existing users and so did not motivate them to buy the new upgrades (Hoch, 2002; Hoeffler, 2003). New users, however, were perhaps more prone to purchase the upgraded iPhones, simply because they desired the latest version of the product:

"It's very much a decision based on individual needs and wants. Is a 32 GB iPhone a huge benefit for you? You gotta have the 3GS. Would video be a big lifestyle/entertainment enhancement?" P13, L59–61

"Do you remember the Time before iPhones? Thinking about it makes me want to scream." P20, L3–4

"It doesn't matter if the iPhone is "black or white"." P18, L32

Many satirical comments were posted about the decision by Apple to change the launch date from the original intended date of June 24th to June 25th. June 24th was the anniversary of Michael Jackson's death, and so Apple did not want to share the media spotlight on that day. In response, consumers posted the titles of Michael Jackson songs to express their feelings. Consumers continued to justify their purchase decisions by stating that the iPhone was perceived as important to them.

"Yeah, I'm looking forward to no more man in the mirror with myself!! Front camera is gonna be sweeet!" P18, L10–11

These justifications were also mixed with desires for integration of multiple new uses in order to create identity (Belk & Tumbat, 2005).

"I waited to buy my first iPhone until the 3g came out. I really love my 3g. I have about a year left on my contract and don't think Apple could really do anything to motivate me to change now but at a minimum it would have to have: cut & paste, MMS, better camera and video, min 32g, removable battery" P8, L32–41

In accordance with findings in the Dutch IT industry by Gemser et al. (2006), Apple invested considerable funds in design, which followed the trend it had already set with the stylish iMac computer, iPod and other products (Belk & Tumbat, 2005; Weber, 2007, 2009). This convergence in information and communication technologies concurs with Vrdoljak, Vrdoljak, and Skugor (2002)'s findings that integration of multiple uses in a product is a strategic market for new technologies. The iPhone is clearly one of the most integrated devices, which makes a fashion statement while still providing util-

itarian benefits. This creates a usage category of people who are excited about the product, gain great enjoyment from it, and are fascinated by innovative technology.

3.6. Hard users' preferences

Apple's innovative products led to a determinate group of users who are devoted to the brand. Some users are specialists in their products, while others are strong users who use every kind of feature, apps, and updated integration. This kind of knowledge defines these users as Apple acolytes (Belk & Tumbat, 2005), who always prefer Apple and who need to be the latest social technology users. This kind of user knows perfectly how the product works and they use it a great deal.

"Crazy how much of an obsession something like this can be. Wonder how many people will be up all night watching the UPS tracking site. . ." P15, L57–59

"it was like me waiting for that update till 2am only to realize it wouldn't come out until 10am California time. I went to bed feeling like I couldn't sleep without the best technology lol." P16, L2–4

"one question, why we need iphone 32g?" P20, L65

Consumers also explained their preferences through a variety of justifications. Often times they made silly or playful posts describing how important the device was in guaranteeing their satisfaction, based on hedonic needs and desires.

"Nah. . .you're all wrong. Steve called me about wanting to honor my wife with the iPhone launch. Since it's her birthday and all. . .he just wanted to say thanks to her for being such a great wife and mom!" P17, L55–57

"What would the date matter if everyone's for the most part pre-ordered one already. . .who cares what days its on and I doubt the one year anniversary of Jackson's death would put any sort of dent in the sale of iPhones. . .lol" P20, L24–27

"I'M APPOHOLIC!" P24, L4

Statements such as this are clear indications as the status of the uses as an Apple Acolyte.

"I went for the iPhone because I was already using a smart-phone, but this one served my needs for such a phone much more capably. That having been said, I look forward to a point where there's enough storage that I can fit all my music on it, and ditch my separate iPod as well." P26, L41–45

As previous seen, consumers seemed to focus their attention on the perceived strengths of the product – integration and diversification of features – while ignoring the utilitarian problems of the device.

"I want to get one and have my phone and media in one device but 16GB is just retarded. 8GB is an outright joke. Am I supposed to use just one feature like music? That's counterintuitive. Apple: Yes - Mythbusters proved you CAN polish s**t - but that doesn't make it worth buying." P23, L25–30

"And while different people have different uses, i consider myself hooked on music, and find 8GB to hold plenty to get me through a day or two. . ." P16, L2–4

3.7. Price concerns

Prior to the iPhone v1 launch, consumers expressed anxieties about purchasing the phone because information about the new

product and its technological features were unavailable. With the release of the new model, however, these concerns were less prevalent as consumers were aware of the new features and benefits. Instead price became the deciding factor in whether or not to upgrade.

Post descriptions verified this category, as they presented a series of explanations about the problems in making a purchasing decision, due to issues of cost and the comparison of perceived value caused by changes in aggregated and integrated services:

“Full pricing on the iPhone 3G was and still is not an option. It will be in a few weeks though. I was under contract with AT&T for my BlackJackII and was able to get the early upgrade price for the 8GB iPhone 3G (\$399 as opposed to \$199). The full price on that same phone will be \$599 when they start selling them without contracts.” P12, L14–19

“so thats it I just need to know is there any way I can get it at a cheaper price? I mean I would have to work all of summer to just get the phone? I have nothing else to spend the money on but thats a sh%\$ load of bucks. How can I avoid the full price?.” P14, L15–18

A problem with the timing of the release of the successive iPhone 3G and then the iPhone 3GS were that many users were still under a two year contract with ATT when they purchased their previous iPhone models. This served to discourage the purchase of the new phones as the upgrade price would not be available to them. Thus even with new features the higher price tag could not be justified:

“I’m on the fence about it myself. While the 3GS would be nice to have, I don’t think it’s worth it to me to spend all of that money just to get voice control - which is the only feature I really want.” P14, L48–50

Experienced consumers organize information by product subtype (Cowley & Mitchell, 2003). These consumers store information in different categories, and so increase their usage of a given technology if a new product satisfies these various categories (Arruda-Filho et al., 2010). Some consumers who already own a specific brand are more willing to accept brand extensions than those consumers who have never previously had an experience with a company’s products (Oliver, 1999). In the case of the Apple iPhone users, these consumers had previously owned Apple products and thus were familiar with Apple’s product line (Weber, 2007, 2009). This created prior knowledge and with it for some consumers an increase in product devotion, which in turn supported the motivation to use the updated devices (Coupey, Irwin, & Payne, 1998; Hoch, 2002; Pimentel & Reynolds, 2004).

4. Discussion and conclusions

In regards to our first hypothesis, (H1) *Usage by devoted users is still highly influenced by hedonism and social aspects* the posts by the users on everythingcafe.com supported this hypothesis. Posters expressed reasons such as a desire for innovative features, social positioning, and brand devotion which is concurrent with the literature (Katz & Sugiyama, 2006; Okada, 2005; Park, 2006; Turel et al., 2010; Van der Heijden, 2004; Wang et al., 2007). Usage of such self-descriptive terms as “Appleholistic” support the conclusions from earlier researchers that the “cult of the Macintosh” is alive and (Arruda-Filho et al., 2010). As will be described in our next section explaining in detail our development of Fig. 1, Hedonism played a factor at all levels of perceived product innovation.

Fig. 1 presents our “Matrix of Hedonic Behavior to New Technologies Launched”, there are six blocks, representing six categories of users. The “x axis” represents increasing levels of Hedonism (two tiers), and the “y axis” increasing levels of Innovation (three

columns) in which the product is increasingly perceived as a *Really New Product*.

The so-called “Apple Acolytes” (Belk & Tumbat, 2005) are positioned squarely in our upper left quadrant in which Hedonism is high, and buyers will purchase for pleasure regardless of its perceived technological capabilities. In contrast, in the block just below them where Hedonism is Low, and *New Product Perception* is Low, are those buyers who are “Not Apple Consumers”.

In our next column of increasing innovation, *New Product Evaluation*, in which the perception that the product is of Medium innovation, the Hedonistic consumers will upgrade from all versions of the iPhone, whereas non-Apple devotees will wait for better prices after obtaining knowledge about competing products.

It is only in our final column of Increasing Innovation, where the *Really New Product* perception is High, (i.e. the product is perceived as truly Innovative), that all levels of Hedonism will purchase the phone. The “Devoted Users” (i.e. Apple Acolytes) and the “Latest User” those desiring to have the most current model will purchase the iPhone. But because of its perceived utility and high level of Innovation as a *Really New Product*, the “Technologic User” will also make a purchase.

Our second hypothesis is also supported by the numerous posts regarding decision making on product information and price justification (H2) *For Innovators that are not devoted, usage is negatively influenced when they don’t have enough information as to whether the product has enough new beneficial features to justify their hedonic preferences*. These consumers are characterized on our Fig. 1 Matrix as the “Waiting for Best Prices” wherein only with increased knowledge of the product, combined with good pricing, will non-Hedonistic, non-devoted users purchase the iPhone.

Non-devoted innovators the “Technologic Users” did prefer instead to wait for more robust features as demonstrated by posts made after the release of the iPhone 3G, in which they expressed satisfaction with the improved camera quality, addition of GPS technology and Location Based Services, and increased speed. In contrast, posts analyzing the release of the iPhone 3GS were far more concerned with issues of price and lack of knowledge of the new features that were available on the third iteration of the iPhone, regardless of the Apple name (Brucks et al., 2000). Consumers here expressed anxiety about making the wrong choice, as it would negatively impact their self-image, which is incongruence with the literature (Chitturi et al., 2007; Dahl & Hoeffler, 2004; Danaher et al., 2001; Firat & Dholakia, 2010).

Our final hypothesis, was also supported by the users’ postings, (H3) *All categories of iPhone users have made hedonic related posts which express their preferences for bundled features in order to justify their usage*. This also concurs with the literature that consumers do prefer bundled products as they enable a plethora of features and thereby decrease consumer anxiety that they are making the wrong or perhaps pre-mature purchase (Adelaar et al., 2003; Cowley & Mitchell, 2003; Gill, 2008; Harris & Blair, 2006; Herzenstein et al., 2007; Kim et al., 2005).

By buying a bundled product, a consumer is less likely to “lose out” if there are a number of features (Harris & Blair, 2006; Paulson-Gjerde et al., 2002) and thus can do the “mental budgeting” towards hedonic reasons for purchase (Heath & Soll, 1996). In our Fig. 1 Matrix, when the bundled product is seen as a “Really New Product” in which the Innovation level is high, both the “Technologic User” with low levels of Hedonism and the “Devoted and Latest User” of the highly hedonistic Apple Acolyte users will purchase the new iPhones.

Based on the netnographic evidence, this paper argues that in the case of a Really New Product like the Apple iPhone, hedonistic rather than utilitarian reasons are predominant decision points in consumer purchasing habits. Features beyond just voice and data access are seen as desirable, because experiential outcomes gen-

erated by the haptic interface, and the fun and playful features like MP3 player functionality and camera capabilities were central themes in the user postings.

While these features were novel in the US market in the iPhone v1, they were not so in Asia. Earlier work by Katz and Sugiyama (2006) on the Japanese mobile market and Lennon (2010) in the Korean, Japanese, and Chinese markets, support our conclusions that hedonistic, rather than utilitarian reasons, are important in the purchase of mobile phones. In all three of these Asian nations, far more advanced mobile telephones with internet access had been available since as early as 2001 (Anwar, 2002; Bradley & Sandoval, 2002) and were used as hedonistic, entertainment devices (Baldi & Thaug, 2002; Davis, 2002; Kodama, 2001; Lennon & Dholakia, 2006)

The Everything.com posts also showed a marked shift from support of the iPhone product when it lost its cache value, as novel features such as the haptic interface became standard and utilitarian decision points such as price and functionality did come into play when the successive iPhone releases, particularly the iPhone 3GS, were no longer seen as innovative and thus purchase could not be justified (Herzenstein et al., 2007; Hoeffler, 2003). These conclusions are also supported in the Asian mobile telecom context, wherein Lennon (2010) found that the lack of innovation in the Korean mobile wallet market led to its ultimate demise as consumers there could also not justify high expenditure on hedonistic mobile phones with low levels of technological sophistication.

The sample size of our study, one company, does limit the generalizability of our findings, in that our findings are about only one product, the Apple iPhone, albeit four generations of it. Investigations into other consumer devices or even competing mobile phones could prove valuable data and help to support or contradict our findings. Additionally, since the iPhone is a bundled product with an assortment of services and features, examination of products that are more mono-functional could also be worthwhile. Given the rapid advancements in consumer technology, however, clearly further research is warranted.

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References

- Adelaar, T., Chang, S., Lancendorfer, K., Lee, B., & Morimoto, M. (2003). Effects of media formats on emotions and impulse buying intent. *Journal of Information Technology*, 18, 247–266.
- Anwar, S. T. (2002). NTT DoCoMo and M-Commerce: A case study in market expansion and global strategy. *Thunderbird International Business Review*, 44, 139 (Jossey-Bass, A Registered Trademark of Wiley Periodicals, Inc., A Wiley Company)
- Arruda-Filho, E., Cabusas, J., & Dholakia, N. (2010). Social behavior and brand devotion among iPhone innovators. *International Journal of Information Management*.
- Baldi, S., & Thaug, H. P.-P. (2002). *The entertaining way to M-Commerce: Japan's approach to the mobile internet—A model for Europe?* Electronic markets Routledge Ltd., pp. 6–13.
- Bass, F. M. (1969). A new product growth for model consumer durables. *Management Science*, 15, 215–227.
- Belk, R., Ger, G., & Askegaard, S. (2003). The fire of desire: A multisited inquiry into consumer passion. *Journal of Consumer Research*, 30, 326–351.
- Belk, R., & Tumbat, G. (2005). The cult of Macintosh. *Consumption Markets & Culture*, 8, 205–217.
- Bradley, S. P., & Sandoval, M. (2002). NTT DoCoMo: The future of the wireless internet? *Journal of Interactive Marketing*, 16, 80.
- Brucks, M., Zeithaml, V., & Naylor, G. (2000). Price and brand name as indicators of quality dimensions for consumer durables. *Journal of the Academy of Marketing Science*, 28, 359–374.
- Castelluccio, M. (2010). The Tablet—What is it really? *Strategic Finance*, 91, 2.
- Chen, L., Gillenson, M., & Sherrell, D. (2002). Enticing online consumers: An extended technology acceptance perspective. *Information and Management*, 39, 706–719.
- Chitturi, R., Raghunathan, R., & Mahajan, V. (2007). Form versus function: How the intensities of specific emotions evoked in functional versus hedonic trade-offs mediate product preferences. *Journal of Marketing Research*, 44, 702–714.
- Coupey, E., Irwin, J., & Payne, J. (1998). Product category familiarity and preference construction. *Journal of Consumer Research*, 459–468.
- Cowley, E., & Mitchell, A. (2003). The moderating effect of product knowledge on the learning and organization of product information. *Journal of Consumer Research*, 30, 443–454.
- Dahl, D., & Hoeffler, S. (2004). Visualizing the self: Exploring the potential benefits and drawbacks for new product evaluation. *Journal of Product Innovation Management*, 21, 259–267.
- Danaher, P., Hardie, B., & Putsis, W., Jr. (2001). Marketing-mix variables and the diffusion of successive generations of a technological innovation. *Journal of Marketing Research*, 38, 501–514.
- Davis, B. (2002). Keitai culture: The new teen spirit. In *Brand strategy*. Centaur Communications, p. 12.
- Firat, A., & Dholakia, N. (2010). *Consuming people Paris: Européen des Systèmes Automatisés*.
- Gemser, G., Jacobs, D., & Cate, R. (2006). Design and competitive advantage in technology-driven sectors: The role of usability and aesthetics in Dutch IT companies. *Technology Analysis & Strategic Management*, 18, 561–580.
- Gill, T. (2008). Convergent products: What functionalities add more value to the base? *Journal of Marketing*, 72, 46–62.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Grossnickle, J., & Raskin, O. (2001). *Handbook of online marketing research*. New York: McGraw-Hill.
- Hakken, D. (1999). *Cyborgs@cyberspace?: An ethnographer looks to the future*. London: Routledge.
- Harris, J., & Blair, E. (2006). Functional compatibility risk and consumer preference for product bundles. *Journal of the Academy of Marketing Science*, 34, 19–26.
- Heath, C., & Soll, J. (1996). Mental budgeting and consumer decisions. *Journal of Consumer Research*, 23, 40–52.
- Herzenstein, M., Posavac, S., & Brakus, J. (2007). Adoption of new and really new products: The effects of self-regulation systems and risk salience. *Journal of Marketing Research*, 44, 251–260.
- Hoch, S. (2002). Product experience is seductive. *Journal of Consumer Research*, 29, 448–454.
- Hoeffler, S. (2003). Measuring preferences for really new products. *Journal of Marketing Research*, 40, 406–420.
- Katz, J., & Sugiyama, S. (2006). Mobile phones as fashion statements: Evidence from student surveys in the US and Japan. *New Media & Society*, 8, 321.
- Kim, Y., Lee, J., & Koh, D. (2005). Effects of consumer preferences on the convergence of mobile telecommunications devices. *Applied Economics*, 37, 817–826.
- Kodama, M. (2001). *Innovation through strategic community management: The case of NTT DoCoMo and the mobile internet revolution*. Creativity & innovation management Blackwell Publishing Limited, 75 pp.
- Kozinets, R. (1997). "I Want to Believe": A netnography of the 'X-Philes' subculture of consumption. *Advances in Consumer Research*, 24, 470–475.
- Kozinets, R. (1999). E-tribalizing? The strategic implications of virtual communities of consumption. *European Management Journal*, 17, 252–264.
- Kozinets, R. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research*, 39, 61–72.
- Kristiansen, E. (2006). R&D and Buyer's "Waiting Option". *The Journal of Industrial Economics*, 54, 31–42.
- Lennon, M. (2010). *Monetizing mobile: Factors influencing the development of mobile commerce – Korea, China, Japan*. Saarbrücken, Germany: Lambert Academic Publishing AG & Co.
- Lennon, M., & Dholakia, N. (2006). Pay-For-Play: The Japanese way to M-commerce success. In *Academy of International Business Conference Beijing, China*.
- Lesser, E., & Fontaine, M. (2002). What are your customers saying? *Marketing Management*, 11, 22–27.
- MacLaren, P., & Catterall, M. (2002). Researching the social web: Marketing information from virtual communities. *Marketing Intelligence & Planning*, 20, 319–326.
- Midgley, D., & Dowling, G. (1978). Innovativeness: The concept and its measurement. *Journal of Consumer Research*, 4, 229–242.
- Mittal, B. (2006). I, me, and mine—How products become consumers' extended selves. *Journal of Consumer Behaviour*, 5, 550–562.
- Mukherjee, A., & Hoyer, W. (2001). The effect of novel attributes on product evaluation. *Journal of Consumer Research*, 462–472.
- Nunes, J. (2000). A cognitive model of people's usage estimations. *Journal of Marketing Research*, 37, 397–409.
- Okada, E. (2005). Justification effects on consumer choice of hedonic and utilitarian goods. *Journal of Marketing Research*, 42, 43–53.
- Oliver, R. L. (1999). Whence consumer loyalty? *The Journal of Marketing*, 63, 33–44.
- Park, C. (2006). Hedonic and utilitarian values of mobile internet in Korea. *International Journal of Mobile Communications*, 4, 497–508.
- Paulson-Gjerde, K. A., Slotnick, S. A., & Sobel, M. J. (2002). New product innovation with multiple features and technology constraints. *Management Science*, 48, 1268–1284.
- Peck, J., & Childers, T. (2003). Individual differences in haptic information processing: The "need for touch" scale. *Journal of Consumer Research*, 30, 430–442.
- Pimentel, R., & Reynolds, K. (2004). A model for consumer devotion: Affective commitment with proactive sustaining behaviors. *Academy of Marketing Science Review*, 5, 1–45.
- Rogers, E. M. (1983). *Diffusion of innovations*. New York: The Free Press (A Division of Simon & Schuster Inc.).

- Schau, H., Muñiz, A., Jr., & Arnould, E. (2009). How brand community practices create value. *Journal of Marketing*, 73, 30–51.
- Slater, D., & Miller, D. (2000). *The internet: An ethnographic approach*. Oxford: Berg Publishers.
- Tripathi, S., & Siddiqui, M. (2010). An empirical investigation of customer preferences in mobile services. *Journal of Targeting, Measurement and Analysis for Marketing*, 18, 49–63.
- Turel, O., Serenko, A., & Bontis, N. (2010). User acceptance of hedonic digital artifacts: A theory of consumption values perspective. *Information & Management*, 47, 53–59.
- Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 28, 695–704.
- Vrdoljak, M., Vrdoljak, S., & Skugor, G. (2002). Fixed-mobile convergence strategy: Technologies and market opportunities. *Communications Magazine, IEEE*, 38, 116–121.
- Wang, L., Baker, J., Wagner, J., & Wakefield, K. (2007). Can a retail web site be social? *Journal of Marketing*, 71, 143–157.
- Weber, R. M. (2007). Is the iPhone right for you? *Journal of Financial Service Professionals*, 61, 40–41.
- Weber, R. M. (2009). These are a few of my favorite things. *Journal of Financial Service Professionals*, 63, 34–36.
- Yung-Cheng, S., & Chih-Wei, H. (2007). The role of information presentation formats in belief updating. *International Journal of Psychology*, 42, 11.
- Zhu, H., Wang, Q., Yan, L., & Wu, G. (2009). Are consumers what they consume? Linking lifestyle segmentation to product attributes: An exploratory study of the Chinese mobile phone market. *Journal of Marketing Management*, 25, 295–314.

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